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In Übereinstimmung mit der Verordnung (EWG, Euratom) Nr. 354/83 des Rates vom 1. Februar 1983 über die Freigabe der historischen Archive der Europäischen Wirtschaftsgemeinschaft und der Europäischen Atomgemeinschaft (ABl. L 43 vom 15.2.1983, S. 1), zuletzt geändert durch die Verordnung (EU) Nr. 2015/496 vom 17. März 2015 (ABl. L 79 vom 25.3.2015, S. 1), ist dieser Akt der Öffentlichkeit zugänglich. Soweit erforderlich, wurden die Verschlusssachen in diesem Akt in Übereinstimmung mit Artikel 5 der genannten Verordnung freigegeben; beziehungsweise werden sie auf Grundlage von Artikel 26(3) und 59(2) der Entscheidung der Kommission (EU, Euratom) 2015/444 vom 13. März 2015 über die Sicherheitsvorschriften für den Schutz von EU-Verschlusssachen als herabgestuft angesehen.

COMMISSIE VAN DE EUROPESE GEMEENSCHAPPEN

SEC(89)1731 def

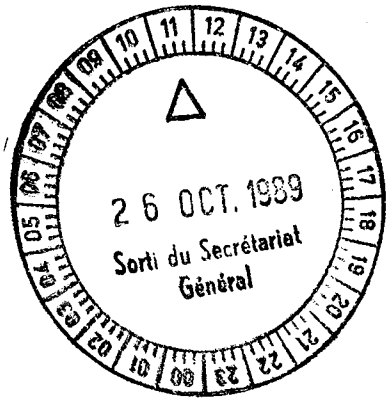
Brussel, 18 oktober 1989

VERSLAG

van de Commissie aan de Raad over een door de Commissie uitgevoerde studie inzake het huidige beleid van de Lid-Staten op het gebied van mond- en klauwzeer

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TOELICHTING

Mond- en klauwzeer (MKZ) is een van de ernstigste veeziekten. Deze ziekte breidt zich snel uit, tast alle evenhoevige dieren aan en heeft aanzienlijke economische gevolgen. Dat de economische gevolgen zo groot zijn komt voor een deel doordat de ziekte de dierlijke produktie direct beïnvloedt en voor een deel doordat een uitbraak van MKZ de handel in vee, dierlijke produkten en bepaalde landbouwgoederen niet ongemoeid laat.

In de Lid-Staten van de Gemeenschap worden verschillende methoden gehanteerd om MKZ te bestrijden. In sommige landen wordt gevaccineerd, in combinatie met systematische of selectieve "stamping out" (het afmaken en voor destructie afvoeren van besmette dieren), terwijl in andere landen is gekozen voor een niet-vaccinatiebeleid, in combinatie met systematische "stamping out". In beide gevallen zijn daarnaast ook andere bestrijdingsmaatregelen toegepast, zoals controle op de invoer, toezicht op voor de ziekte vatbare dieren, beschikbaarstelling van diagnosefaciliteiten en controle op de verplaatsing van vee.

Momenteel kunnen Lid-Staten die niet inenten de invoer van vee uit andere Lid-Staten die wel vaccineren, aan banden leggen. Zij doen dit omdat dieren uit vaccinerende Lid-Staten volgens hen subklinisch besmet kunnen zijn en omdat de aanwezigheid van gevaccineerde dieren de handel met bepaalde derde landen in het gedrang zou kunnen brengen.

Met het oog op de voltooiing van de interne markt in januari 1993, zou er tegen die tijd in de hele Gemeenschap een vrij verkeer van vee en dierlijke produkten moeten zijn. Dit kan alleen worden gerealiseerd als alle Lid-Staten gemeenschappelijk maatregelen vaststellen op het gebied van MKZ.

De huidige wetgeving op het gebied van MKZ is vervat in :

- Beschikking 77/97/EEG van de Raad (Noodfonds-Beschikking)
- Richtlijn 64/432/EEG van de Raad (voor het intracommunautaire handelsverkeer)
- Richtlijn 85/511/EEG van de Raad (bestrijding van MKZ).

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In 1988 moest de Commissie onderzoeken of Richtlijn 64/432/EEG (artikel 4bis) moest worden herzien. Vóór eind 1989 moet worden beslist over een eventuele herziening van Richtlijn 85/511/EEG.

Aangezien in een kort tijdsbestek twee richtlijnen moesten worden herzien en twee verslagen aan de Raad moesten worden uitgebracht en rekening houdend met de éénwording van de markt na 1992, heeft de Commissie besloten de problematiek rond MKZ nader te onderzoeken. Van meet af aan was duidelijk dat met de huidige verschillen tussen de Lid-Staten ten aanzien van de bestrijdingsmethoden (vaccinatie versus niet-vaccinatie) geen vrij handelsverkeer mogelijk is zonder gevaar voor verspreiding van het virus. Daarom werd in samenwerking met de Lid-Staten besloten kosten/baten analyses en aanverwante studies uit te voeren om een duidelijke beleidslijn te bepalen.

De Commissie heeft bij haar onderzoek en bij de opstelling van de verslagen veel medewerking gekregen van talrijke deskundigen uit de Lid-Staten. Hierbij verdient het werk van de subgroep van het Wetenschappelijk Veterinair Comité die de te verwachten ontwikkelingen en risicofactoren heeft geëvalueerd, bijzondere vermelding.

In de studie is gekeken naar het volgende :

- de mate waarin MKZ in de afgelopen 20 jaar is voorgekomen in de Gemeenschap;
- het gevaar voor een MKZ-uitbraak in de Gemeenschap na 1992 bij de verschillende beleidsopties;
- de economische gevolgen van de beleidsopties, d.w.z. een kosten/baten analyse;
- de effecten op handelspatronen;
- maatregelen die noodzakelijk zijn om primaire en secundaire uitbraken na 1992 te voorkomen;
- de te verwachten veranderingen in de personele sfeer en in de veterinaire infrastructuur bij de verschillende beleidsopties.

De conclusies die de Commissie op grond van de studies heeft getrokken, kunnen als volgt worden samengevat :

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- Niet-vaccineren is duidelijk goedkoper dan systematisch inenten.
- De produktie en het gebruik van vaccin kan op zichzelf reeds leiden tot insleep van besmettingsvirus in een veebestand, door laboratoriumontsnappingen of gebruik van niet adequaat geïnactiveerd vaccin. Niet-vaccineren is derhalve duidelijk veiliger.
- De maatregelen om de insleep van infecties in de Gemeenschap te voorkomen en een uitbraak van de ziekte efficiënt te bestrijden moeten worden aangescherpt. In dit verband zal de Commissie een verhoogde financiële bijdrage van de Gemeenschap in de in geval van uitbraak aan de veehouders te betalen vergoedingen voorstellen.
- Het patroon van de intracommunautaire handel en van de invoer uit derde landen zou door een gewijzigd vaccinatiebeleid kunnen veranderen in de zin dat wanneer voor niet-vaccinatie gekozen wordt, gevaccineerde dieren uit derde landen niet langer zouden kunnen worden geaccepteerd. Overgang op systematische vaccinatie zou betekenen dat er een einde komt aan de uitvoer naar een aantal derde landen, terwijl bij niet-vaccinatie de hele Gemeenschap met alle derde landen handel zou kunnen drijven. Mocht in de laatstgenoemde situatie MKZ uitbreken dan zou de continuïteit van de uitvoer van de Gemeenschap moeten worden verzekerd door bestrijding en uitroeiing van de ziekte via "regionalisatie" d.w.z. maatregelen op regionale basis.
- De dierenartsen die tot dusverre in sommige Lid-Staten betrokken waren bij vaccinatieprogramma's zouden nodig zijn voor :

  - de verbeterde nationale veterinaire diensten, die beter moeten worden toegerust met het oog op de hogere eisen van een niet-vaccinatiebeleid;
  - de bestrijding van andere veeziekten, zoals de ziekte van Aujeszky en Brucella melitensis;
  - de uitbreiding van de nationale veterinaire diensten, met het oog op de realisatie van de interne markt.

- Bestaande MKZ-laboratoria die vaccins produceren, zullen zich moeten aanpassen aan een nieuwe situatie, waarin de vaccinproduktie sterk zal afnemen, zoniet helemaal worden gestaakt. Dan kan meer aandacht worden besteed aan verdere scholing van het personeel voor de MKZ-diagnose en ontwikkeling van betere diagnosetechnieken.

De Commissie is er absoluut van overtuigd dat de Gemeenschap moet overschakelen op een niet-vaccinatiebeleid om de doelstellingen van de interne markt i.c. het op een hoog peil harmoniseren van de gezondheidseisen en het waarborgen van een vrij verkeer van goederen, te kunnen bereiken. Deze beleidslijn wordt de Lid-Staten sterk aanbevolen en de Commissie zal bij de Raad passende voorstellen indienen om de huidige wetgeving te wijzigen.

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VERSLAG VAN DE COMMISSIE AAN DE RAAD (1)

Betreft : Studie van de Commissie inzake het huidige beleid van Lid-Staten op het gebied van de bestrijding van monden klauwzeer

1. INLEIDING

1.1. Na de oprichting van de Europese Economische Gemeenschap in 1957 hebben de zes oorspronkelijke Lid-Staten overleg gepleegd over een aantal maatregelen om het vrije verkeer van dieren en dierlijke produkten binnen de Gemeenschap mogelijk te maken. Aanvankelijk werden op grond van nationale voorschriften garanties geëist ten aanzien van de gezondheid van de dieren, om er zeker van te zijn dat de dieren bij binnenkomst in een bepaalde Lid-Staat gezond waren en geen ziekten konden overbrengen op dieren waarmee zij in contact kwamen.

1.2. De eerste formele harmonisatie vond plaats in 1964, met de goedkeuring van Richtlijn 64/432/EEG van de Raad. Deze richtlijn, die nog steeds van kracht is, zij het in een gewijzigde en uitgebreidere vorm, heeft betrekking op het intracommunautaire handelsverkeer in runderen en varkens. Het handelsverkeer in andere dieren werd zelfs eind 1988 nog steeds geregeld via nationale voorschriften.

1.3. Een van de belangrijkste ziekten waarop de oorspronkelijke richtlijn betrekking heeft, is mond- en klauwzeer (MKZ). Het was niet bijzonder moeilijk overeenstemming te bereiken over voorschriften op het gebied van MKZ, aangezien in alle zes Lid-Staten een vaccinatiebeleid werd gevoerd. Afgezien van de maatregelen om veestapels en gebieden in de Gemeenschap ziektevrij te houden, was de belangrijkste beschermende maatregel de vaccinatie van runderen van meer dan 4 maanden vóór hun verzending naar een andere Lid-Staat. Via een officieel gezondheidscertificaat dat de dieren bij elke verzending moest vergezellen, werd gewaarborgd dat deze voorschriften waren nageleefd.

(1) De bijlagen waarnaar in dit verslag wordt verwezen, zijn opgenomen in document VI/3198/89 van de Commissie.

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1.4. Bij de toetreding van Denemarken, Ierland en het Verenigd Koninkrijk tot de Gemeenschap in 1973 zag het er naar uit dat Richtlijn 64/432/EEG aanzienlijk moest worden gewijzigd, aangezien in de nieuwe Lid-Staten niet werd gevaccineerd en bij een uitbraak van MKZ een systematische "stamping out" werd uitgevoerd. Ondanks uitvoerige onderhandelingen kon niet onmiddellijk een oplossing worden gevonden voor het probleem van de verschillende visies inzake MKZ. In de Toetredingsakte is dan ook bepaald dat de nieuwe Lid-Staten hun nationale voorschriften ter bestrijding van MKZ vijf jaar lang mochten blijven toepassen. In deze periode zou op communautair niveau worden geprobeerd de voorschriften onderling aan te passen.

1.5. Uiteindelijk ging de Raad in 1984 akkoord met Richtlijn 84/643/EEG, een wijziging van de oorspronkelijke richtlijn, waarbij voor alle Lid-Staten nieuwe voorschriften werden vastgesteld om de veestapel beter tegen MKZ te beschermen. Tegelijkertijd werden bepalingen vastgesteld met betrekking tot de vesiculaire varkensziekte, aangezien deze ziekte veel lijkt op MKZ bij varkens. De gewijzigde richtlijn bevat verder een uitvoerige omschrijving van de aanvullende garanties die een Lid-Staat, afhankelijk van de eigen gezondheidssituatie en het gevoerde gezondheidsbeleid, kan eisen. In 1988 is onderzocht of artikel 4bis, dat via de wijziging in de richtlijn werd opgenomen, moest worden herzien.

1.6. De toetreding van Griekenland (1981), Spanje en Portugal (1986) tot de Gemeenschap heeft geen belangrijke wijzigingen in Richtlijn 64/432/EEG tot gevolg gehad.

1.7. In 1985 heeft de Raad een richtlijn goedgekeurd ter bestrijding van MKZ in de hele Gemeenschap (85/511/EEG). Hierin zijn essentiële gemeenschappelijke maatregelen vastgesteld om bij een uitbraak van MKZ op een uniforme manier op te treden. Lid-Staten die vaccinatie toepassen, wordt in deze richtlijn echter nog steeds de keuze gelaten tussen systematische en selectieve "stamping out".

1.8. De Raad heeft de Commissie een groot aantal aanvullende taken opgedragen, waaronder :

- opstellen van voorschriften voor het selectief afmaken van dieren;
- aanwijzing van een communautair referentie-laboratorium voor de diagnose van MKZ;
- aanwijzing van een communautair instituut voor de controle van vaccins;

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- coördinatie van vaccinatieplannen van de Lid-Staten;
- indiening van een voorstel bij de Raad tot oprichting van een communautaire vaccinbank;
- indiening, vóór 1990, van een verslag bij de Raad over het functioneren van de richtlijn; in dit verslag kan de Commissie eventueel wijzigingsvoorstellen doen.

1.9. In 1985 heeft de Raad een wijziging in de Noodfonds-beschikking (77/97/EEG) goedgekeurd. Tot dan toe kon op grond van deze beschikking alleen steun worden toegekend bij uitbraak van MKZ van een voor de Gemeenschap exotische virusstam in een Lid-Staat. In de gewijzigde beschikking is bepaald dat niet alleen steun wordt verleend bij uitbraak van exotisch MKZ, maar ook bij het uitbreken van klassiek Europees MKZ. De steunverlening is dan echter beperkt tot de eerste 20 haarden die in de eerste 30 dagen van een epizoötie worden geconstateerd, op voorwaarde dat onmiddellijk wordt overgegaan tot systematische "stamping out".

2. JURIDISCHE ACHTERGROND

2.1. De juridische achtergrond van dit verslag wordt gevormd door :

- Richtlijn 64/432/EEG van de Raad (herziening artikel 4bis);
- Richtlijn 85/511/EEG van de Raad (herziening als bepaald in artikel 18).

2.2. Zoals in de inleiding van dit verslag reeds is vermeld, wordt het intracommunautaire handelsverkeer in runderen en varkens geregeld in de uit 1964 daterende Richtlijn 64/432/EEG.

Bij de toetreding van Denemarken, Ierland en het Verenigd Koninkrijk in 1973 werden vrijstellingen verleend van de voor het handelsverkeer in runderen en varkens geldende voorschriften, zodat de nieuwe Lid-Staten hun eigen nationale voorschriften ter bestrijding van MKZ konden blijven toepassen. Deze vrijstellingen werden uiteindelijk verlengd tot en met 31 december 1984; daarna werden nieuwe voorschriften ter bestrijding van MKZ van kracht voor alle Lid-Staten van de Gemeenschap.

De nieuwe voorschriften werden neergelegd in Richtlijn 84/643/EEG van de Raad van 11 december 1984, waarbij artikel 4bis werd opgenomen in de basisrichtlijn inzake het handelsverkeer in runderen en varkens. In dit artikel zijn uitvoerig de aanvullende garanties aangegeven die een Lid-Staat, naar gelang van de eigen gezondheidssituatie en het gevoerde vaccinatiebeleid, kan eisen.

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In artikel 4bis is verder bepaald dat de Raad om de drie jaar en voor de eerste maal drie jaar na de inwerkingtreding van de betrokken richtlijn, d.w.z. op 1 januari 1988, met gekwalificeerde meerderheid van stemmen en op voorstel van de Commissie een besluit neemt over een eventuele herziening van dit artikel. De herziening geschiedt op basis van een verslag van de Commissie, waarin eventueel ook wijzigingsvoorstellen worden gedaan.

2.3. In dit kader zij vermeld dat de Commissie in de periode sinds 01.01.1985 geen kennis heeft gekregen van specifieke problemen in de Lid-Staten bij de intracommunautaire handel in vee (zowel invoer als uitvoer). Op 28 juli 1987 heeft de Commissie de Lid-Staten in kennis gesteld van haar voornemen om het betrokken artikel te herzien en hen verzocht hun opmerkingen over de in artikel 4bis neergelegde bepalingen zo spoedig mogelijk mee te delen.

Een aantal Lid-Staten heeft de Commissie laten weten dat zij het aantal maatregelen met betrekking tot slachtvee graag onmiddellijk verminderd zouden willen zien. De Commissie erkent dat dit artikel en de daarin opgenomen quarantainevoorschriften problemen opleveren voor het vrije verkeer van dieren in de hele Gemeenschap.

2.4. De tweede richtlijn op grond waarvan de Commissie aan de Raad een verslag moet uitbrengen over MKZ, is Richtlijn 85/511/EEG van de Raad (met name op grond van artikel 18). Deze Richtlijn voorziet in een aantal communautaire maatregelen om te komen tot een uniforme aanpak bij een uitbraak van MKZ. Eenvoudig gezegd komt het erop neer dat de Commissie vóór 1 januari 1990 aan de Raad verslag moet uitbrengen over de uitvoering van deze richtlijn. De Commissie kan in haar verslag ook wijzigingsvoorstellen doen.

3. HET OPTREDEN VAN DE COMMISSIE

3.1. Aangezien de Commissie in een kort tijdsbestek twee Gemeenschapsbesluiten moest herzien en twee verslagen aan de Raad moest uitbrengen en gelet op de totstandkoming van een interne markt na 1992 heeft zij besloten de problematiek rond MKZ nader te onderzoeken.

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Het was van meet af aan duidelijk dat de huidige verschillende nationale bestrijdingsmethoden (vaccineren versus niet vaccineren) niet konden worden gehandhaafd. Daarom werd in samenwerking met de Lid-Staten besloten kosten/baten analyses en aanverwante studies uit te voeren om een duidelijke beleidslijn te bepalen.

3.2. Om haar jegens de Raad aangegane verplichtingen na te komen met betrekking tot de herziening van artikel 4bis van Richtlijn 64/432/EEG heeft de Commissie de Raad op 14 januari 1988 een verslag toegezonden, waarin zij haar besluit toelicht om een grondig onderzoek uit te voeren en de hoop uitspreekt tegen eind 1988 een verslag en passende voorstellen te kunnen indienen.

3.3. De Commissie heeft bij de herziening van de wetgeving en de opstelling van het verslag veel medewerking gekregen van een groot aantal deskundigen uit de Lid-Staten. Hierbij verdient het werk van de subgroep van het Wetenschappelijk Veterinair Comité die zich heeft beziggehouden met de evaluatie van de te verwachten ontwikkelingen en risicofactoren, bijzondere vermelding. De Commissie merkt hierbij op dat het voltallig Wetenschappelijk Veterinair Comité zich heeft aangesloten bij de bevindingen van de subgroep. Ook de diensten van de Commissie kunnen zich helemaal in dit verslag vinden.

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4. BESTRIJDING VAN MKZ IN DE EUROPESE GEMEENSCHAP

4. Inleiding

4.1.1. In dit verslag word ingegaan op de overwegingen die een rol spelen bij de vaststelling van het communautaire beleid ter bestrijding van mond- en klauwzeer (MKZ). Hoewel het verslag is opgesteld met het oog op het wegvallen van de grenzen eind 1992, word er rekening mee gehouden dat een gemeenschappelijk beleid zo snel als praktisch haalbaar is, dus eventueel nog vóór die datum moet worden gerealiseerd.

4.1.2. MKZ is een van de ernstigste veeziekten. Het breidt zich snel uit, tast alle evenhoevige dieren aan en heeft aanzienlijke economische gevolgen. Dat deze gevolgen zo groot zijn komt voor een deel doordat de ziekte de dierlijke produktie direct beïnvloedt en voor een deel doordat een uitbraak van MKZ de handel in vee, dierlijke produkten en bepaalde landbouwgoederen niet ongemoeid laat.

4.2. Historisch overzicht

4.2.1. De veestapel in Europa werd in de jaren '30 voor het eerst ernstig besmet met MKZ van de momenteel als O, A en C bekend staande types. Na de Tweede Wereldoorlog waren er minder gevallen van MKZ, waarschijnlijk doordat het aantal verplaatsingen van vee beperkt was en doordat de veestapels in de landen opnieuw moesten worden opgebouwd. In het begin van de jaren '50 was er sprake van een opleving van MKZ met ernstige consequenties. Naar aanleiding hiervan gingen IOE en FAO zich op het Europese vasteland beter organiseren om MKZ te bestrijden. Dankzij de door Frenkel ontwikkelde methode nam de vaccinproduktie snel toe en vonden de vaccins een ruimere toepassing. Daarnaast gingen de meeste landen ertoe over besmet vee af te maken; sommige landen gingen echter nog een stap verder door alle dieren rond een besmettingshaard systematisch in te enten. In deze periode stelden de meeste Europese landen vaccinatie verplicht, althans voor rundvee.

4.2.2. Buiten het Europese vasteland bleven de Scandinavische landen, het Verenigd Koninkrijk en Ierland betrekkelijk vrij van MKZ. Spanje werd tot 1980 regelmatig geconfronteerd met ernstige ziektegevallen. Het Nabije Oosten, en met name Turkije, vormen in dit opzicht een grote bedreiging voor West-Europa.

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Deze dreiging is vandaag de dag nog steeds aanwezig, maar de vaccinatie-bufferzone die in Thracië is ingesteld, is uiterst nuttig gebleken. De ziekte komt ook voor in Afrika, waar er drie specifiek Afrikaanse virustypes zijn. In enkele Aziatische landen komt een type voor dat zich op dat continent heeft ontwikkeld. Afgezien van Zuid-Amerika, waar de meeste landen besmet zijn met aan klassiek Europese virussen verwante stammen, is de rest van de wereld vrij van MKZ en past men nergens vaccinatie toe. Grote gebieden, zoals bvb. Centraal- en Noord-Amerika, Australië, Nieuw-Zeeland, Japan, Korea en andere landen in het Verre Oosten, zijn ziektevrij.

Een kort overzicht van de situatie wordt gegeven in bijlage 1, tabel 2 en tabel 3.

4.2.3. Grote epidemieën zoals die waarmee Europa in de jaren '60 en begin jaren '70 werd geconfronteerd, komen nu vrijwel niet meer voor, dankzij massale vaccinatiecampagnes en de beperkende maatregelen met betrekking tot de invoer van vlees en andere dierlijke produkten in de Gemeenschap. Sinds 1980 hebben alleen Italië (1984-87) en Portugal (1980-84) nog te maken gehad met ernstige epizoötieën.

4.2.4. In bijlage 1, tabel 1, wordt een overzicht gegeven van de in de Lid-Staten geregistreerde uitbraken van MKZ. Van een uitbraak is sprake wanneer zich op een bepaald landbouwbedrijf een ziekte voordoet (IOE). Uit de tabel blijkt dat het aantal uitbraken in de hele Gemeenschap in de afgelopen 20 jaar sterk is gedaald. In de meeste Lid-Staten is de ziekte in de afgelopen vijf jaar niet of vrijwel niet voorgekomen, met uitzondering van Italië, waar zich in het noorden een reeks epidemieën hebben voorgedaan.

4.2.5. De situatie inzake MKZ in de omringende landen is weergegeven in bijlage 1, tabel 2. Tabel 3 van bijlage 1 geeft de situatie weer in derde landen die handelsrelaties met de Gemeenschap onderhouden. Een beknopte analyse van de vaccinatieplannen in de Lid-Staten is opgenomen in tabel 4 van dezelfde bijlage.

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4.3. Alternatieve beleidsopties

4.3.1. De Lid-Staten van de Gemeenschap hanteren verschillende methoden om MKZ te bestrijden, maar in elk van de Lid-Staten wordt een van de twee onderstaande beleidsopties gevolgd :

a) een VACCINATIEBELEID. Hiervan is sprake wanneer al het rundvee eens per jaar systematisch wordt gevaccineerd. Bij een uitbraak van MKZ wordt overgegaan tot systematische of selectieve "stamping out", in combinatie met vaccinatie en andere bestrijdingsmaatregelen.

b) een NIET-VACCINATIEBELEID. In het kader van dit beleid geldt een algemeen verbod op vaccinatie tegen MKZ. Bij een uitbraak wordt niet alleen systematische "stamping out" toegepast, maar worden ook andere maatregelen getroffen om de ziekte te bestrijden. Hierbij kan in een uitzonderlijke situatie ringvaccinatie noodzakelijk zijn.

4.3.2. In beide gevallen worden controles verricht op de invoer en is er een regelmatig toezicht op dieren met verhoogd risico. Ook worden faciliteiten geboden voor het stellen van de diagnose en bij een uitbraak van de ziekte is er toezicht op de verplaatsingen van vee.

4.3.3. Momenteel mogen Lid-Staten die niet inenten de handel in vee uit andere Lid-Staten die wel vaccineren, beperken. Dit wordt in de eerste plaats gedaan, omdat gevaccineerde dieren na blootstelling aan een virusdrager besmet kunnen zijn, terwijl zij klinisch normaal blijven. Het aan vaccinatie verbonden risico bij landurige afwezigheid van het veldvirus is gering. Het is evenwel onmogelijk te garanderen dat in een gevaccineerde veestapel geen virus aanwezig is, daar het virus van tijd tot tijd onopgemerkt kan zijn ingeslopen en weer verdwenen. Het gevaar bestaat derhalve dat het virus door vervoer van gevaccineerde dieren in voorheen onbesmette gebieden wordt binnengebracht. Die mogelijkheid van verspreiding van het virus is in verband met de ernst van de ziekte onaanvaardbaar.

Voorts staat voor vele derde landen, bij voorbeeld de Verenigde Staten en de landen van hun "White List", de aanwezigheid van gevaccineerde dieren in een land gelijk met de aanwezigheid van de ziekte, hetgeen uiteraard ernstige gevolgen heeft voor het handelsverkeer.

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4.3.4. Met het oog op de voltooiing van de interne markt in januari 1993 zou er tegen die tijd in de hele Gemeenschap een vrij verkeer van vee en dierlijke produkten moeten zijn. Dit kan alleen worden gerealiseerd als alle Lid-Staten een gemeenschappelijk beleid voeren ten aanzien van MKZ. Op dit moment wordt er in drie Lid-Staten niet gevaccineerd (Denemarken, Ierland en het Verenigd Koninkrijk), terwijl de andere negen Lid-Staten wel tot vaccinatie zijn overgegaan. Een kort overzicht van de vaccinatieplannen is opgenomen in tabel 4 van bijlage 1.

4.3.5. Bij de vaststelling van een communautair beleid ter bestrijding van MKZ heeft de Gemeenschap de keuze tussen de in punt 4.3.1. omschreven opties, d.w.z. tussen VACCINEREN en NIET VACCINEREN.

Bij de te maken keuze is het volgende van belang :

a) de mate waarin MKZ in de afgelopen 20 jaar in de Gemeenschap is voorgekomen (bijlage 1, tabel 1);
b) het gevaar voor een uitbraak van MKZ in de Gemeenschap na 1992 bij beide beleidsopties. Verslag van de subgroep van het Wetenschappelijk Veterinair Comité (bijlage 2)(1);
c) de economische consequenties van beide opties, d.w.z. de kosten voor de overheid en de particuliere sector (bijlage 3);
d) de gevolgen voor de intracommunautaire en de buitenlandse handel in vee, dierlijke produkten en andere goederen (bijlage 4);
e) de maatregelen die moeten worden getroffen ter voorkoming van een primaire of secundaire uitbraak na 1992 en gedurende een overgangsperiode. Verslag van de subgroep van het Wetenschappelijk Veterinair Comité (bijlage 5(1);
f) de te verwachten veranderingen (bij beide beleidsopties) in de personele sfeer en in de veterinaire infrastructuur, o.a. t.a.v. :
   i) dierenartsen die momenteel betrokken zijn bij de vaccinatieprogramma's (bijlage 6) en
   ii) laboratoria die momenteel MKZ-diagnoses stellen, vaccins produceren en onderzoek verrichten (bijlage 7).

(1) Er zij op gewezen dat het moeilijk was oplossingen te vinden voor bepaalde problemen, zoals de rol van gevaccineerde dieren als potentiële dragers van MKZ. De tekst van het ingediende verslag is echter unaniem door de subgroep aangenomen en op 1 februari 1989 door het Wetenschappelijk Veterinair Comité goedgekeurd.

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4.4. Kans op een uitbraak van MKZ na 1992

4.4.1. De kans op een uitbraak van MKZ na 1992 bij beide beleidsopties is geëvalueerd door een subgroep van het Wetenschappelijk Veterinair Comité. Aangezien de subgroep ervan is uitgegaan dat er na 1992 geen beperkingen meer gelden voor verplaatsingen van vee binnen de Gemeenschap, is gekeken naar de kans op een uitbraak voor de hele Gemeenschap, i.p.v. het risico voor een bepaalde Lid-Staat. De bevindingen van de subgroep zijn weergegeven in bijlage 2.

4.4.2. De subgroep heeft onderzoek gedaan naar gevallen van MKZ in de hele Gemeenschap in de afgelopen elf jaar (1977-1987). In 34 gevallen was sprake van een primaire besmetting met MKZ, waarvan in acht gevallen de bron van de besmetting waarschijnlijk buiten de Gemeenschap lag en het virus voornamelijk is binnengebracht door de invoer van vlees (zie bijlage 2, tabel 3). In dertien gevallen was de besmetting volgens de subgroep mogelijk veroorzaakt door uit laboratoria ontsnapte virussen of door de produktie en het gebruik van vaccins die niet adequaat waren geïnactiveerd. De oorzaak van de resterende dertien primaire uitbraken is onbekend.

4.4.3. Op basis van de beschikbare gegevens over uitbraken van MKZ in de afgelopen 11 jaar heeft de subgroep aangegeven welke ontwikkelingen in de periode 1993-2003 mogen worden verwacht, wanneer wordt gekozen voor vaccinatie, respectievelijk niet-vaccinatie. Eerst is gekeken naar de kans op primaire besmetting.

4.4.4. Volgens de subgroep is het gevaar voor introductie van infecties in de Gemeenschap in de periode 1993-2003 niet groter of kleiner dan in de periode 1977-1987. De subgroep verwacht maximaal dertien primaire uitbraken, waarbij uitbraken door besmetting als gevolg van ontsnapte virussen of gebruik van niet volledig geïnactiveerde vaccins niet zijn meegeteld (bijlage 2, punt 12).

4.4.5. De subgroep is ervan uitgegaan dat het veebeslag en de veestapels in de Gemeenschap geen endemische bron van besmetting met het MKZ-veldvirus zijn. Hiervan uitgaande is de kans op een primaire uitbraak als gevolg van een besmettingsbron binnen de Gemeenschap afhankelijk van de mate waarin in laboratoria levende MKZ-virussen worden gemanipuleerd en van het gebruik van niet adequaat geïnactiveerde vaccins.

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4.4.6. Wanneer de vaccinatie tegen MKZ wordt voortgezet, de technieken voor de inactivering van vaccins niet worden verbeterd en virussen nog steeds worden gemanipuleerd in laboratoria waar geen optimale veiligheidsgaranties aanwezig zijn, zal het huidige uitbraakrisico blijven bestaan. In deze omstandigheden voorspelt de subgroep dertien extra uitbraken over een periode van elf jaar. Dit risico kan echter worden verkleind door toepassing van verbeterde vaccinproduktiemethoden. Wanneer niet langer wordt gevaccineerd en de omstandigheden in laboratoria de grootst mogelijke veiligheid garanderen, is het gevaar voor een uitbraak zeer gering en wordt de kans op extra uitbraken door de subgroep op nul geschat.

4.4.7. Vervolgens heeft de subgroep gekeken naar de kans op secundaire uitbraken als gevolg van een primaire besmetting met MKZ. In de periode 1977-1987 hebben veel primaire uitbraken niet geleid tot grootschalige verspreiding van MKZ, ongeacht of de ziekte nu uitbrak in een land waar vaccinatie werd toegepast dan wel in een Lid-Staat waar niet werd gevaccineerd. Aan de andere kant heeft de ziekte zich in de betrokken periode in een aantal gevallen wel op grote schaal verspreid, maar volgens de subgroep is de verspreidingsgraad eerder afhankelijk van de striktheid van de betrokken bestrijdingsmethoden dan van het gevoerde beleid wat vaccinatie betreft. Dit geldt in het bijzonder voor gebieden met grote varkenspopulaties. De subgroep is tot de conclusie gekomen dat de verschillen in verspreidingsgraad te groot waren om uitspraken te kunnen doen over het aantal secundaire uitbraken per primaire besmetting bij elk van de twee beleidsopties.

4.5. <u>Economische gevolgen van beide beleidsopties</u>

4.5.1. Bij een uitbraak van MKZ in de Gemeenschap moet de ziekte zo snel mogelijk worden bestreden (Richtlijn 85/511/EEG), zodat de schadelijke effecten van de ziekte zelf worden ingedijkt. De kosten bij een uitbraak van MKZ zijn dus de kosten voor de bestrijding van de ziekte (inclusief de kosten van "stamping out" en/of systematische vaccinatie) en de verliezen op het gebied van produktie en handel. De door de Lid-Staten gemaakte kostenanalyses zijn opgenomen in bijlage 3.

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4.5.2. De kosten zijn geraamd aan de hand van een economisch model dat door de onder auspiciën van de FAO opgerichte Europese Commissie voor de bestrijding van MKZ is ontwikkeld. Er is geraamd hoeveel het de Gemeenschap zou kosten om de veestapels in de Lid-Staten op gezette tijden te vaccineren en bij een MKZ-uitbraak "stamping out" uit te voeren. Alle andere kosten, zoals voor toezicht en beschikbaarstelling van diagnosefaciliteiten moeten bij beide beleidsopties worden gemaakt en zijn daarom buiten beschouwing gelaten. De kosten voor de bestrijding van MKZ zijn in grote mate afhankelijk van het aantal uitbraken. Bij de economische analyse wordt rekening gehouden met de kans op een uitbraak in de Gemeenschap bij beide beleidsopties. Deze economische analyse is opgenomen in bijlage 3 en samengevat in de punten 4.8. en volgende.

4.5.3. Bij een analyse op basis van het FAO-model moest rekening worden gehouden met de consequenties van een vaccinatiebeleid respectievelijk niet-vaccinatiebeleid voor de interne en de buitenlandse handel. De Commissie heeft deze consequenties geanalyseerd. De resultaten zijn opgenomen in bijlage 4.

4.6. Kosten van vaccinatie

4.6.1. In acht Lid-Staten (België, Frankrijk, B.R. Duitsland, Italië, Luxemburg, Nederland, Portugal en Spanje) wordt al het rundvee routinematig gevaccineerd. In een aantal Lid-Staten worden naast runderen ook varkens, schapen en geiten ingeënt. In tabel 3 van bijlage 1 wordt op basis van door de Lid-Staten gemaakte berekeningen aangegeven hoeveel het kost om de rundveestapels in de Lid-Staten eens per jaar te vaccineren.

4.6.2. In de resterende vier Lid-Staten (Denemarken, Griekenland (1), Ierland en het Verenigd Koninkrijk) wordt het vee niet tegen MKZ gevaccineerd. Deze Lid-Staten hebben berekend voor welke kosten zij zouden komen te staan wanneer zij tot vaccinatie zouden worden verplicht. De resultaten van deze analyses zijn vermeld in tabel 1 van bijlage 3.

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(1) Met uitzondering van de bufferzone in Thracië.

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4.6.3. De jaarlijkse rechtstreeks voor rekening van de overheid komende kosten van een vaccinatieprogramma voor de hele Gemeenschap in het kader waarvan de rundveebeslagen in alle Lid-Staten eenmaal per jaar zouden worden ingeënt, bedragen naar schatting ± 133 miljoen ecu (valuta 1987). Hierbij inbegrepen zijn de kosten voor aankoop, opslag en toediening van vaccins en de algemene administratiekosten. De kosten van eventuele schadelijke neveneffecten als gevolg van het gebruik van vaccins zijn niet in aanmerking genomen.

4.6.4. Er zij op gewezen dat de in de Gemeenschap toegepaste vaccinatie alleen bescherming biedt tegen MKZ van de Europese types "A", "O" en "C" en niet tegen exotische MKZ-virustypes die in andere delen van de wereld voorkomen.

4.6.5. Voorts kan uit de tabel met betrekking tot de vaccinatieplannen (bijlage 1, tabel 4) worden opgemaakt dat de immunisering aanzienlijk onder 100 % ligt en dat varkens, schapen en geiten zelden worden gevaccineerd. Bovendien vallen kalvermesterijen en vetmesterijen vaak buiten het programma en hoeven kalveren die bij de jaarlijkse vaccinatie niet ouder dan 3-4 maanden zijn, tot het volgende jaar niet te worden ingeënt.

4.7. Kosten van een uitbraak van MKZ

4.7.1. Volgens de definitie van het Internationaal Bureau voor besmettelijke veeziekten (IOE) in Parijs is er sprake van een uitbraak wanneer zich op een bepaald landbouwbedrijf een ziekte voordoet. MKZ-epidemieën worden per bedrijf bestreden; de kosten ervan kunnen dan ook gemakkelijk worden berekend. De Lid-Staten is verzocht de gemiddelde kosten te berekenen van een MKZ-uitbraak, waartoe moeten worden gerekend de kosten voor het slachten, het opruimen van de geslachte dieren, ontsmetting, reiniging en soortgelijke maatregelen, de waarde van het geslachte bestand, het produktieverlies op het bedrijf als gevolg van vertragingen in de heropbouw van de veestapel, en de administratiekosten die specifiek i.v.m. de uitbraak moesten worden gemaakt. In de raming wordt ervan uitgegaan dat alle vatbare dieren worden afgemaakt.

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4.7.2. Een grote MKZ-epidemie kan voor het land of gebied waar de epidemie uitbreekt, kosten met zich meebrengen die niet over individuele uitbraken kunnen worden omgeslagen. Hierbij kan worden gedacht aan kosten van de sluiting van slachthuizen of markten. In vroegere analyses over de economische gevolgen van MKZ-epidemieën is het niet gelukt de hoogte van deze kosten te bepalen.

4.7.3. De Lid-Staten die onlangs ervaring hebben opgedaan met de bestrijding van MKZ-gevallen hebben hun ramingen grotendeels gebaseerd op de reële kosten. Lid-Staten die niet recentelijk ervaring met MKZ hebben, hebben berekend hoeveel kosten zij vermoedelijk moeten maken. De kostenanalyses zijn samengevat in tabel 2 van bijlage 3.

4.7.4. In verband met de economische analyse die in het volgende hoofdstuk wordt behandeld, zijn de gemiddelde kosten van een uitbraak vastgesteld op 158.000 ecu, met een geraamd minimum- en maximumbedrag van respectievelijk 31.914 ecu en 600.000 ecu.

4.8. Economische analyse

4.8.1. De gemaakte ramingen van de kosten voor vaccinatie en bij een uitbraak van MKZ zijn gebruikt bij een economische analyse van een vaccinatiebeleid en, resp. een niet-vaccinatiebeleid, over een periode van tien jaar. De analyse bevat een serie ramingen, rekening houdend met de verschillende kostenplaatjes en het aantal uitbraken. Deze ramingen zijn verwerkt in drie scenario's; een voor een "normaal" (het meest waarschijnlijke) geval, een voor het slechtste geval en een voor het gunstigste geval. De analyse is integraal opgenomen in bijlage 3.

4.8.2. Het meest waarschijnlijke scenario is het "normale". Het is gebaseerd op de kosten van een gemiddelde uitbraak en op het aantal primaire en secundaire uitbraken zoals door het Wetenschappelijk Veterinair Comité wordt verwacht.

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Wanneer niet wordt gevaccineerd, worden de kosten voor de Gemeenschap (constante kosten bij een looptijd van 10 jaar (tegen een rentepercentage van 5 %) geschat op in totaal 35 miljoen ecu.

Bij een vaccinatiebeleid worden de kosten voor de Gemeenschap (constante kosten bij een looptijd van 10 jaar tegen een rentepercentage van 5 %) geraamd op in totaal 1.134 miljoen ecu.

4.8.3. Er zij op gewezen dat er op dit ogenblik voor de Lid-Staten geld van de Gemeenschap beschikbaar is voor de uitroeiing van MKZ. Hierbij wordt 50 % van de kosten voor het afmaken en de destructie van het vee en 100 % van de kosten voor noodvaccinaties vergoed. Bij MKZ van de klassieke Europese types kan alleen steun worden verleend voor de eerste 20 uitbraken in de eerste 30 dagen van een epizoötie.

4.8.4. Ook zij vermeld dat bij een niet-vaccinatiebeleid de kosten om de runderen vóór export te vaccineren niet verder zullen stijgen. Per jaar worden ongeveer 2 miljoen dieren verhandeld tussen de Lid-Staten van de Gemeenschap die een vaccinatiebeleid voeren. Als 1 miljoen dieren vóór de export worden ingeënt (kalveren jonger dan 4 maanden en bepaalde soorten slachtvee kunnen zijn vrijgesteld) à 3 ecu per dier (vaccin + vaccinatie) kan 3 miljoen ecu worden bespaard.

4.9. Effecten van beide beleidsopties op het handelsverkeer in vee en dierlijke produkten

In de in punt 4.8. behandelde economische analyse wordt geen rekening gehouden met de effecten van beide beleidsopties voor het handelsverkeer in vee en dierlijke produkten tussen de landen van de Gemeenschap en met derde landen. Het verslag van de Commissie over de handel is opgenomen in bijlage 4. De belangrijkste conclusies van dit verslag luiden als volgt :

a) Voor de omvang van het intracommunautaire handelsverkeer in levende dieren en dierlijke produkten zou het weinig uitmaken welke beleidsoptie wordt gekozen.

b) Bij toepassing van een niet-vaccinatiebeleid zouden gevaccineerde dieren niet zonder extra voorzorgsmaatregelen kunnen worden ingevoerd; voor de invoer van vers vlees en vleesprodukten zou kunnen worden volstaan met handhaving van de gebruikelijke regelingen (rijpen, uitbenen).

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c) Het is duidelijk dat een systematische en volledige vaccinatie in de Gemeenschap ernstige consequenties zou hebben voor de export naar veel derde landen. Aan de andere kant is overleg over technische zaken met de veterinaire diensten van de handelspartners van essentieel belang om hen ervan te overtuigen hoe doeltreffend maatregelen per regio kunnen zijn bij de bestrijding van MKZ in een gebied waar geen vaccinatie is toegepast.

4.10. Gevolgen van de stopzetting van vaccinatie tegen MKZ voor de werkgelegenheid van dierenartsen

Voor zover de situatie kan worden overzien, zou stopzetting van de vaccinatie tegen MKZ in beperkte mate effect hebben op de werkgelegenheid van dierenartsen. De Spaanse en de Portugese autoriteiten treffen voorbereidingen om dierenartsen op andere terreinen in te schakelen. In Frankrijk dreigt een situatie te ontstaan waarbij er in afgelegen plattelandsgebieden geen dierenartsen meer zijn, zodat het veterinair toezicht in gevaar komt (zie bijlage 6).

Bij toepassing van een niet-vaccinatiebeleid is een verfijnd bewakingssysteem nodig onder centraal toezicht van een veterinaire dienst van de overheid, zodat in noodsituaties snel en afdoend kan worden ingegrepen. De dierenartsen die tot nu toe betrokken waren bij vaccinatieprogramma's zouden hierbij kunnen worden ingeschakeld en ook kunnen worden ingezet voor de algemene uitbreiding van de veterinaire diensten die nodig is met het oog op de totstandbrenging van de interne markt.

4.11. Gevolgen van een ombuiging van het MKZ-beleid voor de laboratoria

Op dit ogenblik houden meer dan 30 laboratoria zich in Europa bezig met het manipuleren van MKZ-virussen. In 15 laboratoria wordt het vaccin geproduceerd en in de andere helft worden virussen gehouden voor het stellen van diagnoses en het uitvoeren van onderzoek.

Wanneer wordt gekozen voor een systematisch vaccinatiebeleid zou aan de groeiende vraag naar vaccins kunnen worden voldaan door de produktie in de Gemeenschap uit te breiden. Als wordt gekozen voor niet-vaccineren, zouden alleen vaccins nodig zijn om de communautaire buffervoorraad op peil te houden en de export naar derde landen te continueren. In landen waar de laboratoria op dit moment rijksinstituten zijn, zou een deel van het geld dat wordt bespaard door de sluiting van laboratoria kunnen worden aangewend om het personeel verder te scholen in de MKZ-diagnostiek en om betere diagnosetechnieken te ontwikkelen.

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Voor welk beleid in de toekomst ook wordt gekozen, onderzoek naar MKZ zal nodig blijven. Het ziet ernaar uit dat het aantal laboratoria in de Gemeenschap dat zich hiermee bezighoudt, zal worden verminderd. In de overgebleven laboratoria zullen steeds strikte veiligheidsvoorschriften in acht moeten worden genomen om te voorkomen dat MKZ-virussen ontsnappen (zie bijlage 7).

5. CONCLUSIES

5.1. Een gemeenschappelijk standpunt van de Lid-Staten van de Gemeenschap ten aanzien van MKZ is van essentieel belang om de doelstellingen van de interne markt te kunnen verwezenlijken.

5.2. Het momenteel door de Lid-Staten gevoerde beleid (vaccineren of niet-vaccineren) is uitvoerig onder de loep genomen en met name onderzocht op de economische aspekten.

5.3. Er is aandacht besteed aan de mogelijkheid van vrij handelsverkeer voor de betrokken diersoorten tussen delen van de Gemeenschap met een verschillend vaccinatiebeleid; deze mogelijheid is evenwel verworpen vanwege het gevaar dat het MKZ-virus in voorheen niet-besmette gebieden wordt binnengebracht. Dat zou namelijk onaanvaardbaar zijn in verband met een van de doelstellingen van de Europese Akte, namelijk harmonisatie op een hoog gezondheidspeil. Derhalve moet voor de Gemeenschap als geheel duidelijk worden gekozen tussen vaccinatie en niet-vaccinatie.

5.4. Uit de gemaakte studies komt duidelijk naar voren dat niet-vaccineren aanmerkelijk goedkoper is dan systematisch vaccineren. Aangezien zich bij toepassing van een vaccinatiebeleid naar verwachting meer uitbraken zullen voordoen dan bij een niet vaccinatiebeleid, ligt het voor de hand dat niet-vaccineren voor de Gemeenschap als geheel vanwege de inherente gevaren die verbonden zijn aan manipulatie van het MKZ-virus, veiliger is.

5.5. Wanneer niet wordt gevaccineeerd moeten stringentere maatregelen worden getroffen om de insleep van infecties in de Gemeenschap te voorkomen en om uitbraken doeltreffend te bestrijden.

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5.6. Uit studies over handelsaangelegenheden blijkt dat een beleidsombuiging een marginaal effect heeft op het intracommunautaire handelsverkeer en de invoer uit derde landen. Wanneer bij toepassing van een niet-vaccinatiebeleid de invoer uit bepaalde derde landen waar wel wordt ingeënt, in het gedrang zou kunnen komen, zouden met het betrokken land onderlinge afspraken kunnen worden gemaakt over stopzetting van vaccinaties. Wanneer wordt gekozen voor een systematisch vaccinatiebeleid, staat vast dat aan de export naar veel derde landen een eind zal komen. Aan de andere kant zij erop gewezen dat de hele Gemeenschap bij een niet-vaccinatiebeleid haar handelsbetrekkingen weliswaar aanzienlijk kan uitbreiden, maar ook dat zij in dat geval door sommige landen, wat de gezondheidssituatie betreft, als één geheel zou kunnen worden gezien. Een enkele uitbraak van MKZ zou de export uit de Gemeenschap dan nadelig kunnen beïnvloeden, tenzij de op regionale basis vastgestelde maatregelen om de ziekte te bestrijden en uit te roeien internationaal worden aanvaard.

5.7. Wat de personele sfeer betreft, ziet het ernaar uit dat de meeste dierenartsen die momenteel bij vaccinatiecampagnes betrokken zijn, zowel die in overheidsdienst als die welke vrij gevestigd zijn, kunnen worden ingeschakeld in een overheidsdienst die voldoet aan de hogere eisen die een niet-vaccinatie-beleid stelt of ingezet op andere terreinen, b.v. bij de bestrijding van de ziekte van Aujeszky of Brucella melitensis.

5.8. Wanneer wordt overgegaan op een niet-vaccinatiebeleid zullen de bestaande MKZ-laboratoria zich moeten aanpassen aan een situatie met een sterk verminderde vaccinproduktie. In dat geval moet de nadruk worden gelegd op betere scholing van het personeel, zowel veldals laboratoriumpersoneel, voor de MKZ-diagnostiek en op de ontwikkeling van betere diagnosetechnieken.

5.9. De Commissie is er absoluut van overtuigd dat de Gemeenschap, wil zij de doelstellingen van de interne markt bereiken, moet kiezen tussen een niet-vaccinatiebeleid en een systematisch vaccinatiebeleid. Uit dit verslag blijkt dat een niet-vaccinatiebeleid duidelijk veiliger en goedkoper is en voldoet aan de tweevoudige doelstelling, namelijk waarborgen van een hoog gezondheidspeil en vrij verkeer van goederen binnen de eengemaakte markt; die beleidslijn wordt de Lid-Staten derhalve sterk aanbevolen. Bij de Raad zullen voorstellen worden ingediend om de huidige wetgeving dienovereenkomstig te wijzigen.

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ANNEXES

TO THE REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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FOOT AND MOUTH DISEASE - MEMBER STATES
(1968 - 1988)

COUNTRY	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIUM	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
WEST GERMANY	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GREECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
U.K.	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SPAIN	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
1984 onward : ADNS

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ANNEX 1

TABLE 2

FMD situation in neighbouring countries (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
Norway	P	(1952)
Sweden	P	(1966)
Finland	P	(1959)
DDR	V	(1982)
Poland	P	(1971)
Czechoslovakia	V	(1975)
Austria	P	(1981)
Switzerland	V	(1980)
Yugoslavia	P	(1978)
Albania	P	(1960)
Bulgaria	P(1)	(1973)
USSR	V	O_1, A22
Hungary	V	(1972)
Turkey	V	O_1, A22
Tunisia	V	(1982)
Algeria	V	(1978)
Morocco	V	(1983)

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Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

(1) = vaccination in buffer zone with Turkey

*Source = FAO Yearbook

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ANNEX 1

TABLE 3

FMD situation in non-Member States with trade links to the Community (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
USA	P	(1929)
Canada	P	(1952)
Japan	P	(1908)
Korea (Republic)	P	(1934)
China	V	-
Australia	P	(1971)
New Zealand	P	0000
Brazil	V	O_1A_1C
Argentina	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	O
Chile	P	O
Colombia	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibia	V	(1980)
South Africa	V	(1985)
Swaziland	V	(1988)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

0000 = never recorded

*Source = FAO Yearbook

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SUMMARY ANALYSIS OF VACCINATION PLANS IN MEMBER STATES 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

NB Denmark, Ireland and United Kingdom do not practice vaccination. Greece vaccinates only in the Evros (Thrace) buffer zone.

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ANNEX 2

THE RISK OF FOOT AND MOUTH DISEASE (FMD) OCCURRING IN THE EUROPEAN COMMUNITY FOLLOWING COMPLETION OF THE INTERNAL MARKET - REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. The Group has been asked to provide an opinion on the extent of the risk of FMD occurring in the Community following 1992, in the event of (a) a vaccination policy* or (b) a non-vaccination policy** being adopted throughout the Community in future.

2. The Group has based this assessment of risk on the epidemiological and laboratory evidence available for the FMD outbreaks which have occurred during the last eleven years (1977-87). First of all it has identified the primary outbreaks in each epizootic to determine, as far as possible, the source of infection.

   Secondly it has looked at the spread of infection (number of SECONDARY outbreaks) which occurred from these outbreaks to determine, as far as possible, and bearing in mind the great variety of factors influencing the rate of secondary spread, how much this has been affected by vaccination and other control measures.

   The eleven years period was chosen in order to include both the beginning and end of the epizootics in question.

PRIMARY OUTBREAKS

3. There appear to have been thirty four (34) primary outbreaks of FMD in eleven Member States during the years 1977-87***

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* Vaccination policy : Systematic annual vaccinations of all cattle. In case of an outbreak stamping out (total or partial) is applied in addition to vaccination and other control measures.

** Non-vaccination policy : A general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. It may be necessary to launch a ring vaccination.

*** The Group does not have detailed records of the circumstances surrounding outbreaks in Spain (whether they were primary or secondary).

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FMD INFECTION ORIGINATING OUTSIDE THE COMMUNITY

4. The Group has identified eight (8) primary outbreaks that occurred during the years 1977-87 where the evidence very strongly suggests that the source was outside the Community(1). The majority of these outbreaks seems to be associated with meat coming into the Community. Other outbreaks were probably caused by airborne transmission from outside, e.g. 1 outbreak in Denmark.

The risk associated with the importation of meat changed in 1978 when the Community regulations were amended in that importation of meat on the bone was no longer allowed(2).

FMD INFECTION ORIGINATING WITHIN THE COMMUNITY

5. The Group has examined records from all Member States and it does not appear that there is any endemic source of FMD within the herds and flocks of the Community. Nevertheless there have been some thirteen (13) primary outbreaks which cannot be attributed with any certainty to extra-Community sources. As for the origin of these outbreaks it is difficult to be precise but it is possible that all were, in some way or other, connected either with escapes from laboratories or use of improperly inactivated vaccines.

FMD INFECTION OF UNKNOWN ORIGIN

6. There remain thirteen (13) primary outbreaks, where the origin of infection appears to be completely unknown.

SECONDARY OUTBREAKS

7. TABLE 1 shows that during the period 1977-87 there were a total of 1.923 outbreaks of FMD in the twelve Member States. The data for primary and secondary outbreaks were not available for Spain but in the other eleven Member States there were a total of 1.858 outbreaks of which thirty four (34) are considered to be primaries (paragraphs 3-6 above). This leaves 1.824 secondary outbreaks. The number of primary and secondary outbreaks that occurred in each Member State is shown in TABLE 2.

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(1) See Annex 2, Table 3

(2) Community requirements for deboning apply only to certain high risk areas such as South America and Africa.

8. The amount of spread of disease (the size of the epizootic originating from a primary outbreak) varies considerably. In some cases the primary outbreaks have not given rise to further outbreaks but in others the number of secondary outbreaks has been high, e.g. as high as 153 in Italy during the A_5 epizootic 1984-85, and possibly even higher in Portugal in the early eighties.

9. The amount of spread (the ratio of primary to secondary outbreaks) shown in Table 2 (<u>averages</u>) falls into three groups :

   (a) those outbreaks where there has been virtually no spread (less than three secondary outbreaks per primary).

   (b) those epidemics where there has been limited spread (less than 25 secondary outbreaks per primary).

   (c) those epidemics where there has been extensive spread (more than 25 secondary outbreaks).

   When looking at the above differences several factors should be taken into consideration, i.e. not only the question of vaccination versus non-vaccination strategy, but also differences between individual countries as regards agricultural infrastructure, farm management, herd size, geographical conditions, veterinary service etc. Differences in virulence and transmissibility between field virus strains may also have contributed to the high degree of variation.

10. Where vaccination has been employed to protect the cattle population the secondary outbreaks have occurred mainly (but by no means entirely) in non-vaccinated pig herds. Infected pigs excrete large amounts of virus and these have perpetuated the epizootics, e.g. the type C epizootic in Italy 1985-86.

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Where vaccination has not been used (in four Member States*) seven primary outbreaks have given rise to 28 secondaries. Two of the primary outbreaks occurred in Denmark where there is also a high density of pigs.

PREDICTIONS FOR THE YEARS 1993-2003
(in the present Member States)

11. Whatever the control policy within the Community (vaccination or non-vaccination) there will remain the risk of infection entering the Community from outside. The risk due to the importation of meat (even in large amounts) from outside appears to have declined since the importation rules were made more strict. On the other hand the risk of infection entering the Community from outside is still present, particularly if large numbers of animals are imported. However, the risk from official importation of animals can be reduced by Community regulations. If it is due to illegal importation or airborne infection it is not directly controllable by the Community.

12. The best estimate that the Group can make is that the risk of infection entering the Community in the years 1993-2003 will be no worse and no better than during the last eleven years, i.e. causing some eight (8) primary outbreaks originating from outside the Community. If to those is added a proportion of the 13 outbreaks where the origin was completely unknown (paragraph 6) the risk increases to about twelve-thirteen (12-13) outbreaks. This figure may be an overestimate of the predicted risk in that the restriction on imported meat introduced in 1978 appears to have been effective in preventing the entry of disease.

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* Denmark, Ireland and United Kingdom do not vaccinate. Greece does not vaccinate except in a buffer zone in the department of Evros.

13. The employment of non-vaccination or of vaccination policies within the Community might also make a difference to this estimate in that vaccination may have prevented some primary outbreaks during the period 1977-87. The number of outbreaks thus prevented cannot be assessed. However, experience in areas of the Community where vaccine is not used could suggest that it is small. It should be noted, however, that the areas of the Community, where vaccination is not practised, have the additional advantages of geographical isolation (islands, peninsula) and strict importation controls, as well as advantages of the protection provided by the regular vaccinations in neighbouring countries.

14. In some Member States special risks can be anticipated from cross-frontier contacts, including illegal importations, which are favoured by the long borders of the Community. In any event, if non-vaccination was to become Community policy the Group would recommend that no susceptible animals be imported into the Community without rigorous safeguards (see later).

THE RISK OF INFECTION ORIGINATING INSIDE THE COMMUNITY

15. If vaccination is not used within the Community in the future and on the basis that there is no evidence of a source of FMD within the Community then it is most unlikely that there will be any primary outbreaks additional to those originating from outside the Community (paragraph 12) and a proportion of the 13 primary outbreaks of unknown origin (paragraph 6), provided laboratories which manipulate FMD virus are operated effectively in conditions of high security.

16. If prophylactic vaccination is used within the Community in future then there is a risk that in addition to the outbreaks mentioned in paragraph 15 there will be some outbreaks associated either with the production or the administration of vaccine. If the experiences of the years 1977-87 were repeated in the years 1993-2003 then we could reasonably expect some 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine. However, it is likely that vaccine inactivation techniques will improve and that escapes from laboratories will decline.
In other respects and whatever the origin of the outbreaks, some of them will be likely to be prevented by the use of prophylactic vaccination.

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THE RISK OF SPREAD OCCURRING WITHIN THE COMMUNITY

17. The data contained in TABLE 2 and in paragraphs 7-10 suggest that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. On the basis of the information available, the Group considers that the variation is too great as to make it possible to draw clear conclusions as to the predicted rate of spread in the event of non-vaccination or of vaccination becoming Community policy. In this respect geographical conditions, agricultural infrastructure and veterinary controls in individual countries should be considered as factors of crucial importance.

The Group is particularly aware of the risk of secondary spread in areas of high animal density. If vaccination was discontinued, the risk to cattle would be increased, but would not be significantly altered for pigs, which are not normally vaccinated. In case of an outbreak the epizootic may be restricted in size and duration by applying the methods described in paragraphs 29-32 (see later), and if necessary by launching a ring vaccination.

18. It is apparent, however, that the amount of spread of infection from a primary outbreak, in addition to the virulence and transmissibility of the field virus, is highly dependent on the rigour of the control procedures employed. Where only stamping out is used to control an epizootic and the stamping out procedures are carried out thoroughly and promptly (and accompanied by strict movement controls etc.) the infection may be contained to a small number of secondary outbreaks. Likewise the experience of 1977-87 suggests that whether or not prophylactic vaccination is employed, if control measures (stamping out and movement controls etc.) are not applied strictly, then spread, including particularly spread into the pig population, may be extensive.

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ANNEX 2
TABLE 1

TABLE 1

FMD OUTBREAKS IN MEMBER STATES
1977 - 1987

Country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgium	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	–	–	–	–	–	22	1	–	–	–	–	23
Germany	7*	3	–	2	–	1	–	9**	–	–	6***	28
Greece	3	–	–	–	5	–	–	2	–	–	–	10
Spain	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Ireland	–	–	–	–	–	–	–	–	–	–	–	–
Italy	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
United Kingdom	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** incl. six serological cases found a posteriori
*** 1987/88

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ANNEX 2

TABLE 2

FMD OUTBREAKS IN MEMBER STATES

1977 - 1987

RATE OF SPREAD

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MEMBER STATES USING A NON-VACCINATION POLICY

	Primary Outbreaks	Secondary Outbreaks	Ratio
Denmark	2	21	1:21/1:0
Greece	3	7	1:2.3
Ireland	-	-	-
United Kingdom	2	0	1:0

MEMBER STATES USING A VACCINATION POLICY

Belgium	-	-	-
Germany	8	20	1:2.5
Spain	Not known	Not known	Not known
France	2	38	1:19
Italy	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Netherlands	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

ANNEX 2

TABLE 3

EIGHT PRIMARY OUTBREAKS OF FMD

where the evidence very strongly suggests that the source was outside the Community

1976/77	Greece	Type A	- similarity with South American types - swill feeding
1976/77	FRG	Type A	- Aachen (similarity with A 24) swill feeding
1977	Italy	Type A	- similarity with South American types, virus isolated from imported meat products/bone marrow
1978	Italy	Type O	- probably associated with imported meat
1979	Italy	Type A	- similarity with South American types
1982	Denmark	Type O	- probably airborne introduction from Eastern Europe
1982	Germany	Type O_1	- related to O_1 Austria 1981
1984	Greece	ASIA-1	- probably airborne introduction

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ANNEX 3

1. THE ECONOMIC ANALYSIS

1.1. The estimates of the costs of vaccination and of outbreaks given in Tables 1 and 2, and the predicted number of outbreaks provided by the Scientific Veterinary Committee in Annex 2 have been used in an economic analysis which shows the possible outcomes given a vaccination or a non-vaccination policy. These outcomes have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case.

1.2. The analysis covers the ten year period 1993-2002. This is considered to be a reasonable period on which to base policy considerations.

2. THE ASSUMPTIONS

2.1. The cost of vaccination

The cost of a Community vaccination programme involving a single annual vaccination of all eligible cattle is estimated at 133 million ECU per annum (Table 1).

2.2. The cost of outbreaks

The cost of an outbreak as provided by Member States varies considerably (Table 2). The most important cause of the variation is the difference in the size of the herds and the value of the livestock slaughtered. The values shown in Table 2 are the average for each Member State but even within Member States there are great variations in herd size from small holdings to large intensive units.

The lowest cost for an outbreak is that provided by the Portuguese authorities. In that country, holdings with less than 5 hectares account for 86 % of all holdings and the outbreak cost quoted is for a holding containing only 4 cattle and 5 pigs. This is not typical of the Community as a whole and so, for the purpose of the economic analysis, the next lowest cost estimate (Greece 32 000 ECU) has been taken as the "low" estimate.

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The highest cost for an outbreak is that provided by the Spanish authorities (470 000 ECU) and is based on the costs recorded during an epidemic in 1983. The average number of cattle on the holdings affected is given as 1 535. However, a scrutiny of the national submissions showed that the Italian authorities estimated costs of 600 000 ECU for total slaughter in very large intensive pig units. Therefore, in order to give proper weight to the risk attached to disease occurring in large intensive units, this figure has been used as the "high" estimate in the analysis.

Excluding Portugal because of its untypical herd structure, the average of costs submitted by Member States is 158 000 ECU and this has been used as the "central" estimate in the analysis.

2.3. The number of outbreaks

The number of outbreaks used in constructing the most likely, worst and best cases are derived from the estimates provided by the Scientific Veterinary Committee (Annex 2).

The Committee estimated that under a non-vaccination policy there are likely to be 13 primary outbreaks over a 10 year period. This figure may be an overestimate of the predicted risk in that the restrictions on imported meat introduced during 1978 appear to have been effective in preventing the entry of disease.

The Committee estimated that under a vaccination policy there would be the 13 primary outbreaks referred to above and an additional 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine in the field. However, the Committee considered that improved techniques ought to lead to a reduction in this risk and for the purpose of the economic analysis the estimate of the number of laboratory or vaccine-related outbreaks has been reduced to 7 over a 10 year period. This, together with the 13 outbreaks from external sources makes a total of 20 primary outbreaks overall during the 10 years under a vaccination policy.

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The data examined by the Committee suggested that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. Therefore, for this economic analysis, the same estimate has been used for the two alternative policies.

The report of the Committee provides a range for the ratio of primary to secondary outbreaks. The ratios given are reasonably uniform between Member States except for Portugal. The figure given for this country of 1:591 represents a situation before Portugal applied Community control measures. Disregarding the Portuguese experience, the average ratio of primaries to secondaries over the last 10 years is 1 primary to 20 secondaries and this has been taken as the central or most likely estimate. It is possible that this ratio exaggerates the rate of spread as in some of the major epidemics more of the outbreaks may have been primary rather than secondary e.g. the multiple seeding of outbreaks due to improperly inactivated vaccine.

The lowest rate of spread is taken as 1:0, i.e. there are no further outbreaks beyond the primary. This has happened several times over the last 10 years under both policies.

The highest rate of spread - the most pessimistic estimate - is taken as 1:150. This represents the highest ratio of primaries to secondaries recorded in recent epidemics in the intensive livestock areas of northern Italy.

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3. THE SCENARIO ANALYSIS

3.1. Three possible outcomes are presented depending on the variations in the number and cost of outbreaks described in paragraphs 2.2 and 2.3 above. They are :

- a central (or most likely) case,
- a best case,
- a worst case.

3.2. The central case

This gives the most likely outcome. It is based on the cost of an average outbreak (158 000 ECU) (see 2.2. above) and the most likely number of secondary oubreaks (20) arising from a primary (2.3. above).

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
20 secondaries per primary

Total = 13 + (13 x 20) = 273

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Total cost = 273 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 35 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years)
20 primaries
20 secondaries per primary

Total = 20 + (20 x 20) = 420

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Cost of outbreaks = 420 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 54 million ECU.

Cost of vaccination = 133 million ECU per annum. The discounted present value over 10 years (at 5 %) = 1080 million ECU.

Total cost = 54 million ECU + 1080 million ECU = 1134 million ECU.

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3.3. The best case

This gives the most optimistic outcome i.e. outbreaks all occurring on the smallest livestock holdings and no secondary outbreaks arising out of the primaries. A situation where there are no secondary outbreaks is not unusual. It is unlikely however that all outbreaks would occur in the smallest herds.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :

13 primaries

0 secondaries

Total = 13 + (13 x 0) = 13

Expected cost per outbreak (1987 values) = 32000 ECU (see para. 2.2.)

Total cost = 13 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 337000 ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :

20 primaries

0 secondaries

Total = 20 + (20 x 0) = 20

Expected cost per outbreak = 32000 ECU

Cost of outbreaks = 20 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 519000 ECU.

The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 519 000 ECU + 1 080 million ECU = 1 080,5 million ECU

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3.4. The worst case

This gives the worst possible outcome. It is assumed that 150 secondary outbreaks would arise from each and every primary and that the outbreaks would all occur in the largest herds and cost 600000 ECU each.

Such a combination of circumstances is only a remote possibility. A spread of 150 outbreaks from a primary has only occurred once (in Italy) in the last 11 years. Furthermore, even in the most intensive livestock zones only a proportion of the holdings are very large.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
150 secondaries per primary

Total = 13 + (13 x 150) = 1963

Expected cost per outbreak (1987 values) = 600000 ECU

Total cost = 1963 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 955 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :
20 primaries
150 secondaries per primary

Total = 20 + (20 x 150) = 3020

Expected cost per outbreak (1987 values) = 600000 ECU

Cost of outbreaks = 3020 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 1470 million ECU.

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The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 1470 million ECU + 1080 million ECU = 2550 million ECU.

4. SUMMARY

	Present value over 10 years (million ECU)		
	Central case	Best case	Worst case
A. Non Vaccination Policy (Outbreaks only)	35	0,3	995
B. Vaccination Policy (Outbreaks and vaccination)	1134	1080,5	2550

The analysis demonstrates that the most probable outcome during the next 10 years will be for a vaccination policy to cost considerably more than a non-vaccination policy. Even in the most unlikely worst case, i.e. where all outbreaks occur in the very largest livestock units and there is a high rate of spread of infection, the non-vaccination policy is still the most cost-effective.

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ANNEX 3

TABLE 1

THE COST OF AN FMD VACCINATION PROGRAMME

IN THE EUROPEAN COMMUNITY

(annual costs at 1987 prices)

	Cattle vaccinated ('000 head)	Cost per head		National cost	
		National currency	ECU	National currency (millions)	ECU (millions)
Belgium	2 232	54 BFR	1,25	121,0	2,8
Denmark*	2 250	17,90 DKR	2,25	40,3	5,1
Germany	14 560	3,14 DM	1,18	38,6	18,6
Greece*	761	122 DRA	0,74	92,5	0,6
Spain	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Ireland*	6 647	1,50 IRL	1,94	10,0	12,9
Italy	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Netherlands	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
U.K.*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (rounded)	133,0

NOTES

(i) Costs are for vaccination of all eligible cattle once a year. (Except for France and Luxembourg where only total cattle population figures were available).

(ii) Costs are as recorded for Member States which currently vaccinate their national herds. Costs are estimated for Member States that do not vaccinate (indicated*).

(iii) Costs include vaccine, vaccination and general administration. They do not include costs of possible side effects.

(iv) Greece vaccinates cattle only in the Evros Valley; France does not vaccinate in Finisterre.

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ANNEX 3

TABLE 2

ESTIMATED COSTS OF A SINGLE OUTBREAK OF FMD

(as provided by Member States at 1987 prices)

The costs include : Compensation
Cleansing, disinfection and associated measures
Loss of production on farm
General administration of outbreak control

They do not include : Ring vaccination

Cost per outbreak (see notes)

	National currency	ECU
Belgium	2 203 055 BFR	50 650
Denmark	1 210 000 DKR	150 239
Germany	100 000 DM	48 309
Greece	5 281 911 DRA	31 914
Spain	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Ireland	164 500 IRL	212 258
Italy	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Netherlands	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
U.K.	70 000 UKL	104 979

NOTES

(1) An outbreak is disease occurring on one farm or holding (OIE definition for European conditions)

(2) The estimates are based as far as possible on actual costs as recorded in recent outbreaks; where there have been no recent outbreaks the costs have been estimated for an average sized herd at risk.

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ANNEX 4

COMMUNITY TRADE PATTERNS IN LIVESTOCK
AND CERTAIN LIVESTOCK PRODUCTS

1. Introduction

1.1 FMD Susceptible Species

In examining trade patterns it should be noted that the species susceptible to FMD most involved in trade are bovine animals, swine, sheep and goats.

1.2 Current rules in trade

Given a normal FMD free situation, those Member States which vaccinate against FMD can export fresh meat and meat products of the species mentioned above to Member States which do not vaccinate in so far as the risk of spread of FMD is concerned.

Should an outbreak of FMD occur in any Member State then prohibition areas around the outbreak are set up by way of Directive 85/511/EEC (general control measures) and Directive 64/432/EEC (intra-Community trade) which prevent trade in animals, fresh meat and meat products (other than those heat treated to at least 70°C).

In the case of live bovine animals and swine, trade restrictions exist according to Community law between the vaccinating and non-vaccinating States. Rules are laid down in Article 4(a) of Directive 64/432/EEC and are one of the reasons why this study has been undertaken. At 1 January 1989 national rules on sheep and goats were still in force.

The provisions of Article 4(a) give Member States which are free of FMD for two years and do not vaccinate the right to request isolation and/or quarantine in addition to certain tests to ensure that the animal in question has not been vaccinated and is not a carrier of FMD virus.

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In terms of intra-Community trade the provisions concerning live animals are the most important in projecting the advantages and disadvantages of adopting a pan-vaccination or a non-vaccination policy.

2. Intra-Community trade(1)

2.1 Bovine animals

2.1.1 Calves (up to 250 kgs)

In 1987 some two million calves were traded between Member States. The principal exporters and importers were :

1. France (838 000) to Italy (689 000), Netherlands (65 000) and Germany (64 000)
2. UK (376 000) to France (221 000), Netherlands (133 000) and Italy (6 000)
3. Netherlands (332 000) to Germany (102 000), Belgium/Luxembourg (99 000) and France (88 000).

Comment

In either a non-vaccination or pan-vaccination situation trade in calves is unlikely to alter to any great extent. UK appears to have an exportable excess while trade to Denmark and Ireland is only likely to develop if cow numbers there are cut back sharply.

2.1.2 Adult cattle for fattening, production and slaughter

In 1987 1,15 million adult cattle were traded between Member States. The principal exporters and importers were :

1. France (795 000) to Italy (709 000), Germany (34 000) and Belgium/Luxembourg (21 000)

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(1) Source of data is Nimexe as quoted in Eurostat for the year 1987. Figures are to the nearest thousand in head.

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2. Ireland (152 000) to UK (151 000) and Portugal (1 000)
3. Germany (117 000) to Netherlands (64 000), Italy (37 000) and Belgium/Luxembourg (11 000).

Comment

In either a non-vaccination or pan-vaccination situation it is unlikely that trade patterns will alter as Denmark, Ireland and UK are self sufficient with Ireland being a substantial exporter. However, trade in slaughter cattle to Denmark and UK could develop due to their proximity to States such as Germany, France and the Netherlands.

2.1.3 Pure-bred breeding cattle

In 1987 38 000 of this category moved in intra-Community trade. The principal exporters and importers were :

1. Germany (22 000) to Spain (13 000), Portugal (5 000) and Italy (2 000).
2. U.K. (6 000) to Portugal (3 000) and Ireland (3 000).
3. France (5 000) to Spain (1 000), Portugal (1 000) and Italy (1 000).

NB Exports to Spain and Portugal during 1987 were supported by export refunds.

Comment

In either situation a change in these trade patterns is unlikely as the demand for these cattle is limited and the unit value is high. Because of this high unit value, quarantine and testing costs under the present regime are relatively easily absorbed. These would be eliminated on changing to a uniform policy and a marginal increase in trade could be expected. However this could be counterbalanced by an increase in trade in semen and embryos.

2.2 Swine

Trade in pigs at present is influenced by the presence or absence of four virus diseases, namely FMD, Classical Swine Fever (CSF), African Swine Fever (ASF) and Swine Vesicular Disease (SVD). Thus Member States which are officially free of CSF may prohibit entry of pigs and pigmeat into their territories from States not of the same status.

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Concerning ASF, exports from Spain (partly as and from 14 May 1989), Portugal and Sardinia are prohibited except for certain heat-treated products. Rules for SVD allow Member States not vaccinating against FMD and free of FMD for two years to require a negative serological test for SVD on breeding and production pigs before entry into their territories.

2.2.1 Pigs for Production (up to 50 kgs) (Weaner pigs)

In 1987 a total of 2,5 million of such pigs were traded between Member States. The principal exporters and importers were :

1. Germany (1 371 000) to Belgium/Luxembourg (744 000), Spain (332 000) and France (275 000)
2. France (423 000) to Spain (225 000), Belgium/Luxembourg (145 000) and Italy (52 000)
3. Netherlands (681 000) to Italy (308 000), Spain (184 000) and Belgium/Luxembourg (128 000).

2.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total traded in 1987 was 4,233 million. The principal exporters and importers were :

1. Netherlands (2 990 000) to Germany (924 000), Italy (724 000) and France (710 000).
2. Belgium/Luxembourg (958 000) to France (558 000) and Italy (326 000).
3. France (111 000) to Italy (70 000) and Belgium/Luxembourg (25 000).

2.2.3 Adult sows (not pure bred) (Mainly sows for slaughter)

In 1987 a total of 337 000 sows in this category were traded between Member States. The principal exporters and importers were :

1. Netherlands (307 000) to Belgium/Luxembourg (196 000) and Germany (110 000).
2. France (23 000) to Belgium/Luxembourg (22 000).

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2.2.4 Pure bred pigs for breeding

In 1987 some 19 000 pure bred pigs were traded. The principal exporters and importers were :

1. U.K. (9 000) to Spain (5 000), Ireland (1 000) and Germany (1 000).
2. Netherlands (3 000) to Spain (1 000) and Belgium/Luxembourg (1 000).
3. France (2 000) to Spain (2 000).

Comment on trade in pigs

As stated above, three diseases apart from FMD can influence the trade in pigs. It is therefore difficult to predict altered trade flows in the immediate future. Because of current self sufficiency it is unlikely that a trade into Denmark, Ireland and UK will develop to any great extent.

2.3. Sheep and goats

At 1 January 1989 no Community rules concerning trade in sheep and goats existed. Therefore national rules apply. Apart from FMD, Brucella melitensis would appear to be a disease which militates against trade from the Southern Mediterranean States to the Northern ones.

2.3.1 Sheep and goats other than pure breds

A total of 1,77 million sheep and goats were traded between Member States in 1987. The principal exporters and importers were :

1. France (457 000) to Italy (272 000) and Spain (183 000).
2. UK (392 000) to France (295 000) and Ireland (85 000).
3. Netherlands (336 000) to France (198 000) and Belgium/Luxembourg (134 000).
4. Germany (298 000) to Belgium/Luxembourg (128 000) and Italy (88 000).

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2.3.2 Pure bred breeding sheep and goats

A total of 17 000 sheep and goats in this category were traded in 1987. Principal exporters and importers were :

1. U.K. (7 400) to Ireland (5 000) and France (2 400).
2. Portugal (4 500) to Spain (2 500) and UK (1 000).
3. Spain (2 000) to France (1 000) and UK (700).

Comment

Trade in each category appears to be mainly from north to south probably a reflection of Brucella requirements. Present trends would seem to be set to continue. There does not seem to be an opening for trade to Denmark, Ireland or U.K. due to self sufficiencies and price differentials.

3. Trade from third countries

Trade in fresh meat and meat products :

This takes place from approximately 50 third countries into the Community. While, in the event of a change to non-vaccination, the Community is unlikely to demand that meat originates from non-vaccinated third country animals, two problem areas can be foreseen. Firstly the Latin American countries (Argentina, Brazil, Paraguay and Uruguay) where FMD flares to epizootic proportions, control FMD partly by vaccination. Meat for the Community from these countries is prepared under a strict set of conditions including maturation and deboning. It may be that a further tightening of conditions will be considered necessary especially in the case of offals. The second problem is Southern Africa - South Africa (including Namibia), Swaziland, Botswana and Zimbabwe. Here we find that current legislation(1) requires non vaccination of cattle for 12 months prior to slaughter plus freedom from FMD for the same period. However the animal health decisions for these countries are not binding on all Member States at present. In the near future decisions applicable to all Member States will be necessary.

(1) Directive 72/462/EEC Articles 14 and 15.

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On the whole therefore shipments of meat and products to the Community should not suffer in the event of a change in Community vaccination policies.

Trade in live animals :

This trade may take place from 21 countries as far as cattle and pigs are concerned, the trade in sheep and goats being subject to national rules. Bovine animals entering Member States which routinely vaccinate must be vaccinated prior to entry.

3.1 Bovine animals

3.1.1 Calves (up to 250 kgs)

In 1987 a total of 272 000 calves were imported into the Community. The principal senders and receiving Member States were :

1. Poland (219 000) to Italy (149,000) and Germany (61 000).
2. Czeckoslovakia (27 000) to Italy (18 000) and Germany (9 000).

3.1.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 350 000 cattle in this category were imported into the Community. The principal senders and receiving Member States were :

1. Yugoslavia (170 000) to Italy (111 000) and Greece (59 000).
2. Poland (80 000) to Italy (75 000) and Greece (4 000).
3. Austria (56 000) to Italy (38 000) and Germany (16 000)

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3.1.3 Pure-bred breeding cattle

In 1987 some 44 000 of these cattle were imported into the Community. The principal senders and receiving Member States were :

1. Austria (23 000) to Italy (18 000) and Spain (4 000).
2. Switzerland (15 000) to Italy (14 000).

Comment

As can be noted from the above lists the main supplies of cattle are destined for Italy and are obtained largely from third countries which at present do not systematically vaccinate, the exceptions being Czeckoslovakia and Switzerland. In the event that neither of these countries abandon vaccination then a small shortfall in calves (27,000) and breeding animals (15,000) will result. This should pose little difficulty in terms of alternate suppliers.

A policy change to pan-vaccination would, it is thought, cause little change to the import flows into Denmark, Ireland or U.K. A change to non-vaccination would mean non-acceptance of vaccinated animals and the supply of store cattle from some Eastern European countries e.g. DDR, Czeckoslovakia and Switzerland might cease depending on those countries' willingness also to abandon vaccination. On the other hand countries like Poland and Yugoslavia which do not vaccinate systematically would be relieved of their responsibility to apply pre-export vaccination.

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3.2 Swine

3.2.1 Pigs for production (up to 50 kg) weaner pigs

In 1987 a total of 13 566 weaner pigs were imported into the Community principally to :

Italy (12 245) from Czeckoslovakia (11 601).

3.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total imported in 1987 was 37 935 principally into :

Belgium/Luxembourg (37 590) from DDR (37 425)
Spain (241) from Switzerland (241).

3.2.3 Adult sows (not pure bred) (mainly sows for slaughter)

Only 7 in this category were imported in 1987.

3.2.4 Pure bred pigs for breeding

A total of 428 imported in 1987 principally into :

Netherlands (122) from Canada (122)
Greece (89) from Sweden (40) and Austria (34)
Germany (67) from Hungary (30) and Austria (22).

Comment on imports of pigs

In comparison with Intra-Community trade (7 million in 1987) imports from third countries of 52 000 pigs are insignificant. No consequences of a change in vaccination policy can be foreseen.

3.3 Sheep and goats

3.3.1 Sheep and goats other than pure breds

In 1987 2 043 000 head were imported principally into :

1. Italy (1 492 000) from Hungary (865 000), Poland (278 000) and Bulgaria (266 000)
2. Germany (286 000) from Poland (201 000) and Hungary (85 000)
3. France (163 000) from Poland (94 000) and Hungary (69 000)
4. Greece (89 000) from Hungary (50 000) and Bulgaria (35 000).

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3.3.2 Pure bred breeding sheep and goats

In 1987 5 102 animals in this category were imported principally into :

1. United Kingdom from New Zealand (3 222), Australia (294) and Canada (197)
2. France (728) from Canada (343), Australia (222) and Algeria (117)
3. Italy (195) from Austria (102) and Switzerland (92).

Comment

The main suppliers of sheep and goats to the Community do not vaccinate systematically against FMD and therefore existing patterns should be maintained. Total imports are limited by constraint agreements.

4. Trade to third countries

Current rules in trade

Animal health rules governing exports of FMD susceptible animals and their products are not entirely uniform. This is because receiving third countries, having particular attitudes and positions regarding FMD, lay down their own import rules. However it can be noted that most third countries which are free of FMD and do not vaccinate will not freely accept animals and their products from countries which vaccinate. The prime example of this practice is U.S.A. which maintains an official listing (often referred to as the "White List") of countries which it considers free of FMD. A "knock-on" effect ensues when countries on the list emulate or exceed U.S.A. rules for unclear reasons. This problem will be discussed later.

4.1 Meat and meat products

Meat and meat products which are heat treated to at least 70°C will satisfy most veterinary regulations as regards FMD virus survival. The statistics which follow are for those meats and products which are not heat treated.

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4.1.1 Meat of bovine animals, fresh, chilled, frozen

In 1987 a total of 692 791 tonnes in this category was exported principally by :

1. France (215 897) to USSR (39 400), Iran (37 156), Egypt (19 682), Brasil (14 008), Saudi Arabia (12 034), Angola (11 021) and Iraq (10 478)
2. Ireland (159 560) to Egypt (43 904), Iran (23 105), Iraq (18 549), Yugoslavia (14 014) and South Africa (13 122)
3. Germany (119 637) to Egypt (46 188), Yugoslavia (22 361) and Iran (13 102)
4. Italy (60 510) to Brazil (16 711), Peru (9 625), Saudi Arabia (9 564) and Libya (8 119)
5. Netherlands (54 389) to Zaire (10 753), Yugoslavia (10 305) and Egypt (6 504).

Tonnage exported by other Member States to various countries were : Denmark (38 076), UK (37 341), Belgium (5 928), Spain (1 297), Greece (136) and Portugal (22).

4.1.2 Preparations of uncooked bovine meat, offals and mixtures

In 1987 some 10 006 tonnes of such preparations were exported principally by :

1. Denmark (7 884) to Saudi Arabia (2 432), Bulgaria (1 252), United Arab Emirates (779) and Bahrain (722)
2. Italy (1 528) to Saudi Arabia (1 084) and Jordan (239).

4.1.3 Offals of bovine animals

In 1987 some 12 048 tonnes of offals were exported principally by :

1. France (3 295) to Ivory Coast (1 018), Guadeloupe (465), Martinique (403), Gabon (340) and Israel (299)
2. Ireland (2 550) to Japan (1 529), Israel (346), Egypt (295) and Trinidad/Tobago (154)
3. Germany (2 199) to Austria (1 111), Egypt (185) and Ivory Coast (185)
4. Netherlands (2 152) to Israel (683), Zaire (251) and Yugoslavia (163).

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4.1.4 Unrendered fats of bovine animals for food

In 1987 a total of 27 179 tonnes in this category was exported principally by :

1. Germany (15 782) to Iran (6 369), Cuba (2 076), Nigeria (1 813) and Burundi (1 511)
2. Denmark (7 300) to Rwanda (1 869), Kenya (1 681) and Tanzania (1 500).

4.1.5 Stomachs, Intestines, Bladders of animals (all food animals)

In 1987 a total of 22 868 tonnes were exported principally by :

1. Germany (8 698) to U.S.A. (2 573), Austria (1 211) and Brazil (1 006)
2. Denmark (3,676) to U.S.A. (1,788), Norway (493), Finland (386) and D.D.R. (167)
3. Netherlands (2 910) to U.S.A. (675), Brazil (433), Yugoslavia (247), Switzerland (246) and Finland (239)
4. France (2 582) to South Africa (612), Hungary (334), Sweden (172), Taiwan (152), Morocco (160) and Poland (144).

4.2 Pig meat

4.2.1 Carcases and half carcases, fresh, chilled or frozen

In 1987 2 720 tonnes of pig meat in this category was exported to third countries. Principal exporters were :

1. Spain (1 572) to Canary Isles (1 455) and Andorra (74)
2. France (455) to Canary Isles (142), Seychelles (85) and Reunion (66)
3. Belgium (311) to Canary Isles (287).

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4.2.2 Pig meat in cuts

In 1987 197 921 tonnes was exported principally by :

1. Denmark (164 272) to Japan (94 519), U.S.A. (54 158) and Canada (9 768)
2. France (9 512) to Reunion (4 415) and Martinique (1 093)
3. Belgium (6 537) to Czeckoslovakia (4 026) and Dutch Antilles (676).

4.2.3 Pig meat salted, brined, dried or smoked

In 1987 9 637 tonnes of this category mainly bacon was exported principally by :

1. Spain (3 007) to Canary Isles (2 379) and Andorra (315)
2. Denmark (3,000) to Sweden (1 155), U.S.A. (613), Greenland (196) and Singapore (194)
3. France (1 409) to Guadeloupe (483), Martinique (213) and Reunion (213).

4.2.4 Pig fat (and poultry fat) fresh, chilled and frozen

In 1987 2 085 tonnes were exported principally by :

1. Denmark (1 488) to Norway (907) and Cyprus (177)
2. France (242) to Reunion (176).

4.2.5 Sausages, puddings and the like

In 1987 65 425 tonnes were exported principally by :

1. Spain (28 414) to Canary Isles (23,881), Andorra (454) and Lebanon (263)
2. Denmark (16 742) to U.S.A. (4 027), Canary Isles (3 505), Singapore (1 073) and Saudi Arabia (1 006)
3. France (6 910) to Reunion (1 279), Guadeloupe (1 278) and Martinique (1 170)
4. Italy (4 666) to Switzerland (2 605) and Lebanon (463).

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4.2.6 Pork offals

In 1987 35 725 tonnes of pork offals were exported principally by :

1. Denmark (14 674) to Sweden (7 572), Japan (3 354) and Liberia (1 229)
2. Netherlands (8 481) to Sweden (2 243), Ivory Coast (2 167) and Cameroon (960)
3. Germany (4 440) to Sweden (3 970) and Switzerland (243).

4.3 Sheep and goat meat, fresh, chilled, frozen etc.

Only one classification exists for statistical purposes.

4.3.1 All sheep and goat meat

In 1987 a total of 5 169 tonnes was exported principally by :

1. United Kingdom (2 475) to Switzerland (2 172)
2. Italy (906) to Libya (906)
3. France (678) to Switzerland (312) and Reunion (71).

Comment on exports of fresh meat and offal

As intervention stocks decline, exports of beef to countries such as USSR and Brazil are likely to diminish. In the event of a pan-vaccination policy exports of beef offals from Ireland to Japan and some other countries - total of 2 550 tonnes in 1987 - would be lost.

In a similar situation Denmark would lose an export trade in pork cuts, partly treated pigmeat, pig fat, offals and sausages, puddings and the like which in 1987 totalled 200 000 tonnes mainly to "White List" adherants. However this export trade is marginal in comparison to total trade and it is believed that this production can be accommodated within the Community.

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4.4 Bovine animals

4.4.1 Calves (up to 250 kgs)

In 1987 the total exported from the Community as a whole was 3 309. Principal exporters were :

France (3 299) to Switzerland (3 031) and Andorra (206).

4.4.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 77 527 was exported. Principal exporters were :

1. Ireland (64 950) to Libya (30 149), Egypt (29 577) and Malta (4 200)
2. France (7 807) to Tunisia (1 684), Saudi Arabia (1 504) and Algeria (677)
3. Germany (2 324) to Saudi Arabia (2 119)
4. Spain (2 298) to Andorra (2 260).

4.4.3 Pure bred breeding cattle

In 1987 a total of 87 119 was exported. Principal exporters were :

1. Germany (43 837) to Turkey (5 357), USSR (4 893), Morocco (4 958), Libya (3 910), Kuwait (3 661), Syria (2 267), Iraq (2 164), Iran (2 024), Jordan (2 157) and Saudi Arabia (1 026)
2. France (21 390) to Algeria (18 367), Morocco (1 406) and Canary Isles (1 045)
3. Netherlands (16 647) to Algeria (5 950), Iran (5 129), Egypt (3 316) and Jordan (836)
4. Denmark (4 307) to Egypt (2 490), USSR (1 372) and United Arab Emirates (365).

4.5 Swine

As mentioned earlier, diseases other than FMD may cause restrictions in trade.

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4.5.1 Pigs for production (up to 50 kg) Weaner pigs

In 1987 a total of 2 633 was exported. Principal exporters were :

1. Netherlands (1 188) to Philippines (579) and Faroe Islands (516)
2. Belgium (1 067) to Philippines (1 052).

4.5.2 Pigs 50 kg or over (mainly slaughter pigs)

In 1987 a total of 4 390 was exported. Principal exporter was :

France (3 502) to Canary Isles (1 891) and Switzerland (1 000).

4.5.3 Adult sows (not pure bred) (mainly sows for slaughter)

In 1987 a total of 86 was exported from Netherlands to D.D.R.

4.5.4 Pure bred pigs for breeding

In 1987 a total of 3 444 was exported. Principal exporters were :

1. U.K. (2 224) to Thailand (681), Japan (537), Philippines (176), Nigeria (178), Kenya (169), and South Korea (111)
2. Denmark (338) to Thailand (159) and South Korea (101)
3. France (285) to Canary Isles (194) and Seychelles (40).

4.6 Sheep and goats

4.6.1 Sheep and goats other than pure breds

In 1987 some 54 576 animals were exported principally by :

1. Spain (30 481) to Andorra (20 405) and Ceuta (10 07[illegible])
2. Greece (21 900) to Turkey (21 900).

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4.6.2 Pure bred breeding sheep and goats

In 1987 a total of 5 940 in this group was exported. Principal exporters were :

1. France (4 672) to Algeria (3 886), China (233) and Columbia (130)
2. Germany (723) to Poland (413) and Austria (216).

Comment on live animal exports

Exports of cattle for production/slaughter and for breeding purposes are significant. Destination countries as far as is known vaccinate systematically. Exports from Member States which do not vaccinate such as Denmark and Ireland do not appear to be affected.

Exports of pigs are not significant except perhaps for pure breds where U.K. and Denmark have favoured positions mainly in trade to the Far East. As previously mentioned diseases such as classical and African swine fevers may complicate export patterns.

Exports of sheep and goats are not significant in the context of a 2 million head intra-Community trade.

4.7 Summary and conclusions

4.7.1 Intra-Community trade

(a) Meat and meat products

In either a pan-vaccination or non-vaccination situation no obstacle can be foreseen in this trade in respect of FMD.

(b) Bovine animals

In either situation the trade in calves should remain stable. There is a possibility of trade in store (production) and slaughter animals to Denmark and U.K. Trade in pure bred cattle is unlikely to change significantly.

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(c) Pigs

Trade to some extent is influenced by diseases other than FMD. In either a pan-vaccination or non-vaccination it is difficult to foresee any great change in trading patterns.

(d) Sheep and goats

Present trends seem set to continue to be greatly influenced by Brucella melitensis requirements.

4.7.2 Trade from third countries

(a) Meat and meat products

Little change is foreseen except perhaps a tightening up on offal imports from FMD infected countries. Uniform decisions need to be taken in respect of countries in South America and Southern Africa. Account needs to be taken of the "non-comminglement" principle which is applied by U.S.A. and other "White list" countries whereby establishments preparing meat and meat products for those countries may not receive and handle meat from countries not on the "White list".

(b) Bovine animals

Overall, in a non-vaccination situation a small short fall in calves (27 000) and breeding animals (15 000) would result if Czechoslovakia and switzerland do not abandon vaccination. On the other hand Poland and Yugoslavia will be relieved of pre-export vaccination requirements.

(c) Pigs

In comparison with intra-Community trade of 7,0 million pigs the import of 52 000 animals in 1987 is not significant particularly taking into account the overall self sufficiency in the Community pig sector.

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(d) Sheep and goats

The main suppliers to the Community do not vaccinate systematically. Existing trade patterns should be maintained in either situation.

4.7.3 Trade to third countries

(a) Meat and meat products

Several situations must be examined. Firstly, existing trade is governed by many factors such as quotas (e.g. U.S.A. and Canada), export restitution (from EEC), established trading links (e.g. Denmark to Scandanavian countries) and finally animal health rules (e.g. "White list" countries).

Secondly, the pan-vaccination solution could precipitate a loss of export markets at least in fresh meat for Denmark, Ireland and to a lesser extent U.K. who export to "White list" countries such as U.S.A., Canada and Japan. This trade acts as a buffer to cyclical production trends in the Community.

Thirdly, a change to non-vaccination could result in an expansion of access for the Community as a whole to "White list" countries. However the extent of such expansion may be limited by economic restrictions. In that event Member States currently exporting substantial volumes of meat may find themselves sharing a particular market with Member States newly eligible to penetrate that market.

A fourth perhaps hypothetical situation must be recorded in relation to a Community "entity" situation of FMD freedom. Here vaccination has been withdrawn and the Community is internationally recognised as free of FMD. Will the Community status be lost in the event of an outbreak of FMD ? The answer will depend on the perceived effectiveness of regionalisation coupled with disease surveillance measures.

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The principle of regionalisation is one which the Community puts into action in the event of an outbreak of FMD or other epizootic disease for its own internal protection. For example the measures include stamping out in the infected holding, the setting-up of protection and surveillance zones, a standstill on animal movements and other measures as laid down in Directive 85/511/EEC.

From past experiences it is difficult to foresee some third countries accepting this principle unless they conclude that the controls are adequate to prevent the diffusion of FMD virus to the remainder of the Community, thus allowing them to continue to accept product.

On the other hand it is on record that in a FMD outbreak situation in U.K. (Isle of Wight 1981) the free status of Northern Ireland was maintained. However it must be recognised that the presence of a physical barrier was a factor in this case.

Conversely the Community has accepted the principle of regionalisation not alone internally, but also in third countries such as Bulgaria, South America, Southern Africa and lately in Canada where the Okanagan Valley is affected by blue tongue, and has gone to considerable lengths to allow regionalisation in USA in respect of blue tongue.

(b) Live animals

The principles enumerated for meat and meat products apply, in the main, also to live animals.

In a pan-vaccination situation many export markets in the pure bred sector will be lost. However it should be noted that some "White list" countries will accept unvaccinated animals from vaccinating countries albeit through an extensive and expensive quarantine system.

In a non-vaccination situation all Member States should be able to export freely to all third countries but of course other requirements may restrict this possibility.

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4.7.4 Suggested action

In view of the uncertainty of the reaction of third country trading partners to the development of an FMD free Community it may be wise to have informal discussions at the technical (veterinary) level to (a) inform them of the Community's intention and (b) to sound out their attitude to regionalisation. It is known that several important third countries are interested in the principle of regionalisation in order that they themselves know in advance the Community approach to them should they become infected.

It is suggested that this line of action be adopted without delay.

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ANNEX 5

MEASURES FOR THE PREVENTION OF FMD POST 1992

- REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. THE PREVENTION OF PRIMARY OUTBREAKS POST 1992

In the event of a pan-vaccination policy being adopted by the Community the measures for prevention and control of FMD are largely covered by the Council Directive 85/511/EEC.

In the event of the Community adopting a non-vaccination policy for controlling FMD the following RISK FACTORS/SAFEGUARDS must be considered to prevent or reduce primary outbreaks of the disease:

2. ANIMAL IMPORTATIONS

Although there is no recent evidence of imported live animals causing primary outbreaks in the Community any importation of livestock presents a risk. The Group therefore recommends that :

(a) importation be limited to non-vaccinated (antibody-free) animals. Imported animals should be isolated in quarantine and tested (probang and serum testing) unless they originate from an FMD free country which applies control measures equivalent to those applied by the Community.

(b) special precautions be taken to prevent the mixing of livestock in summer grazing at the borders of the Community.

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3. AIRBORNE SPREAD FROM NEIGHBOURING COUNTRIES

There is circumstantial evidence that airborne virus has caused infection to cross the eastern border of the Community. Airborne virus remains viable in cool humid conditions and is thus a greater threat in Northern Europe. The risks related to airborne infection can be reduced by :

(a) international surveillance providing information about outbreaks of disease in neighbouring countries e.g. through the OIE and CEC or bilateral communications. The Group recommends that such information systems should be strengthened.

(b) using meteorological information to provide estimates of the range and direction of virus travel. Such estimates have been used in the UK and France, and should also be applied elsewhere. The computer software is commercially available.

(c) where necessary, support from the Community of vaccination programmes in neighbouring countries and evaluation of their efficiency by regular serological surveys.

(d) collaboration with neighbouring countries to assist them in achieving eradication of FMD.

(e) providing information for Community farmers and field veterinarians on the importance of strict vigilance and prompt reporting.

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4. THE MOVEMENT OF PEOPLE FOR TRADE OR TOURISM

People moving across Community borders may carry FMD virus contaminated material. Tourists who camp in the countryside outside the Community may thus provide a risk by carrying virus on their clothes and belongings. It is recommended that :

(a) the Community should seek to educate regular migrants across Community borders of the risk of transmitting virus in food etc. Information should be clearly visible at frontier stations and airports and tourists should not be allowed to bring back any meat or other animal products.

(b) tourists should be made aware of the danger of disposal of meat and other animal products in rural areas.

5. THE MOVEMENT OF VEHICLES

Vehicles crossing Community frontiers provide a risk of carrying virus either on soil or dirt on the outside of the vehicle or on clothing and other materials carried inside. It is recommended that :

the Community should consider the possibility of setting up emergency washing facilities at Community frontiers when disease is reported in a neighbouring country.

6. THE IMPORTATION OF MEAT AND OTHER ANIMAL PRODUCTS

Meat and certain animal products (milk, hides, wool, offals, biological products and materials, including veterinary vaccines and other pharmaceutical products and feedstuffs) present a risk of infection, but it is recognized that these products could be imported under specific conditions.

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Likewise biological collections (e.g. for scientific use) from foreign countries present a risk.

It is recommended that Community regulations for the importation of the above products should be reviewed. A ban should be placed on importation of meat and other animal products by private individuals(1).

7. THE IMPORTATION OF SEMEN AND EMBRYOS

The importation of semen and embryos presents a risk. To this end reference is made to the rules already adopted by the Council for importation of semen. Similar rules for importation of embryos are currently under consideration.

8. THE STORAGE AND MANIPULATION OF FMD VIRUS IN COMMUNITY LABORATORIES AND VACCINE PRODUCTION PLANTS

It is recognised that even if the Community pursues a non-vaccination policy there will still be a need for FMD diagnostic facilities, for research into FMD, and for vaccine production both for emergency vaccine banks and for export. Being aware, however, that research laboratories and vaccine plants have given rise to a number of FMD outbreaks in the Community in the recent past, the Group recommends :

(a) that the number of laboratories and vaccine plants holding FMD virus be strictly controlled.

(b) that laboratories and vaccine plants conform with FAO recommended minimum standards for laboratories working with FMD virus *in vitro* and *in vivo* : Report of the twenty-sixth Session of the European Commission for the Control of Foot-and-Mouth Disease, FAO, Rome, 23 - 26 april, 1985.

(1) Special attention should be paid to the so-called "free port" situation and to problems of control and disposal of "international swill".

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(c) that all facilities holding FMD virus are examined at regular intervals by a Community inspectorate.

(d) that safety and potency of FMD vaccines for emergency use be carefully controlled. In this respect reference is made to the functions of the planned EEC Coordinating Institute for FMD vaccines.

9. THE USE OF FMD VACCINES

There may be occasions when trading partners require livestock from the Community to be vaccinated against FMD before export occurs. To meet this need the Group recommends that :

(a) vaccination should be carried out either at the place of destination or in a Community approved export quarantine or on the means of transport on departure.

(b) special precautions should be taken to prevent re-entry of animals thus vaccinated.

In case of an outbreak emergency vaccination may be required in specified territorial areas. Since such an emergency vaccination would be applied in a non-immune animal population two vaccinations are recommended at an interval of 3-4 weeks(1).

10. THE PREVENTION OF SECONDARY OUTBREAKS POST 1992

The necessary measures to be taken to limit the number of secondary outbreaks in a non-vaccination situation are in principle contained in the Council Directive 85/511/EEC, in particular Article 5, paragraph a.

(1) Recourse to emergency vaccination is only foreseen in exceptional circumstances where an epizootic threatens to become extensive. Such a decision should only be taken at Community level and should take into account identification of vaccinated animals and related matters.

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As far as the required epizootiological investigations are concerned reference is made to the FAO guidelines :
"Methodology for investigating the origin of infection in Foot-and-Mouth disease (FMD) outbreaks".
(REF. : Report of the Twenty-seventh Session of the European Commission for the Control of Foot-and-Mouth Disease, Rome, 21-24 april, 1987, 111-120).

The action to be taken would be facilitated by establishing skilled task forces at a local or regional level. They would be responsible for :

(a) the slaughter and disposal of animals (special attention should be paid to the practical problems associated with the disposal of large numbers of animals in a short time span).

(b) the cleansing and disinfection of infected premises.

(c) the disposal of waste products.

(d) the establishment and maintenance of disinfection of farms and surrounding areas.

(e) check-points.

(f) the posting of warning notices.

(g) the disinfection of any essential vehicles leaving or entering.

(h) the prevention of entry or exit of unauthorized personnel.

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In addition epidemiological teams should be created to support the local or regional authorities. They would include veterinary virologists and technicians from the national FMD laboratory, and meteorologists familiar with the operation of computer systems for analyzing and predicting the airborne spread of FMD. In the event of an outbreak the epidemiological team would be sent to the infected premises without delay. It would be responsible for the following :

(a) determination of the extent and pattern of disease on the premises

(b) determining the source of infection

(c) assessing the probability of secondary spread

(d) advising the veterinarian in charge of control procedures on risks to other premises

The team should be equipped with specialist vehicles and radiophones.

FMD outbreaks may become increasingly rare in the Community and regular training programmes should be undertaken to maintain skills in FMD diagnostic and control procedures. These training programmes could be supervised by a small cadre of FMD experts at the Community level. The services of this cadre should be made available to national authorities in the event of an outbreak of the disease.

11. RISK AND PREVENTION DURING THE TRANSITIONAL PERIOD

In the event of a change to a non-vaccination policy, during the transition period the proportion of vaccinated animals will be in decline while that of susceptible animals will be on the increase.

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After cessation of vaccination, an increasing proportion of susceptible animals will be in contact with the residual vaccinated animals, and thus will act as sentinels. If, during a period of about one year after discontinuation of vaccination no outbreaks have occurred, the risk of the virus being present in the bovine population can be considered to be negligible.

During a time period of one year after the implementation of a non-vaccination policy the hitherto non-vaccinating Member States should continue with serological and probang testing of live animals before importing from previously-vaccinating Member States, to exclude those animals which are seropositive for FMD or which carry FMD virus.

These tests are not necessary for movements between previously-vaccinating Member States. However, existing rules relating to FMD-freedom of the holding and area should be maintained for movements between all Member States. The requirement for pre-movement vacination would, of course, no longer apply.

The proposal for a one year transitional period is based on the following :

(a) an increasingly short lifespan for cattle has been observed in the last decade, leading to a rapidly-decreasing proportion of repeatedly-vaccinated animals which are usually identifiable.

(b) maternally-acquired antibodies in young animals are completely lost within one year.

(c) the majority of animals, vaccinated only once and destined for fattening will be eliminated from the market by the end of the year following the last vaccination campaign.

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ANNEX 6

FORESEEABLE EFFECTS OF A CESSATION OF FMD VACCINATION ON THE EMPLOYMENT OF VETERINARIANS

The situation remains essentially variable from country to country, being dictated by stocking density and by whether a system of subsidies to maintain a minimum of veterinary activity is already in operation.

The situation is complicated by the fact that in some Member States (BE) vaccination is carried out by private practitioners, in others by the State services (LUX, PO) and in others by both (DE, ES, FR, IT, NL).

Some comments have been received from Member States. Only four (BE, DE, FR, NL) predicted job losses, these being mainly in the private sector, where it is estimated that about 10% of practice income is currently derived from vaccination. A total of 1 480 jobs lost out of 22 280 veterinarians currently involved in vaccination is estimated in these Member States.

The other Member States have stated that staff could be re-deployed, particularly in the State services, to other disease eradication projects. Only France suggested that the job losses could jeopardise routine disease surveillance, this affecting about 250 veterinarians in remote areas.

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ANNEX 7

FORESEEABLE EFFECTS OF A CHANGE IN POLICY ON LABORATORIES MANIPULATING FMD VIRUS

1. EXISTING COMMUNITY LEGISLATION

1.1. Diagnosis and vaccines

Directive 85/511/EEC on the control of Foot-and-Mouth disease (FDM) in the Community which came into effect on 1 January 1987 required the Commission to propose to Council

- A Reference Laboratory for the identification of FMD virus and,
- A Coordinating Institute for FMD vaccines,

together with details of their respective functions.

Proposals were made to Council in April 1988 and Decisions are expected shortly. In each proposal a specific Article has been included to the following effect:

1. The Community Reference Laboratory/Community Coordinating Institute shall operate according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with Foot-and-Mouth disease virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the control of Foot-and-Mouth Disease, FAO, Rome, April 1985.

2. The Community Reference Laboratory/Community Coordinating Institute shall formulate and recommend the disease security measures to be taken by the national laboratories in matters of FMD diagnosis in accordance with the standards referred to in paragraph 1.

Thus national laboratories which have already been nominated by the Member States and are included in the annex to the Directive will be coordinated by the Community Reference Laboratory and Coordinating Institute particularly in matters of disease security.

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2. PRESENT SITUATION

2.1. At present more than 30 laboratories are manipulating FDM virus in Europe for diagnostic and research purposes as well as for vaccine production.

In the event of a change to non-vaccination special attention should be paid to:

- the functions of FMD laboratories
- the security systems applied by FMD laboratories
- the number of FMD laboratories

2.2. Functions of FMD laboratories

2.2.1. FMD diagnosis

A rapid laboratory diagnosis is essential for the successful eradication of FMD, especially in initial outbreaks. This applies irrespective of which policy is used. However, in a non-vaccination situation the need for prompt action is strengthened, and suspect material from possible primary outbreaks should always be sent to the diagnostic laboratory without delay for immediate examination.

In view of the potential of FMD for rapid spread it is important that farmers and field veterinarians are fully aware of the importance of strict vigilance and immediate reporting. Members of the field section of the State Veterinary Services should have the opportunity of seeing clinical cases of FMD in the Reference Laboratory (or the national laboratory) as part of their training.

The diagnostic laboratories should be equipped and skilled for handling test systems of high sensitivity for rapidly providing the initial diagnosis as well for contributing to the identification of the origin of infection. Furthermore, at the earliest possible occasion the diagnostic laboratory should send a sample of virus, preferably the original field material, from the primary outbreak to the Reference Laboratory for confirmation and further characterization.

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Diagnostic laboratories should also be equipped and skilled for large scale serological examinations for use in the necessary epizootiological investigations in connection with outbreaks.

It will be an additional, important, function of the diagnostic laboratories to carry out control testing in connection with importation of live animals from third countries which do not apply FMD control measures equivalent to those applied by the Community.

2.2.2. Vaccine production plants

There are 15 vaccine production plants within the European Community. Eight production plants are owned by the State and seven others are commercial enterprises belonging to five firms (see table I). The production capacity of the plants is quite different as is their level of safety. The State production plants are related closely to laboratories or institutes for FMD-research and diagnostics, the same facilities being used in several cases.

Production capacity

To cover the needs related to present vaccination programmes in eight EC Member States (excl : UK, Irl, DK and Gr) a total of 77.3 million doses of vaccine is produced annually by the 15 production plants. Almost 37% is produced in the State-run production plants (29 million doses).

This figure takes into account the following :

- Italy has for the time being an intensified vaccination programme for cattle and pigs;
- Spain vaccinates the cattle population twice a year and also has a vaccination programme for pigs and sheep.

To the figure of 77.3 million doses an unknown number must be added because of :

- Vaccine production for export to third countries, mainly by the commercial enterprises (E.G.-Merieux-France 5.8 million doses). However the State run production plants may also export a certain amount of vaccine, often on an ad-hoc basis;
- Vaccine production in certain Member States for emergency reserves.

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A prudent estimate of the present total vaccine production in the EC might be 85-90 million doses per year. Nothing can be said about the maximum production capacity.

If the eight member countries had the same vaccination programme in force for cattle and 85% of their cattle population was vaccinated annually, a minimum amount of ± 50 million doses of trivalent vaccine must be produced.

Import of FMD vaccine into the EC does not take place except for a small amount for use in the buffer zone in Evros (Greece).

Pan-vaccination policy

If a pan-vaccination policy should be adopted, a vaccination programme would have to be carried out in another four Member States, i.e. United Kingdom, Ireland, Denmark and Greece. These four countries together have a cattle population of ± 20.5 million.
Vaccination of 85% of this number of cattle means that another 17 million doses of vaccine would be needed.
There are three means of producing this amount of vaccine i.e.

(a) each of the four countries could expand existing facilities for their own needs (except Ireland which has no facility);
(b) production could be increased in existing plants outside the four countries but within the EC;
(c) vaccine could be imported from outside the EC.

Regarding (a) an increase of the vaccine production in the existing facilities in Denmark, UK and Greece might be expected. The establishment of production plants in Ireland is not the most likely solution unless it is necessary for political reasons. It might be much cheaper however for all four countries to buy the vaccine within the EC.

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Regarding (b) increasing the production of vaccine to provide an extra 17 million doses in the existing plants in the EC would present no problems (see above paragraph on production capacity).

Regarding (c) an import of vaccine from outside the EC will be very unlikely because;

- there is no need for such imports;
- importing vaccine into the EC might increase the risk of introducing the FMD virus.

Non-vaccination policy

Adopting a non-vaccination policy will result in the cessation of preventive vaccination against FMD in the Community as a whole. Vaccine will only be necessary for emergency campaigns in certain areas around outbreaks, if stamping-out does not lead to the rapid eradication of the disease or if the disease becomes widespread.
A strategic store of vaccine (a Community vaccine bank) will be necessary. An estimation of the number of vaccine doses for this purpose has yet to be made.
Nevertheless a non-vaccination policy would drastically reduce the need for vaccine within the EC.

Commercial production plants, which have an important export trade to third countries in relation to the total production of FMD vaccine, should be allowed to continue but under strict security controls. Others will close the FMD vaccine production facilities or redeploy them for other purposes.

It will also be necessary to take into account the O.I.E. recommendations concerning international traffic of pathological and biological products containing FMD virus.

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The fate of state-run or state-owned production plants, which produce to a great extent only for the needs of their home country, depends on a number of factors e.g.:

a. the maintenance of diagnostic expertise;
b. the research into FMD control and epidemiology;
c. the production and storage, including associated research, of a reserve of vaccine for the Community vaccine bank.
d. the possibility of production of vaccine for export to third countries.

If a Member State decides to close down all production facilities, part of the savings could be used for the development of modern diagnostic techniques and training of staff.

2.2.3 FMD research

Whatever the future control policy (vaccination or non-vaccination) there will be a need for research into FMD. Topics of current importance are:

- development and standardisation of sensitive test systems
- utilisation of monoclonal antibodies for the characterization of field strains, vaccine strains and challenge strains
- the molecular biology of FMD virus
- problems related to the storage of FMD virus antigen in banks
- alternative data for evaluating vaccine potency
- safety of animal products
- development of new vaccines e.g. gene deleted, sub-unit and peptide.

The introduction of sensitive ELISA test systems and of molecular biological and biotechnological methods, e.g. for rapid and precise identification and characterization of FMD virus strains, are examples from recent years of practical applications of research with unique prospects. Thus it seems likely that the classical subtyping of virus isolates will be replaced by more precise characterizations using combinations of different parameters such as nucleotide sequencing and/or reactions with relevant panels of monoclonal antibodies in addition to the classical antigen relationships ("r"- values).

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This type of characterization will be of great use both for identification of the origin of infection and for possible selection of appropriate vaccines.

Research in these fields is in progress in several of the European FMD laboratories and should be encouraged to continue. In future such research activities can be expected to be coordinated by the Community Reference Laboratory/Community Coordinating Institute.

2.3 Security systems applied by FMD laboratories

In the light of the experiences of virus escapes from FMD laboratories it is imperative that all laboratories handling FMD virus, irrespective of the type of work, be operated according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with FMD virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the Control of Foot and Mouth Disease, FAO, Rome, April 1985.

It may be advisable to nominate a Community expert group to act as an inspectorate to ensure compliance with the safety standards.

2.4 The number of FMD laboratories

The risk of virus escapes from FMD laboratories suggests that the number of such laboratories should be reduced to a minimim, especially in the event of a change to non-vaccination. On the other hand the need for FMD laboratories is evident.

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Considering the importance of a rapid primary diagnosis in emergency situations, it should be possible for suspect material, irrespective of the location of the herd of origin, to reach the diagnostic laboratory within a few hours after collection, or at least within the same day. When also taking into account the need for research into FMD and the high level of research activities actually being carried out at several of the major National Laboratories, a reasonable compromise would be to keep just one of the existing National Laboratories per country in future.

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TABLE 1

Member State	Production Plants: State	Production Plants: Commercial	Annual needs of vaccine for vaccination campaigns (1986)	Remarks
Belgium	1 Uccle	-	2.3 mill. AOC (triv.)	
Denmark	1 Lindholm	-	0.45 mill. A) 0) 0.15 mill. C) each	As a reserve
Germany	-	3 Cooper Behring-werke Bayer	)) 13 mill. AOC (triv))	Vaccine is also imported from Merieux France
Greece	1 Athens	-	0.12 mill) A-0.038 mill.) 0-0.034 mill.) C-0.043 mill.	As a reserve. Besides this 60,000 doses are imported from Merieux Teheran for use in buffer zone
France	-	1 Merieux	19.0 mill. AOC (triv)	Also export to EEC & third countries 9 mill. doses
Ireland	-	-	-	-
Italy	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Period 15/3/87 to 3/7/88. Extended vacc. campaign, vaccination of cattle & pigs
Luxembourg	-	-	0.2 mill. AOC (triv)	From diff. firms within the EEC
Netherlands	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Imported from Spain & France
Spain	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	used in cattle & pigs (figures are for 1987). Maximum capacity of the 3 labs 102 mill. vaccine (mono)
UK	-	Cooper	-	Some production for U.K. vaccine bank
TOTAL	8	7	77.3 mill	0.6 mill as reserve

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COMMISSION DES COMMUNAUTES EUROPEENNES

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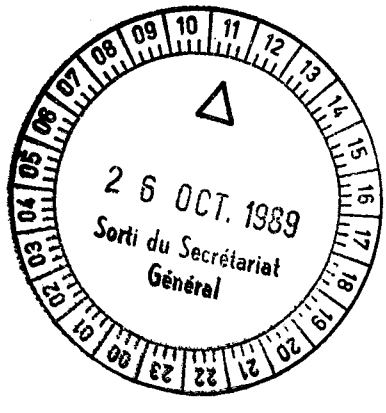
Bruxelles, le 18 octobre 1989

RAPPORT

de la Commission au Conseil relatif à une étude effectuée par la Commission sur les politiques actuelles des Etats membres dans le domaine de la lutte contre la fièvre aphteuse

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EXPOSE DES MOTIFS

La fièvre aphteuse est l'une des maladies les plus graves affectant le cheptel. Elle se propage rapidement frappant tous les biongulés et a des conséquences économiques considérables parce qu'elle affecte d'une part directement la production du bétail et d'autre part les échanges d'animaux, de produits animaux et de certains produits agricoles.

Les méthodes de lutte contre la fièvre aphteuse diffèrent selon les Etats membres, mais tous recourent à la vaccination associée à une élimination totale ou partielle des animaux (abattage et destruction) ou ne pratiquent pas la vaccination et éliminent tous les animaux. D'autres mesures de lutte sont associées aux deux types de mesure, telles que des contrôles à l'importation, la surveillance des animaux sensibles à la maladie, l'institution de mesures de diagnostic ed des contrôles des mouvements du bétail.

Actuellement, les Etats membres appliquant la politique de non-vaccination peuvent restreindre la liberté des échanges d'animaux provenant d'Etats membres partenaires de la Communauté qui pratiquent la vaccination. Ils adoptent cette politique parce qu'ils considèrent que de tels animaux peuvent être des animaux infectés latents et que la présence d'animaux vaccinés sur leur territoire les amènerait à restreindre leurs échanges avec certains pays tiers.

A l'achèvement du marché intérieur en janvier 1993, les animaux et produits animaux sont appelés à circuler librement dans toute la Communauté, or cet objectif ne peut être atteint que si tous les Etats membres adoptent des mesures communes de lutte contre la fièvre aphteuse.

La législation relative à la fièvre aphteuse se trouve dans les textes suivants:

- décision du Conseil n° 77/97/CEE (décision relative au Fonds d'urgence);
- directive du Conseil n° 64/432/CEE (directive relative aux échanges intracommunautaires);
- directive du Conseil n° 85/511/CEE (directive relative à la lutte contre la fièvre aphteuse);

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Un réexamen par la Commission de la directive 64/432/CEE (article 4 bis) devait avoir lieu en 1988 et un réexamen de la directive 85/511/CEE doit avoir lieu avant la fin de 1989.

Etant donné la nécessité de présenter deux révisions et rapports au Conseil dans un court laps de temps dans la perspective du marché intérieur après 1992, la Commission a décidé de préciser son analyse du problème de la fièvre aphteuse. L'impossibilité de maintenir le système actuel de vaccination ou de non-vaccination est apparue d'emblée. C'est pourquoi il a été décidé de réaliser conjointement avec les Etats membres des études coût-profit et des analyses connexes en vue de définir une direction politique claire.

Le travail de la Commission, qui consiste à effectuer ce réexamen et à rédiger le rapport, a été largement facilité grâce à l'aide de nombreux experts des Etats membres. Le travail du sous-groupe du comité scientifique vétérinaire, qui a évalué les prévisions et les facteurs de risque, mérite une mention particulière.

Les points considérés dans la présente étude comprennent:

- l'incidence de la fièvre aphteuse dans la Communauté au cours des 20 dernières années;
- le risque d'apparition de la fièvre aphteuse dans la Communauté selon que l'une ou l'autre politique sera appliquée après 1992;
- les conséquences économiques des mesures, c'est-à-dire une analyse coût-profit;
- les incidences sur les schémas de commercialisation;
- les mesures requises pour prévenir l'apparition de foyers primaires et secondaires après 1992, et
- les modifications des ressources pouvant être escomptées de l'une ou l'autre politique.

Les conclusions de la Commission à la suite de ces études peuvent se résumer comme suit:

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- Une politique de non-vaccination coûtera nettement moins qu'une politique de vaccination générale.
- La production et l'utilisation de vaccins peuvent à elles seules conduire l'introduction du virus infectieux dans une population animale par des fuites de laboratoire ou l'emploi de vaccins mal inoxydés. C'est pourquoi une politique de non-vaccination est nettement plus sûre.
- Il conviendrait de renforcer les mesures prises pour empêcher l'entrée de l'infection dans la Communauté et pour éliminer efficacement tout foyer. Dans ce contexte, la Commission proposera une participation financière communautaire accrue dans les dépenses destinées à dédommager les agriculteurs en cas de foyer.
- Les schémas commerciaux relatifs aux échanges intracommunautaires et aux importations en provenance de pays non-membres seront affectés par un changement de politique dans la mesure où les animaux vaccinés ne pourront plus être admis en provenance des pays tiers si une politique de non-vaccination est adoptée. Un passage à la vaccination générale signifierait que les exportations vers certains pays tiers cesseraient alors que dans une situation de non-vaccination, toute la Communauté devrait être en mesure de faire du commerce avec tous les pays non-membres. Si un foyer apparaissait dans cette dernière hypothèse, l'exportation de l'ensemble de la Communauté serait assurée par des mesures de lutte et d'éradication efficaces appliquées à l'échelon régional; c'est-à-dire, selon le principe de la régionalisation.
- Les vétérinaires chargés jusqu'ici des programmes de vaccination dans certains Etats membres seraient encore nécessaires :
  - pour améliorer la structure des services vétérinaires nationaux, pour satisfaire aux demandes supplémentaires d'une politique de non-vaccination;
  - pour mettre en oeuvre d'autres mesures de lutte contre la maladie telles que la maladie d'Aujeszky et la Brucella Melitensis;
  - pour renforcer les services vétérinaires nationaux nécessaires dans le contexte de la réalisation du Grand Marché.
- Les laboratoires existants, spécialisés dans la fièvre aphteuse qui produisent des vaccins, devront s'adapter à une situation nouvelle, caractérisée par une forte réduction, voire à sa suppression totale. Ils peuvent être reconvertis à la formation du personnel chargé d'établir le diagnostic de la fièvre aphteuse et à la mise au point de meilleures techniques de diagnostic.

La Commission est totalement persuadée que pour atteindre les objectifs du marché intérieur, c'est-à-dire pour harmoniser les normes sanitaires à un niveau élevé et pour garantir la libre circulation des marchandises, la Communauté doit s'engager dans la voie d'une politique de non-vaccination. Cette orientation est fortement recommandée aux Etats membres et des propositions appropriées seront faites au Conseil en vue de modifier la législation actuelle.

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RAPPORT DE LA COMMISSION AU CONSEIL[1)]

Objet : Etude effectuée par la Commission sur les politiques actuelles des Etats membres dans le domaine de la lutte contre la fièvre aphteuse.

1. INTRODUCTION

1.1. Après l'institution de la Communauté économique européenne en 1957, les six Etats membres originaires ont discuté d'une série de mesures visant à autoriser la libre circulation des animaux et des produits animaux dans les échanges intracommunautaires. A l'origine, les mesures nationales exigeaient des garanties sanitaires établissant que les animaux arrivant dans un Etat membre étaient sains et ne pouvaient pas transmettre de maladies aux troupeaux dans lesquels ils entraient.

1.2. La première harmonisation formelle a eu lieu en 1964 avec l'adoption par Conseil de la directive 64/432/CEE qui reste en vigueur quoique sous une version modifiée et étendue. Cette directive couvre les échanges intracommunautaires d'animaux des espèces bovine et porcine, mais à la fin de 1988, les échanges d'animaux d'autres espèces étaient encore régis par les réglementation nationales.

1.3. Une des plus graves maladies dont traite la directive est la fièvre aphteuse. L'accord sur les règles applicables à la fièvre aphteuse n'a pas été particulièrement difficile à obtenir étant donné que l'ensemble des six Etats membres pratiquaient une politique de vaccination. Outre les notions de troupeau et de zone indemnes, la principale mesure de sauvegarde prévue a été la vaccination des animaux de l'espèce bovine, âgés de plus de 4 mois, avant leur expédition vers un autre Etat membre. Ces dispositions étaient garanties par un certificat vétérinaire officiel accompagnant chaque lot d'animaux.

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1) Les annexes visées dans le présent rapport figurent dans le document de la Commission VI/3198/89.

1.4. Lors de l'adhésion du Danemark, de l'Irlande et du Royaume-Uni à la Communauté en 1973, il était prévu de procéder à des ajustements considérables de la directive 64/432/CEE étant donné que les nouveaux Etats membres pratiquaient une politique de non-vaccination impliquant des mesures d'élimination totale en cas d'apparition d'un foyer de la maladie. En dépit de longues négociations, il n'a pas été possible de concilier des attitudes divergentes. Les termes du traité d'adhésion prévoyaient que les nouveaux Etats membres pouvaient maintenir leur réglementation nationale relative à la protection contre la fièvre aphteuse pendant une période de 5 ans au cours de laquelle de nouvelles tentatives d'harmonisation étaient prévues sur une base communautaire.

1.5. Enfin, en 1984, une directive de modification (84/643/CEE) était adoptée par le Conseil, et instaurait de nouvelles règles applicables à tous les Etats membres en matière de protection contre la fièvre aphteuse. Elle couvrait en même temps une autre maladie porcine (la maladie vésiculeuse) très semblable à la fièvre aphteuse du porc. Cette directive de modification décrit de matière détaillée les garanties supplémentaires qu'un Etat membre peut exiger en fonction de son statut du moment à l'égard de la maladie et de la vaccination. L'application de l'artcile 4 bis en cause, est appelée à être réexaminée.

1.6. L'adhésion de la Grèce (1981) et de l'Espagne et du Portugal (1986) à la Communauté n'a pas entraîné de modifications significatives de la directive 64/432/CEE.

1.7. En 1985, le Conseil a arrêté la directive 85/511/CEE sur la lutte contre la fièvre aphteuse dans la Communauté. Des mesures communes essentielles y sont prévues pour développer une stratégie uniforme de lutte en cas d'apparition de la fièvre aphteuse. Toutefois, les Etats membres qui pratiquent la vaccination restent confrontés à l'alternative d'une élimination totale ou partielle du cheptel considéré.

1.8. Le Conseil a assigné à la Commission de nombreuses tâches subsidiaires importantes et notamment:

- la mise au point de règles concernant l'abattage partiel;
- la désignation au Conseil d'un laboratoire de référence communautaire ou pour le diagnostic de la fièvre aphteuse;
- la désignation au Conseil d'un institut communautaire de contrôle des vaccins;

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- la coordination des plans de vaccination des Etats membres;
- une proposition au Conseil en vue de la création d'une banque communautaire de vaccin; et
- l'obligation de faire au Conseil un rapport avant 1990 sur la mise en oeuvre des dispositions de la directive, assorti de propositions le cas échéant.

1.9. En 1985, une modification de la directive relative au fonds d'urgence (77/97/CEE) a été arrêtée par le Conseil. Jusqu'alors, cette décision prévoyait que des crédits devaient être débloqués seulement en cas d'apparition dans un Etat membre de maladie étrangère à la Communauté. Cette modification prévoit que tout comme des aides relatives à des maladies exotiques du type de la fièvre aphteuse, des aides devraient également être disponibles en cas de fièvre aphteuse de type européen classique pour les 20 premiers foyers apparaissant au cours des 30 premiers jours d'une épizootie à condition que l'élimination totale du bétail en cause soit rapidement appliquée.

2. BASE JURIDIQUE

2.1. La base juridique du présent rapport se trouve dans:
- la directive du Conseil 64/432/CEE (révision de l'article 4 bis) et
- la directive du Conseil 85/511/CEE (révision prévue à l'article 18).

2.2. Comme nous l'avons dit en termes généraux dans l'introduction du présent rapport, la directive relative aux échanges intracommunautaires d'animaux des espèces bovine et porcine remonte à 1964, sous forme de la directive 64/432/CEE.

Des dérogations concernant les échanges intracommunautaires d'animaux des espèces bovine et porcine ont été appliquées pour le Danemark, l'Irlande et le Royaume-Uni lors de l'adhésion de ces pays en 1973 et leur ont permis de conserver leur législation nationale de protection contre la fièvre aphteuse. Ces mesures ont finalement été reconduites jusqu'au 31 décembre 1984, date après laquelle de nouvelles règles ont été instaurées, applicables à tous les Etats membres en matière de protection contre la fièvre aphteuse.

Les nouvelles règles ont été fixées par la directive du Conseil 84/643/CEE, du 11 décembre 1984 et prévoyaient l'insertion d'un article 4 bis dans la directive de base relative aux échanges d'animaux des espèces bovine et porcine. Cet article décrit en détail les garanties supplémentaires qu'un Etat membre peut demander en fonction de sa situation du moment à l'égard de la maladie et de sa politique de vaccination.

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L'article 4 bis dispose en outre que tous les trois ans, et pour la première fois trois ans après son entrée en vigueur, c'est-à-dire le 1er janvier 1988, le Conseil, statuant à la majorité qualifiée sur proposition de la Commission, réexamine les dispositions de cet article. Cet examen doit être fait sur la base d'un rapport de la Commission assorti, si nécessaire, de propositions.

2.3. Chargée de cette tâche, la Commission a noté que depuis le 1er janvier 1985 elle n'a été informée d'aucun problème particulier rencontré par les Etats membres soit à l'exportation, soit à l'importation dans le cadre des échanges intracommunautaires. Le 28 juillet 1987, la Commission a informé les Etats membres de son intention de procéder à un réexamen de l'application de l'article en cause et leur a demandé de transmettre sans délai à la Commission tous commentaires dont ils pourraient avoir connaissance au sujet des dispositions de l'article 4 bis.

Certains membres ont informé la Commission qu'ils accueilleraient volontiers une réduction immédiate des mesures applicables aux animaux de boucherie. La Commission reconnaît que l'existence de cet article et les procédures de quarantaine qu'il prévoit soulèvent un problème pour la libre circulation des animaux sur tout le territoire de la Communauté.

2.4. La seconde directive, qui exige de la Commission l'établissement d'un rapport au Conseil sur la fièvre aphteuse est la directive du Conseil 85/511/CEE et notamment son article 18. Cette directive met en oeuvre une série de mesures communautaires visant à développer une stratégie uniforme en cas d'apparition d'un foyer de fièvre aphteuse. En termes simplifiés, la Commission est invitée à faire au Conseil un rapport sur l'application de cette directive avant le 1er janvier 1990. Il est possible aussi que le rapport de la Commission soit assorti de propositions en cas de nécessité.

3. ACTION DE LA COMMISSION

3.1. Etant donné la nécessité de remettre deux révisions et rapports au Conseil dans un bref laps de temps et dans la perspective de l'avènement du marché intérieur après 1992, la Commission a décidé de procéder à une analyse approfondie du problème de la fièvre aphteuse.

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L'impossibilité de maintenir le système actuel de vaccination ou de non-vaccination est apparue d'emblée. C'est pourquoi il a été décidé, en liaison avec les Etats membres, de procéder à des études coût-profit et des analyses connexes en vue de définir une claire orientation politique.

3.2. Pour faire face à ses obligations à l'égard du Conseil concernant le réexamen de l'article 4 bis de la directive 64/432/CEE, la Commission a fait un rapport au Conseil le 14 janvier 1988, expliquant sa décision de procéder à l'étude fondamentale et exprimant son espoir de remettre un rapport et des propositions appropriées pour la fin 1988.

3.3. De nombreux experts des Etats membres ont largement aidé la Commission à effectuer son réexamen et à formuler le rapport. Le travail du sous-groupe du comité scientifique vétérinaire, qui a évalué les prévisions futures et les facteurs de risque, mérite une mention particulière. La Commission note que le rapporte de ce groupe a reçu un avis favorable de l'ensemble du comité scientifique vétérinaire, avis entièrement partagé par les services de la Commission.

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4. LUTTE CONTRE LA FIEVRE APHTEUSE DANS LA COMMUNAUTE EUROPEENNE

4.1. Introduction

4.1.1. Le présent document définit les bases de la politique communautaire relative à la lutte contre la fièvre aphteuse. Bien que préparé en prévision de la suppression des frontières à la fin de 1992, elle tient compte de la nécessité de mettre en oeuvre une politique commune dès que possible avant cette date.

4.1.2. La fièvre aphteuse est l'une des maladies les plus graves affectant le cheptel. Elle se propage rapidement, frappant tous les biongulés et a des conséquences économiques considérables parce qu'elle affecte d'une part directement la production de bétail et d'autre aprt les échanges d'animaux, de produits animaux et de certains produits agricoles.

4.2. Historique

4.2.1. Le secteur de l'élevage européen a, pour la première fois, été gravement frappé dans les années 1930 par la fièvre aphteuse des types O, A et C connus à ce jour. Après la seconde guerre mondiale la situation s'est améliorée probablement à cause des restrictions imposées aux mouvements d'animaux et à la reconstitution des cheptels nationaux. Le début des années 50 a vu une recrudescence des foyers avec de sérieuses conséquences, ce qui a amené l'OIE et l'OAA à mieux organiser la lutte contre cette maladie sur le continent. La mise au point du vaccin Frenkel a permis un rapide développement de la production de vaccin et une amélioration consécutive de la protection. En outre, la plupart des pays ont adopté une politique d'abattage, certains pays ayant recouru à une mesure complémentaire de vaccination massive autour des foyers. Au cours de cette période, la plupart des pays d'Europe ont adopté une politique de vaccination obligatoire, au moins pour les bovins.

4.2.2. En dehors de l'Europe continentale, les pays scandinaves et le Royaume-Uni ainsi que l'Irlande sont restés relativement épargnés. En Espagne, des foyers virulents sont apparus régulièrement jusqu'en 1980. Le Proche-Orient, et en particiuler la Turquie, ont représenté un grave danger pour l'Europe occidentale.

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Cette menace persiste de nos jours, mais l'application d'une stratégie de zone da vaccination dans la Thrace s'est révélée très payante. En Afrique, la maladie se présente sous forme de trois types de virus africains spécifiques. Certains pays d'Asie connaissent un type de virus commun sur le continent. Sauf en Afrique du Sud où la plupart des pays sont infectés par des types de virus européens proches du type classique, le reste du monde est indemne de la maladie et ne pratique pas de vaccination. Les grandes régions concernées sont l'Amérique Centrale et l'Amérique du Nord, l'Australie, la Nouvelle-Zélande, le Japon, la Corée et d'autres régions d'Extrême-Orient.

Les situations sont résumées à l'annexe 1, tableaux 2 et 3.

4.2.3. Les grandes épizooties qui ont frappé l'Europe dans les années 60 et au début des années 70 ont, pour la plupart, été jugulées grâce à de vastes campagnes de vaccination et aux restrictions frappant les importations de viandes et d'autres produits animaux dans la Communauté. Depuis 1980, seuls l'Italie (1984-87) et le Portugal (1980-84) ont connu de graves épizooties.

4.2.4. Les foyers enregistrés dans les Etats membres sont indiqués à l'annexe 1 tableau 1. On considère qu'un foyer correspond à l'apparition de la maladie dans une exploitation ou une entreprise (OIE). On se rend compte que ces 20 dernières années le nombre de foyers a fortement diminué dans l'ensemble de la Communauté. La plupart des Etats membres n'ont enregistré que peu ou guère de cas de maladie ces cinq dernières années, à l'exception de l'Italie qui a enregistré une série d'épizooties dans le nord du pays.

4.2.5. La situation des pays voisins au regard de la fièvre aphteuse est résumée à l'annexe 1, tableau 2, tandis que la situation dans les pays tiers entretenant des liens commerciaux avec la Communautés est indiquée à l'annexe 1, tableau 3. Une analyse sommaire des plans de vaccination dans les Etats membres figure à l'annexe 1, tableau 4.

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4.3. Les deux éléments de l'alternative

4.3.1. Les méthodes utilisées pour lutter contre la fièvre aphteuse diffèrent selon les Etats membres mais toutes s'appuient sur l'une ou l'autre politique:

a) UNE POLITIQUE DE VACCINATION qui consiste en une vaccination annuelle systématique de tout le bétail. En cas d'apparition de la maladie, on a recours en outre à une élimination partielle ou totale du bétail en plus des mesures de vaccination ou autres mesures de lutte.

b) UNE POLITIQUE DE NON-VACCINATION qui consiste en une interdiction générale de vaccination contre la fièvre aphteuse. En cas d'apparition de la maladie, l'élimination totale est prévue en plus d'autres mesures de contrôle. Il peut être nécessaire de lancer une campagne de vaccination en anneau.

4.3.2. Ces deux politiques sont complétées par des contrôles à l'importation, une surveillance régulière des populations animales à risques, la réalisation d'installations de laboratoire de diagnostic et, en cas de maladie, de contrôles relatifs aux mouvements des animaux.

4.3.3. Actuellement des Etats membres appliquant une politique de non-vaccination peuvent restreindre le commerce de bétail provenant de leurs partenaires communautaires pratiquant la vaccination. Ce comportement est justifié en premier lieu par les faits que les animaux vaccinés peuvent abriter le virus après un contact infectieux tout en restant cliniquement normaux. Le risque lié aux animaux vaccinés en l'absence prolongée de contact infectieux est faible. Cependant, il est impossible de garantir que le virus est absent d'une population vaccinée étant donné que le virus peut entrer de temps en temps et ne pas être décelé. Il y a donc un risque que le virus puisse être introduit dans les régions précédemment non affectées par le biais de mouvements d'animaux vaccinés. Cette possibilité de propagation du virus est inadmissible étant donné l'importance de la maladie.

Deuxièmement, la présence d'animaux vaccinés dans un pays est considérée par de nombreux pays tiers, comme par exemple les Etats-Unis et les membres de sa "Liste blanche", comme étant équivalente à la présence de la maladie avec des conséquences évidentes et sérieuses pour les échanges.

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4.3.5. Le choix d'une politique communautaire de lutte contre la fièvre aphteuse se réduit aux deux options actuelles indiquées au paragraphe 4.3.1., c'est-à-dire "VACCINATION" et "NON-VACCINATION".

Les considérations qui déterminent le choix sont les suivantes:

a) l'incidence de la fièvre aphteuse dans la Communauté au cours des 20 dernières années (annexe 1, tableau 1).

b) le risque de présence de la fièvre aphteuse dans la Communauté après 1992 dans l'hypothèse de l'une ou de l'autre politique). Rapport de sous-groupe du Comité scientifique vétérinaire (annexe 5, paragraphe 1).

c) les conséquences économiques des deux politiques, c'est-à-dire leurs coûts pour les secteurs public et privé (annexe 3);

d) les effets sur les échanges intérieurs et extérieurs de la Communauté en bétail, produits animaux et autres (annexe 4).

e) les mesures nécéssaires à la prévention des foyers primaires et secondaires après 1992 et durant la période transitoire. Rapport du sous-groupe du comité scientifique vétérinaire (annexe 5)[1)]

f) les changements qu'on pourrait escompter de l'une et l'autre politique, en matière d'utilisation de ressources telles que:

i) les vétérinaires actuellement employés à des programmes de vaccination (annexe 6), et

ii) les laboratoires travaillant actuellement au diagnostic de la fièvre aphteuse, à la production de vaccin et à la recherche (annexe 7).

4.4. Risques d'apparition de fièvre aphteuse après 1992

4.4.1. Le risque d'apparition de fièvre aphteuse après 1992 dans l'un ou l'autre cas a été évalué par un sous-groupe du comité scientifique vétérinaire. Dans l'hypothèse de la libre circulation du bétail dans la Communauté après 1992, le risque a été estimé sur une base communautaire plutôt que sur la base d'un Etat membre. Le rapport relatif aux conclusions du sous-groupe figure à l'annexe 2.

1) On peut souligner que certains problèmes, tels que le rôle de l'animal vacciné en tant que vecteur potentiel, sont difficilement solubles. Cependant, le texte présenté a été approuvé à l'unanimité par le sous-groupe et entériné par le comité scientifique vétérinaire le 1 février 1989.

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4.4.2. Le groupe a examiné les comptes rendus relatifs aux foyers apparus dans tous les Etats membres au cours des 11 dernières années (1977-87) et a dénombré 34 foyers primaires de fièvre aphteuse. Sur l'ensemble de ces foyers, 8 étaient probablement dûs à une source de contamination extérieure à la Communauté, principalement liée à l'importation de viandes. (Voir annexe 2, tableau 3). Le sous-groupe a estimé que 13 autres foyers étaient probablement associés soit à un virus échappé des laboratoires ou à la production et l'utilisation de vaccin mal inactivé. La source des 13 derniers foyers primaires est inconnue.

4.4.3. A partir des éléments de preuve relatifs aux 11 dernières années, le sous-groupe a fait des prédictions pour les années 1993 à 2003 dans l'éventualité de l'adoption d'une politique de vaccination ou d'une politique de non-vaccination. Le risque de foyers primaires a été envisagé pour la première fois.

4.4.4. Le sous-groupe a estimé que le risque d'introduction d'une infection dans la Communauté au cours des années 1993 à 2003 ne sera ni supérieure ni inférieure aux risques encourus au cours des 11 dernières années. Il a prévu jusqu'à 13 foyers primaires, à l'exclusion de ceux imputables à des virus échappés et à une utilisation de vaccin mal inactivé (annexe 2, paragraphe 12).

4.4.5. Le sous-groupe a admis qu'il n'existe pas de sources enzootiques de virus spontanés de la fièvre aphteuse dans les troupeaux de bovins et d'ovins de la Communauté. Ceci étant, le risque de foyers primaires imputables à des sources intérieures à la Communauté dépendra de la mesure ou du virus virulent de la fièvre aphteuse est manipulée dans des laboratoires et de l'utilisation de vaccin mal inactivé.

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4.4.6. Si la vaccination contre la fièvre aphteuse est maintenue, que les techniques d'inactivation du vaccin ne sont pas améliorées et que le virus continue à être manipulé dans les laboratoires autrement que dans des conditions garantissant la meilleure sécurité, le risque actuel persistera. Dans ces conditions, le groupe a prédit l'apparition de 13 foyers supplémentaires pendant la période considérée de 11 ans. Néanmoins, des méthodes améliorées de production de vaccin peuvent réduire ce risque. Si la vaccination est interrompue et que les laboratoires travaillent dans les meilleures conditions de sécurité, le risque sera très faible et le groupe n'a pas prédit de foyers supplémentaires.

4.4.7. Le sous-groupe a poursuivi ses travaux par l'examen du risque de foyers secondaires issus de ces foyers primaires. Au cours de la période de 11 ans de 1977 à 1987, de nombreux foyers primaires n'ont pas provoqué de grave dissémination de la maladie, qu'ils soient apparus dans des pays appliquant des politiques de vaccination ou de non-vaccination. Par ailleurs, une dissémination étendue s'est produite pendant la période de référence, mais le groupe a estimé que la gravité de la dissémination était plutôt fonction de la rigueur des procédures de contrôle appliquées que de la politique de vaccination. C'est particulièrement le cas dans les nombreuses populations porcines. Le sous-groupe a conclu que la variation du degré de dissémination est trop grand pour qu'il soit possible de prédire une différence dans le nombre de foyers secondaires par foyer primaire pour l'une ou l'autre politique.

4.5. <u>Conséquences économiques liées à l'une ou l'autre politique</u>

4.5.1. Lorsque la fièvre aphteuse apparaît dans la Communauté, elle doit être éliminée le plus rapidement possible (directive 85/511/CEE) afin que les effets dommageables de la maladie proprement dite ne puissent pas se développer. Les coûts liés à un foyer sont donc les coûts des moyens de lutte (qui comportent les coûts d'élimination du bétail et/ou de vaccination systématique) et la perte de production et de la valeur commerciale. Les coûts indiqués par les Etats membres sont résumés à l'annexe 3.

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4.5.2. I costi sono stati stimati con un modello economico elaborato dalla Commissione europea della FAO per la lotta contro l'afta epizootica. Sono stati calcolati i costi che la Comunità deve sostenere per la vaccinazione regolare del bestiame e per l'eradicazione dei focolai. Tutti gli altri costi, ad esempio quelli inerenti alla sorveglianza ed alla fornitura delle attrezzature per la diagnosi, sono comuni ad entrambe le politiche, sicchè non sono stati presi in considerazione.
Il costo della lotta dipende in ampia misura dal numero di focolai. L'analisi economica tiene conto della probabilità della comparsa di focolai nella Comunità, con l'una o l'altra delle due politiche alternative. L'analisi economica è riportata nell'allegato 3 e riassunta al punto 4.8 seguente.

4.5.3. L'analisi condotta, secondo il modello FAO, presuppone che vengano presi in considerazione gli effetti di una politica di vaccinazione o di non-vaccinazione sugli scambi interni e sulle esportazioni. Un'analisi di questi effetti è stata elaborata dalla Commissione e forma oggetto della relazione che figura nell'allegato 4.

4.6. Costo della vaccinazione

4.6.1. Otto Stati membri (Belgio, Francia, Repubblica federale di Germania, Italia, Lussemburgo, Paesi Bassi, Portogallo e Spagna) praticano la vaccinazione di routine su tutto il bestiame. Oltre ai bovini, alcuni vaccinano anche i suini, gli ovini ed i caprini. Nella tabella 1 dell'allegato 3 vengono presentati i costi di una singola vaccinazione annua del bestiame delle mandrie nazionali, come sono stati calcolati da questi Stati membri.

4.6.2. I quattro Stati membri restanti (Danimarca, Grecia (1), Irlanda e Regno Unito) non praticano la vaccinazione contro l'afta epizootica. Essi hanno calcolato i costi che dovrebbero sostenere nel caso dovessero praticare la vaccinazione; anche le loro stime figurano nella tabella 1 dell'allegato 3.

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(1) Esclusa la zona cuscinetto della Tracia.

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4.6.3. Il costo pubblico diretto di un programma di vaccinazione in tutta la Comunità, che preveda una singola vaccinazione annua del bestiame in tutti gli Stati membri, è stato stimato a circa 133 Mio di ECU all'anno, ai valori del 1987. Sono compresi in questa cifra l'acquisto e la conservazione del vaccino, la somministrazione del vaccino e le spese amministrative generali. Ne è invece escluso il costo di eventuali effetti secondari deleteri imputabili all'impiego del vaccino.

4.6.4. Va osservato che la vaccinazione praticata nella Comunità protegge soltanto dai ceppi aftosi europei A, O e C, ma non difende gli animali dai ceppi esotici presenti in altre parti del mondo.

4.6.5. Si puo' inoltre osservare, dalla tabella 4 dell'allegato 1 concernente i piani di vaccinazione, che la protezione dell'immunizzazione è nettamente inferiore al 100%, in quanto i suini, gli ovini e i caprini vengono raramente vaccinati. D'altra parte, restano spesso esclusi dalla vaccinazione i centri di allevamento e di alimentazione dei vitelli, mentre i vitelli di età inferiore ai 3-4 mesi al momento in cui viene effettuata la vaccinazione annuale non vengono vaccinati fino all'anno successivo.

4.7. <u>Costo di un focolaio di afta epizootica</u>

4.7.1. L'Office International des Epizooties di Parigi (OIE) definisce, come focolaio, la malattia che si manifesta in un'azienda o in un allevamento. Le epidemie di afta epizootica vengono combattute su base aziendale, sicchè i costi di un focolaio possono essere facilmente determinati. E' stato chiesto agli Stati membri di calcolare il costo medio di un focolaio di afta epizootica, includendovi i costi di abbattimento, rimozione delle carcasse, disinfezione, pulitura e misure connesse, il valore degli animali abbattuti, la perdita di produzione subita dall'azienda a causa del periodo necessario per ricostituire l'allevamento ed i costi amministrativi specifici del focolaio. Per la determinazione dei costi, si suppone che vengano abbattuti tutti gli animali sensibili presenti nell'azienda.

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4.7.2. Un'epidemia grave di afta epizootica puo' comportare, per il paese o la regione in cui si manifesta, costi che non possono essere ripartiti tra singoli focolai. Possono rientrarvi, ad esempio, la chiusura di macelli o di mercati, ma le analisi passate delle conseguenze economiche delle epidemie di afta epizootica non hanno permesso di quantificare tali costi.

4.7.3. Gli Stati membri, che hanno combattuto recentemente focolai di afta, si sono fondati per le loro stime sulle spese effettive sostenute. Gli altri paesi, dove non si è manifestata recentemente l'afta epizootica, hanno elaborato costi presuntivi. I costi in questione sono riepilogati nella tabella 2 dell'allegato 3.

4.7.4. Ai fini dell'analisi economica seguente, il costo medio di un focolaio è stato stimato a 158 000 ECU, compreso tra un costo minimo di 31 914 ECU ed un costo massimo di 600 000 ECU.

4.8. Analisi economica

4.8.1. Le stime dei costi della vaccinazione e dei focolai di afta epizootica sono state utilizzate per l'analisi economica di una politica di vaccinazione e di una politica di non-vaccinazione in un periodo di 10 anni. L'analisi fornisce una serie di stime, in funzione delle variazioni del costo e del numero dei focolai, che hanno permesso di mettere a punto tre scenari possibili : una situazione centrale (o più probabile), una situazione più sfavorevole ed una situazione più favorevole. L'analisi è riportata per intero nell'allegato 3.

4.8.2. Il risultato più probabile è quello fornito dalla "situazione centrale" dell'analisi, che si fonda sul costo di un focolaio medio e sul numero di focolai primari e secondari previsti dal comitato scientifico veterinario.

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Se viene attuata una politica di non-vaccinazione, il costo totale a carico della Comunità [valore attualizzato in 10 anni (5 %) stimato a 35 Mio di ECU].

Se viene attuata una politica di vaccinazione, il costo totale a carico della Comunità [valore attualizzato in 10 anni (5 %) stimato a 1 134 Mio di ECU].

4.8.3. Va osservato che, attualmente, la Comunità garantisce agli Stati membri, per l'eradicazione dell'afta epizootica, una partecipazione finanziaria del 50 % per i costi di abbattimento e di distruzione, e del 100 % per i costi di vaccinazione di emergenza. Per i tipi di afta epizootica classica europea, tale assistenza è limitata ai primi 20 focolai che si manifestano nei primi 30 giorni di una epizoozia.

4.8.4. Va altresi' osservato che, se viene adottata la politica di non-vaccinazione, non aumenteranno più i costi della vaccinazione dei bovini prima dell'esportazione. Ogni anno vengono scambiati circa 2 milioni di animali tra gli Stati membri che praticano la vaccinazione. Supponendo che 1 milione di animali vanga sottoposto alla vaccinazione prima dell'esportazione (possono essere esentati i vitelli di meno di 4 mesi ed alcuni animali da macello), con un costo di 3 ECU per animale (vaccino e vaccinazione), si potrà effettuare un'economia di 3 Mio di ECU.

4.9. <u>Effetti delle due politiche alternative sugli scambi di bestiame e di prodotti zootecnici</u>

Nell'analisi economica descritta al punto 4.8 non è tenuto conto degli effetti delle due politiche alternative sugli scambi di bestiame e di prodotti zootecnici all'interno della Comunità e con i paesi terzi. Nell'allegato 4 è riportata la relazione della Commissione sugli scambi, le cui conclusioni principali sono le seguenti :

a) l'adozione dell'una o dell'altra politica avrà una scarsa incidenza sugli scambi intracomunitari di animali vivi e di prodotti zootecnici;

b) qualora si applichi la politica di non vaccinazione, gli animali vaccinati potrebbero essere importati soltanto ricorrendo a misure supplementari di selvaggina, ció non avrebbe tuttavia incidenza sulle importazioni di carni fresche e di prodotti a base di carne, purchè siano mantenute tutte le procedure abituali (maturazione, disossamento).

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c) E' evidente che una politica comunitaria di vaccinazione totale avrà ripercussioni considerevoli sulle esportazioni verso molti paesi terzi. D'altro canto, saranno indispensabili discussioni tecniche con i servizi veterinari dei partners commerciali, per convincerli dell'efficacia delle misure di regionalizzazione adottate, nel caso si verifichi un focolaio in una situazione caratterizzata dalla politica di non-vaccinazione.

4.10. Conseguenze dell'arresto della vaccinazione antiaftosa sull'occupazione dei veterinari

Per quanto è possibile prevedere, la cessazione della vaccinazione contro l'afta epizootica dovrebbe avere effetti limitati sull'occupazione dei veterinari. Le autorità portoghesi e spagnole prevedono che ai veterinari verrebbero assegnati altri compiti. La Francia ritiene che sarà difficile mantenere la presenza di veterinari in zone agricole remote, sicchè potrebbe essere messa in pericolo la rete di sorveglianza veterinaria (cfr. allegato 6).

Una politica di non vaccinazione esige un sistema di controllo della malattia perfettamente a punto, gestito da un servizio veterinario nazionale sottoposto a controllo centrale, in grado di far fronte in modo rapido ed efficace a situazioni di emergenza. I veterinari finora impegnati nelle campagne di vaccinazione potrebbero essere assegnati a questo compito ed utilizzati per il potenzionamento dei servizi veterinari, necessario per la realizzazione del mercato unico.

4.11. Conseguenze di un cambiamento della politica antiaftosa per i laboratori

Attualmente, oltre 30 laboratori manipolano virus aftosi in Europa. Di questi, 15 producono vaccino e gli altri conservano il virus a scopi di diagnosi o di ricerca.

Qualora venga adottata una politica di vaccinazione generale, l'accresciuto fabbisogno di vaccino potrebbe essere soddisfatto incrementando la produzione comunitaria. Nel caso venisse adottata, invece, una politica di non-vaccinazione, il vaccino sarebbe necessario soltanto per mantenere una riserva comunitaria strategica e per proseguire le esportazioni verso i paesi terzi. Poichè attualmente gli impianti di produzione del vaccino sono di proprietà dello stato, una parte delle economie che si realizzerebbero con la chiusura degli impianti potrebbe essere destinata alla formazione del personale, che esegue le diagnosi dell'afta epizootica, ed allo sviluppo di migliori tecniche diagnostiche.

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Qualunque sia la futura politica di lotta, sarà necessario mantenere la ricerca sull'afta epizootica. Probabilmente, il numero di laboratori comunitari impegnati in tale attività verrà ridotto. Nei laboratori che resteranno attivi, dovranno essere garantite condizioni di assoluta sicurezza per impedire la fuga di virus aftosi (cfr. allegato 7).

5. CONCLUSIONI

5.1. Una posizione comune della Comunità sul problema dell'afta epizootica è indispensabile per la realizzazione degli obiettivi del mercato interno.

5.2. Le politiche applicate attualmente dagli Stati membri (vaccinazione o non-vaccinazione) sono state riesaminate ed approfondite, soprattutto per quanto riguarda gli aspetti economici.

5.3. E' stata esaminata la possibilità di libero scambio per quanto riguarda le specie sensibili alla malattia tra zone della Comunità che seguono politiche diverse; l'ipotesi è stata peró respinta a causa del rischio che il virus dell'afta epizootica possa essere introdotto in zone precedentemente non infette. Si tratta infatti di un rischio inaccettabile, tenuto conto di uno degli abiettivi dell'Atto Unico Europeo, ossia l'armonizzazione delle condizioni sanitarie su un livello elevato. E' pertanto necessario operare una scelta precisa e definitiva tra la politica di vaccinazione e la politica di non vaccinazione per l'intera Comunità.

5.4. Gli studi evidenziano che il costo di una politica di non-vaccinazione sarebbe di gran lunga inferiore a quello della politica di vaccinazione generale. Poichè si prevede l'insorgenza di un maggior numero di focolai con la politica di vaccinazione, è evidente che l'adozione di una politica di non-vaccinazione sarebbe più vantaggiosa per la Comunità nel suo complesso.

5.5. Se verrà adottata la politica di non-vaccinazione, sarà necessario rafforzare le misure intese a prevenire l'introduzione dell'infezione nella Comunità ed a garantire l'eliminazione effettiva di qualsiasi focolaio che dovesse manifestarsi.

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5.6. Dagli studi sugli aspetti commerciali, risulta che un cambiamento delle politiche attuali avrà un influsso marginale sugli scambi intracomunitari e sulle importazioni dai paesi terzi. La politica di non-vaccinazione potrebbe mettere in pericolo determinate importazioni in provenienza da paesi terzi che praticano la vaccinazione, ma si potrebbe concordare la cessazione reciproca della vaccinazione con il paese interessato. Applicando la politica di vaccinazione generale, è evidente che cesseranno le esportazioni verso molti paesi terzi. D'altra parte, in una situazione di non-vaccinazione, l'intera Comunità avrebbe la possibilità di realizzare scambi con un maggior numero di paesi, ma potrebbe essere considerata da alcuni paesi come una sola entità, sotto il profilo dello stato sanitario. In tal caso, un focolaio di afta epizootica potrebbe influire sull'ammissibilità delle esportazioni comunitarie in generale, a meno che vengano accettate a livello internazionale misure di lotta e di eradicazione su base regionale.

5.7. Per quanto riguarda le risorse umane, è probabile che la maggior parte dei veterinari - dipendenti statali o professionisti - impegnati attualmente nelle campagne di vaccinazione, possa essere integrata in unità dipendenti dall'autorità nazionale per costituire un servizio in grado di far fronte agli impegni supplementari richiesti dalla politica di non vaccinazione, o assegnata ad altri compiti, come la lotta contro il morbo di Anjeszky e la brucellosi (B. melitensis).

5.8. Qualora venisse decisa la politica di non-vaccinazione, i laboratori che si occupano attualmente dell'afta epizootica dovranno adattarsi ad una drastica riduzione della produzione di vaccino. In tal caso, si dovrà porre l'accento sulla formazione del personale (sul terreno ed in laboratorio) nella diagnosi dell'afta epizootica e sullo sviluppo di migliori tecniche diagnostiche.

5.9. La Commissione è profondamente convinta che, per realizzare gli obiettivi del mercato interno, la Comunità deve orientarsi verso la politica di non-vaccinazione. e la politica di vaccinazione generalizzata. In base agli elementi messi in luce dalla presente relazione, è evidente che la politica di non vaccinazione è più sicura e meno onerosa e risponde al duplice obiettivo di garantire il conseguimento di condizioni sanitarie di livello elevato e la realizzazione della libera circolazione dei beni nel mercato unico. Essa è pertanto vivamente raccomandata agli Stati membri. Verranno sottoposte al Consiglio le proposte appropriate, volte a modificare la normativa vigente.

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ANNEXES

DU RAPPORT

DE LA COMMISSION AU CONSEIL CONCERNANT UNE ETUDE
EFFECTUEE PAR LA COMMISSION SUR LES POLITIQUES ACTUELLES
DES ETATS MEMBRES DANS LE DOMAINE DE LA LUTTE CONTRE LA FIEVRE APHTEUSE

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(PLOI/321-3)

ANNEXE 1

TABLEAU 1

FIEVRE APHTEUSE DANS LES ETATS MEMBRES (1968-1988)

PAYS	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIQUE	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DANEMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
RFA	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GRECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRLANDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALIE	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAYS-BAS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
ROYAUME-UNI	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
ESPAGNE	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
A partir de 1984 : ADNS

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ANNEXE 1

TABLEAU 2

Fièvre aphteuse dans les pays voisins (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
Norvège	I	(1952)
Suède	I	(1966)
Finlande	I	(1959)
RDA	V	(1982)
Pologne	I	(1971)
Tchéchoslovaquie	V	(1975)
Autriche	I	(1981)
Suisse	V	(1980)
Yougoslavie	I	(1978)
Albanie	I	(1960)
Bulgarie	I (1)	(1973)
URSS	V	O_1,A22
Hongrie	V	(1972)
Turquie	V	O_1, A 22
Tunisie	V	(1982)
Algérie	V	(1978)
Maroc	V	(1983)

Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

(1) = vaccination dans la zone tampon contiguë à la Turquie

* Source = annuaire de l'OAA

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ANNEXE 1

TABLEAU 3

Fièvre aphteuse dans les pays tiers ayant des relations commerciales avec la Communauté (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
USA	I	(1929)
Canada	I	(1952)
Japon	I	(1908)
Corée (République)	I	(1934)
Chine	V	-
Australie	I	(1971)
Nouvelle Zélande	I	0000
Brésil	V	O_1A_1C
Argentine	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	O
Chili	I	O
Colombie	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibie	V	(1980)
Afrique du Sud	V	(1985)
Swaziland	V	(1988)

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Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

0000 = jamais enregistré

* Source = annuaire de l'OAA

VI.BII.2 TABLEAU SYNOPTIQUE DES PROGRAMMES DE VACCINATION DANS LES ETATS MEMBRES EN 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10FD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7FD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5. breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

Note du traducteur : en accord avec le demandeur, ce tableau n'a pas été traduit

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ANNEXE 2

RISQUE D'APPARITION DE LA FIEVRE APHTEUSE (FA)
DANS LA COMMUNAUTE EUROPEENNE A LA SUITE DE L'ACHEVEMENT
DU MARCHE INTERIEUR
- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. Le groupe a été chargé d'émettre un avis sur les risques de foyers de fièvre aphteuse dans la Communauté après 1992, en cas d'adoption (a) d'une politique de vaccination* ou (b) d'une politique de non-vaccination*, à l'avenir, dans l'ensemble de la Communauté.

2. Pour son estimation du risque, le groupe s'est basé sur les faits établis par les études épidémiologiques et de laboratoire relatives aux foyers de FA qui se sont manifestés au cours des onze dernières années (1977-1987). Pour chaque épizootie, il a commencé par identifier les foyers primaires, afin de cerner au mieux la source d'infection.

   En deuxième lieu, il a analysé la propagation de l'infection (nombre de foyers SECONDAIRES) à partir de ces foyers, en vue de déterminer - dans la mesure du possible et tout en tenant compte de la multiplicité des facteurs qui influencent le taux de propagation, l'impact de la vaccination et d'autres moyens de lutte sur la propagation de la maladie.

   Le choix de cette période de onze ans s'explique par le fait qu'elle marque à la fois le début et la fin de l'apparition des épizooties concernées.

FOYERS PRIMAIRES

3. Au cours de la période 1977-1987***, on a dénombré 34 (trente-quatre) foyers primaires de FA dans onze Etats membres.

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* Politique de vaccination : vaccination annuelle systématique de tous les bovins. En cas d'apparition de la maladie, abattage sanitaire (total ou partiel) en plus de la vaccination et des autres mesures de lutte contre la maladie.

** Politique de non-vaccination : interdiction totale des vaccinations contre la FA. En cas d'apparition de la maladie, abattage total en plus des autres mesures de lutte. La vaccination en anneau peut s'avérer nécessaire.

*** Le groupe ne dispose pas de données détaillées en ce qui concerne les foyers apparus en Espagne (il ne sait pas s'il s'agissait de foyers primaires ou de foyers secondaires).

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INFECTIONS D'ORIGINE EXTRACOMMUNAUTAIRE

4. Le groupe a identifié huit (8) foyers primaires au cours de la période de 1977 à 1987, foyers dont l'origine se situait très probablement à l'extérieur de la Communauté(1). La plupart de ces foyers semblent être liés à des entrées de viande dans la Communauté. D'autres foyers - et cela vaut notamment pour un foyer au Danemark - ont probablement été provoqués par des agents pathogènes venus de l'extérieur et transmis par voie aérienne.

   Depuis 1978, les risques liés à l'importation de viandes ont changé, la réglementation communautaire n'autorisant plus en effet l'importation de viande avec os(2).

INFECTIONS D'ORIGINE INTRACOMMUNAUTAIRE

5. A l'analyse des données fournies par tous les Etats membres, il ne semble pas qu'il existe une source endémique de FA dans les cheptels communautaires. On a néanmoins enregistré environ treize (13) foyers primaires qu'il est impossible d'attribuer avec certitude à des sources extracommunautaires. Il est difficile de formuler un jugement précis, sur l'origine de ces foyers, mais il se peut que tous soient liés, d'une manière ou d'une autre, soit à des fuites dues à des manipulations en laboratoire soit à l'utilisation de vaccins mal inactivés.

INFECTIONS D'ORIGINE INCONNUE

6. Il reste treize (13) foyers primaires dont l'origine est tout à fait inconnue.

FOYERS SECONDAIRES

7. Le tableau 1 révèle qu'on a recensé au total 1.923 foyers de FA dans les douze Etats membres au cours de la période 1977-1987. En l'absence des données concernant les foyers primaires et secondaires en Espagne, on a enregistré, dans les onze autres Etats membres, 1.858 foyers au total, dont trente-quatre (34) sont considérés comme des foyers primaires (voir paragraphes 3 à 6). Il reste donc 1.824 foyers secondaires. Le nombre de foyers primaires et secondaires dans chaque Etat membre figure au tableau 2.

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(1) Voir annexe 2, tableau 3

(2) La réglementation communautaire relative au désossage s'applique uniquement à certaines régions à haut risque, telles que l'Amérique du Sud et l'Afrique.

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8. Le taux de propagation de la maladie (l'ampleur de l'épizootie provoquée par un foyer primaire) est très variable. Dans certains cas, les foyers primaires ne donnent pas naissance à d'autres foyers, alors que dans d'autres cas, le nombre de foyers secondaires est élevé (153 par exemple en Italie lors de l'épizootie A_5 de 1984 à 1985, voire même plus au Portugal au début des années quatre-vingt).

9. Le taux de propagation (rapport entre le foyer primaire et les foyers secondaires) mentionné au tableau 2 (moyennes) se répartit en trois catégories :

   (a) les foyers qui n'ont pratiquement donné lieu à aucune propagation (moins de trois foyers secondaires par foyer primaire);

   (b) les épizooties à propagation limitée (moins de 25 foyers secondaires par foyer primaire);

   (c) les épizooties à très large propagation (plus de 25 foyers secondaires).

   En examinant les différences ci-dessus, il convient de tenir compte de plusieurs facteurs, c'est-à-dire non seulement du choix d'une politique de vaccination ou de non-vaccination, mais aussi des différences entre les pays en ce qui concerne l'infrastructure agricole, la gestion des exploitations agricoles, l'importance du cheptel, les conditions géographiques, le service vétérinaire, etc. Des différences au niveau de la virulence et de la transmissibilité des souches sauvages de virus peuvent également être à l'origine des importantes variations enregistrées.

10. Lorsque l'on a utilisé la vaccination pour protéger les bovins, les foyers secondaires se sont essentiellement déclarés (mais pas intégralement) dans des cheptels porcins non vaccinés. Les excréments de porcs infectés renferment un nombre considérable de virus qui perpétuent les épizooties (par exemple l'épizootie de type C en Italie de 1985 à 1986).

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En l'absence de vaccinations, (dans quatre Etats membres*), sept foyers primaires ont donné naissance à 28 foyers secondaires. Deux des foyers primaires se sont déclarés au Danemark, pays à forte densité de peuplement porcin.

PREVISIONS POUR LA PERIODE 1993-2003
(dans les Etats membres actuels)

11. Quelle que soit la politique de lutte contre la maladie au sein de la Communauté (vaccination ou non-vaccination), le risque d'infection venant de l'extérieur subsiste, si les risques liés aux importations de viande (même en grandes quantités) semblent avoir diminué depuis le durcissement du régime d'importation, le risque d'introduction d'une infection dans la Communauté subsiste toutefois, notamment en cas d'importation de grandes quantités d'animaux. Le risque inhérent à l'importation officielle d'animaux peut être réduit par la réglementation communautaire, mais s'il s'agit de risques liés à une importation illégale ou à une infection transmise par voie aérienne, la Communauté n'est pas en mesure de les maîtriser directement.

12. La meilleure estimation que le groupe puisse formuler est que le risque d'introduction d'une infection dans la Communauté au cours des années 1993 à 2003 n'est plus grave ni moins grave qu'au cours des onze dernières années, c'est-à-dire qu'il faut s'attendre à l'apparition de huit (8) foyers primaires d'origine extracommunautaire.
Si l'on y ajoute la fraction des 13 foyers dont l'origine était tout à fait inconnue (voir paragraphe 6) le risque passe ainsi à douze-treize (12-13) foyers environ. Ce chiffre constitue peut-être une surestimation par rapport au risque prévisible, en ce sens que les restrictions à l'importation de viandes, instaurées en 1978, semblent être une mesure préventive efficace contre l'introduction de la maladie.

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* Le Danemark, l'Irlande et le Royaume-Uni ne pratiquent pas la vaccination. La Grèce ne pratique pas la vaccination non plus, sauf dans une zone tampon dans le département d'Evros.

13. L'adoption d'une politique de non-vaccination ou de vaccination au sein de la Communauté peut également modifier les chiffres, en ce sens que la vaccination peut avoir empêché l'apparition de certains foyers primaires au cours de la période 1977-1987. S'il est impossible d'évaluer le nombre de foyers évités de la sorte, les données constatées dans les zones de la Communauté où le vaccin n'est pas utilisé donnent toutefois à penser que ce nombre est faible. Il convient encore de préciser que les zones de la Communauté où la vaccination n'est pas pratiquée bénéficient non seulement d'un isolement géographique (îles, péninsules) et de contrôles rigoureux à l'importation, mais aussi de la protection assurée par les vaccinations régulières dans les pays voisins.

14. Dans certains Etats membres, il faut s'attendre à des risques particuliers liés au trafic transfrontalier, y compris les importations illégales facilitées par les longues frontières de la Communauté. En tout état de cause, si la Communauté opte pour une politique de non-vaccination, le groupe recommande qu'aucun animal sensible ne soit importé dans la Communauté s'il n'a pas fait l'objet de mesures de protection rigoureuses (voir ci-après).

RISQUE D'INFECTION INTRACOMMUNAUTAIRE

15. Si la vaccination n'est pas pratiquée à l'avenir dans la Communauté et si aucune source de fièvre aphteuse n'y est constatée, il y a peu de chances que des foyers primaires autres que les foyers d'origine extracommunautaire (paragraphe 12) plus une partie des 13 foyers primaires d'origine inconnue (paragraphe 6) se déclarent, pour autant que les laboratoires qui manipulent le virus de la FA soient gérés dans des conditions de haute sécurité.

16. En cas de vaccination prophylactique à l'avenir au sein de la Communauté, quelques foyers imputables à la production ou à l'administration des vaccins risquent par contre de s'ajouter aux foyers mentionnés au paragraphe 15. Si les faits observés au cours de la période 1977-87 se reproduisent au cours des années 1993-2003, on peut raisonnablement prévoir l'apparition de 13 foyers primaires dus à la manipulation de virus aphteux ou à l'utilisation de vaccins mal inactivés. Il est toutefois vraisemblable que les techniques d'inactivation du vaccin vont s'améliorer et que les fuites dues aux manipulations en laboratoire vont diminuer. A d'autres égards, une vaccination prophylactique pourra vraisemblablement prévenir l'apparition de certains foyers, quelle que soit leur origine.

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RISQUE DE PROPAGATION AU SEIN DE LA COMMUNAUTE

17. Les données figurant au tableau 2 et aux paragraphes 7 à 10 donnent à penser qu'il n'est pas possible d'établir une différence de taux de propagation de l'infection entre les pays où il est fait usage de la vaccination et ceux où la lutte contre la maladie repose exclusivement sur l'abattage sanitaire et d'autres mesures de lutte appropriées. En fonction des informations dont il dispose, le groupe estime que les fluctuations sont trop importantes pour permettre de tirer des conclusions précises quant au taux de propagation en cas d'adoption par la Communauté d'une politique de non-vaccination ou de vaccination. A cet égard, les conditions géographiques, l'infrastructure agricole et les contrôles vétérinaires dans les différents pays doivent être considérés comme des facteurs d'une importance capitale.

Le groupe est particulièrement conscient du risque de propagation secondaire dans les zones à forte densité animale. Si la vaccination est abandonnée, le risque augmentera pour les bovins mais ne changera pas sensiblement pour les porcins qui ne sont généralement pas vaccinés. En cas d'apparition d'un foyer, l'ampleur et la durée de l'épizootie peuvent être réduites grâce à l'application des méthodes décrites ci-après et, si nécessaire, grâce à la vaccination en anneau.

18. Il est toutefois évident que le taux de propagation de l'infection à partir d'un foyer primaire dépend non seulement de la virulence et de la transmissibilité des souches sauvages mais aussi, et dans une large mesure, de la qualité des moyens de lutte mis en oeuvre. Si on se limite à l'abattage sanitaire pour lutter contre une épizootie et si cet abattage est correctement et rapidement appliqué (et accompagné d'un contrôle strict de la circulation des animaux, etc.), l'infection pourra être limitée à un nombre restreint de foyers secondaires. En outre, l'expérience acquise au cours de la période 1977-1987 nous apprend qu'abstraction faite de l'application ou de la non-application de la vaccination prophylactique, l'infection peut très rapidement se propager (dans le cheptel porcin notamment) si les mesures de lutte (abattage sanitaire, restrictions de circulation, etc.) ne sont pas strictement appliquées.

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ANNEXE 2

TABLEAU 1

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES
1977 - 1987

Pays	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgique	–	–	–	–	–	–	–	–	–	–	–	–
Danemark	–	–	–	–	–	22	1	–	–	–	–	23
Allemagne	7*	3	–	2	–	1	–	9**	–	–	6***	28
Grèce	3	–	–	–	5	–	–	2	–	–	–	10
Espagne	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Irlande	–	–	–	–	–	–	–	–	–	–	–	–
Italie	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Pays-Bas	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
Royaume-Uni	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** y compris six cas sérologiques constatés a posteriori
*** 1987/88

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ANNEXE 2

TABLEAU 2

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES

1977 - 1987

TAUX DE PROPAGATION

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE NON-VACCINATION

	Foyers primaires	Foyers secondaires	Rapport
Danemark	2	21	1:21/1:0
Grèce	3	7	1:2.3
Irlande	-	-	-
Royaume-Uni	2	0	1:0

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE VACCINATION

Belgique	-	-	-
Allemagne	8	20	1:2.5
Espagne	chiffre non connu	Chiffre non connu	Chiffre non connu
France	2	38	1:19
Italie	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Pays-Bas	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEXE 2

TABLEAU 3

HUIT FOYERS PRIMAIRES DE FIEVRE APHTEUSE
très probablement d'origine extracommunautaire

1976/77	Grèce	Type A	- ressemble aux types d'Amérique du Sud - eaux grasses
1976/77	RFA	Type A	- Aix la Chapelle (ressemble au A24) eaux grasses
1977	Italie	Type A	- ressemble aux types d'Amérique du Sud virus isolé provenant de l'importation de produits de viande/de moëlle
1978	Italie	Type O	- probablement lié à des importations de viandes
1979	Italie	Type A	- ressemble aux types d'Amérique du Sud
1982	Danemark	Type O	- probablement introduit d'Europe de l'Est par voie aérienne
1982	Allemagne	Type O_1	- lié au type O_1 d'Autriche en 1981
1984	Gréce	ASIA-1	- probablement introduit par voie aérienne

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ANNEXE 3

I. ANALYSE ECONOMIQUE

1.1. En nous basant sur les estimations de coûts des vaccinations et des foyers (voir tableau 1 et 2) et sur le nombre de foyers prévu par le Comité Scientifique Vétérinaire (voir annexe 2), nous avons procédé à une analyse économique qui montre les résultats possibles d'une politique de vaccination ou de non-vaccination. Ces résultats ont été obtenus à partir de trois scénarios : un scénario neutre (le plus probable), un scénario pessimiste et un scénario optimiste.

1.2. L'analyse couvre une période de 10 ans (1993-2002) qui nous semble être une période raisonnable pour l'élaboration d'une politique.

2. HYPOTHESES

2.1. Coût des vaccinations

Le coût d'un programme de vaccination communautaire à raison d'une seule vaccination annuelle pratiquée sur l'ensemble du bétail concerné est évalué à 133 millions d'écus par an (tableau 1).

2.2. Coût des foyers

Le coût d'un foyer varie considérablement d'un Etat membre à l'autre (tableau 2). Ces variations sont essentiellement dues à la taille des troupeaux et à la valeur du cheptel abattu. Les valeurs données au tableau 2 constituent une moyenne pour chaque Etat membre, car même à l'intérieur d'un Etat membre la taille du troupeau varie considérablement selon qu'il s'agit de petites exploitations ou de grandes unités d'élevage intensif.

Le coût le moins élevé par foyer nous a été fourni par les autorités portugaises. Dans ce pays, les exploitations de moins de 5 hectares représentent 86 % de l'ensemble des exploitations et le coût mentionné par foyer concerne une exploitation élevant seulement 4 bovins et 5 porcs. Ce chiffre n'est pas représentatif de la Communauté dans son ensemble et, dans notre analyse économique, nous avons donc retenu comme estimation "inférieure" la deuxième estimation de coût en commençant par le bas (Grèce 32.000 écus).

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Le coût le plus élevé par foyer nous est fourni par les autorités espagnoles (470.000 ecus) et se base sur les coûts enregistrés lors de l'épidémie de 1983. Le nombre moyen de bovins dans les exploitations touchées est de 1535. Toutefois, en analysant les données nationales transmises, on s'aperçoit que les autorités italiennes ont estimé à 600.000 écus le coût d'un abattage total dans de très grands élevages intensifs de porcs. Dès lors, afin d'accorder la pondération voulue aux risques liés à l'apparition de la maladie dans de grandes unités d'élevage intensif, ce chiffre représente l'estimation "élevée" de notre analyse.

Abstraction faite du Portugal en raison du caractère atypique de la structure de son cheptel, le coût moyen transmis par les Etats membres est de 158.000 écus, chiffre que nous avons retenu comme estimation "moyenne" de l'analyse.

2.3. Nombre de foyers

Le nombre de foyers retenu pour la construciton des scénarios neutre, pessimiste et optimiste provient des estimations fournies par le Comié Scientifique Vétérinaire (annexe 2);

Le Comité a estimé que, dans le cadre d'une politique de non-vaccination, le nombre probable de foyers primaires sur une période de 10 ans est de 13. Ce chiffre risque d'être une surestimation du risque prévisible, en ce sens que les restrictions à l'importation de viandes introduites en 1978 semblent avoir constitué une protection efficace contre l'entrée de la maladie.

Si le Comité a estimé que, dans le cas d'une politique de vaccination, 13 autres foyers primaires liés à la manipulation du virus ou à l'emploi de vaccins inactivés de manière inadéquate, viendraient s'ajouter aux 13 foyers primaires susmentionnés, il pense toutefois que l'amélioration des techniques devrait permettre de réduire ces risques. Pour l'analyse économique, nous avons donc ramené à 7 l'estimation du nombre de foyers liée aux laboratoires ou aux vaccins sur une période de 10 ans. Ainsi, en y ajoutant les 13 foyers d'origine étrangère, nous arrivons à un total de 20 foyers primaires sur une durée de 10 ans dans le cadre d'une politique de vaccination.

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(2)

D'après les données analysées par le Comité, il n'est pas possible de détecter une différence dans le taux de propagation de l'infection entre les pays qui pratiquent la vaccination et les pays qui se limitent à l'abattage sanitaire et autres mesures appropriées de lutte contre la maladie. Pour la présente analyse économique, nous avons dès lors utilisé la même estimation pour les deux politiques.

Le rapport du Comité fournit des données détaillées en ce qui concerne le rapport entre le foyer primaire et les foyers secondaires. Les taux de propagation mentionnés sont relativement homogènes dans l'ensemble de la Communauté exception faite du Portugal. Le rapport donné pour ce pays (1:591) concerne la situation au Portugal avant l'application des mesures communautaires de lutte contre la maladie. En faisant abstraction du Portugal, le rapport moyen entre les foyers primaires et les foyers secondaires au cours des dix dernières années est de 1 à 20, rapport que nous avons retenu comme estimation moyenne ou la plus probable. Il se peut que ce rapport exagère le taux de propagation : en effet, dans certaines épidémies importantes, plus de foyers risquent d'être des foyers primaires plutôt que secondaires, (par exemple dans le cas de la multiplication des foyers due à des vaccins mal inactivés).

Le taux de propagation le plus faible est de 1:0, c'est-à-dire qu'il n'y a pas de foyer au-delà du foyer primaire. Cette hypothèse s'est vérifiée plusieurs fois au cours des dix dernières années dans le cadre des deux politiques (vaccination et non-vaccination).

Le taux de propagation le plus élevé - estimation la plus pessimiste - est de 1:150. Il s'agit là du taux le plus élevé enregistré lors des épizooties qui ont récemment touché les zones d'élevage intensif du nord de l'Italie.

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3. SCENARIOS

3.1. Nous présentons ci-après trois résultats possibles en fonction des différentes hypothèses de départ quant au nombre et au coût des foyers visés aux paragraphes 2.2. et 2.3. ci-dessus. Il s'agit en l'occurrence :

- d'un scénario neutre (le plus probable);
- d'un scénario optimiste;
- d'un scénario pessimiste.

3.2. Scénario neutre

Ce scénario, qui nous donne le résultat le plus probable, est basé sur le coût d'un foyer moyen (158.000 écus) (cf. 2.2. ci-dessus) et du nombre le plus probable de foyers secondaires (20) par foyer primaire (2.3. ci-dessus).

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
20 foyers secondaires par foyer primaire

Total = 13 + (13 x 20) = 273

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût total = 273 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 35 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
20 foyers secondaires par foyer primaire

Total = 20 + (20 x 20) = 420

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût des foyers = 420 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 1.080 millions d'écus.

Coût total = 54 millions d'écus + 1.080 millions d'écus = 1.134 millions d'écus.

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3.3. Scénario optimiste

Il s'agit ici du scénario le plus optimiste dans lequel tous les foyers touchent de très petites exploitations et ne donnent lieu à aucun foyer secondaire. S'il n'est pas rare qu'il n'y ait pas de foyers secondaires, il est improbable par contre que tous les foyers touchent les plus petits troupeaux.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :

13 foyers primaires

0 foyer secondaire

Total = 13 + (13 x 0) = 13

Coût prévu par foyer (valeurs : 1987) = 32.000 écus (cf. paragraphe 2.2.).

Coût total = 13 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 337.000 écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :

20 foyers primaires

0 foyer secondaire

Total = 20 + (20 x 0) = 20

Coût prévu par foyer = 32.000 écus

Coût des foyers = 20 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 519.000 écus.

Valeur actuelle de la vaccination déduction faite d'un placement pendant 10 ans (à 5 %) = 1.808 millions d'écus.

Coût total = 519.000 écus + 1.080 millions d'écus = 1.080,5 millions d'écus.

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3.4. Scénario pessimiste

Ce scénario pessimiste part du principe que chaque foyer primaire donnera lieu à 150 foyers secondaires et que les foyers se déclareront tous dans les troupeaux les plus importants (coût : 600.000 écus par foyer).

Une telle conjugaison de facteurs ne représente qu'une possibilité hautement improbable. Au cours des onze dernières années, il n'est arrivé qu'une fois (en Italie) qu'un foyer primaire ait donné lieu à 150 foyers secondaires. De plus, même dans les zones d'élevage intensif, un pourcentage seulement des exploitations sont de très grandes exploitations.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
150 foyers secondaires par foyer primaire

Total = 13 + (13 x 150) = 1.963

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût total = 1.963 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 955 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
150 foyers secondaires par foyer primaire

Total = 20 + (20 x 150) = 3.020

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût des foyers = 3.020 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 1.470 millions d'écus.

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Valeur actuelle de la vaccination déduction faite d'un placement pendant dix ans (à 5 %) = 1.080 millions d'écus.

Coût total = 1.470 millions d'écus + 1.080 millions d'écus = 2.550 millions d'écus.

4. SYNTHESE

	Valeur actuelle sur 10 ans (en millions d'écus)		
	Scénario neutre	Scénario optimiste	Scénario pessimiste
A. Politique de non-vaccination (foyers uniquement)	35	0,3	995
B. Politique de vaccination (foyers et vaccination)	1134	1080,5	2550

L'analyse montre que, dans l'hypothèse la plus probable sur les dix prochaines années, une politique de vaccination serait sensiblement plus coûteuse qu'une politique de non-vaccination. Même dans le pire des cas (hautement improbable) où tous les foyers se déclareraient dans les unités d'élevage les plus importantes avec un taux élevé de propagation de l'infection, la politique de non-vaccination reste la moins onéreuse.

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ANNEXE 3

TABLEAU 1

COUT D'UN PROGRAMME DE VACCINATION CONTRE
LA FIEVRE APHTEUSE AU SEIN DE LA COMMUNAUTE EUROPEENNE

(coûts annuels aux prix de 1987)

	Bovins vaccinés en milliers de têtes)	Coût par tête		Coût national	
		Monnaie nationale	Ecus	Monnaie nationale (en millions)	Ecus (en millions)
Belgique	2 232	54 BFR	1,25	121,0	2,8
Danemark*	2 250	17,90 DKR	2,25	40,3	5,1
Allemagne	14 560	3,14 DM	1,18	38,6	18,6
Grèce*	761	122 DRA	0,74	92,5	0,6
Espagne	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Irlande*	6 647	1,50 IRL	1,94	10,0	12,9
Italie	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Pays-Bas	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
Royaume-Uni*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (chiffe arrondi)	133,0

REMARQUES

(i) Les coûts sont donnés pour la vaccination de l'ensemble des bovins concernés une fois par an (sauf pour la France et le Luxembourg où seuls les chiffres de l'ensemble des bovins étaient disponibles).

(ii) Les coûts sont soit les coûts effectifs dans le cas des Etats membres qui vaccinent actuellement leur cheptel national soit les coûts estimés dans le cas des Etats membres qui ne pratiquent pas la vaccination (suivis d'un *).

(iii) Les coûts comprennent le vaccin, la vaccination et les frais administratifs mais ne comprennent pas les coûts des effets secondaires éventuels.

(iv) La Grèce ne vaccine les bovins que dans le nome d'Evros; la France ne vaccine pas dans le Finistère.

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ANNEXE 3

TABLEAU 2

COUT ESTIMATIF D'UN SEUL FOYER DE FIEVRE APHTEUSE

(données fournies par les Etats membres aux prix de 1987)

Ces coûts comprennent : les indemnités;
les opérations de nettoyage, de désinfection et autres mesures connexes;
les pertes de production dans l'exploitation;
les frais administratifs généraux.

Ils ne comprennent pas : la vaccination en anneau.

Coût par foyer (cf. remarques)

	Monnaie nationale	Ecus
Belgique	2 203 055 BFR	50 650
Danemark	1 210 000 DKR	150 239
Allemagne	100 000 DM	48 309
Grèce	5 281 911 DRA	31 914
Espagne	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Irlande	164 500 IRL	212 258
Italie	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Pays-Bas	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
Royaume-Uni	70 000 UKL	104 979

REMARQUES

(1) Par foyer, on entend l'apparition de la maladie dans une exploitation agricole (définition de l'OIE pour l'Europe).

(2) Les estimations sont basées, dans la mesure du possible, sur les coûts effectifs enregistrés lors des foyers récents; en l'absence de foyers récents, les coûts sont des coûts estimés pour un troupeau à risques de taille moyenne.

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ANNEXE 4

STRUCTURE DES ECHANGES COMMUNAUTAIRES
DE CHEPTELS ET DE CERTAINS PRODUITS ANIMAUX

1. Introduction

1.1. Espèces sensibles à la fièvre aphteuse

En examinant la structure des échanges, on constate que les espèces sensibles à la fièvre aphteuse les plus concernées par les échanges sont les bovins, les porcins, les ovins et les caprins.

1.2. Règles régissant actuellement les échanges

En temps normal, les Etats membres qui pratiquent la vaccination contre la fièvre aphteuse peuvent exporter de la viande fraîche et des produits de viande des espèces susmentionnées vers les Etats membres ne pratiquant pas la vaccination.

En cas d'apparition d'un foyer de fièvre aphteuse dans quelque Etat membre que ce soit, des zones d'interdiction autour du foyer sont fixées par la directive 85/511/CEE (mesures générales de lutte contre la maladie) et par la directive 64/432/CEE (échanges intracommunautaires) aux termes desquelles les échanges d'animaux, de viandes fraîches et de produits de viande qui n'ont pas subi un traitement thermique à 70° C au moins sont interdits.

Dans le cas des bovins et des porcins vivants, la législation communautaire prévoit des restrictions aux échanges entre les Etats qui pratiquent la vaccination et ceux qui ne la pratiquent pas. Ces règles, fixées à l'article 4 bis de la directive 64/432/CEE, sont une des raisons pour lesquelles nous avons entrepris la présente étude. Au 1er janvier 1989, les réglementations nationales en ce qui concerne les ovins et les caprins étaient toujours en vigueur.

L'article 4 bis de ladite directive autorise les Etats membres, qui sont indemnes de fièvre aphteuse d'au moins deux ans et qui ne pratiquent pas la vaccination, à demander l'isolement et/ou la mise en quarantaine en plus de certains tests, afin de s'assurer que les animaux concernés n'ont pas été vaccinés et ne sont pas porteurs du virus de la fièvre aphteuse.

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En termes d'échanges intracommunautaires, les dispositions relatives aux animaux vivants revêtent une importance primordiale dans les projections des avantages et des inconvénients de l'adoption d'une politique de vaccination générale ou d'une politique de non-vaccination.

2. Echanges intracommunautaires(1)

2.1. Bovins

2.1.1. Veaux (jusqu'à 250 kg)

En 1987, les échanges intracommunautaires de veaux se sont chiffrés à 2 millions d'unités environ. Les principaux pays exportateurs et importateurs ont été :

1. la France (838.000) vers l'Italie (689.000), les Pays-Bas (65.000) et l'Allemagne (64.000);

2. le Royaume-Uni (376.000) vers la France (221.000), les Pays-Bas (133.000) et l'Italie (6.000);

3. les Pays-Bas (332.000) vers l'Allemagne (102.000), l'UEBL (99.000) et la France (88.000).

Commentaires

Que l'on pratique une politique de non-vaccination ou de vaccination générale, les échanges de veaux ne risquent pas de se modifier sensiblement. Le Royaume-Uni semble disposer d'un surplus exportable, tandis que les exportations à destination du Danemark et de l'Irlande n'ont des chances de se développer que si le nombre de vaches diminue sensiblement dans ces pays.

2.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les échanges intracommunautaires de gros bovins se sont chiffrés à 1,15 million d'unités. Les principaux pays exportateurs et importateurs ont été :

1. la France (795.000) vers l'Italie (709.000), l'Allemagne (34.000) et l'UEBL (21.000);

(1) Source : données Nimexe citées dans Eurostat (année 1987). Les chiffres sont arrondis au millier près.

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2. l'Irlande (152.000) vers le Royaume-Uni (151.000) et le Portugal (1.000);
3. l'Allemagne (117.000) vers les Pays-Bas (64.000), l'Italie (37.000) et l'UEBL (11.000).

Commentaires

Quelle que soit la politique adoptée (non-vaccination ou vaccination généralisée), il est improbable que la structure des échanges se modifie, étant donné que le Danemark, l'Irlande et le Royaume-Uni sont autosuffisants, l'Irlande étant un exportateur important. Néanmoins, les échanges de bovins de boucherie à destination du Danemark et du Royaume-Uni pourraient se développer du fait de leur proximité d'Etats tels que l'Allemagne, la France et les Pays-Bas.

2.1.3. Bovins reproducteurs de race pure

En 1987, les échanges intracommunautaires de cette catégorie se sont élevés à 38.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (22.000) vers l'Espagne (13.000), le Portugal (5.000) et l'Italie (2.000);
2. le Royaume-uni (6.000) vers le Portugal (3.000) et l'Irlande (3.000);
3. la France (5.000) vers l'Espagne (1.000), le Portugal (1.000) et l'Italie (1.000).

N.B. : En 1987, les exportations à destination de l'Espagne et du Portugal ont bénéficié de restitutions à l'exportation.

Commentaires

Quelle que soit la solution adoptée, il est peu probable que la structure de ces échanges se modifie, étant donné que la demande de ce type de bovins est limitée et que la valeur unitaire est élevée. Du fait de cette forte valeur unitaire, les frais d'analyse et de mise en quarantaine du système actuel peuvent être facilement absorbés. En cas de passage à une politique uniforme, ces frais disparaîtraient et on pourrait normalement s'attendre à une légère augmentation des échanges (qui risque toutefois de ne pas se produire en raison du développement des échanges de semences et d'embryons).

2.2. Porcs

Les échanges de porcs sont actuellement influencés par la présence ou l'absence de quatre maladies virales, à savoir la fièvre aphteuse (F.A.), la peste porcine classique (PPC), la peste porcine africaine (PPA) et la maladie vésiculeuse du porc (MVP). Les Etats membres officiellement indemnes de PPC peuvent interdire l'entrée sur leur territoire de porcs et de viande porcines en provenance d'Etats n'ayant pas le même statut.

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En ce qui concerne la PPA, les exportations en provenance de l'Espagne (en partie depuis le 14 mai 1989), du Portugal et de la Sardaigne sont interdites sauf pour certains produits traités thermiquement. La réglementation relative à la MVP autorise les Etats membres ne pratiquant pas la vaccination contre la fièvre aphteuse et indemnes de fièvre aphteuse depuis deux ans d'exiger un test sérologique négatif de MVP avant d'autoriser l'entrée de porcs d'élevage et de rente sur leur territoire.

2.2.1. Porcs de rente (jusqu'à 50 kg) (porcelets sevrés)

En 1987, les échanges intracommunautaires de porcs de cette catégorie se sont chiffrés au total à 2,5 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (1.371.000) vers l'UEBL (744.000), l'Espagne (332.000) et la France (275.000);
2. la France (423.000) vers l'Espagne (225.000), l'UEBL (145.000) et l'Italie (52.000);
3. les Pays-Bas (681.000) vers l'Italie (308.000), l'Espagne (184.000) et l'UEBL (128.000).

2.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les échanges se sont chiffrés au total à 4,233 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (2.990.000) vers l'Allemagne (924.000), l'Italie (724.000) et la France (710.000);
2. l'UEBL (958.000) vers la France (558.000) et l'Italie (326.000);
3. la France (111.000) vers l'Italie (70.000) et l'UEBL (25.000).

2.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les échanges intracommunautaires ont porté au total sur 337.000 truies de cette catégorie. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (307.000) vers l'UEBL (196.000) et l'Allemagne (110.000);
2. la France (23.000) vers l'UEBL (22.000).

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2.2.4. Porcs reproducteurs de race pure

En 1987, les échanges ont porté sur quelque 19.000 porcs reproducteurs de race pure. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (9.000) vers l'Espagne (5.000), l'Irlande (1.000) et l'Allemagne (1.000);
2. les Pays-Bas (3.000) vers l'Espagne (1.000) et l'UEBL (1.000);
3. la France (2.000) vers l'Espagne (2.000).

Commentaires sur les échanges porcins

Comme nous l'avons signalé précédemment, outre la fièvre aphteuse, trois autres maladies peuvent influencer les échanges procins. Il est dès lors difficile de prévoir une modification des courants commerciaux dans un avenir proche. En raison de l'autosuffisance actuelle, il est toutefois improbable que les échanges à destination du Danemark, de l'Irlande et du Royaume-Uni se développent considérablement.

2.3. Ovins et caprins

Au 1er janvier 1989, il n'existait aucune réglementation communautaire en la matière et c'est donc la réglementation nationale qui s'applique. En-dehors de la fièvre aphteuse, la brucellose ovine et caprine (Brucella melitensis) semble être une maladie qui constitue un frein aux échanges des pays méridionaux vers les pays septentrionnaux.

2.3.1. Ovins et caprins autres que de race pure

En 1987, les échanges intracommunautaires ont porté au total sur 1,77 million d'ovins et de caprins de ce type. Les principaux pays exportateurs et importateurs ont été :

1. la France (457.000) vers l'Italie (272.000) et l'Espagne (183.000);
2. le Royaume-Uni (392.000) vers la France (295.000) et l'Irlande (85.000);
3. les Pays-Bas (336.000) vers la France (198.000) et l'UEBL (134.000);
4. l'Allemagne (298.000) vers l'UEBL (128.000) et l'Italie (88.000).

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2.3.2. Ovins et caprins reproducteurs de race pure

En 1987, les échanges d'ovins et de caprins reproducteurs de race pure se sont chiffrés à 17.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (7.400) vers l'Irlande (5.000) et la France (2.400);
2. le Portugal (4.500) vers l'Espagne (2.500) et le Royaume-uni (1.000)
3. l'Espagne (2.000) vers la France (1.000) et le Royaume-Uni (700).

Commentaires

Les échanges semblent s'opérer essentiellement du nord vers le sud (probablement en raison de la brucellose). La tendance actuelle semble devoir se poursuivre. Il ne semble pas y avoir une ouverture des échanges vers le Danemark, l'Irlande ou le Royaume-Uni en raison de l'auto-suffisance et de l'écart des prix.

3. Echanges en provenance des pays tiers

Echanges de viandes fraîches et de produits à base de viande

Il s'agit ici des échanges à destination de la Communauté en provenance de 50 pays tiers environ. S'il est improbable, en cas de passage à une politique de non-vaccination, que la Communauté demande que la viande en provenance de pays tiers provienne d'animaux non vaccinés, deux zones à problèmes sont toutefois prévisibles. Premièrement, les pays d'Amérique latine (Argentine, Brésil, Paraguay et Uruguay) où la fièvre aphteuse prend des proportions d'épizootie, luttent partiellement contre la fièvre aphteuse par la vaccination. La viande destinée à la Communauté en provenance de ces pays est préparée dans des conditions fort strictes (maturation et désossage). Il se peut qu'un renforcement du contrôle soit jugé nécessaire notamment pour les abats. La seconde zone à problèmes est constituée par l'Afrique du sud, l'Afrique australe (y compris la Namibie), le Swaziland, le Botswana et le Zimbabwe. Nous constatons en effet que la législation actuelle (1) exige que les animaux n'aient pas été vaccinés pendant les 12 mois qui précèdent l'abattage et soient indemnes de la fièvre aphteuse depuis 12 mois également. Actuellement, les décisions zoosanitaires concernant ces pays ne sont toutefois pas applicables à tous les Etats membres et des décisions applicables à tous les Etats membres seront nécessaires dans un proche avenir.

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(1) Directive 72/462/CEE articles 14 et 15.

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Dans l'ensemble, les exportations vers la Communauté de viandes et de produits à base de viande ne devraient dès lors pas souffrir d'un changement de politique communautaire en matière de vaccination.

Echanges d'animaux vivants :

Les importations de bovins et de porcins peuvent provenir de 21 pays et les échanges d'ovins et de caprins sont régis par la réglementation nationale. Les bovins entrant dans les Etats membres qui pratiquent la vaccination doivent être vaccinés avant leur entrée sur le territoire.

3.1. Bovins

3.1.1. Veaux (jusqau'à 250 kg)

En 1987, 272.000 veaux ont été importés dans la Communauté. Les principaux pays tiers exportateurs et Etats membres importateurs ont été :

1. la Pologne (219.000) vers l'Italie (149.000) et l'Allemagne (61.000);
2. la Tchécoslovaquie (27.000) vers l'Italie (18.000) et l'Allemagne (9.000).

3.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, 350.000 bovins de cette catégorie ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. la Yougoslavie (170.000) vers l'Italie (111.000) et la Grèce (59.000);
2. la Pologne (80.000) vers l'Italie (75.000) et la Grèce (4.000);
3. l'Autriche (56.000) vers l'Italie (38.000) et l'Allemagne (16.000).

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3.1.3. Bovins reproducteurs de race pure

En 1987, 44.000 bovins reproducteurs de race pure ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. l'Autriche (23.000) vers l'Italie (18.000) et l'Espagne (4.000);
2. la Suisse (15.000) vers l'Italie (14.000).

Commentaires

Comme il ressort des chiffres mentionnés ci-dessus, les importations de bovins sont essentiellement destinées à l'Italie et proviennent en grande partie de pays tiers qui ne vaccinent pas de façon systématique à l'heure actuelle, exception faite de la Tchécoslovaquie et de la Grèce. Dans l'éventualité où ni l'un ni l'autre de ces pays n'abandonne la vaccination, il en résultera une légère pénurie de veaux (27.000) et d'animaux reproducteurs (15.000), ce qui posera quelques problèmes de recherche de nouveaux fournisseurs.

Le passage à une politique de vaccination générale n'entraînera, semble-t-il que peu de changements au niveau des importations au Danemark, en Irlande ou au Royaume-Uni. Au contraire, dans le cas d'une politique de non-vaccination, les animaux vaccinés ne seront plus acceptés et les approvisionnements de jeunes bovins maigres en provenance de certains pays d'Europe de l'Est (RDA, Tchécoslovaquie) et de la Suisse cesseront si ces pays ne veulent pas abandonner la vaccination. Par contre, des pays tels que la Pologne et la Yougoslavie qui ne pratiquent pas la vaccination systématique ne devront plus pratiquer la vaccination avant l'exportation.

3.2. Porcins

3.2.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, 13.566 porcelets sevrés ont été importés dans la Communauté principalement à destination de :

l'Italie (12.245) en provenance de la Tchécoslovaquie (11.601).

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3.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)
En 1987, 37.935 porcs de ce type ont au total été importés essentiellement en :

Belgique/Luxembourg (37.500) en provenance de la RDA (37.425)
Espagne (241) en provenance de la Suisse (241).

3.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)
Sept unités seulement de cette catégorie ont été importées en 1987.

3.2.4. Porcs reproducteurs de race pure
En 1987, 428 porcs de ce type ont été importés essentiellement :

aux Pays-Bas (122) en provenance du Canada (122);
en Grèce (89) en provenance de Suède (40) et d'Autriche (34);
en Allemagne (67) en provenance d'Hongrie (30) et d'Autriche (22).

Commentaires sur les importations de porcs

Par rapport aux échanges intracommunautaires (7 millions en 1987), les importations en provenance des pays tiers (52.000 porcs) sont insignifiantes. Un changement de politique ne devrait avoir aucun effet dans ce secteur.

3.3. Ovins et caprins

3.3. . Ovins et caprins autres que de race pure
En 1987, 2.043.000 têtes ont été importées principalement :

1. en Italie (1.492.000) en provenance d'Hongrie (865.000), de Pologne (278.000) et de Bulgarie (266.000);
2. en Allemagne (286.000) en provenance de Pologne (201.000) et d'Hongrie (85.000);
3. en France (163.000) en provenance de Pologne (94.000) et d'Hongrie (69.000);
4. en Grèce (89.000) en provenance d'Hongrie (50.000) et de Bulgarie (35.000).

(3)

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3.3.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.102 animaux de cette catégorie ont été importés essentiellement :

1. au Royaume-Uni en provenance de Nouvelle-Zélande (3.222), d'Australie (294) et du Canada (197);
2. en France (728) en provenance du Canada (343), d'Australie (222) et d'Algérie (117);
3. en Italie (195) en provenance d'Autriche (102) et de Suisse (92).

Commentaires

Les principaux fournisseurs d'ovins et de caprins ne pratiquent pas de vaccination systématique contre la fièvre aphteuse. Les courants commerciaux actuels devraient dès lors se maintenir. Le volume global des importations est limité par des accords.

4. Echanges à destination des pays tiers

Règles applicables aux échanges

Les règles zoosanitaires régissant les exportations d'animaux (et de produits animaux) sensibles à la fièvre aphteuse ne sont pas uniformes, du fait que les pays tiers importateurs adoptent des positions différentes vis-à-vis de la fièvre aphteuse et définissent leurs propres règles d'importation. On peut toutefois constater que la plupart des pays tiers indemnes de fièvre aphteuse et ne pratiquant pas la vaccination n'accepteront pas facilement des animaux et produits animaux provenant de pays pratiquant la vaccination. Le premier exemple à cet égard nous est donné par les Etats-Unis qui dressent une liste officielle (souvent appelée "liste blanche") des pays qu'ils considèrent indemnes de fièvre aphteuse. Il en résulte un effet "d'entraînement" lorsque les pays figurant sur la liste veulent adopter une réglementation aussi stricte, voire plus stricte que la réglementation américaine pour des raisons assez obscures. Nous aborderons ce problème par la suite.

4.5. Viandes et produits à base de viande

Les viandes et produits à base de viande traités thermiquement à 70° C au moins respecteront la plupart des réglementations vétérinaires en ce qui concerne la survie du virus de la fièvre aphteuse. Les statistiques qui suivent concernent les viandes et produits à base de viande qui ne sont pas traités thermiquement.

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4.1.1. Viandes de l'espèce bovine fraîches, réfrigérées ou congelées

En 1987, 692.791 tonnes de viandes de cette catégorie ont été exportées essentiellement par :

1. la France (215.897) vers l'URSS (39.400), l'Iran (37.156), l'Egypte (19.682), le Brésil (14.008), l'Arabie Saoudite (12.034), l'Angola (11.021) et l'Irak (10.478);
2. l'Irlande (159.560) vers l'Egypte (43.904), l'Iran (23.105), l'Irak (18.549), la Yougoslavie (14.014) et l'Afrique du Sud (13.122);
3. l'Allemagne (119.637) vers l'Egypte (46.188), la Yougoslavie (22.361) et l'Iran (13.102);
4. l'Italie (60.510) vers le Brésil (16.711), le Pérou (9.625), l'Arabie Saoudite (9.564) et la Lybie (8.119);
5. les Pays-Bas (54.389) vers le Zaïre (10.753), la Yougoslavie (10.305) et l'Egypte (6.504).

Les tonnages exportés par d'autres Etats membres à destination de différents pays ont été les suivants :
Danemark (38.076), Royaume-Uni (37.341), Belgique (5.928), Espagne (1.297), Grèce (136) et Portugal (22).

4.1.2. Préparations à base de viandes bovines crues, abats et mélanges

En 1987, 10.006 tonnes environ de ces préparations ont été exportées essentiellement par :

1. le Danemark (7.884) vers l'Arabie Saoudite (2.432), la Bulgarie (1.252), les Emirats Arabes Unis (779) et le Barheïn (722);
2. l'Italie (1.528) vers l'Arabie Saoudite (1.084) et la Jordanie (239).

4.1.3. Abats d'animaux de l'espèce bovine

En 1987, environ 12.048 tonnes d'abats ont été exportées essentiellement par :

1. la France (3.295) vers la Côte d'Ivoire (1.018), la Guadeloupe (465), la Martinique (403), le Gabon (340) et Israël (299);
2. l'Irlande (2.550) vers le Japon (1.529), Israël (346), l'Egypte (295) et l'Ile de Trinité et Tobago (154);
3. l'Allemagne (2.199) vers l'Autriche (1.111), l'Egypte (185) et la Côte d'Ivoire (185);
4. les Pays-Bas (2.152) vers Israël (683), le Zaïre (251) et la Yougoslavie (163).

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4.1.4. Graisse de boeuf non fondue destinée à l'alimentation

En 1987, 27.179 tonnes de produits de cette catégorie ont été exportées essentiellement par :

1. l'Allemagne (15.782) vers l'Iran (6.369), Cuba (2.076), le Nigéria (1.813) et le Burundi (1.511);
2. le Danemark (7.300) vers le Rwanda (1.869), le Kenya (1.681) et la Tanzanie (1.500).

4.1.5. Estomacs, intestins, vessies d'animaux (ensemble des animaux destinés à la consommation humaine)

En 1987, 22.868 tonnes ont été exportées principalement par :

1. l'Allemagne (8.698) vers les USA (2.573), l'Autriche (1.211) et le Brésil (1.006);
2. le Danemark (3.676) vers les USA (1.788), la Norvège (493), la Finlande (386) et la RDA (167);
3. les Pays-Bas (2.910) vers les USA (675), le Brésil (433), la Yougoslavie (247), la Suisse (246) et la Finlande (239);
4. la France (2.582) vers l'Afrique du Sud (612), la Hongrie (334), la Suède (172), Taïwan (152), le Maroc (160) et la Pologne (144).

4.2. Viande de porc

4.2.1. Carcasses et demi-carcasses fraîches, réfrigérées ou congelées

En 1987, 2.720 tonnes de viande de porc de cette catégorie ont été exportées vers les pays tiers. Les principaux pays exportateurs ont été :

1. l'Espagne (1.572) vers les Iles Canaries (1475) et Andorre (74);
2. la France (455) vers les Iles Canaries (142), les Seychelles (85) et la Réunion (66);
3. la Belgique (311) vers les Iles Canaries (287).

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4.2.2. Viande de porc en morceaux

En 1987, 197.921 tonnes ont été exportées essentiellement par :

1. le Danemark (164.272) vers le Japon (94.519), les USA (54.158) et le Canada (9.768);
2. la France (9.512) vers la Réunion (4.415) et la Martinique (1.093);
3. la Belgique (6.537) vers la Tchécoslovaquie (4.026) et les Antilles Néerlandaises (676).

4.2.3. Viande de porc salée ou en saumure, séchée ou fumée

En 1987, 9.637 tonnes de cette catégorie (principalement du bacon) ont été exportées essentiellement par :

1. l'Espagne (3.007) vers les Iles Canaries (2.379) et Andorre (315);
2. le Danemark (3.000) vers la Suède (1.155), les USA (613), le Groenland (196) et Singapour (194);
3. la France (1.409) vers la Guadeloupe (483), la Martinique (213) et la Réunion (213).

4.2.4. Graisse de porc (et graisse de volaille) fraîche, réfrigérée et congelée

En 1987, 2.085 tonnes ont été exportées essentiellement par :

1. le Danemark (1.488) vers la Norvège (907) et Chypre (177);
2. la France (242) vers la Réunion (176).

4.2.5. Saucisses, boudins et autres

En 1987, 65.425 tonnes ont été exportées essentiellement par :

1. l'Espagne (28.414) vers les Iles Canaries (23.811), Andorre (454) et le Liban (263);
2. le Danemark (16.742) vers les USA (4.027), les Iles Canaries (3.505), Singapour (1.073) et l'Arabie Saoudite (1.006);
3. la France (6.910) vers la Réunion (1.279), la Guadeloupe (1.278) et la Martinique (1.170);
4. l'Italie (4.666) vers la Suisse (2.605) et le Liban (463).

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4.2.6. Abats de porcs

En 1987, 35.725 tonnes d'abats de porc ont été exportées essentiellement par :

1. le Danemark (14.674) vers la Suède (7.572), le Japon (3.354) et le Libéria (1.229);
2. les Pays-Bas (8.481) vers la Suède (2.243), la Côte d'Ivoire (2.167) et le Cameroun (960);
3. l'Allemagne (4.440) vers la Suède (3.970) et la Suisse (243).

4.3. Viande des animaux des espèces ovine ou caprine, fraîche, réfrigérée ou congelée

Une seule classification à des fins statistiques.

4.3.1. Toutes viandes ovines et caprines

En 1987, 5.169 tonnes au total ont été exportées essentiellement par :

1. le Royaume-Uni (2.475) vers la Suisse (2.172);
2. l'Italie (906) vers la Lybie (906);
3. la France (678) vers la Suisse (312) et la Réunion (71).

Commentaires sur les exportations d'abats et de viandes fraîches

Etant donné que les stocks d'intervention diminuent, les exportations de viande bovine vers les pays tels que l'URSS et le Brésil risquent de diminuer. Si l'on opte pour une politique de vaccination générale, les exportations d'abats de bovins de l'Irlande vers le Japon et d'autres pays, qui représentaient un total de 2.550 tonnes en 1987, seront perdues.

Par ailleurs, le Danemark perdrait ses exportations de porc en morceaux, de viandes de porc partiellement traitées, de graisse de porc, d'abats, de saucisses, de boudins et autres, d'un total de 200.000 tonnes en 1987, essentiellement à destination des pays figurant sur la "liste blanche". Ces exportations sont toutefois marginales par rapport à l'ensemble des échanges et nous pensons qu'il est possible de trouver des débouchés pour cette production au sein de la Communauté.

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4.4 Bovins

4.4.1. Veaux (jusqu'à 250 kg)

En 1987, 3.309 veaux ont été exportés par la Communauté. Le principal pays exportateur a été :

la France (3.299) vers la Suisse (3.031) et Andorre (206).

4.4.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les exportations ont porté sur un total de 77.527 unités. Les principaux pays exportateurs ont été :

1. l'Irlande (64.950) vers la Lybie (30.149), l'Egypte (29.577) et Malte (4.200);
2. la France (7.807) vers la Tunisie (1.684), l'Arabie Saoudite (1.504) et l'Algérie (677);
3. l'Allemagne (2.324) vers l'Arabie Saoudite (2.119);
4. l'Espagne (2.298) vers Andorre (2.260).

4.4.3. Bovins reproducteurs de race pure

En 1987, les exportations ont porté sur un total de 87.119 unités. Les principaux pays exportateurs ont été :

1. l'Allemagne (43.837) vers la Turquie (5.357), l'URSS (4.893), le Maroc (4.958), la Lybie (3.910), le Koweit (3.661), la Syrie (2.267), l'Irak (2.164), l'Iran (2.024), la Jordanie (2.157) et l'Arabie Saoudite (1.026);
2. la France (21.390) vers l'Algérie (18.367), le Maroc (1.406) et les Iles Canaries (1.045);
3. les Pays-Bas (16.647) vers l'Algérie (5.950), l'Iran (5.129), l'Egypte (3.316) et la Jordanie (836);
4. le Danemark (4.307) vers l'Egypte (2.490), l'URSS (1.372) et les Emirats Arabes Unis (365).

4.5. Porcs

Comme nous l'avons signalé précédemment, des maladies autres que la fièvre aphteuse peuvent limiter les échanges.

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4.5.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, les exportations ont porté sur un total de 2.633 unités. Les principaux pays exportateurs ont été :

1. les Pays-Bas (1.188) vers les Philippines (579) et les Iles Faroe (516);
2. la Belgique (1.067) vers les Philippines (1.052).

4.5.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les exportations se sont chiffrées à 4.390 porcs au total. Le principal pays exportateur a été :

la France (3.502) vers les Iles Canaries (1.891) et la Suisse (1.000).

4.5.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les exportations se sont chiffrées au total à 86 unités (Pays-Bas vers RDA).

4.5.4. Porcs reproducteurs de race pure

En 1987, les exportations se sont chiffrées au total à 3.444 unités. Les principaux pays exportateurs ont été :

1. le Royaume-Uni (2.224) vers la Thaïlande (681), le Japon (537), les Philippines (176), le Nigéria (178), le Kenya (169) et la Corée du Sud (111);
2. le Danemark (338) vers la Thaïlande (159) et la Corée du Sud (101);
3. la France (285) vers les Iles Canaries (194) et les Seychelles (40).

4.6. Ovins et caprins

4.6.1. Ovins et caprins autres que de race pure

En 1987, 54.576 animaux de ce type ont été exportés essentiellement par :

1. l'Espagne (30.481) vers Andorre (20.405) et Ceuta (10.076);
2. la Grèce (21.900) vers la Turquie (21.900).

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4.6.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.940 animaux de ce type ont été exportés. Les principaux pays exportateurs ont été :

1. la France (4.672) vers l'Algérie (3.886), la Chine (233) et la Colombie (130);
2. l'Allemagne (723) vers la Pologne (413) et l'Autriche (216).

Commentaires sur les exportations d'animaux vivants

Les exportations de bovins de rente/de boucherie et d'élevage sont importantes. Les pays destinataires pratiquent la vaccination systématique. Le fait que certains Etats membres, comme le Danemark et l'Irlande, ne pratiquent pas la vaccination ne semble pas avoir d'influence sur les exportations.

Les exportations de porcs ne sont pas importantes, sauf peut-être en ce qui concerne les reproducteurs de race pure où le Royaume-Uni et le Danemark détiennent des positions avantageuses essentiellement dans les échanges à destination de l'Extrême-Orient. Comme nous l'avons mentionné précédemment, des maladies telles que la peste porcine classique et la peste porcine africaine peuvent compliquer la structure des exportations.

Les exportations d'ovins et de caprins ne sont pas importantes face aux échanges intracommunautaires (2 millions de têtes).

4.7. Résumé et conclusions

4.7.1. Echanges intracommunautaires

(a) Viande et produits à base de viande

Quelle que soit la politique adoptée (vaccination générale ou non-vaccination contre la fièvre aphteuse), il ne devrait y avoir aucun obstacle aux échanges.

(b) Bovins

Quelle que soit la formule choisie, les échanges de veaux devraient rester stables. Il existe une possibilité d'échanges de jeunes bovins maigres (de rente) et de bovins de boucherie vers le Danemark et le Royaume-Uni. Il est peu probable que les échanges de bovins reproducteurs de race pure se modifient sensiblement.

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(c) Porcs

Les échanges sont également influencés par d'autres maladies que la fièvre aphteuse. Qu'il s'agisse d'une politique de vaccination générale ou de non-vaccination, il est difficile de prévoir des changements appréciables sur le plan de la structure des échanges.

(d) Ovins et caprins

Les échanges actuels semblent être toujours fortement influencés par les dispositions applicables en matière de brucellose (Brucella melitensis).

4.7.2. Echanges en provenance des pays tiers

(a) Viande et produits de viande

On prévoit peu de changements sauf peut-être un renforcement des contrôles à l'importation des abats en provenance de pays infectés de fièvre aphteuse. Des décisions uniformes doivent être prises vis-à-vis des pays d'Amérique du Sud et d'Afrique Australe. Il faut tenir compte du principe de "non-interférence" appliqué par les Pays-Bas et d'autres pays figurant sur la "liste blanche", aux termes duquel les établissements préparant de la viande et des produits à base de viande à destination de ces pays ne peuvent recevoir et traiter de la viande en provenance de pays ne figurant pas sur la "liste blanche".

(b) Bovins

Dans le cas d'une politique de non-vaccination, une légère baisse des échanges de veaux (27.000) et d'animaux d'élevage (15.000) se fera sentir si la Tchécoslovaquie et la Suisse n'abandonnent pas la vaccination. La Pologne et la Yougoslavie ne seront, par contre, plus obligées de pratiquer la vaccination avant l'exportation.

(c) Porcs

Les importations, qui se sont chiffrées à 52.000 têtes en 1987, sont insignifiantes par rapport à l'ensemble des échanges intracommunautaires (7,0 millions de porcs), notamment si l'on tient compte du degré d'auto-suffisance global du secteur porcin dans la Communauté.

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(d) Ovins et caprins

Les principaux fournisseurs de la Communauté ne pratiquent pas la vaccination systématique. Quelle que soit la politique adoptée, la structure actuelle des échanges devrait normalement se maintenir.

4.7.3. Echanges à destination des pays tiers

(a) Viande et produits à base de viande

Il faut envisager plusieurs cas. Premièrement, les échanges actuels sont régis par de nombreux facteurs, tels que les quotas (par ex. U.S.A. et Canada), les restitutions à l'exportation (accordées par la CEE), les liens commerciaux établis (par ex. le Danemark vers les pays scandinaves) et enfin les règles zoosanitaires (par ex. les pays figurant sur la "liste blanche").

Deuxièmement, une politique de vaccination généralisée pourrait rétrécir les marchés d'exportation (du moins en ce qui concerne la viande fraîche) du Danemark, de l'Irlande et du Royaume-Uni dans une moindre mesure, qui exportent vers les pays figurant sur la "liste blanche" tels que les U.S.A., le Canada et le Japon. Ces échanges servent de tampon aux variations conjoncturelles de production dans la Communauté.

Troisièmement, le passage à une politique de non-vaccination pourrait élargir l'accès de la Communauté dans son ensemble aux pays de la "liste blanche". Cet élargissement pourrait, toutefois, être limité par des restrictions de nature économique. Dans ce cas, les Etats membres qui exportent actuellement d'importants volumes de viande risquent de devoir partager un marché déterminé avec des Etats membres remplissant depuis peu les conditions de pénétration de ce marché.

Un quatrième cas, sans doute hypothétique, doit être envisagé, à savoir le cas dans lequel la Communauté, en tant qu'"entité", est indemne de fièvre aphteuse. La vaccination étant supprimée, la Communauté serait internationalement reconnue indemne de fièvre aphteuse. La Communauté perdrait-elle son statut en cas d'apparition d'un foyer de fièvre aphteuse ? La réponse dépend de l'efficacité de la régionalisation et des mesures de surveillance de la maladie.

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Le principe de la régionalisation est un principe que la Communauté applique en cas d'apparition d'un foyer de fièvre aphteuse ou d'une autre maladie épizootique en vue d'assurer sa propre protection. Les mesures comprennent l'abattage sanitaire dans l'exploitation infectée, la création de zones de protection et de surveillance, l'interdiction de circulation des animaux et d'autres mesures fixées par la directive 85/511/CEE.

L'expérience acquise jusqu'à présent nous amène à penser que certains pays tiers accepteront difficilement ce principe à moins d'être convaincus que les contrôles empêchent effectivement la propagation du virus vers le restant de la Communauté, ce qui leur permettrait de continuer à accepter le produit.

D'autre part, il est établi que lors de l'apparition de la fièvre aphteuse au Royaume-uni (Isle of Wight en 1981), l'Irlande du Nord a conservé son statut de zone indemne. Dès lors, il faut admettre que l'existence d'une barrière physique a joué dans ce cas.

Par ailleurs, la Communauté a accepté ce principe de la régionalisation non seulement pour elle-même, mais aussi pour les pays tiers tels que la Bulgarie, l'Amérique du Sud, l'Afrique du Sud et dernièrement le Canada, pays dans lequel la vallée de l'Okanagan est touchée par la fièvre catarrhale du mouton et est allée jusqu'à admette la régionalisation aux Etats-Unis pour cette dernière maladie.

(b) Animaux vivants

Les principes énoncés pour la viande et les produits à base de viande s'appliquent aussi dans une large mesure aux animaux vivants.

En cas de vaccination générale, de nombreux marchés d'exportation seront perdus dans le secteur des reproducteurs de race pure. Il convient toutefois de signaler que certains pays figurant sur la "liste blanche" accepteront les animaux non vaccinés provenant de pays pratiquant la vaccination, à condition toutefois de pratiquer une mise en quarantaine sévère et coûteuse.

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En cas de non-vaccination, tous les Etats membres seraient en mesure d'exporter librement vers l'ensemble des pays tiers dans la limite toutefois d'éventuelles restrictions d'autre nature.

4.7.4. Lignes d'action proposées

Etant donné que nous ne savons pas quelles seront les réactions de nos partenaires commerciaux des pays tiers face au statut de zone indemne acquis par la Communauté, il serait raisonnable d'organiser des discussions informelles au niveau (vétérinaire) technique afin : (a) de les informer des intentions de la Communauté et (b) de sonder leur attitude face à la régionalisation. Nous savons que plusieurs pays tiers importants sont intéressés par le principe de la régionalisation, car ils aimeraient connaître quelle serait l'attitude adoptée par la Communauté à leur égard s'ils étaient un jour infectés.

Nous suggérons d'adopter cette ligne de conduite sans tarder.

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ANNEXE V

MESURES DE PREVENTION DE LA FIEVRE APHTEUSE APRES 1992

- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. PREVENTION DES FOYERS PRIMAIRES APRES 1992

En cas d'adoption par la Communauté d'une politique de vaccination généralisée, les mesures de prévention et de lutte contre la FA sont largement couvertes par la directive 85/511/CEE du Conseil.

En cas d'adoption par la Communauté d'une politique de non-vaccination en matière de lutte contre la FA, il est indispensable d'envisager les FACTEURS DE RISQUES/MESURES DE PROTECTION ci-après, afin d'empêcher ou de réduire l'apparition de foyers primaires :

2. IMPORTATIONS D'ANIMAUX

Bien qu'aucune importation d'animaux vivants n'ait provoqué récemment de foyers primaires dans la Communauté, toute importation de bétail comporte un risque en soi. Aussi, le groupe recommande-t-il :

(a) de limiter les importations aux animaux non vaccinés (exempts d'anticorps), les animaux importés devant être mis en quarantaine et soumis à des tests ("probang test" et test sérologique), sauf s'ils sont originaires d'un pays indemne de FA qui applique des méthodes de lutte équivalentes à celles appliquées par la Communauté;

(b) de prendre des précautions particulières, afin d'empêcher le mélange du bétail en estivage aux confins de la Communauté.

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3. PROPAGATION PAR VOIE AERIENNE DE LA MALADIE A PARTIR DE PAYS VOISINS

Il a été indirectement prouvé que l'infection a franchi la frontière orientale de la Communauté grâce à un virus en suspension dans l'air. Ce type de virus reste viable dans un milieu froid et humide et constitue, de ce fait, une menace plus importante pour l'Europe septentrionale. Les risques que comporte une infection transmise par voie aérienne peuvent être réduits grâce aux mesures ci-après :

(a) en mettant en place un système de surveillance international permettant d'obtenir des renseignements sur les foyers de maladie dans les pays voisins (par exemple par l'intermédiaire de l'OIE, de la CCE ou de communications bilatérales). Le groupe recommande de renforcer ces systèmes d'information;

(b) en se servant des informations météorologiques pour procéder à des estimations sur la façon dont les virus sont susceptibles de se déplacer et de se propager. De telles estimations ont été effectuées au Royaume-Uni et en France et devraient être introduites ailleurs. Les logiciels correspondants sont disponibles dans le commerce;

(c) en apportant si nécessaire le concours de la Communauté aux programmes de vaccination dans les pays voisins et en évaluant l'efficacité de ces programmes grâce à des enquêtes sérologiques régulières;

(d) en collaborant avec les pays voisins pour les seconder dans l'éradication de la FA;

(e) en informant les exploitants agricoles de la Communauté et les vétérinaires de terrain sur l'importance d'une surveillance rigoureuse et de comptes rendus rapides.

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4. CIRCULATION DES PERSONNES A DES FINS COMMERCIALES OU TOURISTIQUES

Les personnes franchissant les frontières de la Communauté peuvent transporter des objets contaminés par le virus de la fièvre aphteuse. Les touristes, qui vont camper à la campagne à l'extérieur de la Communauté, constituent un risque, car ils peuvent transporter le virus sur leurs vêtements et objets personnels. Le groupe recommande que :

(a) la Communauté s'efforce d'informer les personnes franchissant régulièrement ses frontières sur le risque de transmission du virus par les denrées alimentaires, etc., en posant des panneaux très visibles aux douanes et dans les aéroports et en interdisant aux touristes de rapporter de la viande ou d'autres produits animaux;

(b) les touristes soient sensibilisés au danger qu'il y a à jeter de la viande et d'autres produits animaux à la campagne.

5. CIRCULATION DES VEHICULES

Les véhicules franchissant les frontières de la Communauté risquent de transporter le virus dans la terre ou la poussière adhérant à l'extérieur du véhicule, aux vêtements ou à d'autres objets à l'intérieur du véhicule. Le groupe recommande que la Communauté envisage la possibilité de mettre en place des installations de lavage d'urgence aux frontières lorsque la maladie a été signalée dans un pays voisin.

6. IMPORTATION DE VIANDE ET D'AUTRES PRODUITS ANIMAUX

La viande et certains produits animaux (lait, peaux, laines, abats, biomatériaux, y compris les vaccins et poduits pharmaceutiques utilisés à des fins vétérinaires et les aliments de bétail) présentent un risque d'infection; on s'accorde toutefois à reconnaître que ces produits peuvent être importés dans des conditions particulières.

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De même l'introduction de matériel biologique (à des fins scientifiques par exemple) en provenance de l'étranger présente des risques.

Le groupe recommande que la réglementation communautaire régissant l'importation de ces produits soit réexaminée. Il convient d'interdire l'importation de viande et d'autres produits animaux par des particuliers(1).

7. IMPORTATION DE SEMENCES ET D'EMBRYONS

L'importation de semences et d'embryons présente un risque. A cet égard, il convient de rappeler les règles déjà arrêtées par le Conseil en ce qui concerne l'importation de semences. Des règles analogues concernant l'importation d'embryons sont actuellement à l'étude.

8. STOCKAGE ET MANIPULATION DU VIRUS DE LA FIEVRE APHTEUSE DANS LES LABORATOIRES ET LES ETABLISSEMENTS DE FABRICATION DU VACCIN AU SEIN DE LA COMMUNAUTE

Même si la Communauté applique une politique de non-vaccination, on s'accorde à reconnaître qu'il sera toujours nécessaire de disposer d'installations pour le diagnostic de la FA, de procéder à des recherches sur la FA et de fabriquer des vaccins à la fois pour les banques de vaccins d'urgence et pour l'exportation. Conscient du fait que les laboratoires de recherche et les établissements de fabrication des vaccins, ont, dans un passé récent, donné lieu à un certain nombre de foyers de FA au sein de la Communauté, le groupe recommande :

(a) que le nombre de laboratoires et d'établissements de fabrication de vaccins détenant des virus aphteux soit strictement contrôlé;

(b) que les laboratoires et les établissements de fabrication de vaccins se conforment aux normes minimales recommandées par l'OAA pour les laboratoires effectuant des travaux sur le virus aphteux in vitro et in vivo - rapport de la 26ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, 23-26 avril 1985.

(1) Il convient de prêter particulièrement attention au "port franc" et aux problèmes de contrôle et d'élimination des "eaux grasses d'origine internationale".

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(c) que tous les services détenant des virus aphteux soient contrôlés, à intervalles réguliers, par une équipe d'inspecteurs de la Communauté;

(d) que l'innocuité et l'activité des vaccins antiaphteux utilisés en cas d'urgence soient contrôlées. Il est fait référence à cet égard au rôle de l'institut communautaire pour la coordination des vaccinations contre la fièvre aphteuse.

9. UTILISATION DE VACCINS ANTIAPHTEUX

Il peut arriver que des partenaires commerciaux demandent que le bétail en provenance de la Communauté soit vacciné avant son exportation. Pour répondre à ce besoin, le groupe demande :

(a) que la vaccination soit pratiquée au lieu de destination, dans un centre de mise en quarantaine aux fins d'exportation agréé par la Communauté ou sur le véhicule au moment du départ;

(b) que des précautions particulières soient prises, afin d'empêcher le retour des animaux vaccinés dans la Communauté.

En cas d'apparition d'un foyer, il peut être nécessaire de procéder à une vaccination d'urgence dans une zone territoriale déterminée. Etant donné qu'une telle vaccination d'urgence serait pratiquée sur du cheptel non immunisé, il est recommandé de procéder à deux vaccinations à trois à quatre semaines d'intervalle(1).

10. PREVENTION DES FOYERS SECONDAIRES APRES 1992

En cas de non-vaccination, les mesures nécessaires à prendre pour limiter le nombre de foyers secondaires sont précisées en principe dans la directive 85/511/CEE du Conseil, et plus particulièrement à l'article 5, paragraphe a.

(1) Le recours à la vaccination d'urgence n'est prévu que dans des circonstances exceptionnelles lorsqu'une épizootie risque de se propager. Cette décision devrait être prise au niveau communautaire et permettre d'identifier les animaux vaccinés.

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Quant aux enquêtes épidémiologiques, il convient de se référer aux principes énoncés par l'OAA : "méthodes de recherche de l'origine de l'infection en ce qui concerne les foyers de fièvre aphteuse FA)". (REF. : Rapport de la 27ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, Rome, 21-24 avril 1987, pp 111-120).

L'application des mesures à prendre serait facilitée par la mise en place d'équipes de travail qualifiées au niveau local ou régional. Ces équipes seraient chargées des tâches ci-après :

(a) abattage et destruction des animaux (il convient de prêter une attention toute particulière aux problèmes pratiques liés à la destruction d'un grand nombre d'animaux en un espace de temps réduit);

(b) nettoyage et désinfection des locaux infectés;

(c) évacuation des déchets;

(d) création et maintien d'un service de désinfection des exploitations agricoles et des environs;

(e) points de contrôle;

(f) mise en place de panneaux avertisseurs;

(g) désinfection de tous les véhicules importants qui sortent ou entrent dans la zone infectée;

(g) interdiction des entrées ou sorties d'agents non autorisés.

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En outre, il convient de constituer des équipes épidémiologiques qui apporteraient leur concours aux autorités locales ou régionales. Ces équipes se composeraient de vétérinaires virologues, d'agents techniques du laboratoire national de la FA ainsi que de météorologues connaissant le fonctionnement des systèmes informatiques permettant d'analyser et de prévoir la propagation de la FA par voie aérienne. En cas d'apparition d'un foyer, l'équipe épidémiologique se rendrait immédiatement dans les locaux infectés et serait chargée :

(a) de déterminer sur place l'étendue et le type de la maladie;

(b) de déterminer la source d'infection;

(c) d'évaluer les probabilités de foyers secondaires;

(d) d'informer le vétérinaire chargé de la lutte contre la maladie sur les risques de contamination d'autres locaux.

L'équipe devrait être dotée de véhicules spécialisés et de radiotéléphones.

Il est probable que les foyers de FA deviennent de plus en plus rares au sein de la Communauté et des programmes de formation continue devraient être mis en place, afin d'entretenir les compétences techniques en matière à la fois de diagnostic de la fièvre aphteuse et de lutte contre cette maladie. Ces programmes de formation pourraient être supervisés par un petit groupe d'experts en fièvre aphteuse au niveau communautaire. En cas d'apparition d'un foyer, les autorités nationales devraient pouvoir faire appel aux services de ce groupe.

11. RISQUES ET PREVENTION AU COURS DE LA PERIODE TRANSITOIRE

En cas de passage à une politique de non-vaccination, la proportion d'animaux vaccinés diminuera au cours de la période transitoire alors que celle ces animaux sensibles augmentera.

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Après l'abandon de la vaccination, de plus en plus d'animaux sensibles seront en contact avec les derniers animaux vaccinés et serviront ainsi de révélateur. Si environ un an après l'abandon de la vaccination aucun foyer ne s'est déclaré, le risque de la présence du virus au sein du cheptel bovin peut être considéré comme négligeable.

Pendant un an à compter de l'introduction de la politique de non-vaccination, les Etats membres n'ayant pas pratiqué la vaccination jusqu'alors, devraient continuer à effectuer des tests sérologiques et des "probang test" sur les animaux vivants avant l'importation en provenance des Etats membres ayant préalablement pratiqué la vaccination, afin d'exclure les animaux séropositifs ou porteurs du virus.

Ces tests ne sont pas nécessaires pour la circulation des animaux entre les Etats membres ayant préalablement pratiqué la vaccination. Les règles qui régissent l'exemption de fièvre aphteuse d'une exploitation agricole ou d'une zone devraient toutefois être maintenues en ce qui concerne la circulation des animaux entre tous les Etats membres. Il va de soi que la vaccination obligatoire avant la mise en circulation ne serait plus applicable.

La proposition d'une période transitoire d'un an s'appuie sur les arguments suivants :

(a) au cours de la dernière décennie, la durée de vie des bovins s'est de plus en plus raccourcie, faisant ainsi rapidement diminuer le pourcentage d'animaux revaccinés facilement identifiables;

(b) les anticorps maternels transmis aux jeunes animaux disparaissent complètement au bout d'un an;

(c) la plupart des animaux vaccinés une seule fois et destinés à l'engraissement seront éliminés du marché à la fin de l'année qui suit la dernière campagne de vaccination.

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ANNEXE 6

EFFETS PREVISIBLES D'UNE INTERRUPTION DE LA VACCINATION CONTRE LA FIEVRE APHTEUSE SUR L'EMPLOI DES VETERINAIRES

La situation risque de varier considérablement d'un pays à l'autre en fonction de la densité du cheptel et de l'existence ou non d'un système de subvention destinées à maintenir un minimum d'activités vétérinaires.

La situation est compliquée par le fait que dans certains Etats membres (BE) la vaccination est pratiquée par des vétérinaires privés, dans d'autres par les services de l'Etat (LUX, PO) et dans d'autres par les deux à la fois (DE, ES, FR, IT, NL).

Les Etats membres ont envoyé leurs observations. 4 seulement (BE, DE, FR, NL) prévoient des pertes d'emploi essentiellement dans le secteur privé, où selon les estimations, 10 % environ des honoraires proviennent actuellement de la vaccination. Dans ces Etats membres, on estime que sur les 22.280 vétérinaires pratiquant actuellement la vaccination, 1.480 emplois seront perdus.

Les autres Etats membres estiment que le personnel (des services publics essentiellement) pourra être réaffecté à d'autres projets d'éradication. Seule la France a laissé entendre que les pertes d'emplois pourraient compromettre la surveillance de la maladie et toucher environ 250 vétérinaires dans les régions fort reculées.

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ANNEXE 7

EFFETS PREVISIBLES D'UN CHANGEMENT DE POLITIQUE SUR
LES LABORATOIRES MANIPULANT LE VIRUS DE LA FIEVRE APHTEUSE

1. LEGISLATION COMMUNAUTAIRE EXISTANTE

1.1. Diagnostic et vaccins

La directive 85/511/CEE établissant des mesures communautaires de lutte contre la fièvre aphteuse, entrée en vigueur le 1er janvier 1987, demandait à la Commission de proposer au Conseil :

- un laboratoire de référence pour l'identification du virus de la fièvre aphteuse et
- un institut de coordination des vaccins aphteux,

en précisant leurs attributions respectives.

Des propositions ont été soumises au Conseil en avril 1988 et les décisions devraient intervenir sous peu. Dans chaque proposition, un article a été prévu à cet effet, à savoir :

1. le laboratoire de référence communautaire/l'institut de coordination communautaire travaillera dans des conditions de sécurité sanitaire, agréées, telles qu'elles sont contenues dans les "normes minimales applicables aux laboratoires manipulant le virus de la fièvre aphteuse in vitro et in vivo" - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985;

2. le laboratoire de référence communautaire/institut de coordination communautaire formulera et recommandera les mesures de sécurité sanitaire à adopter par les laboratoires nationaux lors du diagnostic de la fièvre aphteuse conformément aux normes mentionnées au paragraphe 1.

Les laboratoires nationaux qui ont déjà été désignés par les Etats membres et qui figurent dans l'annexe de la directive seront coordonnés par le laboratoire de référence communautaire et l'institut de coordination, dans le domaine de la sécurité sanitaire notamment.

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2. SITUATION ACTUELLE

2.1. A l'heure actuelle, plus de 30 laboratoires manipulent le virus de la fièvre aphteuse en Europe à des fins de diagnostic et de recherche d'une part, et de fabrication de vaccins d'autre part.

En cas d'adoption d'une politique de non-vaccination, une attention toute particulière doit être accordée :

- aux fonctions des laboratoires s'occupant de fièvre aphteuse;
- aux systèmes de sécurité appliqués par lesdits laboratoires;
- au nombre desdits laboratoires.

2.2. Fonctions des laboratoires s'occupant de fièvre aphteuse

2.2.1. Diagnostic de la fièvre aphteuse.

L'établissement d'un diagnostic rapide en laboratoire est essentiel pour permettre l'éradication de la fièvre aphteuse, surtout lors de l'apparition des premiers foyers. Cette remarque vaut quelle que soit la politique adoptée. Toutefois, en cas de non-vaccination, il est d'autant plus nécessaire d'agir vite et les éléments suspects de foyers primaires éventuels doivent toujours être envoyés sans tarder au laboratoire de diagnostic pour une analyse immédiate.

Compte tenu du risque de propagation rapide de la fièvre aphteuse, il est important que les agriculteurs et les vétérinaires de terrain soient pleinement conscients de l'importance que revêtent une vigilance stricte et une notification immédiate. Les membres de l'équipe de terrain des services vétérinaires de l'Etat devraient avoir la possibilité d'observer des cas cliniques de fièvre aphteuse au Laboratoire de Référence (ou laboratoire national) dans le cadre de leur formation.

Les laboratoires de diagnostic devraient disposer d'un matériel et d'un personnel leur permettant de pratiquer des tests à haute sensibilité de façon à pouvoir établir rapidement un premier diagnostic et identifier plus facilement l'origine de l'infection. En outre, le laboratoire établissant le diagnostic devrait envoyer le plus rapidement possible un échantillon des virus (de préférence le matériel d'analyse recueilli sur le terrain) du premier foyer au Laboratoire de Référence à des fins de confirmation et de caractérisation complète.

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Les laboratoires de diagnostic devraient être équipés (en matériel et en personnel) pour procéder à des tests sérologiques à grande échelle indispensables lors des analyses épizootiologiques liées à l'apparition de foyers.

Les laboratoires de diagnostic auront une autre fonction importante à remplir, à savoir procéder à des tests de contrôle lors de l'importation d'animaux vivants en provenance de pays tiers qui n'appliquent pas des mesures de lutte contre la fièvre aphteuse équivalentes à celles appliquées par la Communauté.

2.2.2. Etablissement de fabrication de vaccins

Il existe 15 établissements qui fabriquent des vaccins au sein de la Communauté. Parmi ces établissements, huit appartiennent à l'Etat et sept sont des sociétés commerciales appartenant à cinq firmes (voir tableau 1). La capacité de production de ces établissements varie très fort de même que leur niveau de sécurité. Les établissements de l'Etat sont fort proches des laboratoires ou instituts de recherche et de diagnostic de la fièvre aphteuse (souvent, ils utilisent les mêmes installations).

Capacité de production

Pour couvrir les besoins liés aux programmes de vaccination actuels dans huit Etats membres de la Communauté (à l'exclusion du Royaume-Uni, de l'Irlande, du Danemark et de la Grèce), 77,3 millions de doses vaccinales sont produites chaque année par les quinze établissements. 37 % environ des vaccins sont produits dans les établissements de l'Etat (29 millions de doses).

Ce chiffre tient compte des données suivantes :

- pour l'instant, l'Italie a un gros programme de vaccination pour les bovins et les porcins;
- l'Espagne vaccine le cheptel bovin deux fois par an et a également un programme de vaccination pour les porcins et les ovins.

A ce chiffre de 77,3 millions de doses, il convient d'ajouter un nombre indéterminé de doses nécessaires pour :

- la fabrication de vaccins destinés à l'exportation vers les pays tiers, essentiellement par les sociétés commerciales (EG-Merieux-France : 5,8 millions de doses). Les établissements de l'Etat peuvent également exporter une certaine quantité de vaccins, mais généralement au coup par coup;
- la fabrication de vaccins dans certains Etats membres pour la constitution de stocks d'urgence.

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En étant prudents, on peut estimer à 85/90 millions de doses la fabrication annuelle totale de vaccins au sein de la Communauté. Il est impossible de donner une estimation quelconque des capacités de production maximales.

Si les huit Etats membres poursuivent le même programme de vaccination pour les bovins et vaccinent 85 % de leur cheptel bovin une fois par an, il est nécessaire de produire au minimum plus ou moins 50 millions de doses de vaccin trivalent.

La Communauté n'importe pas de vaccin aphteux sauf une petite quantité de vaccins destinés à la zone tampon dans le nome d'Evros (Grèce).

Politique de vaccination générale

Si l'on opte pour la vaccination générale, un programme de vaccination devra être introduit dans les quatre Etats membres restants, à savoir le Royaume-Uni, l'Irlande, le Danemark et la Grèce. Ces quatre pays totalisent ± 20,5 millions de bovins.

Si l'on vaccine 85 % de ce cheptel bovin, il faudra 17 millions de doses vaccinales en plus. Ces vaccins supplémentaires peuvent être fabriqués de trois façons différentes, à savoir :

(a) chacun des quatre pays peut accroître ses installations existantes pour couvrir ses propres besoins (exception faite de l'Irlande qui ne dispose pas d'installations);
(b) les établissements qui existent à l'extérieur des quatre pays mais à l'intérieur de la Communauté peuvent augmenter leur production;
(c) la Communauté peut importer des vaccins de l'étranger.

En ce qui concerne le point (a), on peut raisonnablement s'attendre à une augmentation de la production de vaccins dans les installations dont disposent le Danemark, le Royaume-Uni et la Grèce. La construction d'unités de production en Irlande n'est pas une solution très plausible, à moins qu'elle ne soit nécessaire pour des raisons politiques. Il serait toutefois sans doute beaucoup moins onéreux que les quatre pays achètent leurs vaccins aux autres Etats membres.

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En ce qui concerne le point (b), augmenter la fabrication de vaccins dans les établissements actuels de la Communauté pour fournir les 17 millions de doses supplémentaires ne devrait poser aucun problème (voir paragraphe ci-dessus sur les capacités de production).

En ce qui concerne le point (c), l'importation de vaccins dans la Communauté semble hautement improbable pour les raisons suivantes :
- de telles importations ne sont pas nécessaires;
- l'importation de vaccins dans la Communauté pourrait accroître le risque d'introduction du virus aphteux.

Politique de non-vaccination

L'adoption d'une politique de non-vaccination signifierait automatiquement l'abandon de toute vaccination préventive contre la fièvre aphteuse dans toute la Communauté. La vaccination ne serait plus nécessaire que pour les campagnes de vaccination d'urgence dans certaines zones autour des foyers lorsque l'abattage sanitaire ne permet pas une éradication rapide de la maladie ou si la maladie se propage. Des stocks stratégiques de vaccins (une banque communautaire des vaccins) seront nécessaires. L'estimation du nombre de doses vaccinales nécessaires à cet effet doit encore être faite.
Il est clair toutefois qu'une politique de non-vaccination diminuera sensiblement le nombre de vaccins nécessaires au sein de la Communauté.

Les sociétés commerciales de fabrication de vaccins qui exportent vers les pays tiers une grande quantité de leur production par rapport à la production totale de vaccins aphteux devraient pouvoir continuer leurs activités en étant soumises à de stricts contrôles de sécurité.
D'autres fermeront leurs installations de fabrication de vaccins aphteux ou réorienteront leurs activités.

Il sera par ailleurs nécessaire de tenir compte des recommandations de l'OIE en ce qui concerne le trafic international de produits pathologiques et de produits biologiques contenant le virus aphteux.

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Quant au sort des établissements de l'Etat, qui produisent en grande partie uniquement pour couvrir les besoins de leur propre pays, ils dépendent d'un certain nombre de facteurs, à savoir :

a. le maintien des capacités de diagnostic;
b. la recherche dans le domaine de l'épidémiologie et de la lutte contre la fièvre aphteuse;
c. la fabrication et le stockage - ainsi que la recherche qui y est associée - d'une certaine quantité de vaccins pour la constitution des réserves de la banque communautaire des vaccins;
d. les possibilités de fabrication de vaccins destinés à l'exportation vers les pays tiers.

Si un Etat membre décide de fermer toutes ses unités de production, une partie des économies réalisées de la sorte pourrait être utilisée pour mettre au point des techniques modernes de diagnostic et pour former le personnel.

2.2.3. Travaux de recherche sur la fièvre aphteuse

Quelle que soit la politique adoptée à l'avenir (vaccination ou non-vaccination), il sera nécessaire d'effectuer des travaux de recherche sur la fièvre aphteuse. Parmi les sujets d'actualité, il convient de citer :

- la mise au point et la normalisation de systèmes de tests sensibles;
- l'emploi d'anticorps monoclonaux pour la caractérisation des souches sauvages, des souches vaccinales et des souches d'épreuve;
- la biologie moléculaire du virus aphteux;
- les problèmes liés au stockage de l'antigène viral de la fièvre aphteuse dans les banques;
- de nouvelles sources d'information pour évaluer l'activité du vaccin;
- la sécurité des produits animaux;
- la mise au point de nouveaux vaccins (ex. délétion génétique, sous-unité et peptide).

Les systèmes de tests sensibles ELISA et les méthodes de biotechnologie et de biologie moléculaire, par exemple en vue de l'identification et de la caractérisation rapides et précises des souches virales de la fièvre aphteuse, constituent autant d'exemples des applications pratiques des travaux de recherche de ces dernières années qui offrent d'énormes perspectives. Il est dès lors probable que le "sous-typage" classique des isolats viraux sera remplacé par des caractérisations plus précises, combinant différents paramètres, tels que la détermination de la séquence des nucléotides et/ou les réactions avec une gamme appropriée d'anticorps monoclonaux en plus des relations antigéniques classifiques (valeurs "r").

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Ce type de caractérisation sera très utile à la fois pour identifier l'origine de l'infection et pour sélectionner les vaccins appropriés.

Les travaux de recherche dans ces domaines progressent dans plusieurs laboratoires européens s'occupant de fièvre aphteuse et devraient être encouragés. A l'avenir, ces activités de recherche pourraient être coordonnées par le laboratoire de référence communautaire/institut de coordination communautaire.

2.3. Systèmes de sécurité appliqués par les laboratoires s'occupant de la fièvre aphteuse

Compte tenu des fuites de virus dues aux manipulation en laboratoire, il est impératif que tous les laboratoires travaillant sur le virus aphteux travaillent, quel que soit le type de travaux qu'ils effectuent, selon les normes de sécurité sanitaire reconnues, telles qu'elles sont contenues dans les : "Normes minimales applicables aux laboratoires travaillant sur le virus aphteux in vitro et in vivo - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985.

Il serait peut-être souhaitable de désigner un groupe d'experts communautaires chargé de contrôler le respect de ces normes de sécurité.

2.4. Nombre de laboratoires s'occupant de la fièvre aphteuse

En raison du risque de fuites de virus dues aux manipulations en laboratoire, il convient de limiter le plus possible le nombre de laboratoires, surtout si l'on opte pour une politique de non-vaccination. Il est évident qu'il faut toutefois en conserver quelques-uns.

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Compte tenu de l'importance d'un diagnostic rapide en cas d'urgence, quelle que soit la localisation du cheptel d'origine, le matériel suspect devrait pouvoir atteindre le laboratoire de diagnostic dans les heures qui suivent son prélèvement ou au moins le même jour. En tenant compte de la nécessité des travaux de recherche sur la fièvre aphteuse et de la qualité des travaux de recherche effectués à l'heure actuelle dans plusieurs des principaux laboratoires nationaux, un compromis raisonnable serait de conserver à l'avenir un seul laboratore national par pays.

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TABLEAU 1

Etat membre	Usines de production		Besoins annuels de vaccins pour les campagnes de vaccination (1986)	Commentaires
	de l'Etat	commercial.		
Belgique	1 Uccle	-	2.3 mill. AOC (triv.)	
Danemark	1 Lindholm	-	0.45 mill. A) O) 0.15 mill. C) chacun	Comme réserve
Allemagne	-	3 Cooper Behring-werke Bayer	)) 13 mill. AOC (triv)))	Egalement importation de vaccins de de l'institut Merieux France
Grèce	1 Athènes	-	0.12 mill) A-0.038 mill.) O-0.034 mill.) C-0.043 mill.	Comme réserve. De plus, 60.000 doses sont importées de l'institut Merieux-Téhéran pour servir dans la zone tampon
France	-	1 Merieux	19.0 mill. AOC (triv)	9 mill. de doses également exportées vers la CEE et les pays tiers
Irlande	-	-	-	-
Italie	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Periode 15/3/87 au 3/7/88. Grosse campagne de vaccination, vaccination des bovins et porc.
Luxembourg	-	-	0.2 mill. AOC (triv)	Vaccins provenant de différentes firmes au sein de CEE
Pays-Bas	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Vaccins importés d'Espagne et France
Espagne	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	Vaccins utilisés pour les bovins et porcins (chiffres de 1987) capacité maximale des 3 laboratoires: 102 millions de vaccins (mono)
Royaume-Uni	-	Cooper	-	Fabrication destinée à la banque de vaccins du Roy.Uni
TOTAL	8	7	77.3 millions	0.6 mill. comme réserve

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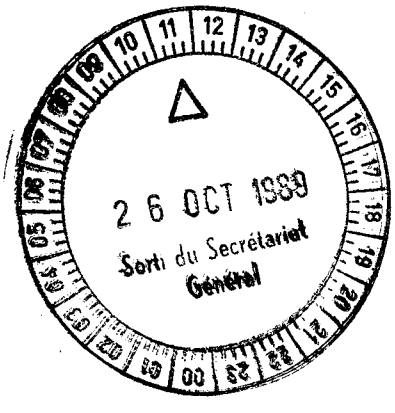
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BERICHT

der Kommission an den Rat
über eine Studie der Kommission über die derzeitigen Politiken der Mitgliedstaaten zur Bekämpfung der Maul- und Klauenseuche

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BEGRÜNDUNG

Die Maul- und Klauenseuche (MKS) ist eine der gefährlichsten Seuchen für den Tierbestand. Sie breitet sich rapide auf alle Paarhufer aus. Ihre wirtschaftlichen Auswirkungen sind erheblich, zum einen wegen ihrer unmittelbaren Auswirkungen auf die Tierzucht und zum anderen wegen ihrer Auswirkungen auf den Handel mit Tieren, tierischen Erzeugnissen und bestimmten landwirtschaftlichen Produkten.

Die Methoden der Bekämpfung der MKS sind in den einzelnen Mitgliedstaaten unterschiedlich. Es gilt jedoch, daß entweder geimpft wird und befallene Tiere ganz oder teilweise getötet werden (Abschlachten und Beseitigen), oder daß nicht geimpft wird und befallene Tiere sämtlich getötet werden. Neben der Impf- bzw. Nichtimpfpolitik gibt es noch weitere Maßnahmen, wie Einfuhrkontrollen, Überwachung verdächtiger Tiere, Vorkehrungen für Diagnoseeinrichtungen und Überwachung des Verkehrs mit lebenden Tieren.

Derzeit dürfen Mitgliedstaaten, die keine Impfungen durchführen, den freien Handel mit lebenden Tieren aus Gemeinschaftsländern, die Impfungen durchführen, einschränken. Grund dafür ist die Befürchtung, daß geimpfte Tiere verdeckt Infektionsträger sind und ihre Präsenz den Handel mit bestimmten Drittländern einschränken könnte.

Nach Vollendung des Binnenmarktes im Januar 1993 soll der freie Verkehr mit lebenden Tieren und tierischen Erzeugnissen innerhalb der Gemeinschaft möglich sein. Voraussetzung dafür ist, daß alle Mitgliedstaaten gemeinsame Maßnahmen hinsichtlich der MKS anwenden.

Rechtsvorschriften über die MKS sind enthalten in:

- der Ratsentscheidung 77/97/EWG (Finanzierung dringender Veterinärmaßnahmen)
- Ratsrichtlinie 64/432/EWG (Innergemeinschaftlicher Handelsverkehr)
- Ratsrichtlinie 85/511/EWG (Bekämpfung der MKS)

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Die Überprüfung der Richtlinie 64/432/EWG (Artikel 4a) durch die Kommission war 1988 fällig und die Überprüfung der Richtlinie 85/511/EWG steht für 1989 an.

Angesichts des Erfordernisses, innerhalb einer kurzen Frist und unter Berücksichtigung der nahen Vollendung des Binnemarktes nach 1992 zwei Überprüfungen und Berichte an den Rat anzufertigen, beschloß die Kommission, die Frage der MKS genauer zu untersuchen. Es wurde deutlich, daß sich angesichts der bestehenden unterschiedlichen Impfungs- und nicht Nichtimpfungsregelungen kein freier Handel ohne die Gefahr einer Virusausbreitung erreichen läßt. Es wurde daher im Einvernehmen mit den Mitgliedstaaten beschlossen, Kosten-/Nutzenstudien und entsprechende Analysen mit dem Ziel durchführen zu lassen, ein klare Linie für die einzuschlagende Politik auszuarbeiten.

Die Kommission wurde in ihrer Aufgabe der Überprüfung und der Ausarbeitung des Berichts tatkräftig von zahlreichen Sachverständigen aus den Mitgliedstaaten unterstützt. Die Arbeit der Untergruppe des Wissenschaftlichen Veterinärausschusses zur Beurteilung der künftigen Entwicklung und der Risikofaktoren verdient besonders erwähnt zu werden.

In der Studie berücksichtigte Fragen waren:

- die Auswirkungen der MKS in der Gemeinschaft während der letzten 20 Jahre,
- das Risiko der MKS in der Gemeinschaft im Rahmen der alternativen Politiken nach 1992,
- die wirtschaftlichen Folgen der Strategien, wie Kosten-/Nutzenanalyse,
- die Auswirkungen auf die Handelsströme,
- die Maßnahmen zur Verhinderung von Primär- und Sekundärausbrüchen nach 1992 und
- die Änderungen, die hinsichtlich des eingesetzten Personals im Rahmen der jeweiligen Politik zu erwarten wären.

Die Schlußfolgerungen der Kommission aus diesen Studien lassen sich wie folgt zusammenfassen:

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- Eine Nichtimpfungspolitik wurde eindeutig weniger Kosten als eine Politik der Durchimpfung.
- Die Erzeugung und Verwendung von Vaccinen selbst, kann wegen Laborausbrüchen oder Verwendung unsachgemäß inaktivierter Impfstoffe die Verschleppung des Regevirus in eine Tierpopulation zur Folge haben. Eine Nichtimpfungspolitik bietet deshalb viel mehr Sicherheit.
- Die zur Verhinderung einer Infektion in der Gemeinschaft und zur nachhaltigen Tilgung von Seuchenherden getroffenen Maßnahmen sollten verstärkt werden. Die Kommission wird zu diesem Zweck eine höhere finanzielle Beteiligung der Gemeinschaft an den Kosten vorschlagen, die durch die Entschädigung der Landwirte im Fall eines Seuchenbefalls entstehen.
- Die Regelung des innergemeinschaftlichen Handels und der Einfuhr aus Drittländern wird so geändert, daß - sobald die Nichtimpfungspolitik durchgeführt wird - aus diesen Ländern keine geimpften Tiere mehr eingeführt werden dürfen. Wurde eine Durchimpfung vorgesehen, müßte die Ausfuhr nach bestimmten Drittländern eingestellt werden, während bei Anwendung einer Nichtimpfungspolitik zwischen der gesamten Gemeinschaft und allen Drittländern Handel getrieben werden könnte. Sollte im letzteren Fall ein Seuchenausbruch festzustellen sein, könnte die Ausfuhr aus der gesamten Gemeinschaft durch wirksame Kontroll- und Tilgungsmaßnahmen auf regionaler Ebene, d.h. im Rahmen einer Regionalisierung gewährleistet werden.
- Tierärzte, die in allen Mitgliedstaaten bislang zur Durchführung der Impfungsprogramme angestzt waren, werden für folgendes benötigt:
  - Verbesserung der Struktur der einzelstaatlichen tierärztlichen Dienste, um den zusätzlichen Ansprüchen an einer Nichtimpfungspolitik gerecht zu werden;
  - Durchführung anderer Seuchenbekämpfungsmaßnahmen (Aujeszky Krankheit, Bruzellose Militensis);
  - Verstärkung der einzelstaatlichen tierärztlichen Dienste im Hinblick auf die Verwirklichung des Einheitsmarktes.
- MKS-Labore, die Vaccine herstellen, werden sich der neuen Lage anpassen müssen, in der die Herstellung von Vaccinen weitgehend eingeschränkt, wenn nicht völlig aufgegeben wird. Besonder Anstrengungen können für die Ausbildung von Fachpersonal zur Diagnose der MKS und der Entwicklung besserer Diagnoseverfahren gemacht werden.

Die Kommission ist fest davon überzeugt, daß sich die Gemeinschaft zur Erreichung der Ziele des Binnenmarktes, d.h. zur Angleichung der gesundheitlichen Anforderungen auf einem hohen Niveau und zur Sicherstellung des freien Warenverkehrs auf die Nichtimpfungspolitik umstellen muß. Diese Vorgehensweise wird den Mitgliedstaaten dringend empfohlen. Dem Rat werden mit dem Ziel der Änderung der bestehenden Rechtsvorschriften geeignete Vorschläge unterbreitet.

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BERICHT DER KOMMISSION AN DEN RAT (1)

Betrifft: Eine Studie der Kommission über die derzeitige Politik der Mitgliedstaaten zur Bekämpfung der Maul- und Klauenseuche

1. EINLEITUNG

1.1. Nach der Gründung der Europäischen Wirtschaftsgemeinschaft im Jahre 1957 haben die sechs Gründungsmitgliedstaaten eine Reihe von Maßnahmen für den freien Verkehr mit Tieren und tierischen Erzeugnissen im innergemeinschaftlichen Handel erörtert. Ursprünglich waren nach den nationalen Vorschriften Garantien hinsichtlich der Gesundheit der Tiere erforderlich, durch die sichergestellt wurden, daß in einem Mitgliedstaat eintreffende Tiere gesund waren und durch sie auf die einheimischen Herden keine Seuchen übertragen werden konnten.

1.2. Die erste formelle Harmonisierung kam 1964 mit der Annahme der Ratsrichtlinie 64/432/EWG, die - zwar geändert und erweitert - nach wie vor in Kraft ist. Diese Richtlinie deckt den innergemeinschaftlichen Handel mit Rindern und Schweinen ab. Ende 1988 gelten noch die einzelstaatlichen Rechtsvorschriften für den Handel mit anderen Tierarten.

1.3. Eine der wichtigsten unter die ursprüngliche Richtlinie fallenden Seuchen ist die Maul- und Klauenseuche (MKS). Eine Einigung über Vorschriften betreffend die MKS war insofern nicht besonders schwierig, als in allen sechs Mitgliedstaaten eine Impfpolitik durchgeführt wurde. Abgesehen von der Vorschrift, daß Bestand und Gebiet MKS frei sein mußten, bestand die wichtigste Sicherheitsregel darin, daß über vier Monate alte Rinder vor ihrem Verbringen in einen anderen Mitgliedstaat geimpft werden mußten. Die Einhaltung dieser Regeln wurde durch Gesundheitzeugnisse sichergestellt, die von einem amtlichen Tierarzt ausgestellt wurden und jeden Tiertransport begleiteten.

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(1) Die in diesem Bericht erwähnten Anhänge sind im Kommissionsdokument VI/3198/89 enbhalten

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1.4. Der Beitritt Dänemarks, Irlands und des Vereinigten Königreichs zur Gemeinschaft im Jahre 1973 brachte erhebliche Anpassungen an der Richtlinie 64/432/EWG, da die neuen Mitgliedstaaten keine Impfpolitik betrieben, was, im Falle eines Ausbruchs die Tötung sämtlicher Tiere bedeutete. Trotz langwieriger Verhandlungen konnte eine unmittelbare Lösung für die unterschiedlichen Vorgehensweisen nicht gefunden werden. Gemäß dem Vertrag über den Beitritt hatten die neuen Mitgliedstaaten die Möglichkeit, ihre nationalen Rechtsvorschriften zum Schutz gegen die MKS während einer Übergangszeit von fünf Jahren beizubehalten, während weitere Versuche zur Harmonisierung auf Gemeinschaftsbasis unternommen wurden.

1.5. Schließlich wurde 1984 eine Änderungsrichtlinie (84/643/EWG) vom Rat erlassen, die neue für alle Mitgliedstaaten geltende Vorschriften zum Schutz gegen die MKS brachte. Mit dieser Richtlinie wurden wegen der Ähnlichkeit mit der MKS auch eine andere Bläschenkrankheit, nämlich die vesikuläre Schweinekrankheit, abgedeckt. Die Änderungsrichtlinie enthält alle Einzelheiten der zusätzlichen Garantien, die ein Mitgliedstaat je nach seinem Status hinsichtlich der Seuche und seiner Position gegenüber der Impfpolitik fordern kann. Die Anwendung des zur Diskussion stehenden geänderten Artikels 4a ist zu überprüfen.

1.6. Der Beitritt Griechenlands (1981) sowie Spaniens und Portugals (1986) zur Gemeinschaft brachte keine ins Gewicht fallende Änderungen an der Richtlinie 64/432/EWG.

1.7. 1985 erließ der Rat eine Richtlinie (85/511/EWG) über die Bekämpfung der MKS in der Gemeinschaft. Darin sind wichtige gemeinsame Maßnahmen festgelegt, mit denen ein MKS-Ausbruch einheitlich zu bekämpfen ist. Mitgliedstaaten, die Impfungen durchführen, haben jedoch nach wie vor die Möglichkeit, zwischen der Tötung sämtlicher Tiere oder nur eines Teils der Tiere zu wählen.

1.8. Die Kommission wurde vom Rat mit einer ganzen Reihe wichtiger subsidiärer Aufgaben betraut, wie unter anderem

- der Ausarbeitung von Vorschriften über die teilweise Abschlachtung
- die Benennung eines gemeinschaftlichen Referenzlabors zur Diagnostizierung der MKS
- die Benennung eines gemeinschaftlichen Instituts zur Impfstoffprüfung

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- die Koordinierung der Impfpläne der Mitgliedstaaten
- einen Vorschlag an den Rat zur Einrichtung einer gemeinschaftlichen Impfstoffbank
- die Verpflichtung, dem Rat bis 1990 über die Funktionsweise der Vorschriften der Richtlinie zu berichten und gegebenenfalls Vorschläge zu unterbreiten.

1.9. 1985 hat der Rat eine Änderung zur Entscheidung (77/97/EWG) betreffend Finanzierung bestimmter dringender Veterinärmaßnahmen angenommen. Bis dahin war in der Entscheidung vorgesehen, daß finanzielle Mittel nur dann bereitgestellt wurden, wenn in einem Mitgliedstaat exotische Seuchen auftraten. Gemäß der Änderung sind nunmehr sowohl Mittel für die exotische MKS wie für die klassische europäische MKS für die ersten zwanzig Ausbrüche in den ersten dreißig Tagen eines Seuchenausbruchs zu gewähren, sofern sofort sämtliche Tiere getötet werden.

2. RECHTLICHER HINTERGRUND

2.1. Der rechtliche Hintergrund dieses Berichts ist enthalten in
- der Ratsrichtlinie 64/432/EWG (Überprüfung von Artikel 4a) und
- der Ratsrichtlinie 85/511/EWG (Überprüfung gemäß Artikel 18).

2.2. Wie in der Einleitung zu diesem Bericht erwähnt, geht die Richtlinie über den innergemeinschaftlichen Handel mit Rindern und Schweinen auf 1964 zurück (Richtlinie 64/432/EWG).

Abweichende Maßnahmen für den innergemeinschaftlichen Handel mit Rindern und Schweinen wurden für Dänemark, Irland und das Vereinigte Königreich eingeführt, als diese 1973 der Gemeinschaft beitraten. Aufgrund dieser abweichenden Bestimmungen konnten diese drei Länder ihre einzelstaatlichen Vorschriften zum Schutz gegen die Maul- und Klauenseuche beibehalten. Diese Maßnahmen wurden bis zum 31. Dezember 1984 verlängert. Danach wurden neue Vorschriften eingeführt, die hinsichtlich des Schutzes gegen die Maul- und Klauenseuche in allen Mitgliedstaaten angewandt werden konnten.

Die neuen Vorschriften sind in der Ratsrichtlinie 84/643/EWG vom 11. Dezember 1984 enthalten. Mit ihnen wurde ein Artikel 4a in die Grundrichtlinie über den Handel mit Rindern und Schweinen eingefügt. In diesem Artikel sind im einzelnen die zusätzlichen Garantien aufgeführt, die ein Mitgliedstaat je nach seinem Status hinsichtlich der Seuche und seiner Impfpolitik verlangen kann.

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In Artikel 4a ist darüber hinaus vorgesehen, daß der Rat auf Vorschlag der Kommission mit qualifizierter Mehrheit alle drei Jahre und erstmals drei Jahre nach Inkrafttreten des Artikels, d.h. am 1. Januar 1988, die Vorschriften dieses Artikels überprüft. Diese Überprüfung erfolgt auf der Grundlage eines Berichts der Kommission dem gegebenenfalls geeignete Vorschläge beigefügt werden.

2.3. In Durchführung ihrer Aufgabe stellte die Kommission fest, daß ihr vom 1. Januar 1985 an keine spezifischen Probleme der Mitgliedstaaten bei der Ausfuhr oder der Einfuhr von Tieren im innergemeinschaftlichen Handel gemeldet wurden. Am 28. Juli 1987 unterrichtete die Kommission die Mitgliedstaaten von ihrer Absicht, die Anwendung des fraglichen Artikels zur überprüfen und forderte sie auf, der Kommission unverzüglich etwaige Bemerkungen zu den Vorschriften des Artikels 4a zukommen zu lassen.

Einige Mitgliedstaaten teilten der Kommission mit, daß sie eine Lockerung der Vorschriften betreffend die Schlachtung der Tiere für wünschenswert hielten. Die Kommission erkennt an, daß die Artikel und die darin vorgesehenen Quarantäneverfahren Schwierigkeiten für den freien Verkehr mit Tieren innerhalb der Gemeinschaft aufwerfen.

2.4. Bei der zweiten Richtlinie, derzufolge die Kommission dem Rat einen Bericht über die Lage hinsichtlich der MKS vorzulegen hat, handelt es sich um die Richtlinie 85/511/EWG und insbesondere um Artikel 18; Mit dieser Richtlinie wurden eine Reihe von Gemeinschaftsmaßnahmen eingeführt, die das Ziel haben, im Falle eines MKS-Ausbruchs nach einem einheitlichen Verfahren vorzugehen. Die Kommission ist also aufgefordert, dem Rat über die Anwendung dieser Richtlinie bis zum 1. Januar 1990 Bericht zu erstatten. Möglicherweise werden dem Bericht der Kommission geeignet Vorschläge beigefügt.

3. MASSNAHMEN DER KOMMISSION

3.1. Angesichts ihres Auftrags, innerhalb einer kurzen Zeitspanne und unter Berücksichtigung der Vollendung des Binnenmarktes nach 1992 zwei Überprüfungen und Berichte dem Rat vorzulegen, hat die Kommission beschlossen, das MKS-Problem genauer zu untersuchen.

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Sehr bald zeigte sich, daß es nicht möglich ist, weiterhin mit zwei unterschiedlichen Strategien, nämlich der Impfung und der Nichtimpfung fortzufahren. Somit wurde im Einvernehmen mit den Mitgliedstaaten beschlossen, Kosten-/Nutzenuntersuchungen und entsprechende Analysen im Hinblik auf eine eindeutige politische Ausrichtung durchzuführen.

3.2. Um ihren Verpflichtungen gegenüber dem Rat hinsichtlich der Übrprüfung des Artikels 4a der Richtlinie 64/432/EWG nachzukommen, unterbreitete die Kommission dem Rat am 14. Januar 1988 einen Bericht, in dem sie erläuterte, warum sie eine Grundsatzstudie beschlossen hatte. Gleichzeitig teilte sie mit, daß sie bemüht sei, bis Ende 1988 einen Bericht mit entsprechenden Vorschlägen vorzulegen.

3.3. Die Kommission wurde bei der Durchführung der Überprüfung und Formulierung des Berichts tatkräftig von einer ganzen Reihe von Sachverständigen der Mitgliedstaaten unterstützt. Besondere Erwähnung verdient die Arbeit der Untergruppe des Wissenschaftlichen Veterinärausschusses, der die Voraussagen über die künftige Entwicklung und die Risikofaktoren beurteilte. Die Kommissions stellt fest, daß der Bericht dieser Gruppe vom gesamten Wissenschaftlichen Veterinärausschuß ebenso wie von den Kommissionsdienstellen positiv aufgenommen wurde.

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4. BEKÄMPFUNG DER MAUL- UND KLAUENSEUCHE IN DER EUROPÄISCHEN GEMEINSCHAFT

4.1. Einleitung

4.1.1. Dieses Dokument faßt die Möglichkeiten für eine gemeinschaftliche Politik zur Bekämpfung der Maul- und Klauenseuche (MKS) zusammen. Obgleich es im Vorgriff auf die Aufhebung der Grenzen Ende 1992 ausgearbeitet wurde, wird darin der Notwendigkeit Rechnung getragen, daß eine gemeinsame Politik - sobald diese praktikabel sei - bereits vor diesem Datum durchgeführt werden muß.

4.1.2. Die MKS ist eine der bedrohlichsten Seuchen für den Tierbestand. Sie verbreitet sich rapide, befällt alle Paarhufer und hat erhebliche wirtschaftliche Auswirkungen, da sie unmittelbar die Tierzucht beeinträchtigt und den Handel mit lebenden Tieren, tierischen Erzeugnissen und bestimmten landwirtschaftlichen Erzeugnissen behindert.

4.2. Vorgeschichte

4.2.1. Die Europäische Tierzucht wurde erstmals ernsthaft in den dreißiger Jahren von der MKS befallen. Es handelte sich seinerzeit wie wir heute wissen, um die Typen O, A und C. Nach dem zweiten Weltkrieg wurde ein Rückgang der MKS beobachtet, wahrscheinlich auf Grund der Handelsbeschränkungen und des Wiederaufbaus einzelstaatlicher Tierbestände. In den frühen fünfziger Jahren stiegen die Ausbrüche plötzlich an. Die erheblichen Folgen führten dazu, daß sich die OIE und die FAO in der Bekämpfung der Seuche auf dem Kontinent stärker engagierten. Das Aufkommen des Frenkelvakzins führte zu einer raschen Verbreitung der Impfstoffproduktion und zu entsprechenden Impfungen. Zusätzlich entschlossen sich die meisten Länder für eine Abschlachtpolitik, wobei mitunter Massenimpfungen um die Seuchenherde als weitere Maßnahme durchgeführt wurden. In diesen Jahren führten die meisten europäischen Länder die Pflichtimpfung, zumindest für Rinder, ein.

4.2.2. Das nichtkontinentale Europa, d.h. die skandinavischen Länder und das VK und Irland bleiben vergleichsweise verschont. In Spanien traten regelmäßig bis 1980 schwere Seuchenausbrüche aus. Der Nahe Osten und insbesondere die Türkei stellten für Westeuropa eine erste Bedrohung dar.

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Diese Berohung besteht nach wie vor fort, wobei sich jedoch eine in Thrakien eingerichtete Impfpufferzone als überaus nützlich erwiesen hat. Die Seuche tritt auch in Afrika auf, wo es drei verschiedene afrikanische Virustypen gibt. In einigen asiatischen Ländern tritt ein auf diesem Kontinent verbreiteter Virustyp auf. Ausgenommen Südamerika, wo die meisten Länder mit einem dem klassischen europäischen Virustyp verwandten Virustyp befallen sind, ist der Rest der Welt frei von dieser Seuche, so daß auch Impfungen nicht durchgeführt werden. Große Landmassen dieser kategorie sind Zentral- und Nordamerika, Australien, Neuseeland, Japan, Korea und die sonstigen fernöstlichen Gebiete.

Eine Zusammenfassung der jeweiligen Situation ist in den Tabellen 2 und 3 des Anhangs 1 enthalten.

4.2.3. Die großen Epidemien, die Europa in den sechziger und frühen siebziger Jahren heimsuchten, sind aufgrund von Massenimpfungen und Einschränkungen der Einfuhren von Fleisch und anderen tierischen Erzeugnissen in die Gemeinschaft weitgehend unter Kontrolle gebracht worden. Seit 1980 sind lediglich in Italien (1984-87) und Portugal (1980-84) schwere Seuchen aufgetreten.

4.2.4. Die angezeigten Ausbrüche in den Mitgliedstaaten sind in Tabelle 1 des Anhangs 1 aufgeführt. Als Ausbruch gilt das Auftreten der Seuche in einem landwirtschaftlichen Betrieb oder Unternehmen (OIE). Es ist festzustellen, daß die Zahl der Ausbrüche in den letzten zwanzig Jahren in der Gemeinschaft stark zurückgegangen ist. In den meisten Mitgliedstaaten ist die Seuche in den letzten fünf Jahren kaum oder gar nicht aufgetreten. Eine Ausnahme bildet Italien, das in den nördlichen Landesteilen von einer Reihe von Epidemien heimgesucht wurde.

4.2.5. Die MKS-Situation in den Nachbarländern läßt sich der Tabelle 2 des Anhangs 1 entnehmen, die Situation in den Nichtmitgliedstaaten, die Handelsbeziehungen mit der Gemeinschaft unterhalten, ist in Tabelle 3 des Anhangs 1 ausgewiesen. Eine zusammenfassende Analyse der Impfpläne in den Mitgliedstaaten enthält Tabelle 4 des Anhangs.

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4.3. Alternativen

4.3.1. In der Bekämpfung der MKS gehen die einzelnen Mitgliedstaaten unterschiedlich vor, wobei alle jedoch eine der beiden alternativen Politiken einsetzen:

a) IMPFPOLITIK. Diese besteht in einer systematischen jährlichen Durchimpfung sämtlicher Rinder. Im Falle eines Ausbruhs der Krankheit werden alle oder ein Teil der Tiere getötet, wobei zusätzlich Impfungen und andere Bekämpfungsmaßnahmen durchgeführt werden.

b) NICHTIMPFPOLITIK. Dies bedeutet, daß die MKS-Impfung allgemein verboten ist. Im Falle eines Ausbruchs werden sämtliche Tiere getötet und zusätzliche Bekämpfungsmaßnahmen eingesetzt. Unter außergewöhnlichen Umständen könnte eine Ringimpfung notwendig sein.

4.3.2. Beide Politiken gehen mit Einfuhrkontrollen, regelmäßiger Überwachung der Tierpopulation in bezug auf das Krankheitsrisiko, Vorschriften hinsichtlich der Diagnostizierung der Seuche durch entsprechende Labore und im Falle eines Ausbruchs der Kontrolle der Bewegungen der Tiere einher.

4.3.3. Gegenwärtig dürfen Mitgliedstaaten, in denen nicht geimpft wird, den Handel mit Tieren aus EG Partnerländern einschränken, die eine Impfpolitik betreiben. Dies ist vor allem dadurch begründet, daß geimpfte Tiere zwar nach dem klinischen Erscheinungsbild normal, aber verdeckt infiziert sein könnten. Haben seit längerer Zeit keine Infektionen mehr stattgefunden, besteht bei geimpften Tieren nur eine geringes Risiko. Da aber ein Virusbefall und eine Virusausbreitung immer möglich sind, läßt sich das Auftreten des Virus in einer geimpften Population unmöglich ausschließen. Es besteht deshalb die Gefahr, daß der Virus in vorher nichtbetroffene Gebiete mit den an- und abgelieferten Tieren eingeschleppt wird. Diese Möglichkeit einer Virusausbreitung ist jedoch angesichts der Gefährlichkeit der Seuche inakzeptabel.

Überdies wird die Anwesenheit geimpfter Tiere in einem Land von Drittländern wie den Vereinigten Staaten und den ebenfalls auf ihrer "Weißen Liste" stehenden Ländern als gleichbedeutend mit der Anwesenheit der Krankheit angesehen und hat klare sowie schwerwiegende Auswirkungen auf den Handel.

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4.3.4. Nach Vollendung des Binnenmarkts im Januar 1993 sollten Tiere und tierische Erzeugnisse frei innerhalb der Gemeinschaft gehandelt werden dürfen. Dies ist nur möglich, wenn alle Mitgliedstaaten eine gemeinsame Politik hinsichtlich der Maul- und Klauenseuche verfolgen. Gegenwärtig führen drei Mitgliedstaaten (Dänemark, Irland und das Vereinigte Königreich) keine Impfungen durch, während die anderen Mitgliedstaaten impfen. Eine Zusammenfassung bezüglich der Impfpläne ist in Tabelle 4 des Anhangs 1 enthalten.

4.3.5. Die Wahl für eine gemeinschaftliche MKS-Bekämpfungspolitik liegt zwischen den beiden unter Absatz 4.3.1. beschriebenen Politiken, daß heißt der "IMPFUNG" und "NICHTIMPFUNG".
Dabei sind folgende Aspekte zu berücksichtigen:

a) die Häufigkeit der MKS in der Gemeinschaft während der letzten 20 Jahre (Anhang 1 Tabelle 1);

b) das Risiko des Auftretens von MKS in der Gemeinschaft im Rahmen der alternativen Politiken nach 1992. Bericht der Untergruppe des Wissenschaftlichen Veterinärausschusses (Anhang 2) (1);

c) die wirtschaftlichen Folgen der beiden alternativen Politiken, das heißt die Kosten für die öffentliche Hand und die privaten Sektoren (Anhang 3);

d) die Auswirkungen auf den internen und externen Handel der Gemeinschaft mit Tieren, tierischen Erzeugnissen und anderen Waren (Anhang 4);

e) Maßnahmen zur Verhütung von Primär- und Sekundärausbrüchen nach 1992 und in der Übergangszeit. Bericht der Untergruppen des Wissenschaftlichen Veterinärausschusses (Anhang 5) (1);

f) die im Rahmen einer dieser Politiken möglicherweise zu erwartenden Veränderungen bezüglich des beschäftigten Personals sowie der entsprechenden Einrichtungen, d.h.

   i) derzeit mit Impfprogrammen befaßte Tierärzte (Anhang 6) und

   ii) derzeit für die MKS-Diagnose zuständige Labore, Impfstofferzeugung und Forschung (Anhang 7).

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(1) Es sei darauf hingewiesen, daß einige Fragen, wie die Rolle geimpfter Tiere als Krankheitsträger schwierig zu entscheiden waren. Der Bericht wurde jedoch von der Untergruppe einstimmig angenommen und vom Wissenschaftlichen Veterinärausschuß am 1. Februar 1989 bstätigt.

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4.4. Das Risiko eines Maul- und Klauenseucheausbruchs nach 1993

4.4.1. Das Risiko des Auftretens der MKS unter einer der politischen Optionen nach 1992 wurde von der Untergruppe des Wissenschaftlichen Veterinärausschusses geprüft. Ausgehend von der Annahme, daß der gemeinschaftliche Handel mit Tieren nach 1992 nicht beschränkt sein wird, wurde das Risiko auf Gemeinschaftsbasis und nicht auf der Basis der einzelnen Mitgliedstaaten beurteilt. Die Ergebnisse, zu denen die Untergruppe in ihrem Bericht gelangt ist, sind im Anhang 2 wiedergegeben.

4.4.2. Die Gruppe hat die Berichte über die Ausbrüche in sämtlichen Mitgliedstaaten über mindestens elf Jahre hindurch (1977-87) ausgewertet und 34 Erstausbrüche von MKS mitgeteilt.
Von diesen Ausbrüchen waren acht möglicherweise auf eine Infektionsquelle außerhalb der Gemeinschaft, hauptsächlich durch die Einfuhr von Fleisch zurückzuführen (vgl. Tabelle 3 Anhang 2). Die Gruppe war der Meinung, daß weitere 13 möglicherweise auf das Entweichen des Virus aus Laboren oder die Erzeugung und Verendung nicht ordnungsgemäß inaktivierter Impfstoffe zurückzuführen waren. Die Ursache der übrigen 13 Erstausbrüche ist nicht bekannt.

4.4.3. Auf der Grundlage der Daten für die letzten elf Jahre gab die Untergruppe Vorausschätzung für die Jahre 1993-2003 sowohl über die Lage im Falle einer Entscheidung für eine Impfpolitik bzw. für eine Nichtimpfpolitik. Das Risiko der Primärausbrüche wurde als erstes behandelt.

4.4.4. Die Untergruppe war der Meinung, daß das Risiko einer Infektion der Gemeinschaft von außen in den Jahren 1993-2003 nicht größer bzw. weniger groß sei als in den vergangenen elf Jahren. Sie sagte bis zu 13 Primärausbrüche voraus, in denen Ausbrüche aufgrund des Entweichens des Virus oder einer unsachgemäßen Inaktivierung von Impfstoffen nicht inbegriffen sind (Anhang 2 Absatz 12).

4.4.5. Die Untergruppe war sich darin einig, daß in der Gemeinschaft bei Rindern und Schafen keine endemische Infektionsquelle des MKS Feldvirus existiert. Angesichts dieser Tatsache wird ein möglicher Primärausbruch von Infektionsquellen innerhalb der Gemeinschaft weitgehend von der Handhabung des lebenden MKS-Virus in den Laboren und der Verwendung unsachgemäß inaktivierter Impfstoffe abhängen.

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4.4.6. Bei einer Fortführung der MKS-Impfungen wird das derzeitige Risiko, falls die Verfahren zur Inaktivierung des Impfstoffes nicht verbessert werden und mit dem Virus weiterhin in Laboren gearbeitet wird, die nicht höchsten Sicherheitsanforderungen entsprechen, weiter fortbestehen. In diesem Falle würde nach Schätzungen der Gruppe mit 13 zusätzlichen Ausbrüchen innerhalb einer Frist von elf Jahren zu rechnen sein. Allerdings könnte bei verbesserten Verfahren für die Impfstoffherstellung dieses Risiko vermindert werden. Würden die Impfungen aufgegeben und die Labore unter höchsten Sicherheitsvorkehrungen arbeiten, so wäre das Risko als besonders gering einzuschätzen und nach Auffassung der Gruppe nicht mit zusätzlichen Ausbrüchen zu rechnen.

4.4.7. Die Untergruppe befaßte sich sodann mit dem Risiko von Sekundärausbrüchen aufgrund dieser Primärausbrüche. In den elf Jahren zwischen 1977 und 1987 war zu beobachten, daß viele Primärausbrüche durchaus nicht zu großen Epidemien geführt haben, und zwar unabhängig davon, ob Länder betroffen waren, die eine Impfpolitik oder eine Nichtimpfpolitik verfolgten. Andererseits ist die Seuche in diesem Zeitraum auch epidemisch aufgetreten, wobei die Gruppe jedoch der Ansicht ist, daß die Ausbreitung eher durch die Strenge der Bekämpfungsverfahren als durch die Impfpolitik eingedämmt wurde. Dies gilt insbesondere für Gebiete, die über große Schweinepopulationen verfügen. Die Gruppe kam zu dem Schluß, daß die Varianz in der Verbreitungsrate zu groß ist, als daß ein Unterschied hinsichtlich der Zahl der Sekundärausbrüche je Primärausbruch unter der einen oder der anderen Politik vorausgesagt werden könnte.

4.5. Die wirtschaftlichen Folgen der alternativen Politiken

4.5.1. Wenn die Maul- und Klauenseuche in der Gemeinschaft auftritt, wird sie mit aller zu Gebot stehenden Eile (Richtlinie 85/511/EWG) bekämpft, so daß die folgenschweren Auswirkungen der Seuche begrenzt bleiben. Die mit einem Ausbruch einhergehenden Kosten sind daher die Kosten für die Bekämpfung (einschließlich der Kosten für die Tötung und/oder der systematischen Impfung) sowie Produktions- undd Handelseinbußen. Die Kosten der Mitgliedstaaten sind im Anhang 3 zusammengefaßt.

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4.5.2. Die Kosten wurden auf der Grundlage eines Modells errechnet, das von der Europakommission der FAO zur Bekämpfung der MKS entwickelt wurde. Die Kosten der Gemeinschaft für die regelmäßige Impfung der Rinderpopulation und der Tötung der Tiere bei Ausbrüchen wurden geschätzt. Alle anderen Kosten wie die im Zusammenhang mit der Überwachung und der Schaffung von Diagnoseeinrichtungen fallen sowohl bei der Impf- wie bei der Nichtimpfpolitik an und bleiben daher unberücksichtigt.
Die Kosten für die Bekämpfung richten sich weitgehend nach der Zahl der Seuchenausbrüche. Die wirtschaftliche Analyse berücksichtigt die Möglichkeit von Ausbrüchen in der Gemeinschaft im Rahmen der alternativen Politiken. Die wirtschaftliche Analyse ist in Anhang 3 enthalten und im folgenden Absatz 4.8. zusammengefaßt.

4.5.3. Das FAO-Analysemodell erfordert, daß di Auswirkungen der Impfpolitik und der Nichtimpfpolitik im Binnen- und im Exporthandel mit berücksichtigt werden. Die Kommission hat diese Auswirkungen analysiert. Die Ergebnisse der Analyse sind in dem Bericht in Anhang 4 enthalten.

4.6. Kosten der Impfung

4.6.1. Acht Mitgliedstaaten (Belgien, Frankreich, die Bundesrepublik Deutschland, Italien, Luxemburg, die Niederlande, Portugal und Spanien) impfen alle Rinder routinemäßig. Einige impfen neben den Rindern auch Schweine, Schafe und Ziegen. Die Kosten für eine einzige Durchimpfung der Rinder eines nationalen Bestandes, die von diesen Mitgliedstaaten berechnet wurden, sind im Anhang 3 Tabelle 1 zusammengefaßt.

4.6.2. Die übrigen vier Mitgliedstaaten (Dänemark, Griechenland (1), Irland und das VK) führen zur Bekämpfung der MKS keine Impfungen durch. Sie haben die Kosten dafür berechnet, wenn sie verpflichtet wären, ihre Tiere zu impfen. Ihre Angaben sind gleichfalls in Anhang 3 Tabelle 1 enthalten.

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(1) Außer der Pufferzonne in Thrakien.

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4.6.3. Die unmittelbaren Kosten, die sich aus einem gemeinschaftsweiten Impfprogramm ergeben, bei dem die Rinder in allen Mitgliedstaaten einmal jährlich geimpft werden, sind zu Preisen für 1987 mit etwa 133 Mio. ECU zu veranschlagen. Darin inbegriffen sind die Kosten für den Kauf und die Lagerung des Impfstoffes, die Verabreichung und die allgemeine Verwaltung. Nicht inbegriffen sind die Kosten für irgendwelche späteren Nebeneffekte aufgrund der Verwendung des Impfstoffes.

4.6.4. Es sei darauf hingewiesen, daß die derzeit in der Gemeinschaft durchgeführte Impfung lediglich Schutz gegen die europäischen "A-", "O-" und "C-" Stämme der MKS Schutz bietet. Diese Impfung schützt nicht gegen exotische Stämme, die in andern Tilen der Welt auftreten.

4.6.5. Darüber hinaus ist der Tabelle über die Impfpläne (Anhang 1 Tabelle 4) zu entnehmen, daß die Immunisierung erheblich unter 100 % liegt, da Schweine, Schafe und Ziegen selten geimpft werden. Außerdem werden Kälbermast- und Aufzuchtbetriebe von der Impfung häufig ausgeschlossen und Kälber, die zum Zeitpunkt der jährlichen Impfung weniger als 3 bis 4 Monate alt sind, bleiben bis zum nächsten Jahr ungeimpft.

4.7. Kosten eines MKS-Ausbruchs

4.7.1. Das Internationale Tierseuchenamt in Paris definiert einen Ausbruch als Seuche, die in einem landwirtschaftlichen Betrieb oder Unternehmen ausbricht. MKS-Epidemien werden im landwirtschaftlichen Betrieb bekämpft, weshalb sich die Kosten für einen Ausbruch ohne weiteres berechnen lassen. Die Mitgliedstaaten wurden gebeten, die Durchschnittskosten eines MKS-Ausbruches zu berechnen und dabei die Kosten für die Abschlachtung, die Beseitigung der Kadaver, die Desinfektion, Reinigung und ähnliche Maßnahmen, den Wert der geschlachteten Tiere, die Produktionseinbußen des landwirtschaftlichen Betriebs aufgrund der Verzögerung des Neubesatzes und die allgemeinen Verwaltungskosten mitzuberücksichtigen, die mit einem Ausbruch verbunden sind. Bei den Kostenrechnungen wird davon ausgegangen, daß der gesamte verdächtige Tierbestand im Unternehmen abgeschlachtet wird.

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4.7.2. Die Kosten einer größeren MKS-Epidemie in einem Land oder einem Gebiet können nicht auf vereinzelt auftretnde Ausbrüche umgelegt werden. Diese Kosten könnten die Schließung von Schlachthöfen oder Tiermärkten einbeziehen, wobei sich jedoch bei früheren Analysen der wirtschaftlichen Auswirkungen von MKS-Epidemien diese Kosten nicht beziffern ließen.

4.7.3. Mitgliedstaaten, die in jüngster Zeit Erfahrungen mit der Bekämpfung von Ausbrüchen gesammelt haben, haben ihre Schätzungen weitgehend auf die tatsächlich verursachten Kosten gestützt. Solche, die keine Erfahrung mit der MKS-Bekämpfung aus jüngster Zeit haben, haben presumptive Kosten errechnet. Diese Kosten sind in Tabelle 2 des Anhangs 3 zusammengefaßt.

4.7.4. Zum Zweck der folgenden wirtschaftlichen Analyse wurde als Kosten für einen Ausbruch ein Durchschnittswert von 158.000 ECU bei einem niedrigsten Wert von 31.914 ECU und einem höchsten von 600.000 ECU zugrunde gelegt.

4.8. Wirtschaftliche Analyse

4.8.1. Die Schätzungen der Kosten für die Impfung und MKS-Ausbrüche wurden herangezogen, um die Impfpolitik und die Nichtimpfpolitik über einen Zeitraum von zehn Jahren wirtschaftlich zu analysieren. Die Analyse enthält verschiedene Schätzungen, da die Kosten und die Anzahl der Ausbrüche varrierten und die Anzahl der Ausbrüche auf drei Hypothesen beruhen, nämlich einem mittleren Ausbruch (am ehesten wahrscheinlich), einem besonders schweren Ausbruch und einem leichten Ausbruch. Die Analyse ist integral in Anhang 3 wiedergegeben.

4.8.2. Das realistischste Ergebnis dürfte die "mittlere Hypothese" der Analyse bringen. Sie stützt sich auf die Kosten eines durchschnittlichen Ausbruchs und die Zahl von Primär- und Sekundärausbrüchen, wie sie vom Wissenschaftlichen Veterinärausschuß vorausgesagt wurden.

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Im Falle einer Nichtimpfpolitik werden die Gesamtkosten der Gemeinschaft auf 35 Millionen ECU geschätzt, wobei der aktuelle Wert über zehn Jahre mit 5 % diskontiert wurde.

Wird eine Impfpolitik durchgeführt, so werden die Gesamtkosten für die Gemeinschaft auf 1,134 Millionen ECU geschätzt, wobei der aktuelle Wert über zehn Jahren mit 5 % diskontiert wurde.

4.8.3. Es sei daran erinnert, daß den Mitgliedstaaten zur Tilgung der MKS zur Zeit Gemeinschaftsmittel bereitgestellt werden, im Rahmen derer 50 % der Kosten für die Schlavhtung und Beseitigung und 100 % der Kostrn für Sofortimpfungen erstattet werden. Im Falle der klassischen europäischen MKS-Arten wird diese Hilfe auf die ersten 20 Ausbrüche in den rrsten 30 Tagen einer Epidemie begrenzt.

4.8.4. Es sollte auch darauf hingewiesen werden, daß bei einer Entscheidung für die Nichtimpfpolitik die Kosten für die Impfung von Rindern vor der Ausfuhr nicht weiter anwachsen werden. Der Handel zwischen den impfenden Mitgliedstaaten beläuft sich jährlich auf nahezu 2 Millionen Tiere. Wenn eine Million Tiere vor der Verbringung in einen anderen Mitgliedstaat geimpft werden (Kälber unter 4 Monaten und einige Schlachttiere mögen davon ausgenommen sein) und je Tier (Impfstoff und Impfung) 3 ECU aufzuwenden sind, so könnten 3 Millionen ECU eingespart werden.

4.9. Die Auswirkungen der alternativen Politiken auf den Handel mit Tieren und tierischen Erzeugnissen

Die unter 4.8. beschriebene Analyse berücksichtigt nicht die Auswirkungen der alternativen Politiken auf den Handel mit Tieren und tierischen Erzeugnissen innerhalb der Gemeinschaft und mit Drittländern. Der Bericht der Kommission über den Handel ist als Anhang 4 beigefügt. Die wichtigsten Schlußfolgerungen sind:

a) Die Entscheidung für die eine oder die andere Politik hat wenig Auswirkungen auf den innergemeinschaftlichen Handel mit lebenden Tieren und tierischen Erzeugnissen.

b) Die Wahl einer Nichtimpfungspolitik bedeutet, daß geimpfte Tiere nicht ohne zusätzliche Schutzmaßnahmen eingeführt werden dürfen. Sie würde jedoch nicht die Einfuhr von frischem Fleisch und von Fleischerzeugnissen beeinträchtigen, sofern die üblichen Verfahren auch weiterhin angewandt werden (Reifung, Entbeinung).

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c) Es liegt auf der Hand, daß eine gemeinschaftsweite Impfpolitik ernstliche Folgen für die Ausfuhren nach vielen Drittländern hätte. Auf der anderen Seite werden technische Erörterungen mit den Veterinärdiensten der Handelspartner notwendig sein, um diese von der Wirksamkeit der Regionalisierung der angenommenen Maßnahmen im Falle eines Ausbruchs bei Nichtimpfung zu überzeugen.

4.10. Die Auswirkungen der Einstellung der MKS-Impfung auf die Beschäftigung von Tierärzten

Soweit dies überhaupt zu beurteilen ist, dürfte sich die Einstellung der MKS-Impfung nur begrenzt auf die Beschäftigung von Tierärzten auswirken. Die portugiesischen und die spanischen Behörden hoffen, die Tierärzte auf anderem Gebiet einsetzen zu können. Frankreich sieht Probleme hinsichtlich der tierärztlichen Präsenz in abgelegenen landwirtschaftlichen Gebieten voraus, wodurch das tierärztliche Überwachungsnetz gefährdet werden könnte (Anhang 6).
Eine Nichtimpfungspolitik erfordert eine genau abgestimmte Seuchenüberwachung unter einer zentral überwachten einzelstaatlichen tierärztlichen Behörde, die in der Lage ist, Dringlichkeitsfällen schnell und wirksam zu begegnen. Zu diesem Zweck und zur Verstärkung der zur Verwirklichung des Einheitsmarktes notwenigen tierärztlichen Dienstleistungen könnten Tierärzte eingesetzt werden, die bisher mit der Durchführung von Impfungprogrammen befaßt waren.

4.11. Die Auswirkungen einer Änderung der MKS-Politik auf die Labore

Zur Zeit arbeiten 30 Labore in Europa mit dem MKS-Virus. 15 haben Produktionseinrichtungen, die übrigen lagern den Virus für Diagnose- und Forschungszwecke.

Sollte die Entscheidung für eine Impfpolitik ausfallen, so könnte der Mehrbedarf an Impfstoff durch eine Ausweitung der Gemeinschaftserzeugung gedeckt werden. Fällt die Entscheidung für eine Nichtimpfpolitik, so würde Impfstoff nur für die Aufrechterhaltung eines strategischen Vorrats für die Gemeinschaft und für die Sicherung der Ausfuhren nach Drittländern erforderlich sein. Im Falle der Shließung staatlicher Anlagen zur Herstellung von Impfstoff könnten die entsprechenden Einsparungen für die Ausbildung von Personal zur MKS-Diagnose und die Entwicklung besserer Diagnoseverfahren verwendet werden.

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Ganz gleich wie die künftige Politik zur Bekämpfung der Seuche ausfallen mag, es wird notwendig sein, die MKS weiter zu erforschen. Möglicherweise wird sich die Anzahl der in der MKS-Forschung tätigen Gemeinschaftslabore verringern. Weiterarbeitende Labore werden höchste Sicherheitsvorkehrungen einzuhalten haben, um das Entweichen des Virus zu verhindern (vgl. Anhang 7).

5. SCHLUSSFOLGERUNGEN

5.1. Die Gemeinschaft muß in der Frage der MKS unbedingt zu einem gemeinsamen Standpunkt finden, damit die Ziele des Binnenmarktes erreicht werden können.

5.2. Die derzeitigen Politiken der Mitgliedstaaten, das heißt Impfung oder Nichtimpfung, wurden ausführlich überprüft und insbesondere in bezug auf ihre wirtschaftlichen Aspekte untersucht.

5.3 Es wurde in Betracht gezogen, daß anfällige Tierarten zwischen den Teilen der Gemeinschaft, die unterschiedliche Maßnahmen anwenden, frei gehandelt werden können. Diese Möglichkeit wurde jedoch verworfen, da die Gefahr einer Einschleppung des MKS-Virus in bisher nichtbefallene Gebiete besteht. Diese Gefahr mit den Zielen der europäischen Einheitsakte, insbesondere im Hinblick auf die Erzielung eines hohen Gesundheitsstatus, unvereinbar. Für die Gemeinschaft muß deshalb klar entschieden werden, ob eine Impfungs- oder eine Nichtimpfungspolitik anzuwenden ist.

5.4. Aus den Studien geht eindeutig hervor, daß eine Nichtimpfungspolitik erheblich weniger Kosten verursacht, als eine Politik der Durchimpfung. Da für eine Impfungspolitik mehr Ausbrüche vorhergesagt wurden als für eine Nichtimpfungspolitik, dürfte die Annahme einer Nichtimpfungspolitik angesichts der Gefahr im Umgang mit den MKS-Virus für die Gemeinschaft in ihrer Gesamtheit vorteilhafter sein.

5.5. Im Rahmen einer Nichtimpfungspolitik wird es notwendig sein, die Maßnahmen zur Vermeidung der Einschleppung der Infektion in die Gemeinschaft zu verschärfen um etwaige Ausbrüche vollständig auszurotten.

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5.6. Die Untersuchungen über Handelsfragen lassen erkennen, daß der innergemeinschaftliche Handel und die Einfuhren aus Drittländern nur marginal von einer Veränderung der derzeitigen Politiken betroffen sein werden. Im Falle der Gefährdung bestimmter Einfuhren aus impfenden Drittländern könnten im Rahmen einer Nichtimpfpolitik mit dem betreffenden Land gegenseitige Vereinbarungen über den Verzicht auf Impfungen geschlossen werden. Im Falle einer Durchimpfung ist es sicher, daß die Ausfuhren nach zahlreichen Drittländern nicht mehr möglich wären. Auf der anderen Seite könnte im Falle einer Nichtimpfpolitik die Gesamte Gemeinschaft, die nunmehr zwar mit sehr viel mehr Ländern als zuvor Handel treiben könnte, von bestimmten Ländern hinsichtlich des Status' der Seuche als Einheit angesehen werden. In diesem Fall würde ein MKS-Ausbruch die Ausfuhren aus der Gemeinschaft erheblich beeinträchtigen, es sei denn, die Bekämpfungs- und Tilgungsmaßnahmen auf regionaler Ebene würden international anerkannt.

5.7. Was die Beschäftigung anbelangt, so besteht die Möglichkeit, daß die meisten Tierärzte sowohl die staatlich angestellten sowie diejenigen, die gegenwärtig für Impfkampagnen eingesetzt sind, im Staatsdienst zum Aufbau eines Dienstes verwendet werden, der in der Lage ist die zusätzlichen Ansprüche einer Nichtimpfungspolitik und andere Tätigkeiten wie die Bekämpfung der Aujeszkykrankheit und Bruzella Melintentis zu bewältigen.

5.8. Im Falle der Entscheidung für eine Nichtimpfpolitik, müßten sich die derzeitigen MKS-Labore an die neue Lage anpassen, in der die Impfstoffproduktion weitgehend eingeschränkt wird. In diesem Falle müßte der Schwerpunkt sowohl auf die Ausbildung des bisher in der Praxis und im Labor tätigen Personals in der Diagnose der MKS wie auf die Entwicklung besserer Diagnosetechniken verlegt werden.

5.9. Die Kommission ist vollständig überzeugt, daß sich die Gemeinschaft zur Verwirklichung des Binnenmarktes einer Imfpungs- und einer Nichtimpfungspolitik wählen muß. Nach den Ausführungen dieses Berichts bietet eine Nichtimpfungspolitik größere Sicherheiten, ist sie kostengünstiger und entspricht sie den doppelten Ziel auf den Einheitsmarkt einen hohen Gesundheitsstandard und den freien Warenverkehr zu gewährleisten. Diese Politik wird deshalb den Mitgliedstaaten nachdrücklich empfohlen. Im Hinblick auf die Änderung der jetzigen Rechtsvorschriften werden deshalb dem Rat geeignete Vorschläge unterbreitet werden.

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ANNEXES

TO THE REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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FOOT AND MOUTH DISEASE - MEMBER STATES
(1968 - 1988)

COUNTRY	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIUM	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
WEST GERMANY	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GREECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
U.K.	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SPAIN	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
1984 onward : ADNS

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ANNEX 1

TABLE 2

FMD situation in neighbouring countries (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
Norway	P	(1952)
Sweden	P	(1966)
Finland	P	(1959)
DDR	V	(1982)
Poland	P	(1971)
Czechoslovakia	V	(1975)
Austria	P	(1981)
Switzerland	V	(1980)
Yugoslavia	P	(1978)
Albania	P	(1960)
Bulgaria	P(1)	(1973)
USSR	V	O_1, A22
Hungary	V	(1972)
Turkey	V	O_1, A22
Tunisia	V	(1982)
Algeria	V	(1978)
Morocco	V	(1983)

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Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

(1) = vaccination in buffer zone with Turkey

*Source = FAO Yearbook

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ANNEX 1

TABLE 3

FMD situation in non-Member States with trade links to the Community (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
USA	P	(1929)
Canada	P	(1952)
Japan	P	(1908)
Korea (Republic)	P	(1934)
China	V	-
Australia	P	(1971)
New Zealand	P	0000
Brazil	V	O_1A_1C
Argentina	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	0
Chile	P	0
Colombia	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibia	V	(1980)
South Africa	V	(1985)
Swaziland	V	(1988)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

0000 = never recorded

*Source = FAO Yearbook

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VI.BII.2 SUMMARY ANALYSIS OF VACCINATION PLANS IN MEMBER STATES 1987 ANNEX 1 TABLE 4

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

NB Denmark, Ireland and United Kingdom do not practice vaccination. Greece vaccinates only in the Evros (Thrace) buffer zone.

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ANNEX 2

THE RISK OF FOOT AND MOUTH DISEASE (FMD) OCCURRING IN THE EUROPEAN COMMUNITY FOLLOWING COMPLETION OF THE INTERNAL MARKET - REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. The Group has been asked to provide an opinion on the extent of the risk of FMD occurring in the Community following 1992, in the event of (a) a vaccination policy* or (b) a non-vaccination policy** being adopted throughout the Community in future.

2. The Group has based this assessment of risk on the epidemiological and laboratory evidence available for the FMD outbreaks which have occurred during the last eleven years (1977-87). First of all it has identified the primary outbreaks in each epizootic to determine, as far as possible, the source of infection.

   Secondly it has looked at the spread of infection (number of SECONDARY outbreaks) which occurred from these outbreaks to determine, as far as possible, and bearing in mind the great variety of factors influencing the rate of secondary spread, how much this has been affected by vaccination and other control measures.

   The eleven years period was chosen in order to include both the beginning and end of the epizootics in question.

PRIMARY OUTBREAKS

3. There appear to have been thirty four (34) primary outbreaks of FMD in eleven Member States during the years 1977-87***

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* Vaccination policy : Systematic annual vaccinations of all cattle. In case of an outbreak stamping out (total or partial) is applied in addition to vaccination and other control measures.

** Non-vaccination policy : A general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. It may be necessary to launch a ring vaccination.

*** The Group does not have detailed records of the circumstances surrounding outbreaks in Spain (whether they were primary or secondary).

FMD INFECTION ORIGINATING OUTSIDE THE COMMUNITY

4. The Group has identified eight (8) primary outbreaks that occurred during the years 1977-87 where the evidence very strongly suggests that the source was outside the Community(1). The majority of these outbreaks seems to be associated with meat coming into the Community. Other outbreaks were probably caused by airborne transmission from outside, e.g. 1 outbreak in Denmark.

The risk associated with the importation of meat changed in 1978 when the Community regulations were amended in that importation of meat on the bone was no longer allowed(2).

FMD INFECTION ORIGINATING WITHIN THE COMMUNITY

5. The Group has examined records from all Member States and it does not appear that there is any endemic source of FMD within the herds and flocks of the Community. Nevertheless there have been some thirteen (13) primary outbreaks which cannot be attributed with any certainty to extra-Community sources. As for the origin of these outbreaks it is difficult to be precise but it is possible that all were, in some way or other, connected either with escapes from laboratories or use of improperly inactivated vaccines.

FMD INFECTION OF UNKNOWN ORIGIN

6. There remain thirteen (13) primary outbreaks, where the origin of infection appears to be completely unknown.

SECONDARY OUTBREAKS

7. TABLE 1 shows that during the period 1977-87 there were a total of 1.923 outbreaks of FMD in the twelve Member States. The data for primary and secondary outbreaks were not available for Spain but in the other eleven Member States there were a total of 1.858 outbreaks of which thirty four (34) are considered to be primaries (paragraphs 3-6 above). This leaves 1.824 secondary outbreaks. The number of primary and secondary outbreaks that occurred in each Member State is shown in TABLE 2.

(1) See Annex 2, Table 3

(2) Community requirements for deboning apply only to certain high risk areas such as South America and Africa.

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8. The amount of spread of disease (the size of the epizootic originating from a primary outbreak) varies considerably. In some cases the primary outbreaks have not given rise to further outbreaks but in others the number of secondary outbreaks has been high, e.g. as high as 153 in Italy during the A_5 epizootic 1984-85, and possibly even higher in Portugal in the early eighties.

9. The amount of spread (the ratio of primary to secondary outbreaks) shown in Table 2 (<u>averages</u>) falls into three groups :

   (a) those outbreaks where there has been virtually no spread (less than three secondary outbreaks per primary).

   (b) those epidemics where there has been limited spread (less than 25 secondary outbreaks per primary).

   (c) those epidemics where there has been extensive spread (more than 25 secondary outbreaks).

   When looking at the above differences several factors should be taken into consideration, i.e. not only the question of vaccination versus non-vaccination strategy, but also differences between individual countries as regards agricultural infrastructure, farm management, herd size, geographical conditions, veterinary service etc. Differences in virulence and transmissibility between field virus strains may also have contributed to the high degree of variation.

10. Where vaccination has been employed to protect the cattle population the secondary outbreaks have occurred mainly (but by no means entirely) in non-vaccinated pig herds. Infected pigs excrete large amounts of virus and these have perpetuated the epizootics, e.g. the type C epizootic in Italy 1985-86.

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Where vaccination has not been used (in four Member States*) seven primary outbreaks have given rise to 28 secondaries. Two of the primary outbreaks occurred in Denmark where there is also a high density of pigs.

PREDICTIONS FOR THE YEARS 1993-2003
(in the present Member States)

11. Whatever the control policy within the Community (vaccination or non-vaccination) there will remain the risk of infection entering the Community from outside. The risk due to the importation of meat (even in large amounts) from outside appears to have declined since the importation rules were made more strict. On the other hand the risk of infection entering the Community from outside is still present, particularly if large numbers of animals are imported. However, the risk from official importation of animals can be reduced by Community regulations. If it is due to illegal importation or airborne infection it is not directly controllable by the Community.

12. The best estimate that the Group can make is that the risk of infection entering the Community in the years 1993-2003 will be no worse and no better than during the last eleven years, i.e. causing some eight (8) primary outbreaks originating from outside the Community. If to those is added a proportion of the 13 outbreaks where the origin was completely unknown (paragraph 6) the risk increases to about twelve-thirteen (12-13) outbreaks. This figure may be an overestimate of the predicted risk in that the restriction on imported meat introduced in 1978 appears to have been effective in preventing the entry of disease.

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* Denmark, Ireland and United Kingdom do not vaccinate. Greece does not vaccinate except in a buffer zone in the department of Evros.

13. The employment of non-vaccination or of vaccination policies within the Community might also make a difference to this estimate in that vaccination may have prevented some primary outbreaks during the period 1977-87. The number of outbreaks thus prevented cannot be assessed. However, experience in areas of the Community where vaccine is not used could suggest that it is small. It should be noted, however, that the areas of the Community, where vaccination is not practised, have the additional advantages of geographical isolation (islands, peninsula) and strict importation controls, as well as advantages of the protection provided by the regular vaccinations in neighbouring countries.

14. In some Member States special risks can be anticipated from cross-frontier contacts, including illegal importations, which are favoured by the long borders of the Community. In any event, if non-vaccination was to become Community policy the Group would recommend that no susceptible animals be imported into the Community without rigorous safeguards (see later).

THE RISK OF INFECTION ORIGINATING INSIDE THE COMMUNITY

15. If vaccination is not used within the Community in the future and on the basis that there is no evidence of a source of FMD within the Community then it is most unlikely that there will be any primary outbreaks additional to those originating from outside the Community (paragraph 12) and a proportion of the 13 primary outbreaks of unknown origin (paragraph 6), provided laboratories which manipulate FMD virus are operated effectively in conditions of high security.

16. If prophylactic vaccination is used within the Community in future then there is a risk that in addition to the outbreaks mentioned in paragraph 15 there will be some outbreaks associated either with the production or the administration of vaccine. If the experiences of the years 1977-87 were repeated in the years 1993-2003 then we could reasonably expect some 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine. However, it is likely that vaccine inactivation techniques will improve and that escapes from laboratories will decline.

In other respects and whatever the origin of the outbreaks, some of them will be likely to be prevented by the use of prophylactic vaccination.

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THE RISK OF SPREAD OCCURRING WITHIN THE COMMUNITY

17. The data contained in TABLE 2 and in paragraphs 7-10 suggest that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. On the basis of the information available, the Group considers that the variation is too great as to make it possible to draw clear conclusions as to the predicted rate of spread in the event of non-vaccination or of vaccination becoming Community policy. In this respect geographical conditions, agricultural infrastructure and veterinary controls in individual countries should be considered as factors of crucial importance.

The Group is particularly aware of the risk of secondary spread in areas of high animal density. If vaccination was discontinued, the risk to cattle would be increased, but would not be significantly altered for pigs, which are not normally vaccinated. In case of an outbreak the epizootic may be restricted in size and duration by applying the methods described in paragraphs 29-32 (see later), and if necessary by launching a ring vaccination.

18. It is apparent, however, that the amount of spread of infection from a primary outbreak, in addition to the virulence and transmissibility of the field virus, is highly dependent on the rigour of the control procedures employed. Where only stamping out is used to control an epizootic and the stamping out procedures are carried out thoroughly and promptly (and accompanied by strict movement controls etc.) the infection may be contained to a small number of secondary outbreaks. Likewise the experience of 1977-87 suggests that whether or not prophylactic vaccination is employed, if control measures (stamping out and movement controls etc.) are not applied strictly, then spread, including particularly spread into the pig population, may be extensive.

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ANNEX 2
TABLE 1

TABLE 1

FMD OUTBREAKS IN MEMBER STATES
1977 - 1987

Country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgium	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	–	–	–	–	–	22	1	–	–	–	–	23
Germany	7*	3	–	2	–	1	–	9**	–	–	6***	28
Greece	3	–	–	–	5	–	–	2	–	–	–	10
Spain	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Ireland	–	–	–	–	–	–	–	–	–	–	–	–
Italy	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
United Kingdom	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** incl. six serological cases found a posteriori
*** 1987/88

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ANNEX 2

TABLE 2

FMD OUTBREAKS IN MEMBER STATES

1977 - 1987

RATE OF SPREAD

MEMBER STATES USING A NON-VACCINATION POLICY

	Primary Outbreaks	Secondary Outbreaks	Ratio
Denmark	2	21	1:21/1:0
Greece	3	7	1:2.3
Ireland	–	–	–
United Kingdom	2	0	1:0

MEMBER STATES USING A VACCINATION POLICY

Belgium	–	–	–
Germany	8	20	1:2.5
Spain	Not known	Not known	Not known
France	2	38	1:19
Italy	13	551	1:42 (1:0 - 1:153)
Luxembourg	–	–	–
Netherlands	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEX 2

TABLE 3

EIGHT PRIMARY OUTBREAKS OF FMD

where the evidence very strongly suggests that the source was outside the Community

1976/77	Greece	Type A	- similarity with South American types - swill feeding
1976/77	FRG	Type A	- Aachen (similarity with A 24) swill feeding
1977	Italy	Type A	- similarity with South American types, virus isolated from imported meat products/bone marrow
1978	Italy	Type O	- probably associated with imported meat
1979	Italy	Type A	- similarity with South American types
1982	Denmark	Type O	- probably airborne introduction from Eastern Europe
1982	Germany	Type O_1	- related to O_1 Austria 1981
1984	Greece	ASIA-1	- probably airborne introduction

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ANNEX 3

1. THE ECONOMIC ANALYSIS

1.1. The estimates of the costs of vaccination and of outbreaks given in Tables 1 and 2, and the predicted number of outbreaks provided by the Scientific Veterinary Committee in Annex 2 have been used in an economic analysis which shows the possible outcomes given a vaccination or a non-vaccination policy. These outcomes have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case.

1.2. The analysis covers the ten year period 1993-2002. This is considered to be a reasonable period on which to base policy considerations.

2. THE ASSUMPTIONS

2.1. The cost of vaccination

The cost of a Community vaccination programme involving a single annual vaccination of all eligible cattle is estimated at 133 million ECU per annum (Table 1).

2.2. The cost of outbreaks

The cost of an outbreak as provided by Member States varies considerably (Table 2). The most important cause of the variation is the difference in the size of the herds and the value of the livestock slaughtered. The values shown in Table 2 are the average for each Member State but even within Member States there are great variations in herd size from small holdings to large intensive units.

The lowest cost for an outbreak is that provided by the Portuguese authorities. In that country, holdings with less than 5 hectares account for 86 % of all holdings and the outbreak cost quoted is for a holding containing only 4 cattle and 5 pigs. This is not typical of the Community as a whole and so, for the purpose of the economic analysis, the next lowest cost estimate (Greece 32 000 ECU) has been taken as the "low" estimate.

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The highest cost for an outbreak is that provided by the Spanish authorities (470 000 ECU) and is based on the costs recorded during an epidemic in 1983. The average number of cattle on the holdings affected is given as 1 535. However, a scrutiny of the national submissions showed that the Italian authorities estimated costs of 600 000 ECU for total slaughter in very large intensive pig units. Therefore, in order to give proper weight to the risk attached to disease occurring in large intensive units, this figure has been used as the "high" estimate in the analysis.

Excluding Portugal because of its untypical herd structure, the average of costs submitted by Member States is 158 000 ECU and this has been used as the "central" estimate in the analysis.

2.3. The number of outbreaks

The number of outbreaks used in constructing the most likely, worst and best cases are derived from the estimates provided by the Scientific Veterinary Committee (Annex 2).

The Committee estimated that under a non-vaccination policy there are likely to be 13 primary outbreaks over a 10 year period. This figure may be an overestimate of the predicted risk in that the restrictions on imported meat introduced during 1978 appear to have been effective in preventing the entry of disease.

The Committee estimated that under a vaccination policy there would be the 13 primary outbreaks referred to above and an additional 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine in the field. However, the Committee considered that improved techniques ought to lead to a reduction in this risk and for the purpose of the economic analysis the estimate of the number of laboratory or vaccine-related outbreaks has been reduced to 7 over a 10 year period. This, together with the 13 outbreaks from external sources makes a total of 20 primary outbreaks overall during the 10 years under a vaccination policy.

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(2)

The data examined by the Committee suggested that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. Therefore, for this economic analysis, the same estimate has been used for the two alternative policies.

The report of the Committee provides a range for the ratio of primary to secondary outbreaks. The ratios given are reasonably uniform between Member States except for Portugal. The figure given for this country of 1:591 represents a situation before Portugal applied Community control measures. Disregarding the Portuguese experience, the average ratio of primaries to secondaries over the last 10 years is 1 primary to 20 secondaries and this has been taken as the central or most likely estimate. It is possible that this ratio exaggerates the rate of spread as in some of the major epidemics more of the outbreaks may have been primary rather than secondary e.g. the multiple seeding of outbreaks due to improperly inactivated vaccine.

The lowest rate of spread is taken as 1:0, i.e. there are no further outbreaks beyond the primary. This has happened several times over the last 10 years under both policies.

The highest rate of spread - the most pessimistic estimate - is taken as 1:150. This represents the highest ratio of primaries to secondaries recorded in recent epidemics in the intensive livestock areas of northern Italy.

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3. THE SCENARIO ANALYSIS

3.1. Three possible outcomes are presented depending on the variations in the number and cost of outbreaks described in paragraphs 2.2 and 2.3 above. They are :

- a central (or most likely) case,
- a best case,
- a worst case.

3.2. The central case

This gives the most likely outcome. It is based on the cost of an average outbreak (158 000 ECU) (see 2.2. above) and the most likely number of secondary oubreaks (20) arising from a primary (2.3. above).

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
20 secondaries per primary

Total = 13 + (13 x 20) = 273

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Total cost = 273 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 35 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years)
20 primaries
20 secondaries per primary

Total = 20 + (20 x 20) = 420

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Cost of outbreaks = 420 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 54 million ECU.

Cost of vaccination = 133 million ECU per annum. The discounted present value over 10 years (at 5 %) = 1080 million ECU.

Total cost = 54 million ECU + 1080 million ECU = 1134 million ECU.

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3.3. The best case

This gives the most optimistic outcome i.e. outbreaks all occurring on the smallest livestock holdings and no secondary outbreaks arising out of the primaries. A situation where there are no secondary outbreaks is not unusual. It is unlikely however that all outbreaks would occur in the smallest herds.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :

13 primaries

0 secondaries

Total = 13 + (13 x 0) = 13

Expected cost per outbreak (1987 values) = 32000 ECU (see para. 2.2.)

Total cost = 13 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 337000 ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :

20 primaries

0 secondaries

Total = 20 + (20 x 0) = 20

Expected cost per outbreak = 32000 ECU

Cost of outbreaks = 20 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 519000 ECU.

The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 519 000 ECU + 1 080 million ECU = 1 080,5 million ECU

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3.4. The worst case

This gives the worst possible outcome. It is assumed that 150 secondary outbreaks would arise from each and every primary and that the outbreaks would all occur in the largest herds and cost 600000 ECU each.

Such a combination of circumstances is only a remote possibility. A spread of 150 outbreaks from a primary has only occurred once (in Italy) in the last 11 years. Furthermore, even in the most intensive livestock zones only a proportion of the holdings are very large.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
150 secondaries per primary

Total = 13 + (13 x 150) = 1963

Expected cost per outbreak (1987 values) = 600000 ECU

Total cost = 1963 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 955 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :
20 primaries
150 secondaries per primary

Total = 20 + (20 x 150) = 3020

Expected cost per outbreak (1987 values) = 600000 ECU

Cost of outbreaks = 3020 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 1470 million ECU.

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The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 1470 million ECU + 1080 million ECU = 2550 million ECU.

4. SUMMARY

	Present value over 10 years (million ECU)		
	Central case	Best case	Worst case
A. Non Vaccination Policy (Outbreaks only)	35	0,3	995
B. Vaccination Policy (Outbreaks and vaccination)	1134	1080,5	2550

The analysis demonstrates that the most probable outcome during the next 10 years will be for a vaccination policy to cost considerably more than a non-vaccination policy. Even in the most unlikely worst case, i.e. where all outbreaks occur in the very largest livestock units and there is a high rate of spread of infection, the non-vaccination policy is still the most cost-effective.

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ANNEX 3

TABLE 1

THE COST OF AN FMD VACCINATION PROGRAMME

IN THE EUROPEAN COMMUNITY

(annual costs at 1987 prices)

	Cattle vaccinated ('000 head)	Cost per head		National cost	
		National currency	ECU	National currency (millions)	ECU (millions)
Belgium	2 232	54 BFR	1,25	121,0	2,8
Denmark*	2 250	17,90 DKR	2,25	40,3	5,1
Germany	14 560	3,14 DM	1,18	38,6	18,6
Greece*	761	122 DRA	0,74	92,5	0,6
Spain	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Ireland*	6 647	1,50 IRL	1,94	10,0	12,9
Italy	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Netherlands	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
U.K.*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (rounded)	133,0

NOTES

(i) Costs are for vaccination of all eligible cattle once a year. (Except for France and Luxembourg where only total cattle population figures were available).

(ii) Costs are as recorded for Member States which currently vaccinate their national herds. Costs are estimated for Member States that do not vaccinate (indicated*).

(iii) Costs include vaccine, vaccination and general administration. They do not include costs of possible side effects.

(iv) Greece vaccinates cattle only in the Evros Valley; France does not vaccinate in Finisterre.

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ANNEX 3

TABLE 2

ESTIMATED COSTS OF A SINGLE OUTBREAK OF FMD

(as provided by Member States at 1987 prices)

The costs include : Compensation
Cleansing, disinfection and associated measures
Loss of production on farm
General administration of outbreak control

They do not include : Ring vaccination

Cost per outbreak (see notes)

	National currency	ECU
Belgium	2 203 055 BFR	50 650
Denmark	1 210 000 DKR	150 239
Germany	100 000 DM	48 309
Greece	5 281 911 DRA	31 914
Spain	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Ireland	164 500 IRL	212 258
Italy	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Netherlands	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
U.K.	70 000 UKL	104 979

NOTES

(1) An outbreak is disease occurring on one farm or holding (OIE definition for European conditions)

(2) The estimates are based as far as possible on actual costs as recorded in recent outbreaks; where there have been no recent outbreaks the costs have been estimated for an average sized herd at risk.

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ANNEX 4

COMMUNITY TRADE PATTERNS IN LIVESTOCK AND CERTAIN LIVESTOCK PRODUCTS

1. Introduction

1.1 FMD Susceptible Species

In examining trade patterns it should be noted that the species susceptible to FMD most involved in trade are bovine animals, swine, sheep and goats.

1.2 Current rules in trade

Given a normal FMD free situation, those Member States which vaccinate against FMD can export fresh meat and meat products of the species mentioned above to Member States which do not vaccinate in so far as the risk of spread of FMD is concerned.

Should an outbreak of FMD occur in any Member State then prohibition areas around the outbreak are set up by way of Directive 85/511/EEC (general control measures) and Directive 64/432/EEC (intra-Community trade) which prevent trade in animals, fresh meat and meat products (other than those heat treated to at least 70°C).

In the case of live bovine animals and swine, trade restrictions exist according to Community law between the vaccinating and non-vaccinating States. Rules are laid down in Article 4(a) of Directive 64/432/EEC and are one of the reasons why this study has been undertaken. At 1 January 1989 national rules on sheep and goats were still in force.

The provisions of Article 4(a) give Member States which are free of FMD for two years and do not vaccinate the right to request isolation and/or quarantine in addition to certain tests to ensure that the animal in question has not been vaccinated and is not a carrier of FMD virus.

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In terms of intra-Community trade the provisions concerning live animals are the most important in projecting the advantages and disadvantages of adopting a pan-vaccination or a non-vaccination policy.

2. Intra-Community trade[1]

2.1 Bovine animals

2.1.1 Calves (up to 250 kgs)

In 1987 some two million calves were traded between Member States. The principal exporters and importers were :

1. France (838 000) to Italy (689 000), Netherlands (65 000) and Germany (64 000)
2. UK (376 000) to France (221 000), Netherlands (133 000) and Italy (6 000)
3. Netherlands (332 000) to Germany (102 000), Belgium/Luxembourg (99 000) and France (88 000).

Comment

In either a non-vaccination or pan-vaccination situation trade in calves is unlikely to alter to any great extent. UK appears to have an exportable excess while trade to Denmark and Ireland is only likely to develop if cow numbers there are cut back sharply.

2.1.2 Adult cattle for fattening, production and slaughter

In 1987 1,15 million adult cattle were traded between Member States. The principal exporters and importers were :

1. France (795 000) to Italy (709 000), Germany (34 000) and Belgium/Luxembourg (21 000)

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(1) Source of data is Nimexe as quoted in Eurostat for the year 1987. Figures are to the nearest thousand in head.

2. Ireland (152 000) to UK (151 000) and Portugal (1 000)
3. Germany (117 000) to Netherlands (64 000), Italy (37 000) and Belgium/Luxembourg (11 000).

Comment

In either a non-vaccination or pan-vaccination situation it is unlikely that trade patterns will alter as Denmark, Ireland and UK are self sufficient with Ireland being a substantial exporter. However, trade in slaughter cattle to Denmark and UK could develop due to their proximity to States such as Germany, France and the Netherlands.

2.1.3 Pure-bred breeding cattle

In 1987 38 000 of this category moved in intra-Community trade. The principal exporters and importers were :

1. Germany (22 000) to Spain (13 000), Portugal (5 000) and Italy (2 000).
2. U.K. (6 000) to Portugal (3 000) and Ireland (3 000).
3. France (5 000) to Spain (1 000), Portugal (1 000) and Italy (1 000).

NB Exports to Spain and Portugal during 1987 were supported by export refunds.

Comment

In either situation a change in these trade patterns is unlikely as the demand for these cattle is limited and the unit value is high. Because of this high unit value, quarantine and testing costs under the present regime are relatively easily absorbed. These would be eliminated on changing to a uniform policy and a marginal increase in trade could be expected. However this could be counterbalanced by an increase in trade in semen and embryos.

2.2 Swine

Trade in pigs at present is influenced by the presence or absence of four virus diseases, namely FMD, Classical Swine Fever (CSF), African Swine Fever (ASF) and Swine Vesicular Disease (SVD). Thus Member States which are officially free of CSF may prohibit entry of pigs and pigmeat into their territories from States not of the same status.

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Concerning ASF, exports from Spain (partly as and from 14 May 1989), Portugal and Sardinia are prohibited except for certain heat-treated products. Rules for SVD allow Member States not vaccinating against FMD and free of FMD for two years to require a negative serological test for SVD on breeding and production pigs before entry into their territories.

2.2.1 Pigs for Production (up to 50 kgs) (Weaner pigs)

In 1987 a total of 2,5 million of such pigs were traded between Member States. The principal exporters and importers were :

1. Germany (1 371 000) to Belgium/Luxembourg (744 000), Spain (332 000) and France (275 000)
2. France (423 000) to Spain (225 000), Belgium/Luxembourg (145 000) and Italy (52 000)
3. Netherlands (681 000) to Italy (308 000), Spain (184 000) and Belgium/Luxembourg (128 000).

2.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total traded in 1987 was 4,233 million. The principal exporters and importers were :

1. Netherlands (2 990 000) to Germany (924 000), Italy (724 000) and France (710 000).
2. Belgium/Luxembourg (958 000) to France (558 000) and Italy (326 000).
3. France (111 000) to Italy (70 000) and Belgium/Luxembourg (25 000).

2.2.3 Adult sows (not pure bred) (Mainly sows for slaughter)

In 1987 a total of 337 000 sows in this category were traded between Member States. The principal exporters and importers were :

1. Netherlands (307 000) to Belgium/Luxembourg (196 000) and Germany (110 000).
2. France (23 000) to Belgium/Luxembourg (22 000).

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2.2.4 Pure bred pigs for breeding

In 1987 some 19 000 pure bred pigs were traded. The principal exporters and importers were :

1. U.K. (9 000) to Spain (5 000), Ireland (1 000) and Germany (1 000).
2. Netherlands (3 000) to Spain (1 000) and Belgium/Luxembourg (1 000).
3. France (2 000) to Spain (2 000).

Comment on trade in pigs

As stated above, three diseases apart from FMD can influence the trade in pigs. It is therefore difficult to predict altered trade flows in the immediate future. Because of current self sufficiency it is unlikely that a trade into Denmark, Ireland and UK will develop to any great extent.

2.3. Sheep and goats

At 1 January 1989 no Community rules concerning trade in sheep and goats existed. Therefore national rules apply. Apart from FMD, Brucella melitensis would appear to be a disease which militates against trade from the Southern Mediterranean States to the Northern ones.

2.3.1 Sheep and goats other than pure breds

A total of 1,77 million sheep and goats were traded between Member States in 1987. The principal exporters and importers were :

1. France (457 000) to Italy (272 000) and Spain (183 000).
2. UK (392 000) to France (295 000) and Ireland (85 000).
3. Netherlands (336 000) to France (198 000) and Belgium/Luxembourg (134 000).
4. Germany (298 000) to Belgium/Luxembourg (128 000) and Italy (88 000).

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2.3.2 Pure bred breeding sheep and goats

A total of 17 000 sheep and goats in this category were traded in 1987. Principal exporters and importers were :

1. U.K. (7 400) to Ireland (5 000) and France (2 400).
2. Portugal (4 500) to Spain (2 500) and UK (1 000).
3. Spain (2 000) to France (1 000) and UK (700).

Comment

Trade in each category appears to be mainly from north to south probably a reflection of Brucella requirements. Present trends would seem to be set to continue. There does not seem to be an opening for trade to Denmark, Ireland or U.K. due to self sufficiencies and price differentials.

3. Trade from third countries

Trade in fresh meat and meat products :

This takes place from approximately 50 third countries into the Community. While, in the event of a change to non-vaccination, the Community is unlikely to demand that meat originates from non-vaccinated third country animals, two problem areas can be foreseen. Firstly the Latin American countries (Argentina, Brazil, Paraguay and Uruguay) where FMD flares to epizootic proportions, control FMD partly by vaccination. Meat for the Community from these countries is prepared under a strict set of conditions including maturation and deboning. It may be that a further tightening of conditions will be considered necessary especially in the case of offals. The second problem is Southern Africa - South Africa (including Namibia), Swaziland, Botswana and Zimbabwe. Here we find that current legislation(1) requires non vaccination of cattle for 12 months prior to slaughter plus freedom from FMD for the same period. However the animal health decisions for these countries are not binding on all Member States at present. In the near future decisions applicable to all Member States will be necessary.

(1) Directive 72/462/EEC Articles 14 and 15.

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On the whole therefore shipments of meat and products to the Community should not suffer in the event of a change in Community vaccination policies.

Trade in live animals :

This trade may take place from 21 countries as far as cattle and pigs are concerned, the trade in sheep and goats being subject to national rules. Bovine animals entering Member States which routinely vaccinate must be vaccinated prior to entry.

3.1 Bovine animals

3.1.1 Calves (up to 250 kgs)

In 1987 a total of 272 000 calves were imported into the Community. The principal senders and receiving Member States were :

1. Poland (219 000) to Italy (149,000) and Germany (61 000).
2. Czeckoslovakia (27 000) to Italy (18 000) and Germany (9 000).

3.1.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 350 000 cattle in this category were imported into the Community. The principal senders and receiving Member States were :

1. Yugoslavia (170 000) to Italy (111 000) and Greece (59 000).
2. Poland (80 000) to Italy (75 000) and Greece (4 000).
3. Austria (56 000) to Italy (38 000) and Germany (16 000)

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3.1.3 Pure-bred breeding cattle

In 1987 some 44 000 of these cattle were imported into the Community. The principal senders and receiving Member States were :

1. Austria (23 000) to Italy (18 000) and Spain (4 000).
2. Switzerland (15 000) to Italy (14 000).

Comment

As can be noted from the above lists the main supplies of cattle are destined for Italy and are obtained largely from third countries which at present do not systematically vaccinate, the exceptions being Czeckoslovakia and Switzerland. In the event that neither of these countries abandon vaccination then a small shortfall in calves (27,000) and breeding animals (15,000) will result. This should pose little difficulty in terms of alternate suppliers.

A policy change to pan-vaccination would, it is thought, cause little change to the import flows into Denmark, Ireland or U.K. A change to non-vaccination would mean non-acceptance of vaccinated animals and the supply of store cattle from some Eastern European countries e.g. DDR, Czeckoslovakia and Switzerland might cease depending on those countries' willingness also to abandon vaccination. On the other hand countries like Poland and Yugoslavia which do not vaccinate systematically would be relieved of their responsibility to apply pre-export vaccination.

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3.2 Swine

3.2.1 Pigs for production (up to 50 kg) weaner pigs

In 1987 a total of 13 566 weaner pigs were imported into the Community principally to :

Italy (12 245) from Czeckoslovakia (11 601).

3.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total imported in 1987 was 37 935 principally into :

Belgium/Luxembourg (37 590) from DDR (37 425)
Spain (241) from Switzerland (241).

3.2.3 Adult sows (not pure bred) (mainly sows for slaughter)

Only 7 in this category were imported in 1987.

3.2.4 Pure bred pigs for breeding

A total of 428 imported in 1987 principally into :

Netherlands (122) from Canada (122)
Greece (89) from Sweden (40) and Austria (34)
Germany (67) from Hungary (30) and Austria (22).

Comment on imports of pigs

In comparison with Intra-Community trade (7 million in 1987) imports from third countries of 52 000 pigs are insignificant. No consequences of a change in vaccination policy can be foreseen.

3.3 Sheep and goats

3.3.1 Sheep and goats other than pure breds

In 1987 2 043 000 head were imported principally into :

1. Italy (1 492 000) from Hungary (865 000), Poland (278 000) and Bulgaria (266 000)
2. Germany (286 000) from Poland (201 000) and Hungary (85 000)
3. France (163 000) from Poland (94 000) and Hungary (69 000)
4. Greece (89 000) from Hungary (50 000) and Bulgaria (35 000).

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3.3.2 Pure bred breeding sheep and goats

In 1987 5 102 animals in this category were imported principally into :

1. United Kingdom from New Zealand (3 222), Australia (294) and Canada (197)
2. France (728) from Canada (343), Australia (222) and Algeria (117)
3. Italy (195) from Austria (102) and Switzerland (92).

Comment

The main suppliers of sheep and goats to the Community do not vaccinate systematically against FMD and therefore existing patterns should be maintained. Total imports are limited by constraint agreements.

4. Trade to third countries

Current rules in trade

Animal health rules governing exports of FMD susceptible animals and their products are not entirely uniform. This is because receiving third countries, having particular attitudes and positions regarding FMD, lay down their own import rules. However it can be noted that most third countries which are free of FMD and do not vaccinate will not freely accept animals and their products from countries which vaccinate. The prime example of this practice is U.S.A. which maintains an official listing (often referred to as the "White List") of countries which it considers free of FMD. A "knock-on" effect ensues when countries on the list emulate or exceed U.S.A. rules for unclear reasons. This problem will be discussed later.

4.1 Meat and meat products

Meat and meat products which are heat treated to at least 70°C will satisfy most veterinary regulations as regards FMD virus survival. The statistics which follow are for those meats and products which are not heat treated.

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4.1.1 Meat of bovine animals, fresh, chilled, frozen

In 1987 a total of 692 791 tonnes in this category was exported principally by :

1. France (215 897) to USSR (39 400), Iran (37 156), Egypt (19 682), Brasil (14 008), Saudi Arabia (12 034), Angola (11 021) and Iraq (10 478)
2. Ireland (159 560) to Egypt (43 904), Iran (23 105), Iraq (18 549), Yugoslavia (14 014) and South Africa (13 122)
3. Germany (119 637) to Egypt (46 188), Yugoslavia (22 361) and Iran (13 102)
4. Italy (60 510) to Brazil (16 711), Peru (9 625), Saudi Arabia (9 564) and Libya (8 119)
5. Netherlands (54 389) to Zaire (10 753), Yugoslavia (10 305) and Egypt (6 504).

Tonnage exported by other Member States to various countries were : Denmark (38 076), UK (37 341), Belgium (5 928), Spain (1 297), Greece (136) and Portugal (22).

4.1.2 Preparations of uncooked bovine meat, offals and mixtures

In 1987 some 10 006 tonnes of such preparations were exported principally by :

1. Denmark (7 884) to Saudi Arabia (2 432), Bulgaria (1 252), United Arab Emirates (779) and Bahrain (722)
2. Italy (1 528) to Saudi Arabia (1 084) and Jordan (239).

4.1.3 Offals of bovine animals

In 1987 some 12 048 tonnes of offals were exported principally by :

1. France (3 295) to Ivory Coast (1 018), Guadeloupe (465), Martinique (403), Gabon (340) and Israel (299)
2. Ireland (2 550) to Japan (1 529), Israel (346), Egypt (295) and Trinidad/Tobago (154)
3. Germany (2 199) to Austria (1 111), Egypt (185) and Ivory Coast (185)
4. Netherlands (2 152) to Israel (683), Zaire (251) and Yugoslavia (163).

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4.1.4 Unrendered fats of bovine animals for food

In 1987 a total of 27 179 tonnes in this category was exported principally by :

1. Germany (15 782) to Iran (6 369), Cuba (2 076), Nigeria (1 813) and Burundi (1 511)
2. Denmark (7 300) to Rwanda (1 869), Kenya (1 681) and Tanzania (1 500).

4.1.5 Stomachs, Intestines, Bladders of animals (all food animals)

In 1987 a total of 22 868 tonnes were exported principally by :

1. Germany (8 698) to U.S.A. (2 573), Austria (1 211) and Brazil (1 006)
2. Denmark (3,676) to U.S.A. (1,788), Norway (493), Finland (386) and D.D.R. (167)
3. Netherlands (2 910) to U.S.A. (675), Brazil (433), Yugoslavia (247), Switzerland (246) and Finland (239)
4. France (2 582) to South Africa (612), Hungary (334), Sweden (172), Taiwan (152), Morocco (160) and Poland (144).

4.2 Pig meat

4.2.1 Carcases and half carcases, fresh, chilled or frozen

In 1987 2 720 tonnes of pig meat in this category was exported to third countries. Principal exporters were :

1. Spain (1 572) to Canary Isles (1 455) and Andorra (74)
2. France (455) to Canary Isles (142), Seychelles (85) and Reunion (66)
3. Belgium (311) to Canary Isles (287).

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4.2.2 Pig meat in cuts

In 1987 197 921 tonnes was exported principally by :

1. Denmark (164 272) to Japan (94 519), U.S.A. (54 158) and Canada (9 768)
2. France (9 512) to Reunion (4 415) and Martinique (1 093)
3. Belgium (6 537) to Czeckoslovakia (4 026) and Dutch Antilles (676).

4.2.3 Pig meat salted, brined, dried or smoked

In 1987 9 637 tonnes of this category mainly bacon was exported principally by :

1. Spain (3 007) to Canary Isles (2 379) and Andorra (315)
2. Denmark (3,000) to Sweden (1 155), U.S.A. (613), Greenland (196) and Singapore (194)
3. France (1 409) to Guadeloupe (483), Martinique (213) and Reunion (213).

4.2.4 Pig fat (and poultry fat) fresh, chilled and frozen

In 1987 2 085 tonnes were exported principally by :

1. Denmark (1 488) to Norway (907) and Cyprus (177)
2. France (242) to Reunion (176).

4.2.5 Sausages, puddings and the like

In 1987 65 425 tonnes were exported principally by :

1. Spain (28 414) to Canary Isles (23,881), Andorra (454) and Lebanon (263)
2. Denmark (16 742) to U.S.A. (4 027), Canary Isles (3 505), Singapore (1 073) and Saudi Arabia (1 006)
3. France (6 910) to Reunion (1 279), Guadeloupe (1 278) and Martinique (1 170)
4. Italy (4 666) to Switzerland (2 605) and Lebanon (463).

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4.2.6 Pork offals

In 1987 35 725 tonnes of pork offals were exported principally by :

1. Denmark (14 674) to Sweden (7 572), Japan (3 354) and Liberia (1 229)
2. Netherlands (8 481) to Sweden (2 243), Ivory Coast (2 167) and Cameroon (960)
3. Germany (4 440) to Sweden (3 970) and Switzerland (243).

4.3 Sheep and goat meat, fresh, chilled, frozen etc.

Only one classification exists for statistical purposes.

4.3.1 All sheep and goat meat

In 1987 a total of 5 169 tonnes was exported principally by :

1. United Kingdom (2 475) to Switzerland (2 172)
2. Italy (906) to Libya (906)
3. France (678) to Switzerland (312) and Reunion (71).

Comment on exports of fresh meat and offal

As intervention stocks decline, exports of beef to countries such as USSR and Brazil are likely to diminish. In the event of a pan-vaccination policy exports of beef offals from Ireland to Japan and some other countries - total of 2 550 tonnes in 1987 - would be lost.

In a similar situation Denmark would lose an export trade in pork cuts, partly treated pigmeat, pig fat, offals and sausages, puddings and the like which in 1987 totalled 200 000 tonnes mainly to "White List" adherants. However this export trade is marginal in comparison to total trade and it is believed that this production can be accommodated within the Community.

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4.4 Bovine animals

4.4.1 Calves (up to 250 kgs)

In 1987 the total exported from the Community as a whole was 3 309. Principal exporters were :

France (3 299) to Switzerland (3 031) and Andorra (206).

4.4.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 77 527 was exported. Principal exporters were :

1. Ireland (64 950) to Libya (30 149), Egypt (29 577) and Malta (4 200)
2. France (7 807) to Tunisia (1 684), Saudi Arabia (1 504) and Algeria (677)
3. Germany (2 324) to Saudi Arabia (2 119)
4. Spain (2 298) to Andorra (2 260).

4.4.3 Pure bred breeding cattle

In 1987 a total of 87 119 was exported. Principal exporters were :

1. Germany (43 837) to Turkey (5 357), USSR (4 893), Morocco (4 958), Libya (3 910), Kuwait (3 661), Syria (2 267), Iraq (2 164), Iran (2 024), Jordan (2 157) and Saudi Arabia (1 026)
2. France (21 390) to Algeria (18 367), Morocco (1 406) and Canary Isles (1 045)
3. Netherlands (16 647) to Algeria (5 950), Iran (5 129), Egypt (3 316) and Jordan (836)
4. Denmark (4 307) to Egypt (2 490), USSR (1 372) and United Arab Emirates (365).

4.5 Swine

As mentioned earlier, diseases other than FMD may cause restrictions in trade.

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4.5.1 Pigs for production (up to 50 kg) Weaner pigs

In 1987 a total of 2 633 was exported. Principal exporters were :

1. Netherlands (1 188) to Philippines (579) and Faroe Islands (516)
2. Belgium (1 067) to Philippines (1 052).

4.5.2 Pigs 50 kg or over (mainly slaughter pigs)

In 1987 a total of 4 390 was exported. Principal exporter was :

France (3 502) to Canary Isles (1 891) and Switzerland (1 000).

4.5.3 Adult sows (not pure bred) (mainly sows for slaughter)

In 1987 a total of 86 was exported from Netherlands to D.D.R.

4.5.4 Pure bred pigs for breeding

In 1987 a total of 3 444 was exported. Principal exporters were :

1. U.K. (2 224) to Thailand (681), Japan (537), Philippines (176), Nigeria (178), Kenya (169), and South Korea (111)
2. Denmark (338) to Thailand (159) and South Korea (101)
3. France (285) to Canary Isles (194) and Seychelles (40).

4.6 Sheep and goats

4.6.1 Sheep and goats other than pure breds

In 1987 some 54 576 animals were exported principally by :

1. Spain (30 481) to Andorra (20 405) and Ceuta (10 07[illegible])
2. Greece (21 900) to Turkey (21 900).

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4.6.2 Pure bred breeding sheep and goats

In 1987 a total of 5 940 in this group was exported. Principal exporters were :

1. France (4 672) to Algeria (3 886), China (233) and Columbia (130)
2. Germany (723) to Poland (413) and Austria (216).

Comment on live animal exports

Exports of cattle for production/slaughter and for breeding purposes are significant. Destination countries as far as is known vaccinate systematically. Exports from Member States which do not vaccinate such as Denmark and Ireland do not appear to be affected.

Exports of pigs are not significant except perhaps for pure breds where U.K. and Denmark have favoured positions mainly in trade to the Far East. As previously mentioned diseases such as classical and African swine fevers may complicate export patterns.

Exports of sheep and goats are not significant in the context of a 2 million head intra-Community trade.

4.7 Summary and conclusions

4.7.1 Intra-Community trade

(a) Meat and meat products

In either a pan-vaccination or non-vaccination situation no obstacle can be foreseen in this trade in respect of FMD.

(b) Bovine animals

In either situation the trade in calves should remain stable. There is a possibility of trade in store (production) and slaughter animals to Denmark and U.K. Trade in pure bred cattle is unlikely to change significantly.

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(c) Pigs

Trade to some extent is influenced by diseases other than FMD. In either a pan-vaccination or non-vaccination it is difficult to foresee any great change in trading patterns.

(d) Sheep and goats

Present trends seem set to continue to be greatly influenced by Brucella melitensis requirements.

4.7.2 Trade from third countries

(a) Meat and meat products

Little change is foreseen except perhaps a tightening up on offal imports from FMD infected countries. Uniform decisions need to be taken in respect of countries in South America and Southern Africa. Account needs to be taken of the "non-comminglement" principle which is applied by U.S.A. and other "White list" countries whereby establishments preparing meat and meat products for those countries may not receive and handle meat from countries not on the "White list".

(b) Bovine animals

Overall, in a non-vaccination situation a small short fall in calves (27 000) and breeding animals (15 000) would result if Czechoslovakia and switzerland do not abandon vaccination. On the other hand Poland and Yugoslavia will be relieved of pre-export vaccination requirements.

(c) Pigs

In comparison with intra-Community trade of 7,0 million pigs the import of 52 000 animals in 1987 is not significant particularly taking into account the overall self sufficiency in the Community pig sector.

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(d) Sheep and goats

The main suppliers to the Community do not vaccinate systematically. Existing trade patterns should be maintained in either situation.

4.7.3 Trade to third countries

(a) Meat and meat products

Several situations must be examined. Firstly, existing trade is governed by many factors such as quotas (e.g. U.S.A. and Canada), export restitution (from EEC), established trading links (e.g. Denmark to Scandanavian countries) and finally animal health rules (e.g. "White list" countries).

Secondly, the pan-vaccination solution could precipitate a loss of export markets at least in fresh meat for Denmark, Ireland and to a lesser extent U.K. who export to "White list" countries such as U.S.A., Canada and Japan. This trade acts as a buffer to cyclical production trends in the Community.

Thirdly, a change to non-vaccination could result in an expansion of access for the Community as a whole to "White list" countries. However the extent of such expansion may be limited by economic restrictions. In that event Member States currently exporting substantial volumes of meat may find themselves sharing a particular market with Member States newly eligible to penetrate that market.

A fourth perhaps hypothetical situation must be recorded in relation to a Community "entity" situation of FMD freedom. Here vaccination has been withdrawn and the Community is internationally recognised as free of FMD. Will the Community status be lost in the event of an outbreak of FMD ? The answer will depend on the perceived effectiveness of regionalisation coupled with disease surveillance measures.

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The principle of regionalisation is one which the Community puts into action in the event of an outbreak of FMD or other epizootic disease for its own internal protection. For example the measures include stamping out in the infected holding, the setting-up of protection and surveillance zones, a standstill on animal movements and other measures as laid down in Directive 85/511/EEC.

From past experiences it is difficult to foresee some third countries accepting this principle unless they conclude that the controls are adequate to prevent the diffusion of FMD virus to the remainder of the Community, thus allowing them to continue to accept product.

On the other hand it is on record that in a FMD outbreak situation in U.K. (Isle of Wight 1981) the free status of Northern Ireland was maintained. However it must be recognised that the presence of a physical barrier was a factor in this case.

Conversely the Community has accepted the principle of regionalisation not alone internally, but also in third countries such as Bulgaria, South America, Southern Africa and lately in Canada where the Okanagan Valley is affected by blue tongue, and has gone to considerable lengths to allow regionalisation in USA in respect of blue tongue.

(b) Live animals

The principles enumerated for meat and meat products apply, in the main, also to live animals.

In a pan-vaccination situation many export markets in the pure bred sector will be lost. However it should be noted that some "White list" countries will accept unvaccinated animals from vaccinating countries albeit through an extensive and expensive quarantine system.

In a non-vaccination situation all Member States should be able to export freely to all third countries but of course other requirements may restrict this possibility.

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4.7.4 Suggested action

In view of the uncertainty of the reaction of third country trading partners to the development of an FMD free Community it may be wise to have informal discussions at the technical (veterinary) level to (a) inform them of the Community's intention and (b) to sound out their attitude to regionalisation. It is known that several important third countries are interested in the principle of regionalisation in order that they themselves know in advance the Community approach to them should they become infected.

It is suggested that this line of action be adopted without delay.

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ANNEX 5

MEASURES FOR THE PREVENTION OF FMD POST 1992

- REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. THE PREVENTION OF PRIMARY OUTBREAKS POST 1992

In the event of a pan-vaccination policy being adopted by the Community the measures for prevention and control of FMD are largely covered by the Council Directive 85/511/EEC.

In the event of the Community adopting a non-vaccination policy for controlling FMD the following RISK FACTORS/SAFEGUARDS must be considered to prevent or reduce primary outbreaks of the disease:

2. ANIMAL IMPORTATIONS

Although there is no recent evidence of imported live animals causing primary outbreaks in the Community any importation of livestock presents a risk. The Group therefore recommends that :

(a) importation be limited to non-vaccinated (antibody-free) animals. Imported animals should be isolated in quarantine and tested (probang and serum testing) unless they originate from an FMD free country which applies control measures equivalent to those applied by the Community.

(b) special precautions be taken to prevent the mixing of livestock in summer grazing at the borders of the Community.

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3. AIRBORNE SPREAD FROM NEIGHBOURING COUNTRIES

There is circumstantial evidence that airborne virus has caused infection to cross the eastern border of the Community. Airborne virus remains viable in cool humid conditions and is thus a greater threat in Northern Europe. The risks related to airborne infection can be reduced by :

(a) international surveillance providing information about outbreaks of disease in neighbouring countries e.g. through the OIE and CEC or bilateral communications. The Group recommends that such information systems should be strengthened.

(b) using meteorological information to provide estimates of the range and direction of virus travel. Such estimates have been used in the UK and France, and should also be applied elsewhere. The computer software is commercially available.

(c) where necessary, support from the Community of vaccination programmes in neighbouring countries and evaluation of their efficiency by regular serological surveys.

(d) collaboration with neighbouring countries to assist them in achieving eradication of FMD.

(e) providing information for Community farmers and field veterinarians on the importance of strict vigilance and prompt reporting.

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4. THE MOVEMENT OF PEOPLE FOR TRADE OR TOURISM

People moving across Community borders may carry FMD virus contaminated material. Tourists who camp in the countryside outside the Community may thus provide a risk by carrying virus on their clothes and belongings. It is recommended that :

(a) the Community should seek to educate regular migrants across Community borders of the risk of transmitting virus in food etc. Information should be clearly visible at frontier stations and airports and tourists should not be allowed to bring back any meat or other animal products.

(b) tourists should be made aware of the danger of disposal of meat and other animal products in rural areas.

5. THE MOVEMENT OF VEHICLES

Vehicles crossing Community frontiers provide a risk of carrying virus either on soil or dirt on the outside of the vehicle or on clothing and other materials carried inside. It is recommended that :

the Community should consider the possibility of setting up emergency washing facilities at Community frontiers when disease is reported in a neighbouring country.

6. THE IMPORTATION OF MEAT AND OTHER ANIMAL PRODUCTS

Meat and certain animal products (milk, hides, wool, offals, biological products and materials, including veterinary vaccines and other pharmaceutical products and feedstuffs) present a risk of infection, but it is recognized that these products could be imported under specific conditions.

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Likewise biological collections (e.g. for scientific use) from foreign countries present a risk.

It is recommended that Community regulations for the importation of the above products should be reviewed. A ban should be placed on importation of meat and other animal products by private individuals(1).

7. THE IMPORTATION OF SEMEN AND EMBRYOS

The importation of semen and embryos presents a risk. To this end reference is made to the rules already adopted by the Council for importation of semen. Similar rules for importation of embryos are currently under consideration.

8. THE STORAGE AND MANIPULATION OF FMD VIRUS IN COMMUNITY LABORATORIES AND VACCINE PRODUCTION PLANTS

It is recognised that even if the Community pursues a non-vaccination policy there will still be a need for FMD diagnostic facilities, for research into FMD, and for vaccine production both for emergency vaccine banks and for export. Being aware, however, that research laboratories and vaccine plants have given rise to a number of FMD outbreaks in the Community in the recent past, the Group recommends :

(a) that the number of laboratories and vaccine plants holding FMD virus be strictly controlled.

(b) that laboratories and vaccine plants conform with FAO recommended minimum standards for laboratories working with FMD virus in vitro and in vivo : Report of the twenty-sixth Session of the European Commission for the Control of Foot-and-Mouth Disease, FAO, Rome, 23 - 26 april, 1985.

(1) Special attention should be paid to the so-called "free port" situation and to problems of control and disposal of "international swill".

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(c) that all facilities holding FMD virus are examined at regular intervals by a Community inspectorate.

(d) that safety and potency of FMD vaccines for emergency use be carefully controlled. In this respect reference is made to the functions of the planned EEC Coordinating Institute for FMD vaccines.

9. THE USE OF FMD VACCINES

There may be occasions when trading partners require livestock from the Community to be vaccinated against FMD before export occurs. To meet this need the Group recommends that :

(a) vaccination should be carried out either at the place of destination or in a Community approved export quarantine or on the means of transport on departure.

(b) special precautions should be taken to prevent re-entry of animals thus vaccinated.

In case of an outbreak emergency vaccination may be required in specified territorial areas. Since such an emergency vaccination would be applied in a non-immune animal population two vaccinations are recommended at an interval of 3-4 weeks(1).

10. THE PREVENTION OF SECONDARY OUTBREAKS POST 1992

The necessary measures to be taken to limit the number of secondary outbreaks in a non-vaccination situation are in principle contained in the Council Directive 85/511/EEC, in particular Article 5, paragraph a.

(1) Recourse to emergency vaccination is only foreseen in exceptional circumstances where an epizootic threatens to become extensive. Such a decision should only be taken at Community level and should take into account identification of vaccinated animals and related matters.

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As far as the required epizootiological investigations are concerned reference is made to the FAO guidelines :
"Methodology for investigating the origin of infection in Foot-and-Mouth disease (FMD) outbreaks".
(REF. : Report of the Twenty-seventh Session of the European Commission for the Control of Foot-and-Mouth Disease, Rome, 21-24 april, 1987, 111-120).

The action to be taken would be facilitated by establishing skilled task forces at a local or regional level. They would be responsible for :

(a) the slaughter and disposal of animals (special attention should be paid to the practical problems associated with the disposal of large numbers of animals in a short time span).

(b) the cleansing and disinfection of infected premises.

(c) the disposal of waste products.

(d) the establishment and maintenance of disinfection of farms and surrounding areas.

(e) check-points.

(f) the posting of warning notices.

(g) the disinfection of any essential vehicles leaving or entering.

(h) the prevention of entry or exit of unauthorized personnel.

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In addition epidemiological teams should be created to support the local or regional authorities. They would include veterinary virologists and technicians from the national FMD laboratory, and meteorologists familiar with the operation of computer systems for analyzing and predicting the airborne spread of FMD. In the event of an outbreak the epidemiological team would be sent to the infected premises without delay. It would be responsible for the following :

(a) determination of the extent and pattern of disease on the premises

(b) determining the source of infection

(c) assessing the probability of secondary spread

(d) advising the veterinarian in charge of control procedures on risks to other premises

The team should be equipped with specialist vehicles and radiophones.

FMD outbreaks may become increasingly rare in the Community and regular training programmes should be undertaken to maintain skills in FMD diagnostic and control procedures. These training programmes could be supervised by a small cadre of FMD experts at the Community level. The services of this cadre should be made available to national authorities in the event of an outbreak of the disease.

11. RISK AND PREVENTION DURING THE TRANSITIONAL PERIOD

In the event of a change to a non-vaccination policy, during the transition period the proportion of vaccinated animals will be in decline while that of susceptible animals will be on the increase.

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After cessation of vaccination, an increasing proportion of susceptible animals will be in contact with the residual vaccinated animals, and thus will act as sentinels. If, during a period of about one year after discontinuation of vaccination no outbreaks have occurred, the risk of the virus being present in the bovine population can be considered to be negligible.

During a time period of one year after the implementation of a non-vaccination policy the hitherto non-vaccinating Member States should continue with serological and probang testing of live animals before importing from previously-vaccinating Member States, to exclude those animals which are seropositive for FMD or which carry FMD virus.

These tests are not necessary for movements between previously-vaccinating Member States. However, existing rules relating to FMD-freedom of the holding and area should be maintained for movements between all Member States. The requirement for pre-movement vacination would, of course, no longer apply.

The proposal for a one year transitional period is based on the following :

(a) an increasingly short lifespan for cattle has been observed in the last decade, leading to a rapidly-decreasing proportion of repeatedly-vaccinated animals which are usually identifiable.

(b) maternally-acquired antibodies in young animals are completely lost within one year.

(c) the majority of animals, vaccinated only once and destined for fattening will be eliminated from the market by the end of the year following the last vaccination campaign.

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ANNEX 6

FORESEEABLE EFFECTS OF A CESSATION OF FMD VACCINATION ON THE EMPLOYMENT OF VETERINARIANS

The situation remains essentially variable from country to country, being dictated by stocking density and by whether a system of subsidies to maintain a minimum of veterinary activity is already in operation.

The situation is complicated by the fact that in some Member States (BE) vaccination is carried out by private practitioners, in others by the State services (LUX, PO) and in others by both (DE, ES, FR, IT, NL).

Some comments have been received from Member States. Only four (BE, DE, FR, NL) predicted job losses, these being mainly in the private sector, where it is estimated that about 10% of practice income is currently derived from vaccination. A total of 1 480 jobs lost out of 22 280 veterinarians currently involved in vaccination is estimated in these Member States.

The other Member States have stated that staff could be re-deployed, particularly in the State services, to other disease eradication projects. Only France suggested that the job losses could jeopardise routine disease surveillance, this affecting about 250 veterinarians in remote areas.

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ANNEX 7

FORESEEABLE EFFECTS OF A CHANGE IN POLICY ON LABORATORIES MANIPULATING FMD VIRUS

1. EXISTING COMMUNITY LEGISLATION

1.1. Diagnosis and vaccines

Directive 85/511/EEC on the control of Foot-and-Mouth disease (FDM) in the Community which came into effect on 1 January 1987 required the Commission to propose to Council

- A Reference Laboratory for the identification of FMD virus and,
- A Coordinating Institute for FMD vaccines,

together with details of their respective functions.

Proposals were made to Council in April 1988 and Decisions are expected shortly. In each proposal a specific Article has been included to the following effect:

1. The Community Reference Laboratory/Community Coordinating Institute shall operate according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with Foot-and-Mouth disease virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the control of Foot-and-Mouth Disease, FAO, Rome, April 1985.

2. The Community Reference Laboratory/Community Coordinating Institute shall formulate and recommend the disease security measures to be taken by the national laboratories in matters of FMD diagnosis in accordance with the standards referred to in paragraph 1.

Thus national laboratories which have already been nominated by the Member States and are included in the annex to the Directive will be coordinated by the Community Reference Laboratory and Coordinating Institute particularly in matters of disease security.

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2. PRESENT SITUATION

2.1. At present more than 30 laboratories are manipulating FDM virus in Europe for diagnostic and research purposes as well as for vaccine production.

In the event of a change to non-vaccination special attention should be paid to:

- the functions of FMD laboratories
- the security systems applied by FMD laboratories
- the number of FMD laboratories

2.2. Functions of FMD laboratories

2.2.1. FMD diagnosis

A rapid laboratory diagnosis is essential for the successful eradication of FMD, especially in initial outbreaks. This applies irrespective of which policy is used. However, in a non-vaccination situation the need for prompt action is strengthened, and suspect material from possible primary outbreaks should always be sent to the diagnostic laboratory without delay for immediate examination.

In view of the potential of FMD for rapid spread it is important that farmers and field veterinarians are fully aware of the importance of strict vigilance and immediate reporting. Members of the field section of the State Veterinary Services should have the opportunity of seeing clinical cases of FMD in the Reference Laboratory (or the national laboratory) as part of their training.

The diagnostic laboratories should be equipped and skilled for handling test systems of high sensitivity for rapidly providing the initial diagnosis as well for contributing to the identification of the origin of infection. Furthermore, at the earliest possible occasion the diagnostic laboratory should send a sample of virus, preferably the original field material, from the primary outbreak to the Reference Laboratory for confirmation and further characterization.

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Diagnostic laboratories should also be equipped and skilled for large scale serological examinations for use in the necessary epizootiological investigations in connection with outbreaks.

It will be an additional, important, function of the diagnostic laboratories to carry out control testing in connection with importation of live animals from third countries which do not apply FMD control measures equivalent to those applied by the Community.

2.2.2. Vaccine production plants

There are 15 vaccine production plants within the European Community. Eight production plants are owned by the State and seven others are commercial enterprises belonging to five firms (see table I). The production capacity of the plants is quite different as is their level of safety. The State production plants are related closely to laboratories or institutes for FMD-research and diagnostics, the same facilities being used in several cases.

Production capacity

To cover the needs related to present vaccination programmes in eight EC Member States (excl : UK, Irl, DK and Gr) a total of 77.3 million doses of vaccine is produced annually by the 15 production plants. Almost 37% is produced in the State-run production plants (29 million doses).

This figure takes into account the following :

- Italy has for the time being an intensified vaccination programme for cattle and pigs;
- Spain vaccinates the cattle population twice a year and also has a vaccination programme for pigs and sheep.

To the figure of 77.3 million doses an unknown number must be added because of :

- Vaccine production for export to third countries, mainly by the commercial enterprises (E.G.-Merieux-France 5.8 million doses). However the State run production plants may also export a certain amount of vaccine, often on an ad-hoc basis;
- Vaccine production in certain Member States for emergency reserves.

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A prudent estimate of the present total vaccine production in the EC might be 85-90 million doses per year. Nothing can be said about the maximum production capacity.

If the eight member countries had the same vaccination programme in force for cattle and 85% of their cattle population was vaccinated annually, a minimum amount of ± 50 million doses of trivalent vaccine must be produced.

Import of FMD vaccine into the EC does not take place except for a small amount for use in the buffer zone in Evros (Greece).

Pan-vaccination policy

If a pan-vaccination policy should be adopted, a vaccination programme would have to be carried out in another four Member States, i.e. United Kingdom, Ireland, Denmark and Greece. These four countries together have a cattle population of ± 20.5 million.
Vaccination of 85% of this number of cattle means that another 17 million doses of vaccine would be needed.
There are three means of producing this amount of vaccine i.e.

(a) each of the four countries could expand existing facilities for their own needs (except Ireland which has no facility);
(b) production could be increased in existing plants outside the four countries but within the EC;
(c) vaccine could be imported from outside the EC.

Regarding (a) an increase of the vaccine production in the existing facilities in Denmark, UK and Greece might be expected. The establishment of production plants in Ireland is not the most likely solution unless it is necessary for political reasons. It might be much cheaper however for all four countries to buy the vaccine within the EC.

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Regarding (b) increasing the production of vaccine to provide an extra 17 million doses in the existing plants in the EC would present no problems (see above paragraph on production capacity).

Regarding (c) an import of vaccine from outside the EC will be very unlikely because;

- there is no need for such imports;
- importing vaccine into the EC might increase the risk of introducing the FMD virus.

Non-vaccination policy

Adopting a non-vaccination policy will result in the cessation of preventive vaccination against FMD in the Community as a whole. Vaccine will only be necessary for emergency campaigns in certain areas around outbreaks, if stamping-out does not lead to the rapid eradication of the disease or if the disease becomes widespread.
A strategic store of vaccine (a Community vaccine bank) will be necessary. An estimation of the number of vaccine doses for this purpose has yet to be made.
Nevertheless a non-vaccination policy would drastically reduce the need for vaccine within the EC.

Commercial production plants, which have an important export trade to third countries in relation to the total production of FMD vaccine, should be allowed to continue but under strict security controls. Others will close the FMD vaccine production facilities or redeploy them for other purposes.

It will also be necessary to take into account the O.I.E. recommendations concerning international traffic of pathological and biological products containing FMD virus.

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The fate of state-run or state-owned production plants, which produce to a great extent only for the needs of their home country, depends on a number of factors e.g.:

a. the maintenance of diagnostic expertise;
b. the research into FMD control and epidemiology;
c. the production and storage, including associated research, of a reserve of vaccine for the Community vaccine bank.
d. the possibility of production of vaccine for export to third countries.

If a Member State decides to close down all production facilities, part of the savings could be used for the development of modern diagnostic techniques and training of staff.

2.2.3 FMD research

Whatever the future control policy (vaccination or non-vaccination) there will be a need for research into FMD. Topics of current importance are:

- development and standardisation of sensitive test systems
- utilisation of monoclonal antibodies for the characterization of field strains, vaccine strains and challenge strains
- the molecular biology of FMD virus
- problems related to the storage of FMD virus antigen in banks
- alternative data for evaluating vaccine potency
- safety of animal products
- development of new vaccines e.g. gene deleted, sub-unit and peptide.

The introduction of sensitive ELISA test systems and of molecular biological and biotechnological methods, e.g. for rapid and precise identification and characterization of FMD virus strains, are examples from recent years of practical applications of research with unique prospects. Thus it seems likely that the classical subtyping of virus isolates will be replaced by more precise characterizations using combinations of different parameters such as nucleotide sequencing and/or reactions with relevant panels of monoclonal antibodies in addition to the classical antigen relationships ("r"- values).

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This type of characterization will be of great use both for identification of the origin of infection and for possible selection of appropriate vaccines.

Research in these fields is in progress in several of the European FMD laboratories and should be encouraged to continue. In future such research activities can be expected to be coordinated by the Community Reference Laboratory/Community Coordinating Institute.

2.3 Security systems applied by FMD laboratories

In the light of the experiences of virus escapes from FMD laboratories it is imperative that all laboratories handling FMD virus, irrespective of the type of work, be operated according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with FMD virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the Control of Foot and Mouth Disease, FAO, Rome, April 1985.

It may be advisable to nominate a Community expert group to act as an inspectorate to ensure compliance with the safety standards.

2.4 The number of FMD laboratories

The risk of virus escapes from FMD laboratories suggests that the number of such laboratories should be reduced to a minimim, especially in the event of a change to non-vaccination. On the other hand the need for FMD laboratories is evident.

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Considering the importance of a rapid primary diagnosis in emergency situations, it should be possible for suspect material, irrespective of the location of the herd of origin, to reach the diagnostic laboratory within a few hours after collection, or at least within the same day. When also taking into account the need for research into FMD and the high level of research activities actually being carried out at several of the major National Laboratories, a reasonable compromise would be to keep just one of the existing National Laboratories per country in future.

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TABLE 1

Member State	Production Plants: State	Production Plants: Commercial	Annual needs of vaccine for vaccination campaigns (1986)	Remarks
Belgium	1 Uccle	-	2.3 mill. AOC (triv.)	
Denmark	1 Lindholm	-	0.45 mill. A) O) C) 0.15 mill. each	As a reserve
Germany	-	3 Cooper Behringwerke Bayer	13 mill. AOC (triv)	Vaccine is also imported from Merieux France
Greece	1 Athens	-	0.12 mill) A-0.038 mill.) O-0.034 mill.) C-0.043 mill.	As a reserve. Besides this 60,000 doses are imported from Merieux Teheran for use in buffer zone
France	-	1 Merieux	19.0 mill. AOC (triv)	Also export to EEC & third countries 9 mill. doses
Ireland	-	-	-	-
Italy	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Period 15/3/87 to 3/7/88. Extended vacc. campaign, vaccination of cattle & pigs
Luxembourg	-	-	0.2 mill. AOC (triv)	From diff. firms within the EEC
Netherlands	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Imported from Spain & France
Spain	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	used in cattle & pigs (figures are for 1987). Maximum capacity of the 3 labs 102 mill. vaccine (mono)
UK	-	Cooper	-	Some production for U.K. vaccine bank
TOTAL	8	7	77.3 mill	0.6 mill as reserve

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COMMISSIONE DELLE COMUNITÀ EUROPEE

SEC(89) 1731 def

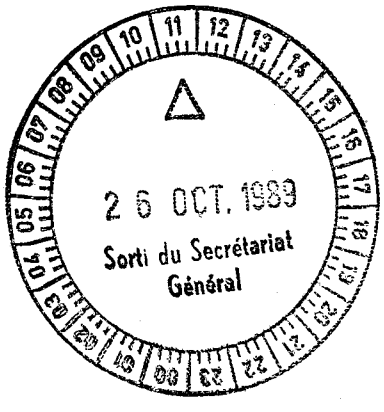
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RELAZIONE

della Commissione al Consiglio concernente uno studio effettuato dalla Commissione sulle politiche seguite attualmente dagli Stati membri nella lotta contro l'afta epizootica

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R E L A Z I O N E

L'afta epizootica è una delle più gravi malattie del bestiame. Essa si diffonde rapidamente, colpisce tutti gli animali fissipedi ed ha conseguenze economiche rilevanti, in parte a causa della sua incidenza diretta sulla produzione zootecnica ed in parte a causa degli effetti della sua presenza sugli scambi di bestiame, sui prodotti zootecnici e su alcuni prodotti agricoli.

I metodi utilizzati per combattere l'afta epizootica variano a seconda degli Stati membri, ma consistono comunque nel praticare o una politica di vaccinazione e di eradicazione (abbattimento e distruzione) totale o parziale oppure una politica di non-vaccinazione e di eradicazione totale. Entrambe queste politiche prevedono altre misure profilattiche, quali i controlli all'importazione, la sorveglianza degli animali sensibili, la fornitura di attrezzature di diagnosi ed il controllo degli spostamenti degli animali.

Attualmente gli Stati membri che non praticano la vaccinazione possono limitare la libera circolazione del bestiame proveniente dagli altri paesi della Comunità che applicano la politica di vaccinazione. Essi fanno ricorso a questa misura poichè ritengono che tali animali potrebbero essere portatori di un'infezione nascosta e poichè la presenza di animali vaccinati limiterebbe gli scambi con alcuni paesi terzi.

Con la realizzazione del mercato interno nel gennaio 1993, il bestiame ed i prodotti zootecnici circoleranno liberamente in tutta la Comunità. Cio' presuppone che tutti gli Stati membri adottino misure comuni nei confronti dell'afta epizootica.

Le normative vigenti per questa malattia sono le seguenti :

- decisione 77/97/CEE del Consiglio (fondo d'emergenza),
- direttiva 64/432/CEE del Consiglio (scambi intracomunitari),
- direttiva 85/511/CEE del Consiglio (lotta contro l'afta epizootica).

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La Commissione doveva riesaminare la direttiva 64/432/CEE (art. 4 bis) nel 1988 e la direttiva 85/511/CEE prima della fine del 1989.

Vista la necessità di effettuare due riesami e due relazioni al Consiglio in un breve periodo di tempo e, tenuto presente l'approccio del mercato interno deopo il 1992, la Commissione ha deciso di esaminare più in dettaglio il problema dell'afta epizootica. E' apparso subito evidente che è impossibile mantenendo il sistema attuale delle due politiche contrastanti di vaccinazione e di non-vaccinazione, la libertà degli scambi implicherebbe il rischio di diffusione del virus. Si è pertanto deciso, di concerto con gli Stati membri, di effettuare studi sui costi e sui benefici nonchè le analisi connesse allo scopo di stabilire una chiara linea direttrice.

Nel suo lavoro di riesame e di stesura della relazione, la Commissione ha potuto contare sul prezioso contributo di molti esperti degli Stati membri. Va ricordato, in particolare, il lavoro compiuto dal sottogruppo del comitato scientifico veterinario, che ha elaborato le previsioni future e valutato i fattori di rischio.

Nel realizzare lo studio, si è tenuto conto dei seguenti fattori :

- incidenza dell'afta epizootica nella Comunità negli ultimi 20 anni;
- rischio di insorgenza dell'afta epizootica nella Comunità secondo le due politiche alternative dopo il 1992;
- conseguenze economiche di tali politiche, vale a dire analisi dei costi e dei benefici;
- effetti sulle strutture degli scambi commerciali;
- misure necessarie per prevenire focolai primari e secondari dopo il 1992;
- cambiamenti nell'impiego delle risorse che possono essere previsti per ciascuna delle due politiche.

Le conclusioni cui è giunta la Commissione, in seguito a tali studi, possono essere riassunte come segue :

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- La politica di non vaccinazione è evidentemente meno onerosa di una politica di vaccinazione generalizzata.
- La produzione e l'impiego di vaccino possono comportare, di per se stessi, l'introduzione del virus in una popolazione animale, in seguito a fuoruscita di materiali dai laboratori o per l'impiego di vaccino non correttamente inattivato. La politica di non vaccinazione è quindi senza dubbio più sicura.
- Le misure adottate per impedire che l'infezione penetri nella Comunità e per eliminare completamente un focolaio dovrebbero essere potenziate. Al riguardo, la Commissione proporrà un aumento del contributo comunitario ai costi necessari per compensare gli allevatori delle perdite subite in caso si manifesti un focolaio.
- Un cambiamento di politica inciderà sulle modalità degli scambi intracomunitari e sulle impostazioni dai paesi terzi nel senso che, qualora si adotti la politica di non vaccinazione, non potranno più essere ammessi nella Comunità gli animali vaccinati provenienti dai paesi terzi. L'adozione di una politica di vaccinazione generalizzata implicherebbe la cessazione delle esportazioni verso taluni paesi terzi, mentre seguendo una politica di non vaccinazione l'intera Comunità potrebbe mantenere correnti di scambio con tutti i paesi terzi. Qualora si verificasse un focolaio, nell'ipotesi di una politica di non vaccinazione, le esportazioni della Comunità potrebbero continuare, grazie all'applicazione di misure efficaci di lotta e di eradicazione su base regionale: si tratta, in altre parole, del principio della regionalizzazione.
- Ai veterinari impegnati in precedenza nei programmi di vaccinazione in taluni Stati membri potranno essere assegnati altri compiti o destinazioni:
  - miglioramento della struttura dei servizi veterinari nazionali, per far fronte alle nuove esigenze imposte dalla politica di non vaccinazione;
  - partecipazione attiva a misure di lotta contro altre malattie, come il morbo di Anjeszky e la brucellosi (B. melitensis);
  - potenziamento dei servizi veterinari nazionali, indispensabile nel quadro della realizzazione del mercato unico.
- I laboratori che attualmente si dedicano alla procuzione di vaccino antiaftoso dovranno adeguarsi alla nuova situazione, caratteristica da una drastica riduzione, se non dalla cessazione totale, della produzione di vaccino. Si tratterà in questo caso, di dedicare il massimo impegno alla formazione del personale alla diagnosi dell'afta epizootica e allo sviluppo di migliori tecniche diagnostiche.

La Commissione è pienamente convinta che, per realizzare gli obiettivi del mercato interno, ossia per armonizzare le condizioni sanitarie su un livello elevato e per garantire la libera circolazione dei beni, la Comunità debba adottare una politica di non vaccinazione. E' opzione che essa raccomanda vivamente agli Stati membri. Verranno sottoposte al Consiglio proposte appropriate, volte a modificare la normativa vigente.

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RELAZIONE DELLA COMMISSIONE AL CONSIGLIO (1)

Oggetto : Studio effettuato dalla Commissione sulle politiche seguite attualmente dagli Stati membri nella lotta contro l'afta epizootica

1. INTRODUZIONE

1.1. Dopo l'istituzione della Comunità economica europea nel 1957, i sei Stati membri originari hanno discusso una serie di misure intese ad autorizzare la libera circolazione degli animali e dei relativi prodotti negli scambi intracomunitari. All'inizio, le disposizioni nazionali esigevano che venissero fornite garanzie di polizia sanitaria, vale a dire che gli animali spediti in uno Stato membro fossero sani e non potessero trasmettere malattie agli allevamenti cui erano destinati.

1.2. La prima armonizzazione ufficiale risale al 1964, quando il Consiglio adotto' la direttiva 64/432/CEE che è ancora in vigore, anche se in una veste modificata ed ampliata. Questa direttiva disciplina gli scambi intracomunitari di bovini e suini, mentre gli scambi di animali delle altre specie sono ancora soggetti - alla fine del 1988 - alle disposizioni nazionali.

1.3. Una delle principali malattie, oggetto della direttiva originaria, è l'afta epizootica. Non era stato particolarmente difficile giungere ad un accordo sulle norme concernenti questa malattia, poichè tutti i sei Stati membri praticavano una politica di vaccinazione. Oltre allo statuto di allevamento indenne e zona indenne, la principale misura di salvaguardia prevista era la vaccinazione dei bovini di età superiore a quattro mesi, prima che venissero spediti in un altro Stato membro. Il rispetto di queste norme era garantito da un certificato veterinario ufficiale che accompagnava ogni partita di animali.

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(1) Gli allegati cui fa riferimento la presente relazione figurano nel documento VI/3198/89 della Commissione

1.4. Con l'adesione della Danimarca, dell'Irlanda e del Regno Unito alla Comunità nel 1973, fu necessario apportare importanti modifiche alla direttiva 64/432/CEE, poichè i nuovi Stati membri praticavano una politica di non-vaccinazione che comprendeva l'eradicazione totale quando si manifestava un focolaio. Nonostante ampi negoziati, non fu possibile trovare subito una soluzione tra queste diverse concezioni. Il trattato di adesione dispose che i nuovi Stati membri avrebbero potuto mantenere le loro regolamentazioni nazionali di protezione contro l'afta epizootica per un periodo di cinque anni, durante il quale si sarebbero compiuti nuovi tentativi di armonizzazione a livello comunitario.

1.5. Finalmente, nel 1984, il Consiglio ha adottato una direttiva modificativa (84/643/CEE), con la quale sono state istituite nuove norme di protezione contro l'afta epizootica applicabili in tutti gli Stati membri. Contemporaneamente, sono state prese disposizioni anche per un'altra malattia (malattia vescicolosa dei suini), a causa della sua stretta analogia con l'afta epizootica. La direttiva in questione espone in dettaglio le garanzie supplementari che uno Stato membro puo' esigere in funzione del proprio stato sanitario e della propria situazione in materia di vaccinazione. L'applicazione delle disposizioni modificative in questione (art. 4 bis) è soggetta a riesame.

1.6. L'adesione alla Comunità della Grecia (1981), della Spagna e del Portogallo (1986) non hanno comportato modifiche significative della direttiva 64/432/CEE.

1.7. Nel 1985 il Consiglio ha adottato una direttiva (85/511/CEE) sulla lotta contro l'afta epizootica in tutta la Comunità, che prevede misure comuni indispensabili per far fronte in modo uniforme ad eventuali focolai di afta epizootica. Viene tuttavia lasciata agli Stati membri che praticano la vaccinazione la possibilità di scegliere fra un'eradicazione totale o parziale.

1.8. Il Consiglio ha affidato alla Commissione molti compiti sussidiari importanti, segnatamente :

- elaborare norme per l'abbattimento parziale;
- proporre al Consiglio la designazione di un laboratorio comunitario di riferimento per la diagnosi dell'afta epizootica;
- proporre al Consiglio la designazione di un istituto comunitario per il controllo del vaccino;

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- coordinare i piani di vaccinazione degli Stati membri;
- proporre al Consiglio la costituzione di una banca comunitaria di vaccini;
- presentare prima del 1990 al Consiglio una relazione, corredata di eventuali proposte, sull'applicazione della direttiva.

1.9. Nel 1985 il Consiglio ha apportato una modifica alla decisione concernente il fondo d'emergenza (77/97/CEE). Fino ad allora, questa direttiva prevedeva una partecipazione finanziaria della Comunità soltanto quando si manifestava nel territorio di uno Stato membro una malattia esotica per la Comunità. Oltre al sostegno dell'afta epizootica di tipo esotico, la modifica prevede lo stanziamento di fondi per i primi 20 focolai di afta epizootica europea classica che si manifestino nei primi 30 giorni di un'epizoozia, a condizione che venga applicata immediatamente un'azione di eradicazione totale.

2. FONDAMENTO GIURIDICO

2.1. Il fondamento giuridico della presente relazione è costituito :
- dalla direttiva 64/432/CEE del Consiglio (riesame di cui all'articolo 4 bis), e
- dalla direttiva 85/511/CEE del Consiglio (riesame di cui all'articolo 18).

2.2. Come è già stato affermato in linee generali nell'introduzione della presente relazione, la normativa che disciplina gli scambi intracomunitari di bovini e suini è stata adottata nel 1964 con la direttiva 64/432/CEE.

Deroghe in questo settore sono state decise nel 1973 per la Danimarca, l'Irlanda ed il Regno Unito al momento della loro adesione; questi paesi hanno cosi' potuto mantenere le loro regolamentazioni nazionali per la protezione dall'afta epizootica. Tali deroghe sono state poi prorogate fino al 31 dicembre 1984, dopo di che sono state istituite nuove norme in materia di protezione dall'afta epizootica applicabili in tutti gli Stati membri.

Le nuove norme, fissate con la direttiva 84/643/CEE del Consiglio dell'11 dicembre 1984, prevedevano l'inserimento di un articolo 4 bis nella direttiva di base sugli scambi concernenti i bovini e i suini. L'articolo in questione descrive dettagliatamente le garanzie supplementari che uno Stato membro puo' richiedere in funzione del suo stato sanitario e della politica di vaccinazione seguita.

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L'articolo 4 bis dispone inoltre che ogni tre anni, e per la prima volta tre anni dopo la data della sua entrata in vigore (ossia il 1° gennaio 1988), il Consiglio, deliberando a maggioranza qualificata su proposta della Commissione, riesamini le disposizioni di detto articolo. Questo riesame verrà effettuato sulla base di una relazione della Commissione, eventualmente accompagnata da proposte.

2.3. La Commissione, cui è stato affidato tale compito, ha fatto osservare che nel periodo decorrente dal 1° gennaio 1985 non le è stato comunicato alcun problema specifico incontrato dagli Stati membri all'esportazione o all'importazione di animali nell'ambito degli scambi intracomunitari. Il 28 luglio 1987 la Commissione ha informato gli Stati membri che intendeva riesaminare l'applicazione dell'articolo suddetto e chiedeva loro di trasmetterle tempestivamente eventuali commenti sulle disposizioni fissate dall'articolo 4 bis.

Alcuni Stati membri hanno segnalato alla Commissione che avrebbero auspicato un'immediata attenuazione delle misure applicabili agli animali da macello. La Commissione riconosce che questo articolo, con le sue procedure di quarantena, costituisce un problema per la libera circolazione degli animali in tutta la Comunità.

2.4. La seconda direttiva che chiede alla Commissione di presentare al Consiglio una relazione sull'afta epizootica è la direttiva 85/511/CEE del Consiglio (art. 18). Tale normativa predispone una serie di misure comunitarie atte a garantire un approccio uniforme qualora si manifestasse un focolaio di afta epizootica. Tra l'altro, si chiede alla Commissione di presentare una relazione al Consiglio anteriormente al 1° gennaio 1990 sull'applicazione di tale direttiva. La relazione puo' essere eventualmente accompagnata da opportune proposte.

3. AZIONE DELLA COMMISSIONE

3.1. Dovendo procedere a due riesami, presentare due relazioni al Consiglio entro un breve periodo di tempo e, tenuto conto della realizzazione del mercato interno dopo il 1992, la Commissione ha deciso di esaminare in modo più approfondito il problema dell'afta epizootica.

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E' apparso immediatamente evidente che è impossibile mantenere il sistema attuale delle politiche contrastanti di vaccinazione e di non-vaccinazione. Si è pertanto deciso, di concerto con gli Stati membri, di effettuare studi dei costi e dei benefici, nonchè le analisi connesse, in modo da mettere a punto una chiara linea direttrice.

3.2. Per adempiere ai propri obblighi nei confronti del Consiglio, per quanto riguarda il riesame di cui all'articolo 4 bis della direttiva 64/432/CEE, il 14 gennaio 1988 la Commissione ha presentato al Consiglio una relazione in cui spiega che intende effettuare uno studio approfondito e presentare una relazione e le proposte opportune entro la fine del 1988.

3.3. Nel suo lavoro di riesame e di stesura della relazione, la Commissione ha potuto contare sul prezioso aiuto di molti esperti degli Stati membri. Va ricordato, in particolare, il lavoro svolto dal sottogruppo del comitato scientifico veterinario, che ha elaborato le previsioni future e valutato i fattori di rischio. La Commissione fa osservare che la relazione di questo gruppo ha ottenuto un parere favorevole nell'ambito dell'intero comitato scientifico veterinario, parere pienamente condiviso dai servizi della Commissione.

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4. LOTTA CONTRO L'AFTA EPIZOOTICA NELLA COMUNITA' EUROPEA

4.1. Introduzione

4.1.1. Nel presente documento sono esposti gli aspetti che vanno considerati nel determinare una politica comunitaria di lotta contro l'afta epizootica. Sebbene sia stato elaborato in previsione dell'abolizione delle frontiere alla fine del 1992, il documento tiene conto della necessità di attuare una politica comune a livello della Comunità quanto prima possibile.

4.1.2. L'afta epizootica è una delle più gravi malattie del bestiame. Essa si diffonde rapidamente, colpisce tutti gli animali fissipedi ed ha conseguenze economiche rilevanti, in parte a causa della sua incidenza diretta sulla produzione zootecnica ed in parte a causa degli effetti della sua presenza sugli scambi di bestiame, sui prodotti zootecnici e su alcuni prodotti agricoli.

4.2. Antefatto

4.2.1. Il settore zootecnico europeo ha subito il primo grave attacco dell'afta epizootica negli anni '30 con i tipi di virus O, A, e C, come li conosciamo oggi. Dopo la seconda guerra mondiale, si è verificato un arresto della diffusione dell'afta epizootica, dovuto probabilmente alle limitazioni degli spostamenti degli animali ed alla ricostituzione delle mandrie nazionali. All'inizio degli anni '50 si è registrato un aumento improvviso dei focolai, le cui gravi conseguenze hanno indotto l'OIE e la FAO ad organizzarsi meglio a livello continentale nella lotta contro questa malattia. L'arrivo del vaccino Frenkel ha permesso di espandere rapidamente la produzione di vaccino e la protezione conseguente. Inoltre, la maggior parte dei paesi ha adottato una politica di abbattimento, sebbene qualcuno ricorresse anche - come misura supplementare - alla vaccinazione di massa attorno alla zona del focolaio. Nel corso di questi anni la maggior parte dei paesi europei ha adottato una politica di vaccinazione obbligatoria almeno per i bovini.

4.2.2. Al di fuori dell'Europa continentale, i paesi scandinavi, il Regno Unito e l'Irlanda sono rimasti relativamente indenni dall'afta epizootica. In Spagna si sono regolarmente verificati gravi focolai fino al 1980. Il Vicino Oriente e soprattutto la Turchia hanno sempre costituito una grave minaccia per l'Europa occidentale.

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Questa minaccia sussiste tuttora, ma la creazione di una zona cuscinetto di vaccinazione nella regione della Tracia si è rivelata estremamente preziosa. La malattia è diffusa in Africa con tre tipi di virus africani specifici. In alcuni paesi asiatici è presente un tipo diffuso in questo continente. A parte l'America meridionale, dove la maggior parte dei paesi è infestata da tipi di virus simili a quelli europei classici, il resto del mondo è indenne dalla malattia e non pratica la vaccinazione. In questo grande gruppo rientrano l'America centrale e settentrionale, l'Australia, la Nuova Zelanda, il Giappone, la Corea ed altri territori dell'Estremo Oriente.

Le situazioni nelle varie regioni suddette sono presentate succintamente nelle tabelle 2 e 3 dell'allegato 1.

4.2.3. Le grandi epidemie verificatesi in Europa negli anni '60 ed all'inizio degli anni '70 sono state in gran parte debellate con il ricorso a campagne massicce di vaccinazione e con la limitazione delle importazioni nella Comunità di carni e di altri prodotti di origine animale. Dopo il 1980, si sono verificate gravi epizoozie soltanto in Italia (1984-87) ed in Portogallo (1980-84).

4.2.4. I focolai constatati negli Stati membri sono riportati nella tabella 1 dell'allegato 1. Per focolaio, si intende la malattia che si manifesta in un'azienda o in un allevamento (OIE). Si puo' osservare negli ultimi vent'anni una forte diminuzione del numero di focolai nella Comunità nel suo complesso. Negli ultimi cinque anni la maggior parte degli Stati membri è stata praticamente immune dalla malattia, ad eccezione dell'Italia, dove si sono registrate varie epidemie nella regione settentrionale del paese.

4.2.5. La situazione dell'afta epizootica nei paesi limitrofi è esposta nella tabella 2 dell'allegato 1, mentre nella tabella 3 dello stesso allegato figura la situazione nei paesi terzi che hanno vincoli commerciali con la Comunità. La tabella 4 dell'allegato 1 contiene un'analisi dei piani di vaccinazione degli Stati membri.

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4.3. Le alternative

4.3.1. Gli Stati membri applicano metodi diversi nella lotta contro l'afta epizootica, che si riducono comunque ad una delle due politiche alternative seguenti :

a) politica di vaccinazione : vaccinazione sistematica annua di tutto il bestiame bovino. Quando si manifesta un focolaio, viene applicata, oltre alla vaccinazione e ad altre misure di controllo, l'eradicazione totale o parziale;

b) politica di non-vaccinazione : divieto generale della vaccinazione contro l'afta epizootica. Quando si manifesta un focolaio, viene applicata, oltre ad altre misure di lotta, l'eradicazione totale. In circostanze eccezionali, puo' essere necessaria una campagna di vaccinazione circoscritta.

4.3.2. Entrambe queste politiche sono appoggiate da controlli all'importazione, dalla sorveglianza regolare delle popolazioni di bestiame a rischio, dalla fornitura di attrezzature di laboratorio per le diagnosi e, quando si manifesta la malattia, dal controllo degli spostamenti del bestiame.

4.3.3. Attualmente, gli Stati membri che non praticano la vaccinazione possono limitare gli scambi di bestiame provenienti dagli altri Stati membri dove è applicata la politica di vaccinazione. Tale misura è dettata dal fatto che questi animali potrebbero essere portatori di un'infezione nascosta e che la presenza di animali vaccinati limiterebbe gli scambi con alcuni paesi terzi.

Tale misura è giustificata, in primo luogo, dal fatto che gli animali vaccinati possono essere portatori del virus, a seguito di contatti intervenuti, pur risultando clinicamente normali. E' vero che il rischio che possono presentare animali vaccinati, in assenza prolungata di virus selvaggio, è limitato; è peró impossibile garantire l'assenza del virus in una popolazione animale vaccinata, dal momento che esso puó infiltrarvisi senza essere individuato. Esiste quindi il pericolo che il virus possa penetrare in zone in precedenza non infette tramite gli spostamenti di animali vaccinati. La possibilità che il virus possa diffondersi in questo modo è inaccettabile, tenuto conto della gravità della malattia.

In secondo luogo, la presenza di animali vaccinati in un paese viene considerata da molti paesi terzi, come gli U.S.A. e i paesi aderenti all'"Elenco bianco" da essi elaborato, equivalente alla presenza della malattia, con ovvie gravi conseguenze per gli scambi.

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4.3.4. Con la realizzazione del mercato interno, nel gennaio 1993, il bestiame ed i prodotti zootecnici circoleranno liberamente in tutta la Comunità. Cio' presuppone che tutti gli Stati membri adottino una politica comune nei confronti dell'afta epizootica.
Attualmente, tre Stati membri (Danimarca, Irlanda e Regno Unito) non praticano la vaccinazione, che è invece praticata dagli altri nove paesi. Un riepilogo dei piani di vaccinazione figura nella tabella 4 dell'allegato 1.

4.3.5. La scelta della politica comunitaria di lotta contro l'afta epizootica è limitata alle due politiche - vaccinazione e non-vaccinazione - descritte al paragrafo 4.3.1.
In questa scelta, va tenuto conto dei seguenti fattori :

a) incidenza dell'afta epizootica nella Comunità negli ultimi venti anni (allegato 1, tabella 1);

b) rischio di insorgenza dell'afta epizootica nella Comunità, secondo le due politiche alternative dopo il 1992. Relazione del sottogruppo del comitato scientifico veterinario (allegato 2) (1);

c) conseguenze economiche di tali politiche alternative, vale a dire costi per i settori pubblico e privato (allegato 3);

d) effetti sulle strutture degli scambi comunitari, interni ed esterni, di bestiame, prodotti zootecnici ed altri prodotti (allegato 4);

e) misure necessarie per prevenire l'insorgenza di focolai primari e secondari dopo il 1992 e durante un periodo transitorio. Relazione del sottogruppo del comitato scientifico veterinario (allegato 5) (1);

f) cambiamenti prevedibili, con ciascuna delle due politiche, nell'impiego delle seguenti risorse :

   i) veterinari impegnati attualmente nei programmi di vaccinazione (allegato 6), e

   ii) laboratori che si occupano attualmente di diagnosi, produzione di vaccino e ricerca nel settore dell'afta epizootica (allegato 7).

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(1) Va osservato che era difficile risolvere determinati problemi, ad esempio il ruolo degli animali vaccinati quali possibili portatori. Il testo presentato è stato tuttavia accettato unanimemente dal sottogruppo ed approvato dal comitato scientifico veterinario il 1° febbraio 1989.

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4.4. Rischio d'insorgenza dell'afta epizootica dopo il 1992

4.4.1. Il rischio d'insorgenza dell'afta epizootica dopo il 1992, secondo la scelta tra l'una o l'altra politica suddette, è stato valutato da un sottogruppo del comitato scientifico veterinario. Supponendo che gli spostamenti di bestiame nella Comunità non saranno limitati dopo il 1992, il rischio è stato calcolato a livello comunitario, anzichè sulla base dei singoli Stati membri. Le conclusioni del sottogruppo sono esposte nell'allegato 2.

4.4.2. Dopo aver esaminato i focolai constatati in tutti gli Stati membri negli ultimi undici anni (1977-87), il sottogruppo ha identificato 34 focolai primari di afta epizootica. Otto di questi hanno probabilmente come causa una fonte esterna alla Comunità, connessa soprattutto all'importazione di carni (cfr. tabella 3 dell'allegato 2). Secondo il sottogruppo, altri tredici focolai possono avere come origine la fuga di virus da laboratori o la produzione e l'impiego di vaccino non correttamente inattivato. La fonte degli altri tredici focolai primari è sconosciuta.

4.4.3. Sulla base delle testimonianze disponibili degli ultimi undici anni, il sottogruppo ha elaborato previsioni per gli anni 1993-2003, secondo che venga adottata la politica di vaccinazione o viceversa di non-vaccinazione. E' stato esaminato, in primo luogo, il rischio di focolai primari.

4.4.4. Il sottogruppo ritiene che il rischio di penetrazione di un'infezione nella Comunità negli anni 1993-2003 non aumenterà nè diminuirà rispetto agli ultimi undici anni. Esso prevede l'insorgenza di tredici focolai primari, esclusi quelli causati dalla fuga di virus e dall'impiego di vaccino non correttamente inattivato (allegato 2, paragrafo 12).

4.4.5. Il sottogruppo ha ammesso che non vi sono fonti endemiche di virus aftosi selvatici negli allevamenti e nelle mandrie della Comunità. Di conseguenza, il rischio che si manifestino focolai primari originati da fonti interne alla Comunità dipenderà dalla misura in cui i virus aftosi vivi verranno manipolati nei laboratori e dall'utilizzazione di vaccino non correttamente inattivato.

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4.4.6. Se la vaccinazione antiaftosa viene mantenuta, se le tecniche di inattivazione del vaccino non vengono migliorate e se il virus continua ad essere manipolato in laboratori che non offrano condizioni di assoluta sicurezza, il rischio attuale persisterà. Di conseguenza, il sottogruppo ha previsto che, nel periodo di undici anni suddetto, si manifesteranno tredici focolai supplementari. Questo rischio potrebbe tuttavia essere ridotto utilizzando migliori metodi di produzione del vaccino. Se la vaccinazione viene sospesa e se i laboratori lavorano in condizioni di assoluta sicurezza, il rischio sarà molto più basso ed in tal caso il sottogruppo non prevede alcun focolaio supplementare.

4.4.7. Il sottogruppo ha quindi esaminato il rischio di focolai secondari provocati da quelli primari. Nel periodo 1977-87 molti focolai primari non hanno provocato un'ampia diffusione della malattia, indipendentemente dal fatto che siano insorti in paesi che praticavano la vaccinazione o in paesi che non seguivano tale politica. D'altro canto, vi sono stati casi di grande diffusione del morbo nello stesso periodo, ma, secondo il sottogruppo, l'indice di diffusione non dipendeva tanto dalla politica di vaccinazione, quanto dal rigore dei metodi di lotta applicati. Cio' è vero soprattutto per le grandi popolazioni di suini. Il sottogruppo ha concluso che la variazione del tasso di diffusione è troppo grande per poter predire una differenza del numero di focolai secondari per focolaio primario, in funzione della politica di vaccinazione o di non-vaccinazione seguita.

4.5. <u>Conseguenze economiche delle due politiche alternative</u>

4.5.1. Quando si manifesta all'interno della Comunità, l'afta epizootica viene eliminata il più rapidamente possibile (direttiva 85/511/CEE), in modo da impedire che possano svilupparsi gli effetti devastatori della malattia. I costi inerenti ad un focolaio sono quindi i costi della lotta (che comprendono l'eradicazione e/o la vaccinazione sistematica) e le perdite registrate a livello della produzione e degli scambi. Nell'allegato 3 sono presentati i costi calcolati dagli Stati membri.

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4.5.2. I costi sono stati stimati con un modello economico elaborato dalla Commissione europea della FAO per la lotta contro l'afta epizootica. Sono stati calcolati i costi che la Comunità deve sostenere per la vaccinazione regolare del bestiame e per l'eradicazione dei focolai. Tutti gli altri costi, ad esempio quelli inerenti alla sorveglianza ed alla fornitura delle attrezzature per la diagnosi, sono comuni ad entrambe le politiche, sicchè non sono stati presi in considerazione.
Il costo della lotta dipende in ampia misura dal numero di focolai. L'analisi economica tiene conto della probabilità della comparsa di focolai nella Comunità, con l'una o l'altra delle due politiche alternative. L'analisi economica è riportata nell'allegato 3 e riassunta al punto 4.8 seguente.

4.5.3. L'analisi condotta, secondo il modello FAO, presuppone che vengano presi in considerazione gli effetti di una politica di vaccinazione o di non-vaccinazione sugli scambi interni e sulle esportazioni. Un'analisi di questi effetti è stata elaborata dalla Commissione e forma oggetto della relazione che figura nell'allegato 4.

4.6. Costo della vaccinazione

4.6.1. Otto Stati membri (Belgio, Francia, Repubblica federale di Germania, Italia, Lussemburgo, Paesi Bassi, Portogallo e Spagna) praticano la vaccinazione di routine su tutto il bestiame. Oltre ai bovini, alcuni vaccinano anche i suini, gli ovini ed i caprini. Nella tabella 1 dell'allegato 3 vengono presentati i costi di una singola vaccinazione annua del bestiame delle mandrie nazionali, come sono stati calcolati da questi Stati membri.

4.6.2. I quattro Stati membri restanti (Danimarca, Grecia (1), Irlanda e Regno Unito) non praticano la vaccinazione contro l'afta epizootica. Essi hanno calcolato i costi che dovrebbero sostenere nel caso dovessero praticare la vaccinazione; anche le loro stime figurano nella tabella 1 dell'allegato 3.

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(1) Esclusa la zona cuscinetto della Tracia.

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4.6.3. Il costo pubblico diretto di un programma di vaccinazione in tutta la Comunità, che preveda una singola vaccinazione annua del bestiame in tutti gli Stati membri, è stato stimato a circa 133 Mio di ECU all'anno, ai valori del 1987. Sono compresi in questa cifra l'acquisto e la conservazione del vaccino, la somministrazione del vaccino e le spese amministrative generali. Ne è invece escluso il costo di eventuali effetti secondari deleteri imputabili all'impiego del vaccino.

4.6.4. Va osservato che la vaccinazione praticata nella Comunità protegge soltanto dai ceppi aftosi europei A, O e C, ma non difende gli animali dai ceppi esotici presenti in altre parti del mondo.

4.6.5. Si puo' inoltre osservare, dalla tabella 4 dell'allegato 1 concernente i piani di vaccinazione, che la protezione dell'immunizzazione è nettamente inferiore al 100%, in quanto i suini, gli ovini e i caprini vengono raramente vaccinati. D'altra parte, restano spesso esclusi dalla vaccinazione i centri di allevamento e di alimentazione dei vitelli, mentre i vitelli di età inferiore ai 3-4 mesi al momento in cui viene effettuata la vaccinazione annuale non vengono vaccinati fino all'anno successivo.

4.7. <u>Costo di un focolaio di afta epizootica</u>

4.7.1. L'Office International des Epizooties di Parigi (OIE) definisce, come focolaio, la malattia che si manifesta in un'azienda o in un allevamento. Le epidemie di afta epizootica vengono combattute su base aziendale, sicchè i costi di un focolaio possono essere facilmente determinati. E' stato chiesto agli Stati membri di calcolare il costo medio di un focolaio di afta epizootica, includendovi i costi di abbattimento, rimozione delle carcasse, disinfezione, pulitura e misure connesse, il valore degli animali abbattuti, la perdita di produzione subita dall'azienda a causa del periodo necessario per ricostituire l'allevamento ed i costi amministrativi specifici del focolaio. Per la determinazione dei costi, si suppone che vengano abbattuti tutti gli animali sensibili presenti nell'azienda.

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4.7.2. Un'epidemia grave di afta epizootica puo' comportare, per il paese o la regione in cui si manifesta, costi che non possono essere ripartiti tra singoli focolai. Possono rientrarvi, ad esempio, la chiusura di macelli o di mercati, ma le analisi passate delle conseguenze economiche delle epidemie di afta epizootica non hanno permesso di quantificare tali costi.

4.7.3. Gli Stati membri, che hanno combattuto recentemente focolai di afta, si sono fondati per le loro stime sulle spese effettive sostenute. Gli altri paesi, dove non si è manifestata recentemente l'afta epizootica, hanno elaborato costi presuntivi. I costi in questione sono riepilogati nella tabella 2 dell'allegato 3.

4.7.4. Ai fini dell'analisi economica seguente, il costo medio di un focolaio è stato stimato a 158 000 ECU, compreso tra un costo minimo di 31 914 ECU ed un costo massimo di 600 000 ECU.

4.8. Analisi economica

4.8.1. Le stime dei costi della vaccinazione e dei focolai di afta epizootica sono state utilizzate per l'analisi economica di una politica di vaccinazione e di una politica di non-vaccinazione in un periodo di 10 anni. L'analisi fornisce una serie di stime, in funzione delle variazioni del costo e del numero dei focolai, che hanno permesso di mettere a punto tre scenari possibili : una situazione centrale (o più probabile), una situazione più sfavorevole ed una situazione più favorevole. L'analisi è riportata per intero nell'allegato 3.

4.8.2. Il risultato più probabile è quello fornito dalla "situazione centrale" dell'analisi, che si fonda sul costo di un focolaio medio e sul numero di focolai primari e secondari previsti dal comitato scientifico veterinario.

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Se viene attuata una politica di non-vaccinazione, il costo totale a carico della Comunità [valore attualizzato in 10 anni (5 %) stimato a 35 Mio di ECU].

Se viene attuata una politica di vaccinazione, il costo totale a carico della Comunità [valore attualizzato in 10 anni (5 %) stimato a 1 134 Mio di ECU].

4.8.3. Va osservato che, attualmente, la Comunità garantisce agli Stati membri, per l'eradicazione dell'afta epizootica, una partecipazione finanziaria del 50 % per i costi di abbattimento e di distruzione, e del 100 % per i costi di vaccinazione di emergenza. Per i tipi di afta epizootica classica europea, tale assistenza è limitata ai primi 20 focolai che si manifestano nei primi 30 giorni di una epizoozia.

4.8.4. Va altresi' osservato che, se viene adottata la politica di non-vaccinazione, non aumenteranno più i costi della vaccinazione dei bovini prima dell'esportazione. Ogni anno vengono scambiati circa 2 milioni di animali tra gli Stati membri che praticano la vaccinazione. Supponendo che 1 milione di animali vanga sottoposto alla vaccinazione prima dell'esportazione (possono essere esentati i vitelli di meno di 4 mesi ed alcuni animali da macello), con un costo di 3 ECU per animale (vaccino e vaccinazione), si potrà effettuare un'economia di 3 Mio di ECU.

4.9. <u>Effetti delle due politiche alternative sugli scambi di bestiame e di prodotti zootecnici</u>

Nell'analisi economica descritta al punto 4.8 non è tenuto conto degli effetti delle due politiche alternative sugli scambi di bestiame e di prodotti zootecnici all'interno della Comunità e con i paesi terzi. Nell'allegato 4 è riportata la relazione della Commissione sugli scambi, le cui conclusioni principali sono le seguenti :

a) l'adozione dell'una o dell'altra politica avrà una scarsa incidenza sugli scambi intracomunitari di animali vivi e di prodotti zootecnici;

b) qualora si applichi la politica di non vaccinazione, gli animali vaccinati potrebbero essere importati soltanto ricorrendo a misure supplementari di selvaggina, ció non avrebbe tuttavia incidenza sulle importazioni di carni fresche e di prodotti a base di carne, purchè siano mantenute tutte le procedure abituali (maturazione, disossamento).

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c) E' evidente che una politica comunitaria di vaccinazione totale avrà ripercussioni considerevoli sulle esportazioni verso molti paesi terzi. D'altro canto, saranno indispensabili discussioni tecniche con i servizi veterinari dei partners commerciali, per convincerli dell'efficacia delle misure di regionalizzazione adottate, nel caso si verifichi un focolaio in una situazione caratterizzata dalla politica di non-vaccinazione.

4.10. Conseguenze dell'arresto della vaccinazione antiaftosa sull'occupazione dei veterinari

Per quanto è possibile prevedere, la cessazione della vaccinazione contro l'afta epizootica dovrebbe avere effetti limitati sull'occupazione dei veterinari. Le autorità portoghesi e spagnole prevedono che ai veterinari verrebbero assegnati altri compiti. La Francia ritiene che sarà difficile mantenere la presenza di veterinari in zone agricole remote, sicchè potrebbe essere messa in pericolo la rete di sorveglianza veterinaria (cfr. allegato 6).

Una politica di non vaccinazione esige un sistema di controllo della malattia perfettamente a punto, gestito da un servizio veterinario nazionale sottoposto a controllo centrale, in grado di far fronte in modo rapido ed efficace a situazioni di emergenza. I veterinari finora impegnati nelle campagne di vaccinazione potrebbero essere assegnati a questo compito ed utilizzati per il potenzionamento dei servizi veterinari, necessario per la realizzazione del mercato unico.

4.11. Conseguenze di un cambiamento della politica antiaftosa per i laboratori

Attualmente, oltre 30 laboratori manipolano virus aftosi in Europa. Di questi, 15 producono vaccino e gli altri conservano il virus a scopi di diagnosi o di ricerca.

Qualora venga adottata una politica di vaccinazione generale, l'accresciuto fabbisogno di vaccino potrebbe essere soddisfatto incrementando la produzione comunitaria. Nel caso venisse adottata, invece, una politica di non-vaccinazione, il vaccino sarebbe necessario soltanto per mantenere una riserva comunitaria strategica e per proseguire le esportazioni verso i paesi terzi. Poichè attualmente gli impianti di produzione del vaccino sono di proprietà dello stato, una parte delle economie che si realizzerebbero con la chiusura degli impianti potrebbe essere destinata alla formazione del personale, che esegue le diagnosi dell'afta epizootica, ed allo sviluppo di migliori tecniche diagnostiche.

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Qualunque sia la futura politica di lotta, sarà necessario mantenere la ricerca sull'afta epizootica. Probabilmente, il numero di laboratori comunitari impegnati in tale attività verrà ridotto. Nei laboratori che resteranno attivi, dovranno essere garantite condizioni di assoluta sicurezza per impedire la fuga di virus aftosi (cfr. allegato 7).

5. CONCLUSIONI

5.1. Una posizione comune della Comunità sul problema dell'afta epizootica è indispensabile per la realizzazione degli obiettivi del mercato interno.

5.2. Le politiche applicate attualmente dagli Stati membri (vaccinazione o non-vaccinazione) sono state riesaminate ed approfondite, soprattutto per quanto riguarda gli aspetti economici.

5.3. E' stata esaminata la possibilità di libero scambio per quanto riguarda le specie sensibili alla malattia tra zone della Comunità che seguono politiche diverse; l'ipotesi è stata peró respinta a causa del rischio che il virus dell'afta epizootica possa essere introdotto in zone precedentemente non infette. Si tratta infatti di un rischio inaccettabile, tenuto conto di uno degli abiettivi dell'Atto Unico Europeo, ossia l'armonizzazione delle condizioni sanitarie su un livello elevato. E' pertanto necessario operare una scelta precisa e definitiva tra la politica di vaccinazione e la politica di non vaccinazione per l'intera Comunità.

5.4. Gli studi evidenziano che il costo di una politica di non-vaccinazione sarebbe di gran lunga inferiore a quello della politica di vaccinazione generale. Poichè si prevede l'insorgenza di un maggior numero di focolai con la politica di vaccinazione, è evidente che l'adozione di una politica di non-vaccinazione sarebbe più vantaggiosa per la Comunità nel suo complesso.

5.5. Se verrà adottata la politica di non-vaccinazione, sarà necessario rafforzare le misure intese a prevenire l'introduzione dell'infezione nella Comunità ed a garantire l'eliminazione effettiva di qualsiasi focolaio che dovesse manifestarsi.

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5.6. Dagli studi sugli aspetti commerciali, risulta che un cambiamento delle politiche attuali avrà un influsso marginale sugli scambi intracomunitari e sulle importazioni dai paesi terzi. La politica di non-vaccinazione potrebbe mettere in pericolo determinate importazioni in provenienza da paesi terzi che praticano la vaccinazione, ma si potrebbe concordare la cessazione reciproca della vaccinazione con il paese interessato. Applicando la politica di vaccinazione generale, è evidente che cesseranno le esportazioni verso molti paesi terzi. D'altra parte, in una situazione di non-vaccinazione, l'intera Comunità avrebbe la possibilità di realizzare scambi con un maggior numero di paesi, ma potrebbe essere considerata da alcuni paesi come una sola entità, sotto il profilo dello stato sanitario. In tal caso, un focolaio di afta epizootica potrebbe influire sull'ammissibilità delle esportazioni comunitarie in generale, a meno che vengano accettate a livello internazionale misure di lotta e di eradicazione su base regionale.

5.7. Per quanto riguarda le risorse umane, è probabile che la maggior parte dei veterinari - dipendenti statali o professionisti - impegnati attualmente nelle campagne di vaccinazione, possa essere integrata in unità dipendenti dall'autorità nazionale per costituire un servizio in grado di far fronte agli impegni supplementari richiesti dalla politica di non vaccinazione, o assegnata ad altri compiti, come la lotta contro il morbo di Anjeszky e la brucellosi (B. melitensis).

5.8. Qualora venisse decisa la politica di non-vaccinazione, i laboratori che si occupano attualmente dell'afta epizootica dovranno adattarsi ad una drastica riduzione della produzione di vaccino. In tal caso, si dovrà porre l'accento sulla formazione del personale (sul terreno ed in laboratorio) nella diagnosi dell'afta epizootica e sullo sviluppo di migliori tecniche diagnostiche.

5.9. La Commissione è profondamente convinta che, per realizzare gli obiettivi del mercato interno, la Comunità deve orientarsi verso la politica di non-vaccinazione. e la politica di vaccinazione generalizzata. In base agli elementi messi in luce dalla presente relazione, è evidente che la politica di non vaccinazione è più sicura e meno onerosa e risponde al duplice obiettivo di garantire il conseguimento di condizioni sanitarie di livello elevato e la realizzazione della libera circolazione dei beni nel mercato unico. Essa è pertanto vivamente raccomandata agli Stati membri. Verranno sottoposte al Consiglio le proposte appropriate, volte a modificare la normativa vigente.

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ANNEXES

DU RAPPORT

DE LA COMMISSION AU CONSEIL CONCERNANT UNE ETUDE
EFFECTUEE PAR LA COMMISSION SUR LES POLITIQUES ACTUELLES
DES ETATS MEMBRES DANS LE DOMAINE DE LA LUTTE CONTRE LA FIEVRE APHTEUSE

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(PLOI/321-3)

ANNEXE 1

TABLEAU 1

FIEVRE APHTEUSE DANS LES ETATS MEMBRES (1968-1988)

PAYS	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIQUE	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DANEMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
RFA	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GRECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRLANDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALIE	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAYS-BAS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
ROYAUME-UNI	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
ESPAGNE	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
A partir de 1984 : ADNS

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ANNEXE 1

TABLEAU 2

Fièvre aphteuse dans les pays voisins (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
Norvège	I	(1952)
Suède	I	(1966)
Finlande	I	(1959)
RDA	V	(1982)
Pologne	I	(1971)
Tchéchoslovaquie	V	(1975)
Autriche	I	(1981)
Suisse	V	(1980)
Yougoslavie	I	(1978)
Albanie	I	(1960)
Bulgarie	I (1)	(1973)
URSS	V	O_1,A22
Hongrie	V	(1972)
Turquie	V	O_1, A 22
Tunisie	V	(1982)
Algérie	V	(1978)
Maroc	V	(1983)

Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

(1) = vaccination dans la zone tampon contiguë à la Turquie

* Source = annuaire de l'OAA

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ANNEXE 1

TABLEAU 3

Fièvre aphteuse dans les pays tiers ayant des relations commerciales avec la Communauté (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
USA	I	(1929)
Canada	I	(1952)
Japon	I	(1908)
Corée (République)	I	(1934)
Chine	V	-
Australie	I	(1971)
Nouvelle Zélande	I	OOOO
Brésil	V	O_1A_1C
Argentine	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	O
Chili	I	O
Colombie	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibie	V	(1980)
Afrique du Sud	V	(1985)
Swaziland	V	(1988)

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Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

OOOO = jamais enregistré

* Source = annuaire de l'OAA

ANNEXE 1

TABLEAU 4

VI.BII.2 TABLEAU SYNOPTIQUE DES PROGRAMMES DE VACCINATION DANS LES ETATS MEMBRES EN 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 AS1A1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 Aoril	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10FD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7FD50	with monovalent A5. breeding sows repeat 3mths later	Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

Note du traducteur : en accord avec le demandeur, ce tableau n'a pas été traduit

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ANNEXE 2

RISQUE D'APPARITION DE LA FIEVRE APHTEUSE (FA)
DANS LA COMMUNAUTE EUROPEENNE A LA SUITE DE L'ACHEVEMENT
DU MARCHE INTERIEUR
- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. Le groupe a été chargé d'émettre un avis sur les risques de foyers de fièvre aphteuse dans la Communauté après 1992, en cas d'adoption (a) d'une politique de vaccination* ou (b) d'une politique de non-vaccination*, à l'avenir, dans l'ensemble de la Communauté.

2. Pour son estimation du risque, le groupe s'est basé sur les faits établis par les études épidémiologiques et de laboratoire relatives aux foyers de FA qui se sont manifestés au cours des onze dernières années (1977-1987). Pour chaque épizootie, il a commencé par identifier les foyers primaires, afin de cerner au mieux la source d'infection.

En deuxième lieu, il a analysé la propagation de l'infection (nombre de foyers SECONDAIRES) à partir de ces foyers, en vue de déterminer - dans la mesure du possible et tout en tenant compte de la multiplicité des facteurs qui influencent le taux de propagation, l'impact de la vaccination et d'autres moyens de lutte sur la propagation de la maladie.

Le choix de cette période de onze ans s'explique par le fait qu'elle marque à la fois le début et la fin de l'apparition des épizooties concernées.

FOYERS PRIMAIRES

3. Au cours de la période 1977-1987***, on a dénombré 34 (trente-quatre) foyers primaires de FA dans onze Etats membres.

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* Politique de vaccination : vaccination annuelle systématique de tous les bovins. En cas d'apparition de la maladie, abattage sanitaire (total ou partiel) en plus de la vaccination et des autres mesures de lutte contre la maladie.

** Politique de non-vaccination : interdiction totale des vaccinations contre la FA. En cas d'apparition de la maladie, abattage total en plus des autres mesures de lutte. La vaccination en anneau peut s'avérer nécessaire.

*** Le groupe ne dispose pas de données détaillées en ce qui concerne les foyers apparus en Espagne (il ne sait pas s'il s'agissait de foyers primaires ou de foyers secondaires).

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INFECTIONS D'ORIGINE EXTRACOMMUNAUTAIRE

4. Le groupe a identifié huit (8) foyers primaires au cours de la période de 1977 à 1987, foyers dont l'origine se situait très probablement à l'extérieur de la Communauté(1). La plupart de ces foyers semblent être liés à des entrées de viande dans la Communauté. D'autres foyers - et cela vaut notamment pour un foyer au Danemark - ont probablement été provoqués par des agents pathogènes venus de l'extérieur et transmis par voie aérienne.

   Depuis 1978, les risques liés à l'importation de viandes ont changé, la réglementation communautaire n'autorisant plus en effet l'importation de viande avec os(2).

INFECTIONS D'ORIGINE INTRACOMMUNAUTAIRE

5. A l'analyse des données fournies par tous les Etats membres, il ne semble pas qu'il existe une source endémique de FA dans les cheptels communautaires. On a néanmoins enregistré environ treize (13) foyers primaires qu'il est impossible d'attribuer avec certitude à des sources extracommunautaires. Il est difficile de formuler un jugement précis, sur l'origine de ces foyers, mais il se peut que tous soient liés, d'une manière ou d'une autre, soit à des fuites dues à des manipulations en laboratoire soit à l'utilisation de vaccins mal inactivés.

INFECTIONS D'ORIGINE INCONNUE

6. Il reste treize (13) foyers primaires dont l'origine est tout à fait inconnue.

FOYERS SECONDAIRES

7. Le tableau 1 révèle qu'on a recensé au total 1.923 foyers de FA dans les douze Etats membres au cours de la période 1977-1987. En l'absence des données concernant les foyers primaires et secondaires en Espagne, on a enregistré, dans les onze autres Etats membres, 1.858 foyers au total, dont trente-quatre (34) sont considérés comme des foyers primaires (voir paragraphes 3 à 6). Il reste donc 1.824 foyers secondaires. Le nombre de foyers primaires et secondaires dans chaque Etat membre figure au tableau 2.

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(1) Voir annexe 2, tableau 3

(2) La réglementation communautaire relative au désossage s'applique uniquement à certaines régions à haut risque, telles que l'Amérique du Sud et l'Afrique.

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8. Le taux de propagation de la maladie (l'ampleur de l'épizootie provoquée par un foyer primaire) est très variable. Dans certains cas, les foyers primaires ne donnent pas naissance à d'autres foyers, alors que dans d'autres cas, le nombre de foyers secondaires est élevé (153 par exemple en Italie lors de l'épizootie A_5 de 1984 à 1985, voire même plus au Portugal au début des années quatre-vingt).

9. Le taux de propagation (rapport entre le foyer primaire et les foyers secondaires) mentionné au tableau 2 (moyennes) se répartit en trois catégories :

   (a) les foyers qui n'ont pratiquement donné lieu à aucune propagation (moins de trois foyers secondaires par foyer primaire);

   (b) les épizooties à propagation limitée (moins de 25 foyers secondaires par foyer primaire);

   (c) les épizooties à très large propagation (plus de 25 foyers secondaires).

   En examinant les différences ci-dessus, il convient de tenir compte de plusieurs facteurs, c'est-à-dire non seulement du choix d'une politique de vaccination ou de non-vaccination, mais aussi des différences entre les pays en ce qui concerne l'infrastructure agricole, la gestion des exploitations agricoles, l'importance du cheptel, les conditions géographiques, le service vétérinaire, etc. Des différences au niveau de la virulence et de la transmissibilité des souches sauvages de virus peuvent également être à l'origine des importantes variations enregistrées.

10. Lorsque l'on a utilisé la vaccination pour protéger les bovins, les foyers secondaires se sont essentiellement déclarés (mais pas intégralement) dans des cheptels porcins non vaccinés. Les excréments de porcs infectés renferment un nombre considérable de virus qui perpétuent les épizooties (par exemple l'épizootie de type C en Italie de 1985 à 1986).

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En l'absence de vaccinations, (dans quatre Etats membres*), sept foyers primaires ont donné naissance à 28 foyers secondaires. Deux des foyers primaires se sont déclarés au Danemark, pays à forte densité de peuplement porcin.

PREVISIONS POUR LA PERIODE 1993-2003
(dans les Etats membres actuels)

11. Quelle que soit la politique de lutte contre la maladie au sein de la Communauté (vaccination ou non-vaccination), le risque d'infection venant de l'extérieur subsiste, si les risques liés aux importations de viande (même en grandes quantités) semblent avoir diminué depuis le durcissement du régime d'importation, le risque d'introduction d'une infection dans la Communauté subsiste toutefois, notamment en cas d'importation de grandes quantités d'animaux. Le risque inhérent à l'importation officielle d'animaux peut être réduit par la réglementation communautaire, mais s'il s'agit de risques liés à une importation illégale ou à une infection transmise par voie aérienne, la Communauté n'est pas en mesure de les maîtriser directement.

12. La meilleure estimation que le groupe puisse formuler est que le risque d'introduction d'une infection dans la Communauté au cours des années 1993 à 2003 n'est plus grave ni moins grave qu'au cours des onze dernières années, c'est-à-dire qu'il faut s'attendre à l'apparition de huit (8) foyers primaires d'origine extracommunautaire.
Si l'on y ajoute la fraction des 13 foyers dont l'origine était tout à fait inconnue (voir paragraphe 6) le risque passe ainsi à douze-treize (12-13) foyers environ. Ce chiffre constitue peut-être une surestimation par rapport au risque prévisible, en ce sens que les restrictions à l'importation de viandes, instaurées en 1978, semblent être une mesure préventive efficace contre l'introduction de la maladie.

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* Le Danemark, l'Irlande et le Royaume-Uni ne pratiquent pas la vaccination. La Grèce ne pratique pas la vaccination non plus, sauf dans une zone tampon dans le département d'Evros.

13. L'adoption d'une politique de non-vaccination ou de vaccination au sein de la Communauté peut également modifier les chiffres, en ce sens que la vaccination peut avoir empêché l'apparition de certains foyers primaires au cours de la période 1977-1987. S'il est impossible d'évaluer le nombre de foyers évités de la sorte, les données constatées dans les zones de la Communauté où le vaccin n'est pas utilisé donnent toutefois à penser que ce nombre est faible. Il convient encore de préciser que les zones de la Communauté où la vaccination n'est pas pratiquée bénéficient non seulement d'un isolement géographique (îles, péninsules) et de contrôles rigoureux à l'importation, mais aussi de la protection assurée par les vaccinations régulières dans les pays voisins.

14. Dans certains Etats membres, il faut s'attendre à des risques particuliers liés au trafic transfrontalier, y compris les importations illégales facilitées par les longues frontières de la Communauté. En tout état de cause, si la Communauté opte pour une politique de non-vaccination, le groupe recommande qu'aucun animal sensible ne soit importé dans la Communauté s'il n'a pas fait l'objet de mesures de protection rigoureuses (voir ci-après).

RISQUE D'INFECTION INTRACOMMUNAUTAIRE

15. Si la vaccination n'est pas pratiquée à l'avenir dans la Communauté et si aucune source de fièvre aphteuse n'y est constatée, il y a peu de chances que des foyers primaires autres que les foyers d'origine extracommunautaire (paragraphe 12) plus une partie des 13 foyers primaires d'origine inconnue (paragraphe 6) se déclarent, pour autant que les laboratoires qui manipulent le virus de la FA soient gérés dans des conditions de haute sécurité.

16. En cas de vaccination prophylactique à l'avenir au sein de la Communauté, quelques foyers imputables à la production ou à l'administration des vaccins risquent par contre de s'ajouter aux foyers mentionnés au paragraphe 15. Si les faits observés au cours de la période 1977-87 se reproduisent au cours des années 1993-2003, on peut raisonnablement prévoir l'apparition de 13 foyers primaires dus à la manipulation de virus aphteux ou à l'utilisation de vaccins mal inactivés. Il est toutefois vraisemblable que les techniques d'inactivation du vaccin vont s'améliorer et que les fuites dues aux manipulations en laboratoire vont diminuer. A d'autres égards, une vaccination prophylactique pourra vraisemblablement prévenir l'apparition de certains foyers, quelle que soit leur origine.

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RISQUE DE PROPAGATION AU SEIN DE LA COMMUNAUTE

17. Les données figurant au tableau 2 et aux paragraphes 7 à 10 donnent à penser qu'il n'est pas possible d'établir une différence de taux de propagation de l'infection entre les pays où il est fait usage de la vaccination et ceux où la lutte contre la maladie repose exclusivement sur l'abattage sanitaire et d'autres mesures de lutte appropriées. En fonction des informations dont il dispose, le groupe estime que les fluctuations sont trop importantes pour permettre de tirer des conclusions précises quant au taux de propagation en cas d'adoption par la Communauté d'une politique de non-vaccination ou de vaccination. A cet égard, les conditions géographiques, l'infrastructure agricole et les contrôles vétérinaires dans les différents pays doivent être considérés comme des facteurs d'une importance capitale.

Le groupe est particulièrement conscient du risque de propagation secondaire dans les zones à forte densité animale. Si la vaccination est abandonnée, le risque augmentera pour les bovins mais ne changera pas sensiblement pour les porcins qui ne sont généralement pas vaccinés. En cas d'apparition d'un foyer, l'ampleur et la durée de l'épizootie peuvent être réduites grâce à l'application des méthodes décrites ci-après et, si nécessaire, grâce à la vaccination en anneau.

18. Il est toutefois évident que le taux de propagation de l'infection à partir d'un foyer primaire dépend non seulement de la virulence et de la transmissibilité des souches sauvages mais aussi, et dans une large mesure, de la qualité des moyens de lutte mis en oeuvre. Si on se limite à l'abattage sanitaire pour lutter contre une épizootie et si cet abattage est correctement et rapidement appliqué (et accompagné d'un contrôle strict de la circulation des animaux, etc.), l'infection pourra être limitée à un nombre restreint de foyers secondaires. En outre, l'expérience acquise au cours de la période 1977-1987 nous apprend qu'abstraction faite de l'application ou de la non-application de la vaccination prophylactique, l'infection peut très rapidement se propager (dans le cheptel porcin notamment) si les mesures de lutte (abattage sanitaire, restrictions de circulation, etc.) ne sont pas strictement appliquées.

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ANNEXE 2

TABLEAU 1

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES
1977 - 1987

Pays	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgique	–	–	–	–	–	–	–	–	–	–	–	–
Danemark	–	–	–	–	–	22	1	–	–	–	–	23
Allemagne	7*	3	–	2	–	1	–	9**	–	–	6***	28
Grèce	3	–	–	–	5	–	–	2	–	–	–	10
Espagne	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Irlande	–	–	–	–	–	–	–	–	–	–	–	–
Italie	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Pays-Bas	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
Royaume-Uni	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** y compris six cas sérologiques constatés a posteriori
*** 1987/88

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ANNEXE 2

TABLEAU 2

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES

1977 - 1987

TAUX DE PROPAGATION

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE NON-VACCINATION

	Foyers primaires	Foyers secondaires	Rapport
Danemark	2	21	1:21/1:0
Grèce	3	7	1:2.3
Irlande	-	-	-
Royaume-Uni	2	0	1:0

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE VACCINATION

Belgique	-	-	-
Allemagne	8	20	1:2.5
Espagne	chiffre non connu	Chiffre non connu	Chiffre non connu
France	2	38	1:19
Italie	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Pays-Bas	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEXE 2

TABLEAU 3

HUIT FOYERS PRIMAIRES DE FIEVRE APHTEUSE
très probablement d'origine extracommunautaire

1976/77	Grèce	Type A	- ressemble aux types d'Amérique du Sud - eaux grasses
1976/77	RFA	Type A	- Aix la Chapelle (ressemble au A24) eaux grasses
1977	Italie	Type A	- ressemble aux types d'Amérique du Sud virus isolé provenant de l'importation de produits de viande/de moëlle
1978	Italie	Type O	- probablement lié à des importations de viandes
1979	Italie	Type A	- ressemble aux types d'Amérique du Sud
1982	Danemark	Type O	- probablement introduit d'Europe de l'Est par voie aérienne
1982	Allemagne	Type O_1	- lié au type O_1 d'Autriche en 1981
1984	Gréce	ASIA-1	- probablement introduit par voie aérienne

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ANNEXE 3

I. ANALYSE ECONOMIQUE

1.1. En nous basant sur les estimations de coûts des vaccinations et des foyers (voir tableau 1 et 2) et sur le nombre de foyers prévu par le Comité Scientifique Vétérinaire (voir annexe 2), nous avons procédé à une analyse économique qui montre les résultats possibles d'une politique de vaccination ou de non-vaccination. Ces résultats ont été obtenus à partir de trois scénarios : un scénario neutre (le plus probable), un scénario pessimiste et un scénario optimiste.

1.2. L'analyse couvre une période de 10 ans (1993-2002) qui nous semble être une période raisonnable pour l'élaboration d'une politique.

2. HYPOTHESES

2.1. Coût des vaccinations

Le coût d'un programme de vaccination communautaire à raison d'une seule vaccination annuelle pratiquée sur l'ensemble du bétail concerné est évalué à 133 millions d'écus par an (tableau 1).

2.2. Coût des foyers

Le coût d'un foyer varie considérablement d'un Etat membre à l'autre (tableau 2). Ces variations sont essentiellement dues à la taille des troupeaux et à la valeur du cheptel abattu. Les valeurs données au tableau 2 constituent une moyenne pour chaque Etat membre, car même à l'intérieur d'un Etat membre la taille du troupeau varie considérablement selon qu'il s'agit de petites exploitations ou de grandes unités d'élevage intensif.

Le coût le moins élevé par foyer nous a été fourni par les autorités portugaises. Dans ce pays, les exploitations de moins de 5 hectares représentent 86 % de l'ensemble des exploitations et le coût mentionné par foyer concerne une exploitation élevant seulement 4 bovins et 5 porcs. Ce chiffre n'est pas représentatif de la Communauté dans son ensemble et, dans notre analyse économique, nous avons donc retenu comme estimation "inférieure" la deuxième estimation de coût en commençant par le bas (Grèce 32.000 écus).

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Le coût le plus élevé par foyer nous est fourni par les autorités espagnoles (470.000 ecus) et se base sur les coûts enregistrés lors de l'épidémie de 1983. Le nombre moyen de bovins dans les exploitations touchées est de 1535. Toutefois, en analysant les données nationales transmises, on s'aperçoit que les autorités italiennes ont estimé à 600.000 écus le coût d'un abattage total dans de très grands élevages intensifs de porcs. Dès lors, afin d'accorder la pondération voulue aux risques liés à l'apparition de la maladie dans de grandes unités d'élevage intensif, ce chiffre représente l'estimation "élevée" de notre analyse.

Abstraction faite du Portugal en raison du caractère atypique de la structure de son cheptel, le coût moyen transmis par les Etats membres est de 158.000 écus, chiffre que nous avons retenu comme estimation "moyenne" de l'analyse.

2.3. Nombre de foyers

Le nombre de foyers retenu pour la construciton des scénarios neutre, pessimiste et optimiste provient des estimations fournies par le Comié Scientifique Vétérinaire (annexe 2);

Le Comité a estimé que, dans le cadre d'une politique de non-vaccination, le nombre probable de foyers primaires sur une période de 10 ans est de 13. Ce chiffre risque d'être une surestimation du risque prévisible, en ce sens que les restrictions à l'importation de viandes introduites en 1978 semblent avoir constitué une protection efficace contre l'entrée de la maladie.

Si le Comité a estimé que, dans le cas d'une politique de vaccination, 13 autres foyers primaires liés à la manipulation du virus ou à l'emploi de vaccins inactivés de manière inadéquate, viendraient s'ajouter aux 13 foyers primaires susmentionnés, il pense toutefois que l'amélioration des techniques devrait permettre de réduire ces risques. Pour l'analyse économique, nous avons donc ramené à 7 l'estimation du nombre de foyers liée aux laboratoires ou aux vaccins sur une période de 10 ans. Ainsi, en y ajoutant les 13 foyers d'origine étrangère, nous arrivons à un total de 20 foyers primaires sur une durée de 10 ans dans le cadre d'une politique de vaccination.

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(2)

D'après les données analysées par le Comité, il n'est pas possible de détecter une différence dans le taux de propagation de l'infection entre les pays qui pratiquent la vaccination et les pays qui se limitent à l'abattage sanitaire et autres mesures appropriées de lutte contre la maladie. Pour la présente analyse économique, nous avons dès lors utilisé la même estimation pour les deux politiques.

Le rapport du Comité fournit des données détaillées en ce qui concerne le rapport entre le foyer primaire et les foyers secondaires. Les taux de propagation mentionnés sont relativement homogènes dans l'ensemble de la Communauté exception faite du Portugal. Le rapport donné pour ce pays (1:591) concerne la situation au Portugal avant l'application des mesures communautaires de lutte contre la maladie. En faisant abstraction du Portugal, le rapport moyen entre les foyers primaires et les foyers secondaires au cours des dix dernières années est de 1 à 20, rapport que nous avons retenu comme estimation moyenne ou la plus probable. Il se peut que ce rapport exagère le taux de propagation : en effet, dans certaines épidémies importantes, plus de foyers risquent d'être des foyers primaires plutôt que secondaires, (par exemple dans le cas de la multiplication des foyers due à des vaccins mal inactivés).

Le taux de propagation le plus faible est de 1:0, c'est-à-dire qu'il n'y a pas de foyer au-delà du foyer primaire. Cette hypothèse s'est vérifiée plusieurs fois au cours des dix dernières années dans le cadre des deux politiques (vaccination et non-vaccination).

Le taux de propagation le plus élevé - estimation la plus pessimiste - est de 1:150. Il s'agit là du taux le plus élevé enregistré lors des épizooties qui ont récemment touché les zones d'élevage intensif du nord de l'Italie.

3. SCENARIOS

3.1. Nous présentons ci-après trois résultats possibles en fonction des différentes hypothèses de départ quant au nombre et au coût des foyers visés aux paragraphes 2.2. et 2.3. ci-dessus. Il s'agit en l'occurrence :

- d'un scénario neutre (le plus probable);
- d'un scénario optimiste;
- d'un scénario pessimiste.

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3.2. Scénario neutre

Ce scénario, qui nous donne le résultat le plus probable, est basé sur le coût d'un foyer moyen (158.000 écus) (cf. 2.2. ci-dessus) et du nombre le plus probable de foyers secondaires (20) par foyer primaire (2.3. ci-dessus).

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
20 foyers secondaires par foyer primaire

Total = 13 + (13 x 20) = 273

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût total = 273 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 35 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
20 foyers secondaires par foyer primaire

Total = 20 + (20 x 20) = 420

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût des foyers = 420 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 1.080 millions d'écus.

Coût total = 54 millions d'écus + 1.080 millions d'écus = 1.134 millions d'écus.

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3.3. Scénario optimiste

Il s'agit ici du scénario le plus optimiste dans lequel tous les foyers touchent de très petites exploitations et ne donnent lieu à aucun foyer secondaire. S'il n'est pas rare qu'il n'y ait pas de foyers secondaires, il est improbable par contre que tous les foyers touchent les plus petits troupeaux.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :

13 foyers primaires

0 foyer secondaire

Total = 13 + (13 x 0) = 13

Coût prévu par foyer (valeurs : 1987) = 32.000 écus (cf. paragraphe 2.2.).

Coût total = 13 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 337.000 écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :

20 foyers primaires

0 foyer secondaire

Total = 20 + (20 x 0) = 20

Coût prévu par foyer = 32.000 écus

Coût des foyers = 20 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 519.000 écus.

Valeur actuelle de la vaccination déduction faite d'un placement pendant 10 ans (à 5 %) = 1.808 millions d'écus.

Coût total = 519.000 écus + 1.080 millions d'écus = 1.080,5 millions d'écus.

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3.4. Scénario pessimiste

Ce scénario pessimiste part du principe que chaque foyer primaire donnera lieu à 150 foyers secondaires et que les foyers se déclareront tous dans les troupeaux les plus importants (coût : 600.000 écus par foyer).

Une telle conjugaison de facteurs ne représente qu'une possibilité hautement improbable. Au cours des onze dernières années, il n'est arrivé qu'une fois (en Italie) qu'un foyer primaire ait donné lieu à 150 foyers secondaires. De plus, même dans les zones d'élevage intensif, un pourcentage seulement des exploitations sont de très grandes exploitations.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
150 foyers secondaires par foyer primaire

Total = 13 + (13 x 150) = 1.963

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût total = 1.963 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 955 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
150 foyers secondaires par foyer primaire

Total = 20 + (20 x 150) = 3.020

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût des foyers = 3.020 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 1.470 millions d'écus.

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Valeur actuelle de la vaccination déduction faite d'un placement pendant dix ans (à 5 %) = 1.080 millions d'écus.

Coût total = 1.470 millions d'écus + 1.080 millions d'écus = 2.550 millions d'écus.

4. SYNTHESE

	Valeur actuelle sur 10 ans (en millions d'écus)		
	Scénario neutre	Scénario optimiste	Scénario pessimiste
A. Politique de non-vaccination (foyers uniquement)	35	0,3	995
B. Politique de vaccination (foyers et vaccination)	1134	1080,5	2550

L'analyse montre que, dans l'hypothèse la plus probable sur les dix prochaines années, une politique de vaccination serait sensiblement plus coûteuse qu'une politique de non-vaccination. Même dans le pire des cas (hautement improbable) où tous les foyers se déclareraient dans les unités d'élevage les plus importantes avec un taux élevé de propagation de l'infection, la politique de non-vaccination reste la moins onéreuse.

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ANNEXE 3

TABLEAU 1

COUT D'UN PROGRAMME DE VACCINATION CONTRE
LA FIEVRE APHTEUSE AU SEIN DE LA COMMUNAUTE EUROPEENNE

(coûts annuels aux prix de 1987)

	Bovins vaccinés en milliers de têtes)	Coût par tête		Coût national	
		Monnaie nationale	Ecus	Monnaie nationale (en millions)	Ecus (en millions)
Belgique	2 232	54 BFR	1,25	121,0	2,8
Danemark*	2 250	17,90 DKR	2,25	40,3	5,1
Allemagne	14 560	3,14 DM	1,18	38,6	18,6
Grèce*	761	122 DRA	0,74	92,5	0,6
Espagne	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Irlande*	6 647	1,50 IRL	1,94	10,0	12,9
Italie	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Pays-Bas	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
Royaume-Uni*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (chiffe arrondi)	133,0

REMARQUES

(i) Les coûts sont donnés pour la vaccination de l'ensemble des bovins concernés une fois par an (sauf pour la France et le Luxembourg où seuls les chiffres de l'ensemble des bovins étaient disponibles).

(ii) Les coûts sont soit les coûts effectifs dans le cas des Etats membres qui vaccinent actuellement leur cheptel national soit les coûts estimés dans le cas des Etats membres qui ne pratiquent pas la vaccination (suivis d'un *).

(iii) Les coûts comprennent le vaccin, la vaccination et les frais administratifs mais ne comprennent pas les coûts des effets secondaires éventuels.

(iv) La Grèce ne vaccine les bovins que dans le nome d'Evros; la France ne vaccine pas dans le Finistère.

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ANNEXE 3

TABLEAU 2

COUT ESTIMATIF D'UN SEUL FOYER DE FIEVRE APHTEUSE

(données fournies par les Etats membres aux prix de 1987)

Ces coûts comprennent : les indemnités;
les opérations de nettoyage, de désinfection et autres mesures connexes;
les pertes de production dans l'exploitation;
les frais administratifs généraux.

Ils ne comprennent pas : la vaccination en anneau.

Coût par foyer (cf. remarques)

	Monnaie nationale	Ecus
Belgique	2 203 055 BFR	50 650
Danemark	1 210 000 DKR	150 239
Allemagne	100 000 DM	48 309
Grèce	5 281 911 DRA	31 914
Espagne	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Irlande	164 500 IRL	212 258
Italie	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Pays-Bas	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
Royaume-Uni	70 000 UKL	104 979

REMARQUES

(1) Par foyer, on entend l'apparition de la maladie dans une exploitation agricole (définition de l'OIE pour l'Europe).

(2) Les estimations sont basées, dans la mesure du possible, sur les coûts effectifs enregistrés lors des foyers récents; en l'absence de foyers récents, les coûts sont des coûts estimés pour un troupeau à risques de taille moyenne.

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ANNEXE 4

STRUCTURE DES ECHANGES COMMUNAUTAIRES
DE CHEPTELS ET DE CERTAINS PRODUITS ANIMAUX

1. Introduction

1.1. Espèces sensibles à la fièvre aphteuse

En examinant la structure des échanges, on constate que les espèces sensibles à la fièvre aphteuse les plus concernées par les échanges sont les bovins, les porcins, les ovins et les caprins.

1.2. Règles régissant actuellement les échanges

En temps normal, les Etats membres qui pratiquent la vaccination contre la fièvre aphteuse peuvent exporter de la viande fraîche et des produits de viande des espèces susmentionnées vers les Etats membres ne pratiquant pas la vaccination.

En cas d'apparition d'un foyer de fièvre aphteuse dans quelque Etat membre que ce soit, des zones d'interdiction autour du foyer sont fixées par la directive 85/511/CEE (mesures générales de lutte contre la maladie) et par la directive 64/432/CEE (échanges intracommunautaires) aux termes desquelles les échanges d'animaux, de viandes fraîches et de produits de viande qui n'ont pas subi un traitement thermique à 70° C au moins sont interdits.

Dans le cas des bovins et des porcins vivants, la législation communautaire prévoit des restrictions aux échanges entre les Etats qui pratiquent la vaccination et ceux qui ne la pratiquent pas. Ces règles, fixées à l'article 4 bis de la directive 64/432/CEE, sont une des raisons pour lesquelles nous avons entrepris la présente étude. Au 1er janvier 1989, les réglementations nationales en ce qui concerne les ovins et les caprins étaient toujours en vigueur.

L'article 4 bis de ladite directive autorise les Etats membres, qui sont indemnes de fièvre aphteuse d'au moins deux ans et qui ne pratiquent pas la vaccination, à demander l'isolement et/ou la mise en quarantaine en plus de certains tests, afin de s'assurer que les animaux concernés n'ont pas été vaccinés et ne sont pas porteurs du virus de la fièvre aphteuse.

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En termes d'échanges intracommunautaires, les dispositions relatives aux animaux vivants revêtent une importance primordiale dans les projections des avantages et des inconvénients de l'adoption d'une politique de vaccination générale ou d'une politique de non-vaccination.

2. Echanges intracommunautaires(1)

2.1. Bovins

2.1.1. Veaux (jusqu'à 250 kg)

En 1987, les échanges intracommunautaires de veaux se sont chiffrés à 2 millions d'unités environ. Les principaux pays exportateurs et importateurs ont été :

1. la France (838.000) vers l'Italie (689.000), les Pays-Bas (65.000) et l'Allemagne (64.000);

2. le Royaume-Uni (376.000) vers la France (221.000), les Pays-Bas (133.000) et l'Italie (6.000);

3. les Pays-Bas (332.000) vers l'Allemagne (102.000), l'UEBL (99.000) et la France (88.000).

Commentaires

Que l'on pratique une politique de non-vaccination ou de vaccination générale, les échanges de veaux ne risquent pas de se modifier sensiblement. Le Royaume-Uni semble disposer d'un surplus exportable, tandis que les exportations à destination du Danemark et de l'Irlande n'ont des chances de se développer que si le nombre de vaches diminue sensiblement dans ces pays.

2.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les échanges intracommunautaires de gros bovins se sont chiffrés à 1,15 million d'unités. Les principaux pays exportateurs et importateurs ont été :

1. la France (795.000) vers l'Italie (709.000), l'Allemagne (34.000) et l'UEBL (21.000);

(1) Source : données Nimexe citées dans Eurostat (année 1987).
Les chiffres sont arrondis au millier près.

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2. l'Irlande (152.000) vers le Royaume-Uni (151.000) et le Portugal (1.000);
3. l'Allemagne (117.000) vers les Pays-Bas (64.000), l'Italie (37.000) et l'UEBL (11.000).

Commentaires

Quelle que soit la politique adoptée (non-vaccination ou vaccination généralisée), il est improbable que la structure des échanges se modifie, étant donné que le Danemark, l'Irlande et le Royaume-Uni sont autosuffisants, l'Irlande étant un exportateur important. Néanmoins, les échanges de bovins de boucherie à destination du Danemark et du Royaume-Uni pourraient se développer du fait de leur proximité d'Etats tels que l'Allemagne, la France et les Pays-Bas.

2.1.3. Bovins reproducteurs de race pure

En 1987, les échanges intracommunautaires de cette catégorie se sont élevés à 38.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (22.000) vers l'Espagne (13.000), le Portugal (5.000) et l'Italie (2.000);
2. le Royaume-uni (6.000) vers le Portugal (3.000) et l'Irlande (3.000);
3. la France (5.000) vers l'Espagne (1.000), le Portugal (1.000) et l'Italie (1.000).

N.B. : En 1987, les exportations à destination de l'Espagne et du Portugal ont bénéficié de restitutions à l'exportation.

Commentaires

Quelle que soit la solution adoptée, il est peu probable que la structure de ces échanges se modifie, étant donné que la demande de ce type de bovins est limitée et que la valeur unitaire est élevée. Du fait de cette forte valeur unitaire, les frais d'analyse et de mise en quarantaine du système actuel peuvent être facilement absorbés. En cas de passage à une politique uniforme, ces frais disparaîtraient et on pourrait normalement s'attendre à une légère augmentation des échanges (qui risque toutefois de ne pas se produire en raison du développement des échanges de semences et d'embryons).

2.2. Porcs

Les échanges de porcs sont actuellement influencés par la présence ou l'absence de quatre maladies virales, à savoir la fièvre aphteuse (F.A.), la peste porcine classique (PPC), la peste porcine africaine (PPA) et la maladie vésiculeuse du porc (MVP). Les Etats membres officiellement indemnes de PPC peuvent interdire l'entrée sur leur territoire de porcs et de viande porcines en provenance d'Etats n'ayant pas le même statut.

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En ce qui concerne la PPA, les exportations en provenance de l'Espagne (en partie depuis le 14 mai 1989), du Portugal et de la Sardaigne sont interdites sauf pour certains produits traités thermiquement. La réglementation relative à la MVP autorise les Etats membres ne pratiquant pas la vaccination contre la fièvre aphteuse et indemnes de fièvre aphteuse depuis deux ans d'exiger un test sérologique négatif de MVP avant d'autoriser l'entrée de porcs d'élevage et de rente sur leur territoire.

2.2.1. Porcs de rente (jusqu'à 50 kg) (porcelets sevrés)

En 1987, les échanges intracommunautaires de porcs de cette catégorie se sont chiffrés au total à 2,5 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (1.371.000) vers l'UEBL (744.000), l'Espagne (332.000) et la France (275.000);
2. la France (423.000) vers l'Espagne (225.000), l'UEBL (145.000) et l'Italie (52.000);
3. les Pays-Bas (681.000) vers l'Italie (308.000), l'Espagne (184.000) et l'UEBL (128.000).

2.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les échanges se sont chiffrés au total à 4,233 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (2.990.000) vers l'Allemagne (924.000), l'Italie (724.000) et la France (710.000);
2. l'UEBL (958.000) vers la France (558.000) et l'Italie (326.000);
3. la France (111.000) vers l'Italie (70.000) et l'UEBL (25.000).

2.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les échanges intracommunautaires ont porté au total sur 337.000 truies de cette catégorie. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (307.000) vers l'UEBL (196.000) et l'Allemagne (110.000);
2. la France (23.000) vers l'UEBL (22.000).

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2.2.4. Porcs reproducteurs de race pure

En 1987, les échanges ont porté sur quelque 19.000 porcs reproducteurs de race pure. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (9.000) vers l'Espagne (5.000), l'Irlande (1.000) et l'Allemagne (1.000);
2. les Pays-Bas (3.000) vers l'Espagne (1.000) et l'UEBL (1.000);
3. la France (2.000) vers l'Espagne (2.000).

Commentaires sur les échanges porcins

Comme nous l'avons signalé précédemment, outre la fièvre aphteuse, trois autres maladies peuvent influencer les échanges procins. Il est dès lors difficile de prévoir une modification des courants commerciaux dans un avenir proche. En raison de l'autosuffisance actuelle, il est toutefois improbable que les échanges à destination du Danemark, de l'Irlande et du Royaume-Uni se développent considérablement.

2.3. Ovins et caprins

Au 1er janvier 1989, il n'existait aucune réglementation communautaire en la matière et c'est donc la réglementation nationale qui s'applique. En-dehors de la fièvre aphteuse, la brucellose ovine et caprine (Brucella melitensis) semble être une maladie qui constitue un frein aux échanges des pays méridionaux vers les pays septentrionnaux.

2.3.1. Ovins et caprins autres que de race pure

En 1987, les échanges intracommunautaires ont porté au total sur 1,77 million d'ovins et de caprins de ce type. Les principaux pays exportateurs et importateurs ont été :

1. la France (457.000) vers l'Italie (272.000) et l'Espagne (183.000);
2. le Royaume-Uni (392.000) vers la France (295.000) et l'Irlande (85.000);
3. les Pays-Bas (336.000) vers la France (198.000) et l'UEBL (134.000);
4. l'Allemagne (298.000) vers l'UEBL (128.000) et l'Italie (88.000).

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2.3.2. Ovins et caprins reproducteurs de race pure

En 1987, les échanges d'ovins et de caprins reproducteurs de race pure se sont chiffrés à 17.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (7.400) vers l'Irlande (5.000) et la France (2.400);
2. le Portugal (4.500) vers l'Espagne (2.500) et le Royaume-uni (1.000)
3. l'Espagne (2.000) vers la France (1.000) et le Royaume-Uni (700).

Commentaires

Les échanges semblent s'opérer essentiellement du nord vers le sud (probablement en raison de la brucellose). La tendance actuelle semble devoir se poursuivre. Il ne semble pas y avoir une ouverture des échanges vers le Danemark, l'Irlande ou le Royaume-Uni en raison de l'auto-suffisance et de l'écart des prix.

3. Echanges en provenance des pays tiers

Echanges de viandes fraîches et de produits à base de viande

Il s'agit ici des échanges à destination de la Communauté en provenance de 50 pays tiers environ. S'il est improbable, en cas de passage à une politique de non-vaccination, que la Communauté demande que la viande en provenance de pays tiers provienne d'animaux non vaccinés, deux zones à problèmes sont toutefois prévisibles. Premièrement, les pays d'Amérique latine (Argentine, Brésil, Paraguay et Uruguay) où la fièvre aphteuse prend des proportions d'épizootie, luttent partiellement contre la fièvre aphteuse par la vaccination. La viande destinée à la Communauté en provenance de ces pays est préparée dans des conditions fort strictes (maturation et désossage). Il se peut qu'un renforcement du contrôle soit jugé nécessaire notamment pour les abats. La seconde zone à problèmes est constituée par l'Afrique du sud, l'Afrique australe (y compris la Namibie), le Swaziland, le Botswana et le Zimbabwe. Nous constatons en effet que la législation actuelle (1) exige que les animaux n'aient pas été vaccinés pendant les 12 mois qui précèdent l'abattage et soient indemnes de la fièvre aphteuse depuis 12 mois également. Actuellement, les décisions zoosanitaires concernant ces pays ne sont toutefois pas applicables à tous les Etats membres et des décisions applicables à tous les Etats membres seront nécessaires dans un proche avenir.

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(1) Directive 72/462/CEE articles 14 et 15.

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Dans l'ensemble, les exportations vers la Communauté de viandes et de produits à base de viande ne devraient dès lors pas souffrir d'un changement de politique communautaire en matière de vaccination.

Echanges d'animaux vivants :
Les importations de bovins et de porcins peuvent provenir de 21 pays et les échanges d'ovins et de caprins sont régis par la réglementation nationale. Les bovins entrant dans les Etats membres qui pratiquent la vaccination doivent être vaccinés avant leur entrée sur le territoire.

3.1. Bovins

3.1.1. Veaux (jusqau'à 250 kg)

En 1987, 272.000 veaux ont été importés dans la Communauté. Les principaux pays tiers exportateurs et Etats membres importateurs ont été :

1. la Pologne (219.000) vers l'Italie (149.000) et l'Allemagne (61.000);
2. la Tchécoslovaquie (27.000) vers l'Italie (18.000) et l'Allemagne (9.000).

3.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, 350.000 bovins de cette catégorie ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. la Yougoslavie (170.000) vers l'Italie (111.000) et la Grèce (59.000);
2. la Pologne (80.000) vers l'Italie (75.000) et la Grèce (4.000);
3. l'Autriche (56.000) vers l'Italie (38.000) et l'Allemagne (16.000).

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3.1.3. Bovins reproducteurs de race pure

En 1987, 44.000 bovins reproducteurs de race pure ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. l'Autriche (23.000) vers l'Italie (18.000) et l'Espagne (4.000);
2. la Suisse (15.000) vers l'Italie (14.000).

Commentaires

Comme il ressort des chiffres mentionnés ci-dessus, les importations de bovins sont essentiellement destinées à l'Italie et proviennent en grande partie de pays tiers qui ne vaccinent pas de façon systématique à l'heure actuelle, exception faite de la Tchécoslovaquie et de la Grèce. Dans l'éventualité où ni l'un ni l'autre de ces pays n'abandonne la vaccination, il en résultera une légère pénurie de veaux (27.000) et d'animaux reproducteurs (15.000), ce qui posera quelques problèmes de recherche de nouveaux fournisseurs.

Le passage à une politique de vaccination générale n'entraînera, semble-t-il que peu de changements au niveau des importations au Danemark, en Irlande ou au Royaume-Uni. Au contraire, dans le cas d'une politique de non-vaccination, les animaux vaccinés ne seront plus acceptés et les approvisionnements de jeunes bovins maigres en provenance de certains pays d'Europe de l'Est (RDA, Tchécoslovaquie) et de la Suisse cesseront si ces pays ne veulent pas abandonner la vaccination. Par contre, des pays tels que la Pologne et la Yougoslavie qui ne pratiquent pas la vaccination systématique ne devront plus pratiquer la vaccination avant l'exportation.

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3.2. Porcins

3.2.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, 13.566 porcelets sevrés ont été importés dans la Communauté principalement à destination de :

l'Italie (12.245) en provenance de la Tchécoslovaquie (11.601).

3.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)
En 1987, 37.935 porcs de ce type ont au total été importés essentiellement en :

Belgique/Luxembourg (37.500) en provenance de la RDA (37.425);
Espagne (241) en provenance de la Suisse (241).

3.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)
Sept unités seulement de cette catégorie ont été importées en 1987.

3.2.4. Porcs reproducteurs de race pure
En 1987, 428 porcs de ce type ont été importés essentiellement :

aux Pays-Bas (122) en provenance du Canada (122);
en Grèce (89) en provenance de Suède (40) et d'Autriche (34);
en Allemagne (67) en provenance d'Hongrie (30) et d'Autriche (22).

Commentaires sur les importations de porcs

Par rapport aux échanges intracommunautaires (7 millions en 1987), les importations en provenance des pays tiers (52.000 porcs) sont insignifiantes. Un changement de politique ne devrait avoir aucun effet dans ce secteur.

3.3. Ovins et caprins

3.3. . Ovins et caprins autres que de race pure
En 1987, 2.043.000 têtes ont été importées principalement :

1. en Italie (1.492.000) en provenance d'Hongrie (865.000), de Pologne (278.000) et de Bulgarie (266.000);
2. en Allemagne (286.000) en provenance de Pologne (201.000) et d'Hongrie (85.000);
3. en France (163.000) en provenance de Pologne (94.000) et d'Hongrie (69.000);
4. en Grèce (89.000) en provenance d'Hongrie (50.000) et de Bulgarie (35.000).

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3.3.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.102 animaux de cette catégorie ont été importés essentiellement :

1. au Royaume-Uni en provenance de Nouvelle-Zélande (3.222), d'Australie (294) et du Canada (197);
2. en France (728) en provenance du Canada (343), d'Australie (222) et d'Algérie (117);
3. en Italie (195) en provenance d'Autriche (102) et de Suisse (92).

Commentaires

Les principaux fournisseurs d'ovins et de caprins ne pratiquent pas de vaccination systématique contre la fièvre aphteuse. Les courants commerciaux actuels devraient dès lors se maintenir. Le volume global des importations est limité par des accords.

4. Echanges à destination des pays tiers

Règles applicables aux échanges

Les règles zoosanitaires régissant les exportations d'animaux (et de produits animaux) sensibles à la fièvre aphteuse ne sont pas uniformes, du fait que les pays tiers importateurs adoptent des positions différentes vis-à-vis de la fièvre aphteuse et définissent leurs propres règles d'importation. On peut toutefois constater que la plupart des pays tiers indemnes de fièvre aphteuse et ne pratiquant pas la vaccination n'accepteront pas facilement des animaux et produits animaux provenant de pays pratiquant la vaccination. Le premier exemple à cet égard nous est donné par les Etats-Unis qui dressent une liste officielle (souvent appelée "liste blanche") des pays qu'ils considèrent indemnes de fièvre aphteuse. Il en résulte un effet "d'entraînement" lorsque les pays figurant sur la liste veulent adopter une réglementation aussi stricte, voire plus stricte que la réglementation américaine pour des raisons assez obscures. Nous aborderons ce problème par la suite.

4.5. Viandes et produits à base de viande

Les viandes et produits à base de viande traités thermiquement à 70° C au moins respecteront la plupart des réglementations vétérinaires en ce qui concerne la survie du virus de la fièvre aphteuse. Les statistiques qui suivent concernent les viandes et produits à base de viande qui ne sont pas traités thermiquement.

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4.1.1. Viandes de l'espèce bovine fraîches, réfrigérées ou congelées

En 1987, 692.791 tonnes de viandes de cette catégorie ont été exportées essentiellement par :

1. la France (215.897) vers l'URSS (39.400), l'Iran (37.156), l'Egypte (19.682), le Brésil (14.008), l'Arabie Saoudite (12.034), l'Angola (11.021) et l'Irak (10.478);
2. l'Irlande (159.560) vers l'Egypte (43.904), l'Iran (23.105), l'Irak (18.549), la Yougoslavie (14.014) et l'Afrique du Sud (13.122);
3. l'Allemagne (119.637) vers l'Egypte (46.188), la Yougoslavie (22.361) et l'Iran (13.102);
4. l'Italie (60.510) vers le Brésil (16.711), le Pérou (9.625), l'Arabie Saoudite (9.564) et la Lybie (8.119);
5. les Pays-Bas (54.389) vers le Zaïre (10.753), la Yougoslavie (10.305) et l'Egypte (6.504).

Les tonnages exportés par d'autres Etats membres à destination de différents pays ont été les suivants :
Danemark (38.076), Royaume-Uni (37.341), Belgique (5.928), Espagne (1.297), Grèce (136) et Portugal (22).

4.1.2. Préparations à base de viandes bovines crues, abats et mélanges

En 1987, 10.006 tonnes environ de ces préparations ont été exportées essentiellement par :

1. le Danemark (7.884) vers l'Arabie Saoudite (2.432), la Bulgarie (1.252), les Emirats Arabes Unis (779) et le Barheïn (722);
2. l'Italie (1.528) vers l'Arabie Saoudite (1.084) et la Jordanie (239).

4.1.3. Abats d'animaux de l'espèce bovine

En 1987, environ 12.048 tonnes d'abats ont été exportées essentiellement par :

1. la France (3.295) vers la Côte d'Ivoire (1.018), la Guadeloupe (465), la Martinique (403), le Gabon (340) et Israël (299);
2. l'Irlande (2.550) vers le Japon (1.529), Israël (346), l'Egypte (295) et l'Ile de Trinité et Tobago (154);
3. l'Allemagne (2.199) vers l'Autriche (1.111), l'Egypte (185) et la Côte d'Ivoire (185);
4. les Pays-Bas (2.152) vers Israël (683), le Zaïre (251) et la Yougoslavie (163).

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4.1.4. Graisse de boeuf non fondue destinée à l'alimentation

En 1987, 27.179 tonnes de produits de cette catégorie ont été exportées essentiellement par :

1. l'Allemagne (15.782) vers l'Iran (6.369), Cuba (2.076), le Nigéria (1.813) et le Burundi (1.511);
2. le Danemark (7.300) vers le Rwanda (1.869), le Kenya (1.681) et la Tanzanie (1.500).

4.1.5. Estomacs, intestins, vessies d'animaux (ensemble des animaux destinés à la consommation humaine)

En 1987, 22.868 tonnes ont été exportées principalement par :

1. l'Allemagne (8.698) vers les USA (2.573), l'Autriche (1.211) et le Brésil (1.006);
2. le Danemark (3.676) vers les USA (1.788), la Norvège (493), la Finlande (386) et la RDA (167);
3. les Pays-Bas (2.910) vers les USA (675), le Brésil (433), la Yougoslavie (247), la Suisse (246) et la Finlande (239);
4. la France (2.582) vers l'Afrique du Sud (612), la Hongrie (334), la Suède (172), Taïwan (152), le Maroc (160) et la Pologne (144).

4.2. Viande de porc

4.2.1. Carcasses et demi-carcasses fraîches, réfrigérées ou congelées

En 1987, 2.720 tonnes de viande de porc de cette catégorie ont été exportées vers les pays tiers. Les principaux pays exportateurs ont été :

1. l'Espagne (1.572) vers les Iles Canaries (1475) et Andorre (74);
2. la France (455) vers les Iles Canaries (142), les Seychelles (85) et la Réunion (66);
3. la Belgique (311) vers les Iles Canaries (287).

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4.2.2. Viande de porc en morceaux

En 1987, 197.921 tonnes ont été exportées essentiellement par :

1. le Danemark (164.272) vers le Japon (94.519), les USA (54.158) et le Canada (9.768);
2. la France (9.512) vers la Réunion (4.415) et la Martinique (1.093);
3. la Belgique (6.537) vers la Tchécoslovaquie (4.026) et les Antilles Néerlandaises (676).

4.2.3. Viande de porc salée ou en saumure, séchée ou fumée

En 1987, 9.637 tonnes de cette catégorie (principalement du bacon) ont été exportées essentiellement par :

1. l'Espagne (3.007) vers les Iles Canaries (2.379) et Andorre (315);
2. le Danemark (3.000) vers la Suède (1.155), les USA (613), le Groenland (196) et Singapour (194);
3. la France (1.409) vers la Guadeloupe (483), la Martinique (213) et la Réunion (213).

4.2.4. Graisse de porc (et graisse de volaille) fraîche, réfrigérée et congelée

En 1987, 2.085 tonnes ont été exportées essentiellement par :

1. le Danemark (1.488) vers la Norvège (907) et Chypre (177);
2. la France (242) vers la Réunion (176).

4.2.5. Saucisses, boudins et autres

En 1987, 65.425 tonnes ont été exportées essentiellement par :

1. l'Espagne (28.414) vers les Iles Canaries (23.811), Andorre (454) et le Liban (263);
2. le Danemark (16.742) vers les USA (4.027), les Iles Canaries (3.505), Singapour (1.073) et l'Arabie Saoudite (1.006);
3. la France (6.910) vers la Réunion (1.279), la Guadeloupe (1.278) et la Martinique (1.170);
4. l'Italie (4.666) vers la Suisse (2.605) et le Liban (463).

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4.2.6. Abats de porcs

En 1987, 35.725 tonnes d'abats de porc ont été exportées essentiellement par :

1. le Danemark (14.674) vers la Suède (7.572), le Japon (3.354) et le Libéria (1.229);
2. les Pays-Bas (8.481) vers la Suède (2.243), la Côte d'Ivoire (2.167) et le Cameroun (960);
3. l'Allemagne (4.440) vers la Suède (3.970) et la Suisse (243).

4.3. Viande des animaux des espèces ovine ou caprine, fraîche, réfrigérée ou congelée

Une seule classification à des fins statistiques.

4.3.1. Toutes viandes ovines et caprines

En 1987, 5.169 tonnes au total ont été exportées essentiellement par :

1. le Royaume-Uni (2.475) vers la Suisse (2.172);
2. l'Italie (906) vers la Lybie (906);
3. la France (678) vers la Suisse (312) et la Réunion (71).

Commentaires sur les exportations d'abats et de viandes fraîches

Etant donné que les stocks d'intervention diminuent, les exportations de viande bovine vers les pays tels que l'URSS et le Brésil risquent de diminuer. Si l'on opte pour une politique de vaccination générale, les exportations d'abats de bovins de l'Irlande vers le Japon et d'autres pays, qui représentaient un total de 2.550 tonnes en 1987, seront perdues.

Par ailleurs, le Danemark perdrait ses exportations de porc en morceaux, de viandes de porc partiellement traitées, de graisse de porc, d'abats, de saucisses, de boudins et autres, d'un total de 200.000 tonnes en 1987, essentiellement à destination des pays figurant sur la "liste blanche". Ces exportations sont toutefois marginales par rapport à l'ensemble des échanges et nous pensons qu'il est possible de trouver des débouchés pour cette production au sein de la Communauté.

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4.4 Bovins

4.4.1. Veaux (jusqu'à 250 kg)

En 1987, 3.309 veaux ont été exportés par la Communuaté. Le principal pays exportateur a été :

la France (3.299) vers la Suisse (3.031) et Andorre (206).

4.4.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les exportations ont porté sur un total de 77.527 unités. Les principaux pays exportateurs ont été :

1. l'Irlande (64.950) vers la Lybie (30.149), l'Egypte (29.577) et Malte (4.200);
2. la France (7.807) vers la Tunisie (1.684), l'Arabie Saoudite (1.504) et l'Algérie (677);
3. l'Allemagne (2.324) vers l'Arabie Saoudite (2.119);
4. l'Espagne (2.298) vers Andorre (2.260).

4.4.3. Bovins reproducteurs de race pure

En 1987, les exportations ont porté sur un total de 87.119 unités. Les principaux pays exportateurs ont été :

1. l'Allemagne (43.837) vers la Turquie (5.357), l'URSS (4.893), le Maroc (4.958), la Lybie (3.910), le Koweit (3.661), la Syrie (2.267), l'Irak (2.164), l'Iran (2.024), la Jordanie (2.157) et l'Arabie Saoudite (1.026);
2. la France (21.390) vers l'Algérie (18.367), le Maroc (1.406) et les Iles Canaries (1.045);
3. les Pays-Bas (16.647) vers l'Algérie (5.950), l'Iran (5.129), l'Egypte (3.316) et la Jordanie (836);
4. le Danemark (4.307) vers l'Egypte (2.490), l'URSS (1.372) et les Emirats Arabes Unis (365).

4.5. Porcs

Comme nous l'avons signalé précédemment, des maladies autres que la fièvre aphteuse peuvent limiter les échanges.

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4.5.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, les exportations ont porté sur un total de 2.633 unités. Les principaux pays exportateurs ont été :

1. les Pays-Bas (1.188) vers les Philippines (579) et les Iles Faroe (516);
2. la Belgique (1.067) vers les Philippines (1.052).

4.5.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les exportations se sont chiffrées à 4.390 porcs au total. Le principal pays exportateur a été :

la France (3.502) vers les Iles Canaries (1.891) et la Suisse (1.000).

4.5.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les exportations se sont chiffrées au total à 86 unités (Pays-Bas vers RDA).

4.5.4. Porcs reproducteurs de race pure

En 1987, les exportations se sont chiffrées au total à 3.444 unités. Les principaux pays exportateurs ont été :

1. le Royaume-Uni (2.224) vers la Thaïlande (681), le Japon (537), les Philippines (176), le Nigéria (178), le Kenya (169) et la Corée du Sud (111);
2. le Danemark (338) vers la Thaïlande (159) et la Corée du Sud (101);
3. la France (285) vers les Iles Canaries (194) et les Seychelles (40).

4.6. Ovins et caprins

4.6.1. Ovins et caprins autres que de race pure

En 1987, 54.576 animaux de ce type ont été exportés essentiellement par :

1. l'Espagne (30.481) vers Andorre (20.405) et Ceuta (10.076);
2. la Grèce (21.900) vers la Turquie (21.900).

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4.6.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.940 animaux de ce type ont été exportés. Les principaux pays exportateurs ont été :

1. la France (4.672) vers l'Algérie (3.886), la Chine (233) et la Colombie (130);
2. l'Allemagne (723) vers la Pologne (413) et l'Autriche (216).

Commentaires sur les exportations d'animaux vivants

Les exportations de bovins de rente/de boucherie et d'élevage sont importantes. Les pays destinataires pratiquent la vaccination systématique. Le fait que certains Etats membres, comme le Danemark et l'Irlande, ne pratiquent pas la vaccination ne semble pas avoir d'influence sur les exportations.

Les exportations de porcs ne sont pas importantes, sauf peut-être en ce qui concerne les reproducteurs de race pure où le Royaume-Uni et le Danemark détiennent des positions avantageuses essentiellement dans les échanges à destination de l'Extrême-Orient. Comme nous l'avons mentionné précédemment, des maladies telles que la peste porcine classique et la peste porcine africaine peuvent compliquer la structure des exportations.

Les exportations d'ovins et de caprins ne sont pas importantes face aux échanges intracommunautaires (2 millions de têtes).

4.7. Résumé et conclusions

4.7.1. Echanges intracommunautaires

(a) Viande et produits à base de viande

Quelle que soit la politique adoptée (vaccination générale ou non-vaccination contre la fièvre aphteuse), il ne devrait y avoir aucun obstacle aux échanges.

(b) Bovins

Quelle que soit la formule choisie, les échanges de veaux devraient rester stables. Il existe une possibilité d'échanges de jeunes bovins maigres (de rente) et de bovins de boucherie vers le Danemark et le Royaume-Uni. Il est peu probable que les échanges de bovins reproducteurs de race pure se modifient sensiblement.

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(c) Porcs

Les échanges sont également influencés par d'autres maladies que la fièvre aphteuse. Qu'il s'agisse d'une politique de vaccination générale ou de non-vaccination, il est difficile de prévoir des changements appréciables sur le plan de la structure des échanges.

(d) Ovins et caprins

Les échanges actuels semblent être toujours fortement influencés par les dispositions applicables en matière de brucellose (Brucella melitensis).

4.7.2. Echanges en provenance des pays tiers

(a) Viande et produits de viande

On prévoit peu de changements sauf peut-être un renforcement des contrôles à l'importation des abats en provenance de pays infectés de fièvre aphteuse. Des décisions uniformes doivent être prises vis-à-vis des pays d'Amérique du Sud et d'Afrique Australe. Il faut tenir compte du principe de "non-interférence" appliqué par les Pays-Bas et d'autres pays figurant sur la "liste blanche", aux termes duquel les établissements préparant de la viande et des produits à base de viande à destination de ces pays ne peuvent recevoir et traiter de la viande en provenance de pays ne figurant pas sur la "liste blanche".

(b) Bovins

Dans le cas d'une politique de non-vaccination, une légère baisse des échanges de veaux (27.000) et d'animaux d'élevage (15.000) se fera sentir si la Tchécoslovaquie et la Suisse n'abandonnent pas la vaccination. La Pologne et la Yougoslavie ne seront, par contre, plus obligées de pratiquer la vaccination avant l'exportation.

(c) Porcs

Les importations, qui se sont chiffrées à 52.000 têtes en 1987, sont insignifiantes par rapport à l'ensemble des échanges intracommunautaires (7,0 millions de porcs), notamment si l'on tient compte du degré d'auto-suffisance global du secteur porcin dans la Communauté.

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(d) Ovins et caprins

Les principaux fournisseurs de la Communauté ne pratiquent pas la vaccination systématique. Quelle que soit la politique adoptée, la structure actuelle des échanges devrait normalement se maintenir.

4.7.3. Echanges à destination des pays tiers

(a) Viande et produits à base de viande

Il faut envisager plusieurs cas. Premièrement, les échanges actuels sont régis par de nombreux facteurs, tels que les quotas (par ex. U.S.A. et Canada), les restitutions à l'exportation (accordées par la CEE), les liens commerciaux établis (par ex. le Danemark vers les pays scandinaves) et enfin les règles zoosanitaires (par ex. les pays figurant sur la "liste blanche").

Deuxièmement, une politique de vaccination généralisée pourrait rétrécir les marchés d'exportation (du moins en ce qui concerne la viande fraîche) du Danemark, de l'Irlande et du Royaume-Uni dans une moindre mesure, qui exportent vers les pays figurant sur la "liste blanche" tels que les U.S.A., le Canada et le Japon. Ces échanges servent de tampon aux variations conjoncturelles de production dans la Communauté.

Troisièmement, le passage à une politique de non-vaccination pourrait élargir l'accès de la Communauté dans son ensemble aux pays de la "liste blanche". Cet élargissement pourrait, toutefois, être limité par des restrictions de nature économique. Dans ce cas, les Etats membres qui exportent actuellement d'importants volumes de viande risquent de devoir partager un marché déterminé avec des Etats membres remplissant depuis peu les conditions de pénétration de ce marché.

Un quatrième cas, sans doute hypothétique, doit être envisagé, à savoir le cas dans lequel la Communauté, en tant qu'"entité", est indemne de fièvre aphteuse. La vaccination étant supprimée, la Communauté serait internationalement reconnue indemne de fièvre aphteuse. La Communauté perdrait-elle son statut en cas d'apparition d'un foyer de fièvre aphteuse ? La réponse dépend de l'efficacité de la régionalisation et des mesures de surveillance de la maladie.

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Le principe de la régionalisation est un principe que la Communauté applique en cas d'apparition d'un foyer de fièvre aphteuse ou d'une autre maladie épizootique en vue d'assurer sa propre protection. Les mesures comprennent l'abattage sanitaire dans l'exploitation infectée, la création de zones de protection et de surveillance, l'interdiction de circulation des animaux et d'autres mesures fixées par la directive 85/511/CEE.

L'expérience acquise jusqu'à présent nous amène à penser que certains pays tiers accepteront difficilement ce principe à moins d'être convaincus que les contrôles empêchent effectivement la propagation du virus vers le restant de la Communauté, ce qui leur permettrait de continuer à accepter le produit.

D'autre part, il est établi que lors de l'apparition de la fièvre aphteuse au Royaume-uni (Isle of Wight en 1981), l'Irlande du Nord a conservé son statut de zone indemne. Dès lors, il faut admettre que l'existence d'une barrière physique a joué dans ce cas.

Par ailleurs, la Communauté a accepté ce principe de la régionalisation non seulement pour elle-même, mais aussi pour les pays tiers tels que la Bulgarie, l'Amérique du Sud, l'Afrique du Sud et dernièrement le Canada, pays dans lequel la vallée de l'Okanagan est touchée par la fièvre catarrhale du mouton et est allée jusqu'à admette la régionalisation aux Etats-Unis pour cette dernière maladie.

(b) Animaux vivants

Les principes énoncés pour la viande et les produits à base de viande s'appliquent aussi dans une large mesure aux animaux vivants.

En cas de vaccination générale, de nombreux marchés d'exportation seront perdus dans le secteur des reproducteurs de race pure. Il convient toutefois de signaler que certains pays figurant sur la "liste blanche" accepteront les animaux non vaccinés provenant de pays pratiquant la vaccination, à condition toutefois de pratiquer une mise en quarantaine sévère et coûteuse.

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En cas de non-vaccination, tous les Etats membres seraient en mesure d'exporter librement vers l'ensemble des pays tiers dans la limite toutefois d'éventuelles restrictions d'autre nature.

4.7.4. Lignes d'action proposées

Etant donné que nous ne savons pas quelles seront les réactions de nos partenaires commerciaux des pays tiers face au statut de zone indemne acquis par la Communauté, il serait raisonnable d'organiser des discussions informelles au niveau (vétérinaire) technique afin : (a) de les informer des intentions de la Communauté et (b) de sonder leur attitude face à la régionalisation. Nous savons que plusieurs pays tiers importants sont intéressés par le principe de la régionalisation, car ils aimeraient connaître quelle serait l'attitude adoptée par la Communauté à leur égard s'ils étaient un jour infectés.

Nous suggérons d'adopter cette ligne de conduite sans tarder.

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ANNEXE V

MESURES DE PREVENTION DE LA FIEVRE APHTEUSE APRES 1992
- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. PREVENTION DES FOYERS PRIMAIRES APRES 1992

En cas d'adoption par la Communauté d'une politique de vaccination généralisée, les mesures de prévention et de lutte contre la FA sont largement couvertes par la directive 85/511/CEE du Conseil.

En cas d'adoption par la Communauté d'une politique de non-vaccination en matière de lutte contre la FA, il est indispensable d'envisager les FACTEURS DE RISQUES/MESURES DE PROTECTION ci-après, afin d'empêcher ou de réduire l'apparition de foyers primaires :

2. IMPORTATIONS D'ANIMAUX

Bien qu'aucune importation d'animaux vivants n'ait provoqué récemment de foyers primaires dans la Communauté, toute importation de bétail comporte un risque en soi. Aussi, le groupe recommande-t-il :

(a) de limiter les importations aux animaux non vaccinés (exempts d'anticorps), les animaux importés devant être mis en quarantaine et soumis à des tests ("probang test" et test sérologique), sauf s'ils sont originaires d'un pays indemne de FA qui applique des méthodes de lutte équivalentes à celles appliquées par la Communauté;

(b) de prendre des précautions particulières, afin d'empêcher le mélange du bétail en estivage aux confins de la Communauté.

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3. PROPAGATION PAR VOIE AERIENNE DE LA MALADIE A PARTIR DE PAYS VOISINS

Il a été indirectement prouvé que l'infection a franchi la frontière orientale de la Communauté grâce à un virus en suspension dans l'air. Ce type de virus reste viable dans un milieu froid et humide et constitue, de ce fait, une menace plus importante pour l'Europe septentrionale. Les risques que comporte une infection transmise par voie aérienne peuvent être réduits grâce aux mesures ci-après :

(a) en mettant en place un système de surveillance international permettant d'obtenir des renseignements sur les foyers de maladie dans les pays voisins (par exemple par l'intermédiaire de l'OIE, de la CCE ou de communications bilatérales). Le groupe recommande de renforcer ces systèmes d'information;

(b) en se servant des informations météorologiques pour procéder à des estimations sur la façon dont les virus sont susceptibles de se déplacer et de se propager. De telles estimations ont été effectuées au Royaume-Uni et en France et devraient être introduites ailleurs. Les logiciels correspondants sont disponibles dans le commerce;

(c) en apportant si nécessaire le concours de la Communauté aux programmes de vaccination dans les pays voisins et en évaluant l'efficacité de ces programmes grâce à des enquêtes sérologiques régulières;

(d) en collaborant avec les pays voisins pour les seconder dans l'éradication de la FA;

(e) en informant les exploitants agricoles de la Communauté et les vétérinaires de terrain sur l'importance d'une surveillance rigoureuse et de comptes rendus rapides.

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4. CIRCULATION DES PERSONNES A DES FINS COMMERCIALES OU TOURISTIQUES

Les personnes franchissant les frontières de la Communauté peuvent transporter des objets contaminés par le virus de la fièvre aphteuse. Les touristes, qui vont camper à la campagne à l'extérieur de la Communauté, constituent un risque, car ils peuvent transporter le virus sur leurs vêtements et objets personnels. Le groupe recommande que :

(a) la Communauté s'efforce d'informer les personnes franchissant régulièrement ses frontières sur le risque de transmission du virus par les denrées alimentaires, etc., en posant des panneaux très visibles aux douanes et dans les aéroports et en interdisant aux touristes de rapporter de la viande ou d'autres produits animaux;

(b) les touristes soient sensibilisés au danger qu'il y a à jeter de la viande et d'autres produits animaux à la campagne.

5. CIRCULATION DES VEHICULES

Les véhicules franchissant les frontières de la Communauté risquent de transporter le virus dans la terre ou la poussière adhérant à l'extérieur du véhicule, aux vêtements ou à d'autres objets à l'intérieur du véhicule. Le groupe recommande que la Communauté envisage la possibilité de mettre en place des installations de lavage d'urgence aux frontières lorsque la maladie a été signalée dans un pays voisin.

6. IMPORTATION DE VIANDE ET D'AUTRES PRODUITS ANIMAUX

La viande et certains produits animaux (lait, peaux, laines, abats, biomatériaux, y compris les vaccins et poduits pharmaceutiques utilisés à des fins vétérinaires et les aliments de bétail) présentent un risque d'infection; on s'accorde toutefois à reconnaître que ces produits peuvent être importés dans des conditions particulières.

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De même l'introduction de matériel biologique (à des fins scientifiques par exemple) en provenance de l'étranger présente des risques.

Le groupe recommande que la réglementation communautaire régissant l'importation de ces produits soit réexaminée. Il convient d'interdire l'importation de viande et d'autres produits animaux par des particuliers(1).

7. IMPORTATION DE SEMENCES ET D'EMBRYONS

L'importation de semences et d'embryons présente un risque. A cet égard, il convient de rappeler les règles déjà arrêtées par le Conseil en ce qui concerne l'importation de semences. Des règles analogues concernant l'importation d'embryons sont actuellement à l'étude.

8. STOCKAGE ET MANIPULATION DU VIRUS DE LA FIEVRE APHTEUSE DANS LES LABORATOIRES ET LES ETABLISSEMENTS DE FABRICATION DU VACCIN AU SEIN DE LA COMMUNAUTE

Même si la Communauté applique une politique de non-vaccination, on s'accorde à reconnaître qu'il sera toujours nécessaire de disposer d'installations pour le diagnostic de la FA, de procéder à des recherches sur la FA et de fabriquer des vaccins à la fois pour les banques de vaccins d'urgence et pour l'exportation. Conscient du fait que les laboratoires de recherche et les établissements de fabrication des vaccins, ont, dans un passé récent, donné lieu à un certain nombre de foyers de FA au sein de la Communauté, le groupe recommande :

(a) que le nombre de laboratoires et d'établissements de fabrication de vaccins détenant des virus aphteux soit strictement contrôlé;

(b) que les laboratoires et les établissements de fabrication de vaccins se conforment aux normes minimales recommandées par l'OAA pour les laboratoires effectuant des travaux sur le virus aphteux in vitro et in vivo - rapport de la 26ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, 23-26 avril 1985.

(1) Il convient de prêter particulièrement attention au "port franc" et aux problèmes de contrôle et d'élimination des "eaux grasses d'origine internationale".

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(c) que tous les services détenant des virus aphteux soient contrôlés, à intervalles réguliers, par une équipe d'inspecteurs de la Communauté;

(d) que l'innocuité et l'activité des vaccins antiaphteux utilisés en cas d'urgence soient contrôlées. Il est fait référence à cet égard au rôle de l'institut communautaire pour la coordination des vaccinations contre la fièvre aphteuse.

9. UTILISATION DE VACCINS ANTIAPHTEUX

Il peut arriver que des partenaires commerciaux demandent que le bétail en provenance de la Communauté soit vacciné avant son exportation. Pour répondre à ce besoin, le groupe demande :

(a) que la vaccination soit pratiquée au lieu de destination, dans un centre de mise en quarantaine aux fins d'exportation agréé par la Communauté ou sur le véhicule au moment du départ;

(b) que des précautions particulières soient prises, afin d'empêcher le retour des animaux vaccinés dans la Communauté.

En cas d'apparition d'un foyer, il peut être nécessaire de procéder à une vaccination d'urgence dans une zone territoriale déterminée. Etant donné qu'une telle vaccination d'urgence serait pratiquée sur du cheptel non immunisé, il est recommandé de procéder à deux vaccinations à trois à quatre semaines d'intervalle(1).

10. PREVENTION DES FOYERS SECONDAIRES APRES 1992

En cas de non-vaccination, les mesures nécessaires à prendre pour limiter le nombre de foyers secondaires sont précisées en principe dans la directive 85/511/CEE du Conseil, et plus particulièrement à l'article 5, paragraphe a.

(1) Le recours à la vaccination d'urgence n'est prévu que dans des circonstances exceptionnelles lorsqu'une épizootie risque de se propager. Cette décision devrait être prise au niveau communautaire et permettre d'identifier les animaux vaccinés.

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Quant aux enquêtes épidémiologiques, il convient de se référer aux principes énoncés par l'OAA : "méthodes de recherche de l'origine de l'infection en ce qui concerne les foyers de fièvre aphteuse FA)". (REF. : Rapport de la 27ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, Rome, 21-24 avril 1987, pp 111-120).

L'application des mesures à prendre serait facilitée par la mise en place d'équipes de travail qualifiées au niveau local ou régional. Ces équipes seraient chargées des tâches ci-après :

(a) abattage et destruction des animaux (il convient de prêter une attention toute particulière aux problèmes pratiques liés à la destruction d'un grand nombre d'animaux en un espace de temps réduit);

(b) nettoyage et désinfection des locaux infectés;

(c) évacuation des déchets;

(d) création et maintien d'un service de désinfection des exploitations agricoles et des environs;

(e) points de contrôle;

(f) mise en place de panneaux avertisseurs;

(g) désinfection de tous les véhicules importants qui sortent ou entrent dans la zone infectée;

(g) interdiction des entrées ou sorties d'agents non autorisés.

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En outre, il convient de constituer des équipes épidémiologiques qui apporteraient leur concours aux autorités locales ou régionales. Ces équipes se composeraient de vétérinaires virologues, d'agents techniques du laboratoire national de la FA ainsi que de météorologues connaissant le fonctionnement des systèmes informatiques permettant d'analyser et de prévoir la propagation de la FA par voie aérienne. En cas d'apparition d'un foyer, l'équipe épidémiologique se rendrait immédiatement dans les locaux infectés et serait chargée :

(a) de déterminer sur place l'étendue et le type de la maladie;

(b) de déterminer la source d'infection;

(c) d'évaluer les probabilités de foyers secondaires;

(d) d'informer le vétérinaire chargé de la lutte contre la maladie sur les risques de contamination d'autres locaux.

L'équipe devrait être dotée de véhicules spécialisés et de radiotéléphones.

Il est probable que les foyers de FA deviennent de plus en plus rares au sein de la Communauté et des programmes de formation continue devraient être mis en place, afin d'entretenir les compétences techniques en matière à la fois de diagnostic de la fièvre aphteuse et de lutte contre cette maladie. Ces programmes de formation pourraient être supervisés par un petit groupe d'experts en fièvre aphteuse au niveau communautaire. En cas d'apparition d'un foyer, les autorités nationales devraient pouvoir faire appel aux services de ce groupe.

11. RISQUES ET PREVENTION AU COURS DE LA PERIODE TRANSITOIRE

En cas de passage à une politique de non-vaccination, la proportion d'animaux vaccinés diminuera au cours de la période transitoire alors que celle ces animaux sensibles augmentera.

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Après l'abandon de la vaccination, de plus en plus d'animaux sensibles seront en contact avec les derniers animaux vaccinés et serviront ainsi de révélateur. Si environ un an après l'abandon de la vaccination aucun foyer ne s'est déclaré, le risque de la présence du virus au sein du cheptel bovin peut être considéré comme négligeable.

Pendant un an à compter de l'introduction de la politique de non-vaccination, les Etats membres n'ayant pas pratiqué la vaccination jusqu'alors, devraient continuer à effectuer des tests sérologiques et des "probang test" sur les animaux vivants avant l'importation en provenance des Etats membres ayant préalablement pratiqué la vaccination, afin d'exclure les animaux séropositifs ou porteurs du virus.

Ces tests ne sont pas nécessaires pour la circulation des animaux entre les Etats membres ayant préalablement pratiqué la vaccination. Les règles qui régissent l'exemption de fièvre aphteuse d'une exploitation agricole ou d'une zone devraient toutefois être maintenues en ce qui concerne la circulation des animaux entre tous les Etats membres. Il va de soi que la vaccination obligatoire avant la mise en circulation ne serait plus applicable.

La proposition d'une période transitoire d'un an s'appuie sur les arguments suivants :

(a) au cours de la dernière décennie, la durée de vie des bovins s'est de plus en plus raccourcie, faisant ainsi rapidement diminuer le pourcentage d'animaux revaccinés facilement identifiables;

(b) les anticorps maternels transmis aux jeunes animaux disparaissent complètement au bout d'un an;

(c) la plupart des animaux vaccinés une seule fois et destinés à l'engraissement seront éliminés du marché à la fin de l'année qui suit la dernière campagne de vaccination.

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ANNEXE 6

EFFETS PREVISIBLES D'UNE INTERRUPTION DE LA VACCINATION CONTRE LA FIEVRE APHTEUSE SUR L'EMPLOI DES VETERINAIRES

La situation risque de varier considérablement d'un pays à l'autre en fonction de la densité du cheptel et de l'existence ou non d'un système de subvention destinées à maintenir un minimum d'activités vétérinaires.

La situation est compliquée par le fait que dans certains Etats membres (BE) la vaccination est pratiquée par des vétérinaires privés, dans d'autres par les services de l'Etat (LUX, PO) et dans d'autres par les deux à la fois (DE, ES, FR, IT, NL).

Les Etats membres ont envoyé leurs observations. 4 seulement (BE, DE, FR, NL) prévoient des pertes d'emploi essentiellement dans le secteur privé, où selon les estimations, 10 % environ des honoraires proviennent actuellement de la vaccination. Dans ces Etats membres, on estime que sur les 22.280 vétérinaires pratiquant actuellement la vaccination, 1.480 emplois seront perdus.

Les autres Etats membres estiment que le personnel (des services publics essentiellement) pourra être réaffecté à d'autres projets d'éradication. Seule la France a laissé entendre que les pertes d'emplois pourraient compromettre la surveillance de la maladie et toucher environ 250 vétérinaires dans les régions fort reculées.

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ANNEXE 7

EFFETS PREVISIBLES D'UN CHANGEMENT DE POLITIQUE SUR
LES LABORATOIRES MANIPULANT LE VIRUS DE LA FIEVRE APHTEUSE

1. LEGISLATION COMMUNAUTAIRE EXISTANTE

1.1. Diagnostic et vaccins

La directive 85/511/CEE établissant des mesures communautaires de lutte contre la fièvre aphteuse, entrée en vigueur le 1er janvier 1987, demandait à la Commission de proposer au Conseil :

- un laboratoire de référence pour l'identification du virus de la fièvre aphteuse et
- un institut de coordination des vaccins aphteux,

en précisant leurs attributions respectives.

Des propositions ont été soumises au Conseil en avril 1988 et les décisions devraient intervenir sous peu. Dans chaque proposition, un article a été prévu à cet effet, à savoir :

1. le laboratoire de référence communautaire/l'institut de coordination communautaire travaillera dans des conditions de sécurité sanitaire, agréées, telles qu'elles sont contenues dans les "normes minimales applicables aux laboratoires manipulant le virus de la fièvre aphteuse in vitro et in vivo" - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985;

2. le laboratoire de référence communautaire/institut de coordination communautaire formulera et recommandera les mesures de sécurité sanitaire à adopter par les laboratoires nationaux lors du diagnostic de la fièvre aphteuse conformément aux normes mentionnées au paragraphe 1.

Les laboratoires nationaux qui ont déjà été désignés par les Etats membres et qui figurent dans l'annexe de la directive seront coordonnés par le laboratoire de référence communautaire et l'institut de coordination, dans le domaine de la sécurité sanitaire notamment.

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2. SITUATION ACTUELLE

2.1. A l'heure actuelle, plus de 30 laboratoires manipulent le virus de la fièvre aphteuse en Europe à des fins de diagnostic et de recherche d'une part, et de fabrication de vaccins d'autre part.

En cas d'adoption d'une politique de non-vaccination, une attention toute particulière doit être accordée :

- aux fonctions des laboratoires s'occupant de fièvre aphteuse;
- aux systèmes de sécurité appliqués par lesdits laboratoires;
- au nombre desdits laboratoires.

2.2. Fonctions des laboratoires s'occupant de fièvre aphteuse

2.2.1. Diagnostic de la fièvre aphteuse.

L'établissement d'un diagnostic rapide en laboratoire est essentiel pour permettre l'éradication de la fièvre aphteuse, surtout lors de l'apparition des premiers foyers. Cette remarque vaut quelle que soit la politique adoptée. Toutefois, en cas de non-vaccination, il est d'autant plus nécessaire d'agir vite et les éléments suspects de foyers primaires éventuels doivent toujours être envoyés sans tarder au laboratoire de diagnostic pour une analyse immédiate.

Compte tenu du risque de propagation rapide de la fièvre aphteuse, il est important que les agriculteurs et les vétérinaires de terrain soient pleinement conscients de l'importance que revêtent une vigilance stricte et une notification immédiate. Les membres de l'équipe de terrain des services vétérinaires de l'Etat devraient avoir la possibilité d'observer des cas cliniques de fièvre aphteuse au Laboratoire de Référence (ou laboratoire national) dans le cadre de leur formation.

Les laboratoires de diagnostic devraient disposer d'un matériel et d'un personnel leur permettant de pratiquer des tests à haute sensibilité de façon à pouvoir établir rapidement un premier diagnostic et identifier plus facilement l'origine de l'infection. En outre, le laboratoire établissant le diagnostic devrait envoyer le plus rapidement possible un échantillon des virus (de préférence le matériel d'analyse recueilli sur le terrain) du premier foyer au Laboratoire de Référence à des fins de confirmation et de caractérisation complète.

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Les laboratoires de diagnostic devraient être équipés (en matériel et en personnel) pour procéder à des tests sérologiques à grande échelle indispensables lors des analyses épizootiologiques liées à l'apparition de foyers.

Les laboratoires de diagnostic auront une autre fonction importante à remplir, à savoir procéder à des tests de contrôle lors de l'importation d'animaux vivants en provenance de pays tiers qui n'appliquent pas des mesures de lutte contre la fièvre aphteuse équivalentes à celles appliquées par la Communauté.

2.2.2. Etablissement de fabrication de vaccins

Il existe 15 établissements qui fabriquent des vaccins au sein de la Communauté. Parmi ces établissements, huit appartiennent à l'Etat et sept sont des sociétés commerciales appartenant à cinq firmes (voir tableau 1). La capacité de production de ces établissements varie très fort de même que leur niveau de sécurité. Les établissements de l'Etat sont fort proches des laboratoires ou instituts de recherche et de diagnostic de la fièvre aphteuse (souvent, ils utilisent les mêmes installations).

Capacité de production

Pour couvrir les besoins liés aux programmes de vaccination actuels dans huit Etats membres de la Communauté (à l'exclusion du Royaume-Uni, de l'Irlande, du Danemark et de la Grèce), 77,3 millions de doses vaccinales sont produites chaque année par les quinze établissements. 37 % environ des vaccins sont produits dans les établissements de l'Etat (29 millions de doses).

Ce chiffre tient compte des données suivantes :

- pour l'instant, l'Italie a un gros programme de vaccination pour les bovins et les porcins;
- l'Espagne vaccine le cheptel bovin deux fois par an et a également un programme de vaccination pour les porcins et les ovins.

A ce chiffre de 77,3 millions de doses, il convient d'ajouter un nombre indéterminé de doses nécessaires pour :

- la fabrication de vaccins destinés à l'exportation vers les pays tiers, essentiellement par les sociétés commerciales (EG-Merieux-France : 5,8 millions de doses). Les établissements de l'Etat peuvent également exporter une certaine quantité de vaccins, mais généralement au coup par coup;
- la fabrication de vaccins dans certains Etats membres pour la constitution de stocks d'urgence.

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En étant prudents, on peut estimer à 85/90 millions de doses la fabrication annuelle totale de vaccins au sein de la Communauté. Il est impossible de donner une estimation quelconque des capacités de production maximales.

Si les huit Etats membres poursuivent le même programme de vaccination pour les bovins et vaccinent 85 % de leur cheptel bovin une fois par an, il est nécessaire de produire au minimum plus ou moins 50 millions de doses de vaccin trivalent.

La Communauté n'importe pas de vaccin aphteux sauf une petite quantité de vaccins destinés à la zone tampon dans le nome d'Evros (Grèce).

Politique de vaccination générale

Si l'on opte pour la vaccination générale, un programme de vaccination devra être introduit dans les quatre Etats membres restants, à savoir le Royaume-Uni, l'Irlande, le Danemark et la Grèce. Ces quatre pays totalisent ± 20,5 millions de bovins.

Si l'on vaccine 85 % de ce cheptel bovin, il faudra 17 millions de doses vaccinales en plus. Ces vaccins supplémentaires peuvent être fabriqués de trois façons différentes, à savoir :

(a) chacun des quatre pays peut accroître ses installations existantes pour couvrir ses propres besoins (exception faite de l'Irlande qui ne dispose pas d'installations);
(b) les établissements qui existent à l'extérieur des quatre pays mais à l'intérieur de la Communauté peuvent augmenter leur production;
(c) la Communauté peut importer des vaccins de l'étranger.

En ce qui concerne le point (a), on peut raisonnablement s'attendre à une augmentation de la production de vaccins dans les installations dont disposent le Danemark, le Royaume-Uni et la Grèce. La construction d'unités de production en Irlande n'est pas une solution très plausible, à moins qu'elle ne soit nécessaire pour des raisons politiques. Il serait toutefois sans doute beaucoup moins onéreux que les quatre pays achètent leurs vaccins aux autres Etats membres.

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En ce qui concerne le point (b), augmenter la fabrication de vaccins dans les établissements actuels de la Communauté pour fournir les 17 millions de doses supplémentaires ne devrait poser aucun problème (voir paragraphe ci-dessus sur les capacités de production).

En ce qui concerne le point (c), l'importation de vaccins dans la Communauté semble hautement improbable pour les raisons suivantes :
- de telles importations ne sont pas nécessaires;
- l'importation de vaccins dans la Communauté pourrait accroître le risque d'introduction du virus aphteux.

Politique de non-vaccination

L'adoption d'une politique de non-vaccination signifierait automatiquement l'abandon de toute vaccination préventive contre la fièvre aphteuse dans toute la Communauté. La vaccination ne serait plus nécessaire que pour les campagnes de vaccination d'urgence dans certaines zones autour des foyers lorsque l'abattage sanitaire ne permet pas une éradication rapide de la maladie ou si la maladie se propage. Des stocks stratégiques de vaccins (une banque communautaire des vaccins) seront nécessaires. L'estimation du nombre de doses vaccinales nécessaires à cet effet doit encore être faite.
Il est clair toutefois qu'une politique de non-vaccination diminuera sensiblement le nombre de vaccins nécessaires au sein de la Communauté.

Les sociétés commerciales de fabrication de vaccins qui exportent vers les pays tiers une grande quantité de leur production par rapport à la production totale de vaccins aphteux devraient pouvoir continuer leurs activités en étant soumises à de stricts contrôles de sécurité.
D'autres fermeront leurs installations de fabrication de vaccins aphteux ou réorienteront leurs activités.

Il sera par ailleurs nécessaire de tenir compte des recommandations de l'OIE en ce qui concerne le trafic international de produits pathologiques et de produits biologiques contenant le virus aphteux.

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Quant au sort des établissements de l'Etat, qui produisent en grande partie uniquement pour couvrir les besoins de leur propre pays, ils dépendent d'un certain nombre de facteurs, à savoir :

a. le maintien des capacités de diagnostic;
b. la recherche dans le domaine de l'épidémiologie et de la lutte contre la fièvre aphteuse;
c. la fabrication et le stockage - ainsi que la recherche qui y est associée - d'une certaine quantité de vaccins pour la constitution des réserves de la banque communautaire des vaccins;
d. les possibilités de fabrication de vaccins destinés à l'exportation vers les pays tiers.

Si un Etat membre décide de fermer toutes ses unités de production, une partie des économies réalisées de la sorte pourrait être utilisée pour mettre au point des techniques modernes de diagnostic et pour former le personnel.

2.2.3. Travaux de recherche sur la fièvre aphteuse

Quelle que soit la politique adoptée à l'avenir (vaccination ou non-vaccination), il sera nécessaire d'effectuer des travaux de recherche sur la fièvre aphteuse. Parmi les sujets d'actualité, il convient de citer :

- la mise au point et la normalisation de systèmes de tests sensibles;
- l'emploi d'anticorps monoclonaux pour la caractérisation des souches sauvages, des souches vaccinales et des souches d'épreuve;
- la biologie moléculaire du virus aphteux;
- les problèmes liés au stockage de l'antigène viral de la fièvre aphteuse dans les banques;
- de nouvelles sources d'information pour évaluer l'activité du vaccin;
- la sécurité des produits animaux;
- la mise au point de nouveaux vaccins (ex. délétion génétique, sous-unité et peptide).

Les systèmes de tests sensibles ELISA et les méthodes de biotechnologie et de biologie moléculaire, par exemple en vue de l'identification et de la caractérisation rapides et précises des souches virales de la fièvre aphteuse, constituent autant d'exemples des applications pratiques des travaux de recherche de ces dernières années qui offrent d'énormes perspectives. Il est dès lors probable que le "sous-typage" classique des isolats viraux sera remplacé par des caractérisations plus précises, combinant différents paramètres, tels que la détermination de la séquence des nucléotides et/ou les réactions avec une gamme appropriée d'anticorps monoclonaux en plus des relations antigéniques classifiques (valeurs "r").

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Ce type de caractérisation sera très utile à la fois pour identifier l'origine de l'infection et pour sélectionner les vaccins appropriés.

Les travaux de recherche dans ces domaines progressent dans plusieurs laboratoires européens s'occupant de fièvre aphteuse et devraient être encouragés. A l'avenir, ces activités de recherche pourraient être coordonnées par le laboratoire de référence communautaire/institut de coordination communautaire.

2.3. Systèmes de sécurité appliqués par les laboratoires s'occupant de la fièvre aphteuse

Compte tenu des fuites de virus dues aux manipulation en laboratoire, il est impératif que tous les laboratoires travaillant sur le virus aphteux travaillent, quel que soit le type de travaux qu'ils effectuent, selon les normes de sécurité sanitaire reconnues, telles qu'elles sont contenues dans les : "Normes minimales applicables aux laboratoires travaillant sur le virus aphteux in vitro et in vivo - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985.

Il serait peut-être souhaitable de désigner un groupe d'experts communautaires chargé de contrôler le respect de ces normes de sécurité.

2.4. Nombre de laboratoires s'occupant de la fièvre aphteuse

En raison du risque de fuites de virus dues aux manipulations en laboratoire, il convient de limiter le plus possible le nombre de laboratoires, surtout si l'on opte pour une politique de non-vaccination. Il est évident qu'il faut toutefois en conserver quelques-uns.

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Compte tenu de l'importance d'un diagnostic rapide en cas d'urgence, quelle que soit la localisation du cheptel d'origine, le matériel suspect devrait pouvoir atteindre le laboratoire de diagnostic dans les heures qui suivent son prélèvement ou au moins le même jour. En tenant compte de la nécessité des travaux de recherche sur la fièvre aphteuse et de la qualité des travaux de recherche effectués à l'heure actuelle dans plusieurs des principaux laboratoires nationaux, un compromis raisonnable serait de conserver à l'avenir un seul laboratore national par pays.

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TABLEAU 1

Etat membre	Usines de production		Besoins annuels de vaccins pour les campagnes de vaccination (1986)	Commentaires
	de l'Etat	commercial.		
Belgique	1 Uccle	-	2.3 mill. AOC (triv.)	
Danemark	1 Lindholm	-	0.45 mill. A) O) C) 0.15 mill. chacun	Comme réserve
Allemagne	-	3 Cooper Behring-werke Bayer	) 13 mill. AOC (triv)	Egalement importation de vaccins de de l'institut Merieux France
Grèce	1 Athènes	-	0.12 mill) A-0.038 mill.) O-0.034 mill.) C-0.043 mill.	Comme réserve. De plus, 60.000 doses sont importées de l'institut Merieux-Téhéran pour servir dans la zone tampon
France	-	1 Merieux	19.0 mill. AOC (triv)	9 mill. de doses également exportées vers la CEE et les pays tiers
Irlande	-	-	-	-
Italie	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Periode 15/3/87 au 3/7/88. Grosse campagne de vaccination, vaccination des bovins et porc.
Luxembourg	-	-	0.2 mill. AOC (triv)	Vaccins provenant de différentes firmes au sein de CEE
Pays-Bas	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Vaccins importés d'Espagne et France
Espagne	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	Vaccins utilisés pour les bovins et porcins (chiffres de 1987) capacité maximale des 3 laboratoires: 102 millions de vaccins (mono)
Royaume-Uni	-	Cooper	-	Fabrication destinée à la banque de vaccins du Roy.Uni
TOTAL	8	7	77.3 millions	0.6 mill. comme réserve

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COMMISSION OF THE EUROPEAN COMMUNITIES

SEC (89) 1731 final

Brussels, 18 October 1989

REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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26 OCT. 1989
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EXPLANATORY MEMORANDUM

Foot and mouth disease (FMD) is one of the most serious diseases of livestock. It spreads rapidly, affecting all cloven-hoofed animals and has considerable economic impact partly because of its direct effect on livestock production and partly because of the effect its presence has on trade in livestock, livestock products and certain agricultural goods.

The methods used for controlling FMD differ in the various Member States but all employ either vaccination together with total or partial "stamping out" (slaughter and destruction) or non-vaccination with total "stamping out". Other control measures are common to both policies such as import controls, surveillance of susceptible animals, provision of diagnostic facilities and controls on the movement of livestock.

Currently Member States employing a non-vaccination policy may restrict free trade in livestock from their Community partners which vaccinate. They do so because such animals may carry covert infection and because the presence of vaccinated animals would restrict trade with certain non-member countries.

Following the completion of the internal market in January 1993 livestock and livestock products are expected to move freely throughout the Community. This can only be achieved if all Member States adopt common measures towards FMD.

Existing legislation concerning FMD is contained in:

- Council Decision 77/97/EEC (Emergency Fund Decision)
- Council Directive 64/432/EEC (Intra-Community Trade Directive)
- Council Directive 85/511/EEC (Control of FMD Directive)

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A review by the Commission of Directive 64/432/EEC (Article 4A) was due in 1988 and a review of Directive 85/511/EEC is due before the end of 1989.

Given the requirement to make two reviews and reports to Council within a short period of time and taking into account the approach of the internal market after 1992, the Commission decided to examine the FMD problem in more detail. The impossibility of having free trade without the risk of spreading virus under the current differential systems of vaccination and non-vaccination was evident. It was, therefore, decided in conjunction with the Member States to carry out cost-benefit studies and allied analyses in an effort to obtain a clear policy direction.

The Commission's work in carrying out the review and in formulating the report has been greatly assisted by many experts from the Member States. The work of the sub-group of the Scientific Veterinary Committee which assessed future predictions and risk factors deserves special mention.

The considerations taken into account in making the study included:

- The incidence of FMD in the Community during the last 20 years,
- The risk of FMD occurring in the Community under the alternative policies post 1992,
- The economic consequences of the policies i.e. a cost-benefit analysis,
- The effects on trade patterns,
- The measures required to prevent primary and secondary outbreaks post 1992, and,
- The changes in resources which might be expected under either policy.

The conclusions drawn by the Commission as a result of the studies can be summarised as follows:

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- A non-vaccination policy will clearly cost less than a pan-vaccination policy.
- The production and use of vaccine in itself can lead to the introduction of infective virus into an animal population through laboratory escapes or the use of improperly inactivated vaccine. Therefore a non-vaccination policy is clearly safer.
- Measures taken to prevent entry of infection into the Community and to effectively eliminate an outbreak should be strengthened. In this context the Commission will propose increased financial Community participation in the costs of compensating farmers in the event of an outbreak.
- Trade patterns in respect of intra-Community trade and imports from non-member countries will be affected by a change in policy to the extent that vaccinated animals could no longer be accepted from third countries if the non-vaccination policy is adopted. A change to pan-vaccination would mean that exports to certain third countries will cease while in a non-vaccination situation the entire Community should be able to trade to all non-member countries. Should an outbreak occur in the latter situation, exports from the Community at large should be ensured by effective control and eradication measures on a regional basis; i.e. the principle of regionalisation.
- Veterinarians previously engaged in vaccination programmes in some Member States will still be needed :-

  - to improve the structure of the national veterinary services to meet the additional demands of a non-vaccination policy
  - to carry out other disease control measures such as for Aujeszky's disease and Brucella melitensis infection.
  - to be engaged in the strengthening of the national veterinary services necessary in the context of the realisation of the Single Market.

- Existing FMD laboratories which produce vaccine will have to adapt to a new situation where vaccine production will be greatly reduced if not eliminated totally. Emphasis can be transferred to training of staff in FMD diagnosis and the development of better diagnostic techniques.

The Commission is fully convinced that to achieve the aims of the internal market, i.e. to harmonise health standards at a high level and ensure the free movement of goods, the Community must move to a non-vaccination policy. This line of action is strongly recommended to the Member States and appropriate proposals to Council will be made with the aim of amending current legislation.

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REPORT FROM THE COMMISSION TO THE COUNCIL(1)

Subject : A study carried out by the Commission on the policies currently applied by Member States in the control of foot and mouth disease

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1. INTRODUCTION

1.1. After the creation of the European Economic Community in 1957 the six original Member States discussed a series of measures designed to allow the free movement of animals and their products in intra-Community trade. Initially national measures required that guarantees be presented in respect of animal health which ensured that animals arriving in a Member State were healthy and were not capable of transmitting disease to receiving herds.

1.2. The first formal harmonisation came in 1964 with the adoption by Council of Directive 64/432/EEC which is still in force, albeit in an amended and extended format. This Directive covers intra-Community trade in bovine animals and swine. Even by the end of 1988 national rules apply to trade in other species.

1.3. One of the most important diseases covered by the original Directive is foot and mouth disease (FMD). Agreement on rules concerning FMD was not particularly difficult, as all six Member States practised a vaccination policy. Apart from herd and area freedom, the principal safeguard laid down was the vaccination of bovine animals over four months of age prior to dispatch to another Member State. These rules were assured by an official veterinary certificate which accompanied each batch of animals.

(1) The Annexes referred to in this Report are contained in Commission document VI/3198/89

1.4. The advent of Denmark, Ireland and United Kingdom to the Community in 1973 foresaw considerable adjustments to Directive 64/432/EEC as the new Member States practised a non-vaccination policy which included full stamping out in the case of an outbreak. In spite of extensive negotiations an immediate resolution of differing philosophies was not possible. The terms of the Treaty of Accession provided that the new Member States could retain their national rules on protection against FMD for a five year period during which further attempts were foreseen to harmonise on a Community basis.

1.5. Eventually in 1984 an amending Directive (84/643/EEC) was adopted by Council introducing new rules which applied to all Member States in the matter of protection against FMD. At the same time another vesicular condition of swine was covered (Swine Vesicular Disease) due to its close similarity to FMD in swine. The amending Directive describes in detail the additional guarantees which a Member State may demand depending on its disease status and its vaccination status at the time. The application of the amending Article 4a in question is subject to review.

1.6. The Accession to the Community of Greece (1981) and Spain and Portugal (1986) did not result in any significant changes to Directive 64/432/EEC.

1.7. In 1985 the Council adopted a Directive (85/511/EEC) on the control of FMD throughout the Community. Essential common measures are laid down to deal with an outbreak of FMD in a uniform manner. However, an option remains in relation to full or partial stamping out for those Member States which practise vaccination.

1.8. Many important subsidiary tasks were assigned to the Commission by Council including :

- the development of rules on partial slaughter;
- the nomination to Council of a Community Reference Laboratory for diagnosis of FMD;
- the nomination to Council of a Community Institute for vaccine checking;

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- the coordination of Member States vaccination plans;
- a proposal to Council for setting up a Community vaccine bank; and
- the obligation to report to Council before 1990 on the working of the provisions of the Directive together with proposals if necessary.

1.9. In 1985 an amendment to the Emergency Fund Decision (77/97/EEC) was adopted by Council. Up to then this Decision provided that funds be made available only if diseases exotic to the Community occurred in a Member State. The amendment provides that as well as support for exotic FMD type disease, funds should be available for classical European FMD in respect of the first twenty outbreaks occurring in the first thirty days of an epizootic provided full stamping out is promptly applied.

2. LEGAL BACKGROUND

2.1. The legal background to this report is contained in :
- Council Directive 64/432/EEC (review of Article 4a) and
- Council Directive 85/511/EEC (review as foreseen in Article 18).

2.2. As mentioned in general terms in the introduction to this report, the Directive covering intra-Community trade in bovine animals and swine originated in 1964 as Directive 64/432/EEC.

Derogatory measures in the matter of intra-Community trade in bovine animals and swine were applied in the case of Denmark, Ireland and United Kingdom at Accession in 1973 and enabled them to retain their national rules for protection against foot and mouth disease. These measures were finally extended until 31 December 1984 after which date new rules were introduced which could apply to all Member States in the matter of protection against foot and mouth disease.

The new rules were laid down in Council Directive 84/643/EEC of 11 December 1984 and stipulated that an Article 4a be inserted into the basic trading Directive concerning bovine animals and swine. The Article describes in detail the additional guarantees which a Member State may require depending on its disease status and its vaccination policy at the time.

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Article 4a further provides that every 3 years and for the first time 3 years after its entry into force, i.e. 1 January 1988, the Council shall acting by a qualified majority on a Commission proposal review the provisions of this Article. This review shall be made on the basis of a report from the Commission accompanied, if necessary, by proposals.

2.3. The Commission given this task has noted that it has not, during the period from 1 January 1985 been informed of any specific problem encountered by Member States in either exporting or receiving animals in intra-Community trade. The Commission on 28 July 1987 informed the Member States of its intention to carry out a review of the application of the Article in question and requested them to forward to the Commission without delay any comments they might have in respect of the rules laid down in Article 4a.

Certain Member States informed the Commission that they would welcome an immediate lessening of measures applying to slaughter animals. The Commission recognises that the existence of this Article and the quarantine procedures foreseen therein creates a problem for free circulation of animals throughout the Community.

2.4. The second Directive which requires the Commission to make a report to the Council an FMD is Council Directive 85/511/EEC and in particular Article 18. This Directive set in motion a series of Community measures designed to have a uniform approach when an outbreak of FMD occurs. In simple terms the Commission is required to report to the Council on the application of this Directive before 1 January 1990. It is also possible that the Commission report could be accompanied by proposals, if necessary.

3. COMMISSION ACTION

3.1. Given the requirement to make two reviews and reports to Council within a short period of time and taking into account the advent of the internal market after 1992, the Commission decided to examine the FMD problem in more detail.

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The impossibility of continuing the current differential system of vaccination versus non-vaccination was immediately evident. It therefore was decided in conjunction with the Member States to carry out cost-benefit studies and allied analyses in an effort to obtain a clear policy direction.

3.2. In order to meet its obligations to the Council concerning the review of Article 4a of Directive 64/432/EEC, the Commission made a report to the Council on 14 January 1988 explaining its decision to make the fundamental study and indicating its hope to submit a report and appropriate proposals by the end of 1988.

3.3. The Commission's work in carrying out the review and in formulating the report has been greatly assisted by many experts from the Member States. The work of the sub-group of the Scientific Veterinary Committee which assessed future predictions and risk factors deserves special mention. The Commission notes that the report of this group received a favourable opinion in the frame of the full Scientific Veterinary Committee, an opinion with which the Commission services fully concur.

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4. CONTROL OF FOOT AND MOUTH DISEASE IN THE EUROPEAN COMMUNITY

4.1. Introduction

4.1.1. This document outlines the considerations involved in determining a Community policy for the control of foot and mouth disease (FMD). Although it has been prepared in anticipation of the abolition of frontiers at the end of 1992 it takes into account the need to implement a common Community policy as soon as practicable before that date.

4.1.2. FMD is one of the most serious diseases of livestock. It spreads rapidly, affecting all cloven-footed animals and has considerable economic impact partly because of its direct effect on livestock production and partly because of the effect it's presence has on trade in livestock, livestock products and certain agricultural goods.

4.2. Historical

4.2.1. The European livestock industry was first seriously affected by FMD in the 1930's and the types involved were O, A and C as we know them today. Following the second world war there was a lull in the occurrence of FMD probably due to restrictions on movement and a rebuilding of national herds. The early 50's saw an upsurge in outbreaks with serious consequences which resulted in OIE and FAO becoming more organised on a continental basis in fighting the disease. The advent of the Frenkel vaccine led to rapid expansion in vaccine output and resultant cover. In addition most countries adopted a slaughter policy although some additionally used mass vaccination around the outbreak as a further measure. During these years most European countries adopted a compulsory vaccination policy at least in cattle.

4.2.2. Outside Continental Europe the Scandanavian countries and U.K. and Ireland remained relatively free. In Spain severe outbreaks occurred regularly until 1980. The Near-East and in particular Turkey posed a great threat to Western Europe.

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This threat remains today but a vaccination buffer zone strategy in the Thrace area has proved immensely valuable. The disease occurs in Africa where there are three specific African virus types. Some Asian countries experience a type which is established in that continent.
Excepting South America where most of the countries are infected with near-classical European types of virus the rest of the world is free of disease and does not vaccinate. Large land masses in this category are Central and North America, Australia, New Zealand, Japan, Korea and other far eastern territories.

Summaries of the situations are presented in Annex 1, Tables 2 and 3.

4.2.3. The large epidemics which occurred in Europe during the 1960's and early 1970's have largely died out due to the employment of mass vaccination campaigns and the restriction of imports of meat and other animal products into the Community. Since 1980 only Italy (1984-87) and Portugal (1980-84) have experienced severe epizootics.

4.2.4. The recorded outbreaks in Member States are shown in Annex 1, Table 1. An outbreak is defined as disease occurring on one farm or holding (OIE). It can be seen that over the last twenty years there has been a steep decline in the number of outbreaks in the Community as a whole. Most Member States have experienced little or no disease over the last five years, the exception being Italy which has had a series of epidemics in the northern part of the country.

4.2.5. The FMD situation in neighbouring countries is summarised in Annex 1, Table 2 while the situation in non-Member States with trade links to the Community is provided in Annex 1, Table 3. A summary analysis of vaccination plans in Member States can be found in Annex 1, Table 4.

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4.3. The alternatives

4.3.1. The methods used for controlling FMD differ in the various Member States but all employ one of two alternative policies :

a) A VACCINATION POLICY. This is defined as the systematic annual vaccination of all cattle. In case of an outbreak of disease total or partial stamping out is applied in addition to vaccination and other control measures.

b) A NON-VACCINATION POLICY. This is defined as a general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. Under exceptional circumstances, it may be necessary to launch a ring vaccination campaign.

4.3.2. Both policies are supported by import controls, regular surveillance of the livestock populations at risk, the provision of diagnostic laboratory facilities and, in the event of disease, controls on the movement of livestock.

4.3.3. Currently, Member States employing a non-vaccinaton policy may restrict trade in livestock from their Community partners which vaccinate. This is justified in the first place on the basis that vaccinated animals may harbour virus after a field challenge while remaining clinically normal. The risk associated with vaccinated animals in the prolonged absence of field virus is slight. However it is impossible to guarantee that virus is absent in a vaccinated population, as virus may enter from time to time and go undetected. There is therefore a risk that virus could be introduced into previously unaffected areas through movements of vaccinated animals. This possibility of spread of virus is unacceptable given the importance of the disease.

Secondly the presence of vaccinated animals in a country is considered by many third countries e.g. United States and its "White List" adherants, to be equivalent to the presence of disease with obvious and serious consequences for trade.

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4.3.4. Following the completion of the internal market in January 1993 livestock and livestock products are expected to move freely throughout the Community. This can only be achieved if all Member States adopt a common policy towards foot and mouth disease. At present, three Member States do not vaccinate (Denmark, Ireland and United Kingdom) while the remaining nine vaccinate. A summary of vaccination plans is in Annex 1, Table 4.

4.3.5. The choice for a Community FMD control policy lies between the two existing policies described in paragraph 4.3.1 i.e. 'VACCINATION' and 'NON-VACCINATION'.

The considerations which bear on this choice are:

a) the incidence of FMD in the Community during the last twenty years (Annex 1, Table 1).

b) the risk of FMD occurring in the Community under the alternative policies post 1992. Report of sub-group of Scientific Veterinary Committee. (Annex 2)(1).

c) the economic consequences of the two alternative policies i.e. the costs to the public and private sectors. (Annex 3).

d) the effects on the Community's internal and external trade in livestock, livestock products and other commodities. (Annex 4).

e) the measures required for the prevention of primary and secondary outbreaks post 1992 and during a transitional period. Report of sub-group of Scientific Veterinary Committee. (Annex 5)(1).

f) the changes that might be expected, under either policy, in the use of resources such as:

   i) veterinarians currently employed in vaccination programmes (Annex 6), and,

   ii) laboratories currently engaged in FMD diagnosis, vaccine production and research (Annex 7)

(1) It may be pointed out that some points such as the role of the vaccinated animal as a potential carrier were difficult to resolve. However the text as presented was agreed unanimously by the sub-group and endorsed by the Scientific Veterinary Committee on 1 February, 1989.

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4.4. The risk of foot and mouth disease occurring post 1992

4.4.1. The risk of FMD occurring under either policy option post 1992 has been assessed by a sub group of the Scientific Veterinary Committee. Assuming that Community livestock movement will be unrestricted post 1992 the risk has been estimated on a Community basis rather than on a Member State basis. The report of the sub group's findings is given at Annex 2.

4.4.2. The group has examined the records of outbreaks in all Member States for the last 11 years (1977-87) and has identified 34 primary outbreaks of FMD.
Of these, 8 were probably due to a source outside the Community, mainly associated with the importation of meat. (See Annex 2, Table 3). The subgroup considered that a further 13 were possibly associated either with the escape of virus from laboratories or the production and use of vaccine which was not properly inactivated. The source of the remaining 13 primary outbreaks is unknown.

4.4.3. On the evidence available from the past 11 years the sub-group made predictions for the years 1993-2003 in the event of the adoption of a vaccination or alternatively a non-vaccination policy. The risk of primary outbreaks was first considered.

4.4.4. The subgroup considered that the risk of infection entering the Community during the years 1993-2003 will be no worse or no better than during the last 11 years. It predicted up to 13 primary outbreaks excluding those relating to escape of virus and the use of improperly inactivated vaccine (Annex 2, paragraph 12).

4.4.5. The subgroup accepted that there is no endemic source of FMD field virus in the herds and flocks of the Community. That being so the risk of primary outbreaks arising from sources within the Community will depend on the extent to which live FMD virus is manipulated in laboratories and on the use of improperly inactivated vaccine.

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4.4.6. If FMD vaccination continues, vaccine inactivation techniques are not improved and virus continues to be manipulated in laboratories other than in conditions of the highest security the present risk will continue. In these circumstances the group predicted that 13 additional outbreaks will occur over the eleven year period. However, improved methods of vaccine production could reduce that risk. If vaccination is discontinued and laboratories operate in conditions of highest security, the risk would be very low and the group predicted nil additional outbreaks.

4.4.7. The sub-group went on to consider the risk of secondary outbreaks arising from these primaries. During the eleven years 1977-87 many primary outbreaks did not give rise to extensive spread of disease irrespective of whether they occurred in countries employing vaccination or non-vaccination policies. On the other hand extensive spread has occurred during the period under review but the group considered that the degree of spread was dependent on the rigour of the control procedures involved rather than on the vaccination policy. This is particularly the case where there are large pig populations. The sub-group concluded that the variation in the rate of spread is too great as to predict a difference in the number of secondaries per primary outbreak under either policy.

4.5. <u>The economic consequences associated with the alternative policies</u>

4.5.1. When foot and mouth disease occurs within the Community, it is eliminated with all possible speed (Directive 85/511/EEC) so that the damaging effects of the disease itself are not allowed to develop. The costs associated with an outbreak are therefore the costs of controls (which include the costs of stamping out and/or systematic vaccination) and the loss of production and trade. The costs as submitted by the Member States are summarised in Annex 3.

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4.5.2. The costs have been estimated using an economic model developed by the FAO European Commission for the control of FMD. The costs to the Community of regular vaccination of the cattle population and of stamping-out outbreaks have been estimated. All other costs such as those associated with surveillance and the provision of diagnostic facilities are common to both policies and have therefore been disregarded.
The costs of control depend largely on the number of disease outbreaks. The economic analysis takes into account the probability of outbreaks occurring in the Community under the alternative policies. The economic analysis is given in Annex 3 and is summarised in paragraph 4.8 following.

4.5.3. The FAO model analysis requires that the effects of a policy of vaccination or of non-vaccination on domestic and export trades should be taken into consideration. An analysis of these effects was compiled by the Commission and the report is at Annex 4.

4.6. The cost of vaccination

4.6.1. Eight Member States (Belgium, France, Federal Republic of Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain) routinely vaccinate all cattle . Some vaccinate pigs, sheep and goats in addition to cattle. The costs of a single annual vaccination of cattle in the national herds, as calculated by these Member States, are summarised in Annex 3, Table 1.

4.6.2. The remaining four Member States (Denmark, Greece(1), Ireland and UK) do not employ vaccination to control FMD. They have calculated the cost should they be required to vaccinate and their returns are also shown in Annex 3, Table 1.

(1) Except the Buffer Zone in Thrace

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4.6.3. The estimated annual direct public cost of a pan-Community vaccination programme involving a single annual vaccination of cattle in all Member States, is circa 133 million ECU's at 1987 values. This cost includes vaccine purchase and storage, vaccine application and general administration. It does not include the cost of any deleterious side effects attributable to the use of vaccine.

4.6.4. It should be noted that vaccination as practised within the Community confers protection only against the European 'A', 'O' and 'C' strains of FMD. This vaccination does not protect animals against the exotic strains which occur in other parts of the world.

4.6.5. Furthermore it can be seen from the Table of vaccination plans (Annex 1, Table 4) that immunization cover is considerably less than 100% in that pigs, sheep and goats are rarely vaccinated. In addition veal calf units and feed lots are often excluded and calves under 3-4 months of age at the time of the annual vaccination may remain unvaccinated until the following year.

4.7. <u>The cost of an outbreak of FMD</u>

4.7.1. The Office International des Epizooties, Paris, (OIE) defines an outbreak as disease occurring on one farm or holding. FMD epidemics are controlled on a farm by farm basis and therefore outbreak costs are convenient to calculate. Member States have been asked to calculate the average cost of an outbreak of FMD, the costs to include the cost of slaughter, disposal of carcases, disinfection, cleansing and associated measures, the value of slaughtered stock, the production loss on the farm due to the delay in restocking and administration costs specific to the outbreak. Costings assume that all susceptible stock in the holding are slaughtered.

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4.7.2. A major epidemic of FMD may result in costs to the country or region where it occurs that cannot be apportioned to individual outbreaks. These costs could include the closing of abattoirs or markets but past analyses of the economic effects of FMD epidemics have been unable to quantify these costs.

4.7.3. Those Member states which have recent experience of controlling outbreaks have based their estimates largely on the actual costs incurred. Those that have no recent experience of FMD have calculated presumptive costs. These costs are summarised in Table 2 of Annex 3.

4.7.4. For the purposes of the economic analysis which follows, a value of 158,000 ECU has been taken as the average cost of an outbreak, with 31 914 ECU and 600 000 ECU as the lowest and highest estimates respectively.

4.8. The economic analysis

4.8.1. The estimates of the costs of vaccination and of FMD outbreaks have been used to carry out an economic analysis of a vaccination policy and a non-vaccination policy over a 10 years period. The analysis provides a range of estimates given variations in the cost and number of outbreaks and these have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case. The analysis is shown in full in Annex 3.

4.8.2. The most likely outcome is that provided by the "central case" in the analysis. It is based on the cost of an average outbreak and the number of primary and secondary outbreaks as predicted by the Scientific Veterinary Committee.

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If a non-vaccination policy is implemented the total cost to the Community (discounted present value over 10 years (at 5 %)) is estimated at 35 million ECU.

If a vaccination policy is implemented the total cost to the Community (discounted present value over 10 years (at 5 %)) is estimated at 1,134 million ECU.

4.8.3. It should be noted that at present Community funds are available to Member States for FMD eradication on the basis of reimbursement of 50% of cost of slaughter and destruction and 100% of costs of emergency vaccination. In the case of classical European types of FMD this assistance is limited to the first 20 outbreaks occurring in the first 30 days of an epizootic.

4.8.4. It should also be noted that if a non-vaccination policy is adopted then the cost of pre-export vaccination of bovine animals will no longer accrue. Approximately 2 million animals are traded annually between the vaccinating Member States. If 1 million are subject to pre-export vaccination (calves under 4 months and some slaughter animals may be exempted) at 3 ECU per animal (vaccine and vaccination) then a saving of 3 million ECU could be made.

4.9. The effects of the alternative policies on trade in livestock and livestock products

The economic analysis described in 4.8. above does not take into account the effects of the alternative policies on trade within the Community and with non-member countries in livestock and livestock products. The Commission's report on trade is in Annex 4 and the main conclusions are as follows :

(a) The adoption of either policy would have little effect on intra-Community trade in live animals and livestock products.

(b) The adoption of a non-vaccination policy would mean that vaccinated animals could not be imported without additional safeguards, but would not affect imports of fresh meat and meat products provided all the usual procedures are maintained (maturation, deboning).

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(c) It is clear that a Community pan-vaccination policy would seriously affect exports to many non-member countries. On the other hand technical discussions will be essential with the veterinary services of trading partners to convince them of the effectiveness of regionalisation measures adopted in the event of an outbreak in a non-vaccination situation.

4.10. The effects on the cessation of FMD vaccination on the employment of veterinarians

As far as can be determined the cessation of FMD vaccination would have a limited effect on the deployment of veterinarians. The Portuguese and Spanish authorities anticipate a redeployment of veterinarians to other work. France anticipates problems in maintaining a veterinary presence in remote agricultural areas thus jeopardising the veterinary surveillance network (see Annex 6).
A non-vaccination policy requires a finely-tuned disease surveillance system under a centrally controlled state veterinary service, capable of dealing with emergency situations quickly and effectively.
Veterinarians hitherto engaged in vaccination campaigns could be used for this purpose and in the general strengthening of the veterinary services necessary for the realisation of the Single Market.

4.11. The effect of a change of FMD policy on laboratories

At present more than 30 laboratories are manipulating FMD virus in Europe. Fifteen are vaccine production plants and the remainder hold virus for diagnostic or research purposes.

If a pan vaccination policy were adopted the increased requirement for vaccine could be met by expansion of Community production. If a non-vaccination policy were adopted vaccine would be required only for the maintenance of a Community strategic store and for the continuation of export to third countries. Where vaccine plants are presently owned by the State, part of the savings arising from plant closure could be used for the training of staff in FMD diagnosis and the development of better diagnostic techniques.

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Whatever the future control policy there will be a need for research into FMD. It is likely that the number of Community laboratories engaged in such work will be reduced. Those which continue will have to maintain strict security to prevent the escape of FMD virus (see Annex 7).

5. CONCLUSIONS

5.1. A common Community position on FMD is essential to enable the objectives of the Internal Market to be achieved.

5.2. The present policies employed by Member States i.e. vaccination or non-vaccination have been extensively reviewed and studied particularly in respect of the economic aspects.

5.3. Consideration has been given to the possibility of free trade in susceptible species between parts of the Community employing differing policies but this has been rejected because of the risk of introduction of FMD virus into previously non-affected areas. This risk is unacceptable in view of one of the objectives of the Single European Act namely harmonization towards a high health status. A clear choice between the policies of vaccination or non-vaccination for the Community as a whole is therefore necessary.

5.4. From the studies it is clearly apparent that a non-vaccination policy will cost considerably less than a pan-vaccination policy. As more outbreaks have been predicted under a vaccination policy than under one of non-vaccination it is apparent that the adoption of a non-vaccination policy because of the inherent risk of manipulating FMD virus would be safer to the Community as a whole.

5.5. Under a non-vaccination policy it will be necessary to strengthen measures designed to prevent the introduction of infection into the Community and to effectively eliminate any outbreak which appears.

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5.6. The studies on trade matters show that intra-Community trade and imports from non-member countries will be marginally affected by a change from current policies. Where certain imports from vaccinating non-member countries could be jeopardised under a non-vaccination policy, a mutual cessation of vaccination could be coordinated with the country concerned. In a pan-vaccination situation it is certain that exports to many non-member countries will cease. On the other hand in a non-vaccination situation the entire Community, while enjoying the opportunity to trade to many more countries than before, may be regarded as an entity by some countries as far as disease status is concerned. In this case one FMD outbreak could influence the acceptability of exports from the Community at large unless control and eradication measures on a regional basis are accepted internationally.

5.7. Concerning human resources it is likely that most veterinarians, both state employees and those in practice who are currently involved in vaccination campaigns can be re-deployed into state services with the objective of providing a service capable of coping with the additional demands of a non-vaccination policy as well as other activities such as control of Aujeszky's disease and Brucella Melitensis infection.

5.8. In the event of a change to a non-vaccination policy, existing FMD laboratories will have to adapt to a situation where vaccine production is greatly reduced. In this event emphasis must be transferred to training of staff, both field and laboratory, in the diagnosis of FMD and to the development of better diagnostic techniques.

5.9. The Commission is fully convinced that to achieve the aims of the Internal Market the Community must choose between a non-vaccination or a pan-vaccination policy. On the evidence provided by this report, a non-vaccination policy is clearly safer and cheaper, and fulfills the double objective of ensuring a high health standard and the free movement of goods in the Single Market, and is therefore strongly recommended to the Member States. Appropriate proposals to Council will be made with the aim of amending current legislation.

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ANNEXES

TO THE REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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ANNEXES

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FOOT AND MOUTH DISEASE - MEMBER STATES
(1968 - 1988)

COUNTRY	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIUM	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
WEST GERMANY	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GREECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
U.K.	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SPAIN	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
1984 onward : ADNS

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ANNEX 1

TABLE 2

FMD situation in neighbouring countries (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
Norway	P	(1952)
Sweden	P	(1966)
Finland	P	(1959)
DDR	V	(1982)
Poland	P	(1971)
Czechoslovakia	V	(1975)
Austria	P	(1981)
Switzerland	V	(1980)
Yugoslavia	P	(1978)
Albania	P	(1960)
Bulgaria	P(1)	(1973)
USSR	V	O_1, A22
Hungary	V	(1972)
Turkey	V	O_1, A22
Tunisia	V	(1982)
Algeria	V	(1978)
Morocco	V	(1983)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

(1) = vaccination in buffer zone with Turkey

*Source = FAO Yearbook

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ANNEX 1

TABLE 3

FMD situation in non-Member States with trade links to the Community (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
USA	P	(1929)
Canada	P	(1952)
Japan	P	(1908)
Korea (Republic)	P	(1934)
China	V	-
Australia	P	(1971)
New Zealand	P	0000
Brazil	V	O_1A_1C
Argentina	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	0
Chile	P	0
Colombia	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibia	V	(1980)
South Africa	V	(1985)
Swaziland	V	(1988)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

0000 = never recorded

*Source = FAO Yearbook

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SUMMARY ANALYSIS OF VACCINATION PLANS IN MEMBER STATES 1987

ANNEX 1 TABLE 4

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNFB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

NB Denmark, Ireland and United Kingdom do not practice vaccination. Greece vaccinates only in the Evros (Thrace) buffer zone.

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ANNEX 2

THE RISK OF FOOT AND MOUTH DISEASE (FMD) OCCURRING IN THE EUROPEAN COMMUNITY FOLLOWING COMPLETION OF THE INTERNAL MARKET - REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. The Group has been asked to provide an opinion on the extent of the risk of FMD occurring in the Community following 1992, in the event of (a) a vaccination policy* or (b) a non-vaccination policy** being adopted throughout the Community in future.

2. The Group has based this assessment of risk on the epidemiological and laboratory evidence available for the FMD outbreaks which have occurred during the last eleven years (1977-87). First of all it has identified the primary outbreaks in each epizootic to determine, as far as possible, the source of infection.

   Secondly it has looked at the spread of infection (number of SECONDARY outbreaks) which occurred from these outbreaks to determine, as far as possible, and bearing in mind the great variety of factors influencing the rate of secondary spread, how much this has been affected by vaccination and other control measures.

   The eleven years period was chosen in order to include both the beginning and end of the epizootics in question.

PRIMARY OUTBREAKS

3. There appear to have been thirty four (34) primary outbreaks of FMD in eleven Member States during the years 1977-87***

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* Vaccination policy : Systematic annual vaccinations of all cattle. In case of an outbreak stamping out (total or partial) is applied in addition to vaccination and other control measures.

** Non-vaccination policy : A general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. It may be necessary to launch a ring vaccination.

*** The Group does not have detailed records of the circumstances surrounding outbreaks in Spain (whether they were primary or secondary).

FMD INFECTION ORIGINATING OUTSIDE THE COMMUNITY

4. The Group has identified eight (8) primary outbreaks that occurred during the years 1977-87 where the evidence very strongly suggests that the source was outside the Community(1). The majority of these outbreaks seems to be associated with meat coming into the Community. Other outbreaks were probably caused by airborne transmission from outside, e.g. 1 outbreak in Denmark.

The risk associated with the importation of meat changed in 1978 when the Community regulations were amended in that importation of meat on the bone was no longer allowed(2).

FMD INFECTION ORIGINATING WITHIN THE COMMUNITY

5. The Group has examined records from all Member States and it does not appear that there is any endemic source of FMD within the herds and flocks of the Community. Nevertheless there have been some thirteen (13) primary outbreaks which cannot be attributed with any certainty to extra-Community sources. As for the origin of these outbreaks it is difficult to be precise but it is possible that all were, in some way or other, connected either with escapes from laboratories or use of improperly inactivated vaccines.

FMD INFECTION OF UNKNOWN ORIGIN

6. There remain thirteen (13) primary outbreaks, where the origin of infection appears to be completely unknown.

SECONDARY OUTBREAKS

7. TABLE 1 shows that during the period 1977-87 there were a total of 1.923 outbreaks of FMD in the twelve Member States. The data for primary and secondary outbreaks were not available for Spain but in the other eleven Member States there were a total of 1.858 outbreaks of which thirty four (34) are considered to be primaries (paragraphs 3-6 above). This leaves 1.824 secondary outbreaks. The number of primary and secondary outbreaks that occurred in each Member State is shown in TABLE 2.

(1) See Annex 2, Table 3

(2) Community requirements for deboning apply only to certain high risk areas such as South America and Africa.

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8. The amount of spread of disease (the size of the epizootic originating from a primary outbreak) varies considerably. In some cases the primary outbreaks have not given rise to further outbreaks but in others the number of secondary outbreaks has been high, e.g. as high as 153 in Italy during the A_5 epizootic 1984-85, and possibly even higher in Portugal in the early eighties.

9. The amount of spread (the ratio of primary to secondary outbreaks) shown in Table 2 (<u>averages</u>) falls into three groups :

   (a) those outbreaks where there has been virtually no spread (less than three secondary outbreaks per primary).

   (b) those epidemics where there has been limited spread (less than 25 secondary outbreaks per primary).

   (c) those epidemics where there has been extensive spread (more than 25 secondary outbreaks).

   When looking at the above differences several factors should be taken into consideration, i.e. not only the question of vaccination versus non-vaccination strategy, but also differences between individual countries as regards agricultural infrastructure, farm management, herd size, geographical conditions, veterinary service etc. Differences in virulence and transmissibility between field virus strains may also have contributed to the high degree of variation.

10. Where vaccination has been employed to protect the cattle population the secondary outbreaks have occurred mainly (but by no means entirely) in non-vaccinated pig herds. Infected pigs excrete large amounts of virus and these have perpetuated the epizootics, e.g. the type C epizootic in Italy 1985-86.

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Where vaccination has not been used (in four Member States*) seven primary outbreaks have given rise to 28 secondaries. Two of the primary outbreaks occurred in Denmark where there is also a high density of pigs.

PREDICTIONS FOR THE YEARS 1993-2003
(in the present Member States)

11. Whatever the control policy within the Community (vaccination or non-vaccination) there will remain the risk of infection entering the Community from outside. The risk due to the importation of meat (even in large amounts) from outside appears to have declined since the importation rules were made more strict. On the other hand the risk of infection entering the Community from outside is still present, particularly if large numbers of animals are imported. However, the risk from official importation of animals can be reduced by Community regulations. If it is due to illegal importation or airborne infection it is not directly controllable by the Community.

12. The best estimate that the Group can make is that the risk of infection entering the Community in the years 1993-2003 will be no worse and no better than during the last eleven years, i.e. causing some eight (8) primary outbreaks originating from outside the Community. If to those is added a proportion of the 13 outbreaks where the origin was completely unknown (paragraph 6) the risk increases to about twelve-thirteen (12-13) outbreaks. This figure may be an overestimate of the predicted risk in that the restriction on imported meat introduced in 1978 appears to have been effective in preventing the entry of disease.

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* Denmark, Ireland and United Kingdom do not vaccinate. Greece does not vaccinate except in a buffer zone in the department of Evros.

13. The employment of non-vaccination or of vaccination policies within the Community might also make a difference to this estimate in that vaccination may have prevented some primary outbreaks during the period 1977-87. The number of outbreaks thus prevented cannot be assessed. However, experience in areas of the Community where vaccine is not used could suggest that it is small. It should be noted, however, that the areas of the Community, where vaccination is not practised, have the additional advantages of geographical isolation (islands, peninsula) and strict importation controls, as well as advantages of the protection provided by the regular vaccinations in neighbouring countries.

14. In some Member States special risks can be anticipated from cross-frontier contacts, including illegal importations, which are favoured by the long borders of the Community. In any event, if non-vaccination was to become Community policy the Group would recommend that no susceptible animals be imported into the Community without rigorous safeguards (see later).

THE RISK OF INFECTION ORIGINATING INSIDE THE COMMUNITY

15. If vaccination is not used within the Community in the future and on the basis that there is no evidence of a source of FMD within the Community then it is most unlikely that there will be any primary outbreaks additional to those originating from outside the Community (paragraph 12) and a proportion of the 13 primary outbreaks of unknown origin (paragraph 6), provided laboratories which manipulate FMD virus are operated effectively in conditions of high security.

16. If prophylactic vaccination is used within the Community in future then there is a risk that in addition to the outbreaks mentioned in paragraph 15 there will be some outbreaks associated either with the production or the administration of vaccine. If the experiences of the years 1977-87 were repeated in the years 1993-2003 then we could reasonably expect some 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine. However, it is likely that vaccine inactivation techniques will improve and that escapes from laboratories will decline.

In other respects and whatever the origin of the outbreaks, some of them will be likely to be prevented by the use of prophylactic vaccination.

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THE RISK OF SPREAD OCCURRING WITHIN THE COMMUNITY

17. The data contained in TABLE 2 and in paragraphs 7-10 suggest that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. On the basis of the information available, the Group considers that the variation is too great as to make it possible to draw clear conclusions as to the predicted rate of spread in the event of non-vaccination or of vaccination becoming Community policy. In this respect geographical conditions, agricultural infrastructure and veterinary controls in individual countries should be considered as factors of crucial importance.

The Group is particularly aware of the risk of secondary spread in areas of high animal density. If vaccination was discontinued, the risk to cattle would be increased, but would not be significantly altered for pigs, which are not normally vaccinated. In case of an outbreak the epizootic may be restricted in size and duration by applying the methods described in paragraphs 29-32 (see later), and if necessary by launching a ring vaccination.

18. It is apparent, however, that the amount of spread of infection from a primary outbreak, in addition to the virulence and transmissibility of the field virus, is highly dependent on the rigour of the control procedures employed. Where only stamping out is used to control an epizootic and the stamping out procedures are carried out thoroughly and promptly (and accompanied by strict movement controls etc.) the infection may be contained to a small number of secondary outbreaks. Likewise the experience of 1977-87 suggests that whether or not prophylactic vaccination is employed, if control measures (stamping out and movement controls etc.) are not applied strictly, then spread, including particularly spread into the pig population, may be extensive.

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ANNEX 2

TABLE 1

TABLE 1

FMD OUTBREAKS IN MEMBER STATES
1977 - 1987

Country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgium	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	–	–	–	–	–	22	1	–	–	–	–	23
Germany	7*	3	–	2	–	1	–	9**	–	–	6***	28
Greece	3	–	–	–	5	–	–	2	–	–	–	10
Spain	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Ireland	–	–	–	–	–	–	–	–	–	–	–	–
Italy	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
United Kingdom	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** incl. six serological cases found a posteriori
*** 1987/88

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ANNEX 2

TABLE 2

FMD OUTBREAKS IN MEMBER STATES

1977 - 1987

RATE OF SPREAD

MEMBER STATES USING A NON-VACCINATION POLICY

	Primary Outbreaks	Secondary Outbreaks	Ratio
Denmark	2	21	1:21/1:0
Greece	3	7	1:2.3
Ireland	-	-	-
United Kingdom	2	0	1:0

MEMBER STATES USING A VACCINATION POLICY

Belgium	-	-	-
Germany	8	20	1:2.5
Spain	Not known	Not known	Not known
France	2	38	1:19
Italy	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Netherlands	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEX 2

TABLE 3

EIGHT PRIMARY OUTBREAKS OF FMD

where the evidence very strongly suggests that the source was outside the Community

1976/77	Greece	Type A	- similarity with South American types - swill feeding
1976/77	FRG	Type A	- Aachen (similarity with A 24) swill feeding
1977	Italy	Type A	- similarity with South American types, virus isolated from imported meat products/bone marrow
1978	Italy	Type O	- probably associated with imported meat
1979	Italy	Type A	- similarity with South American types
1982	Denmark	Type O	- probably airborne introduction from Eastern Europe
1982	Germany	Type O_1	- related to O_1 Austria 1981
1984	Greece	ASIA-1	- probably airborne introduction

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ANNEX 3

1. THE ECONOMIC ANALYSIS

1.1. The estimates of the costs of vaccination and of outbreaks given in Tables 1 and 2, and the predicted number of outbreaks provided by the Scientific Veterinary Committee in Annex 2 have been used in an economic analysis which shows the possible outcomes given a vaccination or a non-vaccination policy. These outcomes have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case.

1.2. The analysis covers the ten year period 1993-2002. This is considered to be a reasonable period on which to base policy considerations.

2. THE ASSUMPTIONS

2.1. The cost of vaccination

The cost of a Community vaccination programme involving a single annual vaccination of all eligible cattle is estimated at 133 million ECU per annum (Table 1).

2.2. The cost of outbreaks

The cost of an outbreak as provided by Member States varies considerably (Table 2). The most important cause of the variation is the difference in the size of the herds and the value of the livestock slaughtered. The values shown in Table 2 are the average for each Member State but even within Member States there are great variations in herd size from small holdings to large intensive units.

The lowest cost for an outbreak is that provided by the Portuguese authorities. In that country, holdings with less than 5 hectares account for 86 % of all holdings and the outbreak cost quoted is for a holding containing only 4 cattle and 5 pigs. This is not typical of the Community as a whole and so, for the purpose of the economic analysis, the next lowest cost estimate (Greece 32 000 ECU) has been taken as the "low" estimate.

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The highest cost for an outbreak is that provided by the Spanish authorities (470 000 ECU) and is based on the costs recorded during an epidemic in 1983. The average number of cattle on the holdings affected is given as 1 535. However, a scrutiny of the national submissions showed that the Italian authorities estimated costs of 600 000 ECU for total slaughter in very large intensive pig units. Therefore, in order to give proper weight to the risk attached to disease occurring in large intensive units, this figure has been used as the "high" estimate in the analysis.

Excluding Portugal because of its untypical herd structure, the average of costs submitted by Member States is 158 000 ECU and this has been used as the "central" estimate in the analysis.

2.3. The number of outbreaks

The number of outbreaks used in constructing the most likely, worst and best cases are derived from the estimates provided by the Scientific Veterinary Committee (Annex 2).

The Committee estimated that under a non-vaccination policy there are likely to be 13 primary outbreaks over a 10 year period. This figure may be an overestimate of the predicted risk in that the restrictions on imported meat introduced during 1978 appear to have been effective in preventing the entry of disease.

The Committee estimated that under a vaccination policy there would be the 13 primary outbreaks referred to above and an additional 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine in the field. However, the Committee considered that improved techniques ought to lead to a reduction in this risk and for the purpose of the economic analysis the estimate of the number of laboratory or vaccine-related outbreaks has been reduced to 7 over a 10 year period. This, together with the 13 outbreaks from external sources makes a total of 20 primary outbreaks overall during the 10 years under a vaccination policy.

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(2)

The data examined by the Committee suggested that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. Therefore, for this economic analysis, the same estimate has been used for the two alternative policies.

The report of the Committee provides a range for the ratio of primary to secondary outbreaks. The ratios given are reasonably uniform between Member States except for Portugal. The figure given for this country of 1:591 represents a situation before Portugal applied Community control measures. Disregarding the Portuguese experience, the average ratio of primaries to secondaries over the last 10 years is 1 primary to 20 secondaries and this has been taken as the central or most likely estimate. It is possible that this ratio exaggerates the rate of spread as in some of the major epidemics more of the outbreaks may have been primary rather than secondary e.g. the multiple seeding of outbreaks due to improperly inactivated vaccine.

The lowest rate of spread is taken as 1:0, i.e. there are no further outbreaks beyond the primary. This has happened several times over the last 10 years under both policies.

The highest rate of spread - the most pessimistic estimate - is taken as 1:150. This represents the highest ratio of primaries to secondaries recorded in recent epidemics in the intensive livestock areas of northern Italy.

3. THE SCENARIO ANALYSIS

3.1. Three possible outcomes are presented depending on the variations in the number and cost of outbreaks described in paragraphs 2.2 and 2.3 above. They are :

- a central (or most likely) case,
- a best case,
- a worst case.

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3.2. The central case

This gives the most likely outcome. It is based on the cost of an average outbreak (158 000 ECU) (see 2.2. above) and the most likely number of secondary oubreaks (20) arising from a primary (2.3. above).

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
20 secondaries per primary

Total = 13 + (13 x 20) = 273

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Total cost = 273 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 35 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years)
20 primaries
20 secondaries per primary

Total = 20 + (20 x 20) = 420

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Cost of outbreaks = 420 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 54 million ECU.

Cost of vaccination = 133 million ECU per annum. The discounted present value over 10 years (at 5 %) = 1080 million ECU.

Total cost = 54 million ECU + 1080 million ECU = 1134 million ECU.

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3.3. The best case

This gives the most optimistic outcome i.e. outbreaks all occurring on the smallest livestock holdings and no secondary outbreaks arising out of the primaries. A situation where there are no secondary outbreaks is not unusual. It is unlikely however that all outbreaks would occur in the smallest herds.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :

13 primaries

0 secondaries

Total = 13 + (13 x 0) = 13

Expected cost per outbreak (1987 values) = 32000 ECU (see para. 2.2.)

Total cost = 13 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 337000 ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :

20 primaries

0 secondaries

Total = 20 + (20 x 0) = 20

Expected cost per outbreak = 32000 ECU

Cost of outbreaks = 20 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 519000 ECU.

The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 519 000 ECU + 1 080 million ECU = 1 080,5 million ECU

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3.4. The worst case

This gives the worst possible outcome. It is assumed that 150 secondary outbreaks would arise from each and every primary and that the outbreaks would all occur in the largest herds and cost 600000 ECU each.

Such a combination of circumstances is only a remote possibility. A spread of 150 outbreaks from a primary has only occurred once (in Italy) in the last 11 years. Furthermore, even in the most intensive livestock zones only a proportion of the holdings are very large.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
150 secondaries per primary

Total = 13 + (13 x 150) = 1963

Expected cost per outbreak (1987 values) = 600000 ECU

Total cost = 1963 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 955 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :
20 primaries
150 secondaries per primary

Total = 20 + (20 x 150) = 3020

Expected cost per outbreak (1987 values) = 600000 ECU

Cost of outbreaks = 3020 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 1470 million ECU.

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The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 1470 million ECU + 1080 million ECU = 2550 million ECU.

4. SUMMARY

	Present value over 10 years (million ECU)		
	Central case	Best case	Worst case
A. Non Vaccination Policy (Outbreaks only)	35	0,3	995
B. Vaccination Policy (Outbreaks and vaccination)	1134	1080,5	2550

The analysis demonstrates that the most probable outcome during the next 10 years will be for a vaccination policy to cost considerably more than a non-vaccination policy. Even in the most unlikely worst case, i.e. where all outbreaks occur in the very largest livestock units and there is a high rate of spread of infection, the non-vaccination policy is still the most cost-effective.

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ANNEX 3

TABLE 1

THE COST OF AN FMD VACCINATION PROGRAMME

IN THE EUROPEAN COMMUNITY

(annual costs at 1987 prices)

	Cattle vaccinated ('000 head)	Cost per head		National cost	
		National currency	ECU	National currency (millions)	ECU (millions)
Belgium	2 232	54 BFR	1,25	121,0	2,8
Denmark*	2 250	17,90 DKR	2,25	40,3	5,1
Germany	14 560	3,14 DM	1,18	38,6	18,6
Greece*	761	122 DRA	0,74	92,5	0,6
Spain	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Ireland*	6 647	1,50 IRL	1,94	10,0	12,9
Italy	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Netherlands	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
U.K.*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL	133,0 (rounded)

NOTES

(i) Costs are for vaccination of all eligible cattle once a year. (Except for France and Luxembourg where only total cattle population figures were available).

(ii) Costs are as recorded for Member States which currently vaccinate their national herds. Costs are estimated for Member States that do not vaccinate (indicated*).

(iii) Costs include vaccine, vaccination and general administration. They do not include costs of possible side effects.

(iv) Greece vaccinates cattle only in the Evros Valley; France does not vaccinate in Finisterre.

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ANNEX 3

TABLE 2

ESTIMATED COSTS OF A SINGLE OUTBREAK OF FMD

(as provided by Member States at 1987 prices)

The costs include : Compensation
Cleansing, disinfection and associated measures
Loss of production on farm
General administration of outbreak control

They do not include : Ring vaccination

Cost per outbreak (see notes)

	National currency	ECU
Belgium	2 203 055 BFR	50 650
Denmark	1 210 000 DKR	150 239
Germany	100 000 DM	48 309
Greece	5 281 911 DRA	31 914
Spain	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Ireland	164 500 IRL	212 258
Italy	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Netherlands	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
U.K.	70 000 UKL	104 979

NOTES

(1) An outbreak is disease occurring on one farm or holding (OIE definition for European conditions)

(2) The estimates are based as far as possible on actual costs as recorded in recent outbreaks; where there have been no recent outbreaks the costs have been estimated for an average sized herd at risk.

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ANNEX 4

COMMUNITY TRADE PATTERNS IN LIVESTOCK AND CERTAIN LIVESTOCK PRODUCTS

1. Introduction

1.1 FMD Susceptible Species

In examining trade patterns it should be noted that the species susceptible to FMD most involved in trade are bovine animals, swine, sheep and goats.

1.2 Current rules in trade

Given a normal FMD free situation, those Member States which vaccinate against FMD can export fresh meat and meat products of the species mentioned above to Member States which do not vaccinate in so far as the risk of spread of FMD is concerned.

Should an outbreak of FMD occur in any Member State then prohibition areas around the outbreak are set up by way of Directive 85/511/EEC (general control measures) and Directive 64/432/EEC (intra-Community trade) which prevent trade in animals, fresh meat and meat products (other than those heat treated to at least 70°C).

In the case of live bovine animals and swine, trade restrictions exist according to Community law between the vaccinating and non-vaccinating States. Rules are laid down in Article 4(a) of Directive 64/432/EEC and are one of the reasons why this study has been undertaken. At 1 January 1989 national rules on sheep and goats were still in force.

The provisions of Article 4(a) give Member States which are free of FMD for two years and do not vaccinate the right to request isolation and/or quarantine in addition to certain tests to ensure that the animal in question has not been vaccinated and is not a carrier of FMD virus.

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In terms of intra-Community trade the provisions concerning live animals are the most important in projecting the advantages and disadvantages of adopting a pan-vaccination or a non-vaccination policy.

2. Intra-Community trade[1]

2.1 Bovine animals

2.1.1 Calves (up to 250 kgs)

In 1987 some two million calves were traded between Member States. The principal exporters and importers were :

1. France (838 000) to Italy (689 000), Netherlands (65 000) and Germany (64 000)
2. UK (376 000) to France (221 000), Netherlands (133 000) and Italy (6 000)
3. Netherlands (332 000) to Germany (102 000), Belgium/Luxembourg (99 000) and France (88 000).

Comment

In either a non-vaccination or pan-vaccination situation trade in calves is unlikely to alter to any great extent. UK appears to have an exportable excess while trade to Denmark and Ireland is only likely to develop if cow numbers there are cut back sharply.

2.1.2 Adult cattle for fattening, production and slaughter

In 1987 1,15 million adult cattle were traded between Member States. The principal exporters and importers were :

1. France (795 000) to Italy (709 000), Germany (34 000) and Belgium/Luxembourg (21 000)

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(1) Source of data is Nimexe as quoted in Eurostat for the year 1987. Figures are to the nearest thousand in head.

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2. Ireland (152 000) to UK (151 000) and Portugal (1 000)
3. Germany (117 000) to Netherlands (64 000), Italy (37 000) and Belgium/Luxembourg (11 000).

Comment

In either a non-vaccination or pan-vaccination situation it is unlikely that trade patterns will alter as Denmark, Ireland and UK are self sufficient with Ireland being a substantial exporter. However, trade in slaughter cattle to Denmark and UK could develop due to their proximity to States such as Germany, France and the Netherlands.

2.1.3 Pure-bred breeding cattle

In 1987 38 000 of this category moved in intra-Community trade. The principal exporters and importers were :

1. Germany (22 000) to Spain (13 000), Portugal (5 000) and Italy (2 000).
2. U.K. (6 000) to Portugal (3 000) and Ireland (3 000).
3. France (5 000) to Spain (1 000), Portugal (1 000) and Italy (1 000).

NB Exports to Spain and Portugal during 1987 were supported by export refunds.

Comment

In either situation a change in these trade patterns is unlikely as the demand for these cattle is limited and the unit value is high. Because of this high unit value, quarantine and testing costs under the present regime are relatively easily absorbed. These would be eliminated on changing to a uniform policy and a marginal increase in trade could be expected. However this could be counterbalanced by an increase in trade in semen and embryos.

2.2 Swine

Trade in pigs at present is influenced by the presence or absence of four virus diseases, namely FMD, Classical Swine Fever (CSF), African Swine Fever (ASF) and Swine Vesicular Disease (SVD). Thus Member States which are officially free of CSF may prohibit entry of pigs and pigmeat into their territories from States not of the same status.

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Concerning ASF, exports from Spain (partly as and from 14 May 1989), Portugal and Sardinia are prohibited except for certain heat-treated products. Rules for SVD allow Member States not vaccinating against FMD and free of FMD for two years to require a negative serological test for SVD on breeding and production pigs before entry into their territories.

2.2.1 Pigs for Production (up to 50 kgs) (Weaner pigs)

In 1987 a total of 2,5 million of such pigs were traded between Member States. The principal exporters and importers were :

1. Germany (1 371 000) to Belgium/Luxembourg (744 000), Spain (332 000) and France (275 000)
2. France (423 000) to Spain (225 000), Belgium/Luxembourg (145 000) and Italy (52 000)
3. Netherlands (681 000) to Italy (308 000), Spain (184 000) and Belgium/Luxembourg (128 000).

2.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total traded in 1987 was 4,233 million. The principal exporters and importers were :

1. Netherlands (2 990 000) to Germany (924 000), Italy (724 000) and France (710 000).
2. Belgium/Luxembourg (958 000) to France (558 000) and Italy (326 000).
3. France (111 000) to Italy (70 000) and Belgium/Luxembourg (25 000).

2.2.3 Adult sows (not pure bred) (Mainly sows for slaughter)

In 1987 a total of 337 000 sows in this category were traded between Member States. The principal exporters and importers were :

1. Netherlands (307 000) to Belgium/Luxembourg (196 000) and Germany (110 000).
2. France (23 000) to Belgium/Luxembourg (22 000).

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2.2.4 Pure bred pigs for breeding

In 1987 some 19 000 pure bred pigs were traded. The principal exporters and importers were :

1. U.K. (9 000) to Spain (5 000), Ireland (1 000) and Germany (1 000).
2. Netherlands (3 000) to Spain (1 000) and Belgium/Luxembourg (1 000).
3. France (2 000) to Spain (2 000).

Comment on trade in pigs

As stated above, three diseases apart from FMD can influence the trade in pigs. It is therefore difficult to predict altered trade flows in the immediate future. Because of current self sufficiency it is unlikely that a trade into Denmark, Ireland and UK will develop to any great extent.

2.3. Sheep and goats

At 1 January 1989 no Community rules concerning trade in sheep and goats existed. Therefore national rules apply. Apart from FMD, Brucella melitensis would appear to be a disease which militates against trade from the Southern Mediterranean States to the Northern ones.

2.3.1 Sheep and goats other than pure breds

A total of 1,77 million sheep and goats were traded between Member States in 1987. The principal exporters and importers were :

1. France (457 000) to Italy (272 000) and Spain (183 000).
2. UK (392 000) to France (295 000) and Ireland (85 000).
3. Netherlands (336 000) to France (198 000) and Belgium/Luxembourg (134 000).
4. Germany (298 000) to Belgium/Luxembourg (128 000) and Italy (88 000).

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2.3.2 Pure bred breeding sheep and goats

A total of 17 000 sheep and goats in this category were traded in 1987. Principal exporters and importers were :

1. U.K. (7 400) to Ireland (5 000) and France (2 400).
2. Portugal (4 500) to Spain (2 500) and UK (1 000).
3. Spain (2 000) to France (1 000) and UK (700).

Comment

Trade in each category appears to be mainly from north to south probably a reflection of Brucella requirements. Present trends would seem to be set to continue. There does not seem to be an opening for trade to Denmark, Ireland or U.K. due to self sufficiencies and price differentials.

3. Trade from third countries

Trade in fresh meat and meat products :

This takes place from approximately 50 third countries into the Community. While, in the event of a change to non-vaccination, the Community is unlikely to demand that meat originates from non-vaccinated third country animals, two problem areas can be foreseen. Firstly the Latin American countries (Argentina, Brazil, Paraguay and Uruguay) where FMD flares to epizootic proportions, control FMD partly by vaccination. Meat for the Community from these countries is prepared under a strict set of conditions including maturation and deboning. It may be that a further tightening of conditions will be considered necessary especially in the case of offals. The second problem is Southern Africa - South Africa (including Namibia), Swaziland, Botswana and Zimbabwe. Here we find that current legislation(1) requires non vaccination of cattle for 12 months prior to slaughter plus freedom from FMD for the same period. However the animal health decisions for these countries are not binding on all Member States at present. In the near future decisions applicable to all Member States will be necessary.

(1) Directive 72/462/EEC Articles 14 and 15.

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On the whole therefore shipments of meat and products to the Community should not suffer in the event of a change in Community vaccination policies.

Trade in live animals :

This trade may take place from 21 countries as far as cattle and pigs are concerned, the trade in sheep and goats being subject to national rules. Bovine animals entering Member States which routinely vaccinate must be vaccinated prior to entry.

3.1 Bovine animals

3.1.1 Calves (up to 250 kgs)

In 1987 a total of 272 000 calves were imported into the Community. The principal senders and receiving Member States were :

1. Poland (219 000) to Italy (149,000) and Germany (61 000).
2. Czeckoslovakia (27 000) to Italy (18 000) and Germany (9 000).

3.1.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 350 000 cattle in this category were imported into the Community. The principal senders and receiving Member States were :

1. Yugoslavia (170 000) to Italy (111 000) and Greece (59 000).
2. Poland (80 000) to Italy (75 000) and Greece (4 000).
3. Austria (56 000) to Italy (38 000) and Germany (16 000)

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3.1.3 Pure-bred breeding cattle

In 1987 some 44 000 of these cattle were imported into the Community. The principal senders and receiving Member States were :

1. Austria (23 000) to Italy (18 000) and Spain (4 000).
2. Switzerland (15 000) to Italy (14 000).

Comment

As can be noted from the above lists the main supplies of cattle are destined for Italy and are obtained largely from third countries which at present do not systematically vaccinate, the exceptions being Czeckoslovakia and Switzerland. In the event that neither of these countries abandon vaccination then a small shortfall in calves (27,000) and breeding animals (15,000) will result. This should pose little difficulty in terms of alternate suppliers.

A policy change to pan-vaccination would, it is thought, cause little change to the import flows into Denmark, Ireland or U.K. A change to non-vaccination would mean non-acceptance of vaccinated animals and the supply of store cattle from some Eastern European countries e.g. DDR, Czeckoslovakia and Switzerland might cease depending on those countries' willingness also to abandon vaccination. On the other hand countries like Poland and Yugoslavia which do not vaccinate systematically would be relieved of their responsibility to apply pre-export vaccination.

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3.2 Swine

3.2.1 Pigs for production (up to 50 kg) weaner pigs

In 1987 a total of 13 566 weaner pigs were imported into the Community principally to :

Italy (12 245) from Czeckoslovakia (11 601).

3.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total imported in 1987 was 37 935 principally into :

Belgium/Luxembourg (37 590) from DDR (37 425)
Spain (241) from Switzerland (241).

3.2.3 Adult sows (not pure bred) (mainly sows for slaughter)

Only 7 in this category were imported in 1987.

3.2.4 Pure bred pigs for breeding

A total of 428 imported in 1987 principally into :

Netherlands (122) from Canada (122)
Greece (89) from Sweden (40) and Austria (34)
Germany (67) from Hungary (30) and Austria (22).

Comment on imports of pigs

In comparison with Intra-Community trade (7 million in 1987) imports from third countries of 52 000 pigs are insignificant. No consequences of a change in vaccination policy can be foreseen.

3.3 Sheep and goats

3.3.1 Sheep and goats other than pure breds

In 1987 2 043 000 head were imported principally into :

1. Italy (1 492 000) from Hungary (865 000), Poland (278 000) and Bulgaria (266 000)
2. Germany (286 000) from Poland (201 000) and Hungary (85 000)
3. France (163 000) from Poland (94 000) and Hungary (69 000)
4. Greece (89 000) from Hungary (50 000) and Bulgaria (35 000).

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3.3.2 Pure bred breeding sheep and goats

In 1987 5 102 animals in this category were imported principally into :

1. United Kingdom from New Zealand (3 222), Australia (294) and Canada (197)
2. France (728) from Canada (343), Australia (222) and Algeria (117)
3. Italy (195) from Austria (102) and Switzerland (92).

Comment

The main suppliers of sheep and goats to the Community do not vaccinate systematically against FMD and therefore existing patterns should be maintained. Total imports are limited by constraint agreements.

4. Trade to third countries

Current rules in trade

Animal health rules governing exports of FMD susceptible animals and their products are not entirely uniform. This is because receiving third countries, having particular attitudes and positions regarding FMD, lay down their own import rules. However it can be noted that most third countries which are free of FMD and do not vaccinate will not freely accept animals and their products from countries which vaccinate. The prime example of this practice is U.S.A. which maintains an official listing (often referred to as the "White List") of countries which it considers free of FMD. A "knock-on" effect ensues when countries on the list emulate or exceed U.S.A. rules for unclear reasons. This problem will be discussed later.

4.1 Meat and meat products

Meat and meat products which are heat treated to at least 70°C will satisfy most veterinary regulations as regards FMD virus survival. The statistics which follow are for those meats and products which are not heat treated.

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4.1.1 Meat of bovine animals, fresh, chilled, frozen

In 1987 a total of 692 791 tonnes in this category was exported principally by :

1. France (215 897) to USSR (39 400), Iran (37 156), Egypt (19 682), Brasil (14 008), Saudi Arabia (12 034), Angola (11 021) and Iraq (10 478)
2. Ireland (159 560) to Egypt (43 904), Iran (23 105), Iraq (18 549), Yugoslavia (14 014) and South Africa (13 122)
3. Germany (119 637) to Egypt (46 188), Yugoslavia (22 361) and Iran (13 102)
4. Italy (60 510) to Brazil (16 711), Peru (9 625), Saudi Arabia (9 564) and Libya (8 119)
5. Netherlands (54 389) to Zaire (10 753), Yugoslavia (10 305) and Egypt (6 504).

Tonnage exported by other Member States to various countries were : Denmark (38 076), UK (37 341), Belgium (5 928), Spain (1 297), Greece (136) and Portugal (22).

4.1.2 Preparations of uncooked bovine meat, offals and mixtures

In 1987 some 10 006 tonnes of such preparations were exported principally by :

1. Denmark (7 884) to Saudi Arabia (2 432), Bulgaria (1 252), United Arab Emirates (779) and Bahrain (722)
2. Italy (1 528) to Saudi Arabia (1 084) and Jordan (239).

4.1.3 Offals of bovine animals

In 1987 some 12 048 tonnes of offals were exported principally by :

1. France (3 295) to Ivory Coast (1 018), Guadeloupe (465), Martinique (403), Gabon (340) and Israel (299)
2. Ireland (2 550) to Japan (1 529), Israel (346), Egypt (295) and Trinidad/Tobago (154)
3. Germany (2 199) to Austria (1 111), Egypt (185) and Ivory Coast (185)
4. Netherlands (2 152) to Israel (683), Zaire (251) and Yugoslavia (163).

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4.1.4 Unrendered fats of bovine animals for food

In 1987 a total of 27 179 tonnes in this category was exported principally by :

1. Germany (15 782) to Iran (6 369), Cuba (2 076), Nigeria (1 813) and Burundi (1 511)
2. Denmark (7 300) to Rwanda (1 869), Kenya (1 681) and Tanzania (1 500).

4.1.5 Stomachs, Intestines, Bladders of animals (all food animals)

In 1987 a total of 22 868 tonnes were exported principally by :

1. Germany (8 698) to U.S.A. (2 573), Austria (1 211) and Brazil (1 006)
2. Denmark (3,676) to U.S.A. (1,788), Norway (493), Finland (386) and D.D.R. (167)
3. Netherlands (2 910) to U.S.A. (675), Brazil (433), Yugoslavia (247), Switzerland (246) and Finland (239)
4. France (2 582) to South Africa (612), Hungary (334), Sweden (172), Taiwan (152), Morocco (160) and Poland (144).

4.2 Pig meat

4.2.1 Carcases and half carcases, fresh, chilled or frozen

In 1987 2 720 tonnes of pig meat in this category was exported to third countries. Principal exporters were :

1. Spain (1 572) to Canary Isles (1 455) and Andorra (74)
2. France (455) to Canary Isles (142), Seychelles (85) and Reunion (66)
3. Belgium (311) to Canary Isles (287).

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4.2.2 Pig meat in cuts

In 1987 197 921 tonnes was exported principally by :

1. Denmark (164 272) to Japan (94 519), U.S.A. (54 158) and Canada (9 768)
2. France (9 512) to Reunion (4 415) and Martinique (1 093)
3. Belgium (6 537) to Czeckoslovakia (4 026) and Dutch Antilles (676).

4.2.3 Pig meat salted, brined, dried or smoked

In 1987 9 637 tonnes of this category mainly bacon was exported principally by :

1. Spain (3 007) to Canary Isles (2 379) and Andorra (315)
2. Denmark (3,000) to Sweden (1 155), U.S.A. (613), Greenland (196) and Singapore (194)
3. France (1 409) to Guadeloupe (483), Martinique (213) and Reunion (213).

4.2.4 Pig fat (and poultry fat) fresh, chilled and frozen

In 1987 2 085 tonnes were exported principally by :

1. Denmark (1 488) to Norway (907) and Cyprus (177)
2. France (242) to Reunion (176).

4.2.5 Sausages, puddings and the like

In 1987 65 425 tonnes were exported principally by :

1. Spain (28 414) to Canary Isles (23,881), Andorra (454) and Lebanon (263)
2. Denmark (16 742) to U.S.A. (4 027), Canary Isles (3 505), Singapore (1 073) and Saudi Arabia (1 006)
3. France (6 910) to Reunion (1 279), Guadeloupe (1 278) and Martinique (1 170)
4. Italy (4 666) to Switzerland (2 605) and Lebanon (463).

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4.2.6 Pork offals

In 1987 35 725 tonnes of pork offals were exported principally by :

1. Denmark (14 674) to Sweden (7 572), Japan (3 354) and Liberia (1 229)
2. Netherlands (8 481) to Sweden (2 243), Ivory Coast (2 167) and Cameroon (960)
3. Germany (4 440) to Sweden (3 970) and Switzerland (243).

4.3 Sheep and goat meat, fresh, chilled, frozen etc.

Only one classification exists for statistical purposes.

4.3.1 All sheep and goat meat

In 1987 a total of 5 169 tonnes was exported principally by :

1. United Kingdom (2 475) to Switzerland (2 172)
2. Italy (906) to Libya (906)
3. France (678) to Switzerland (312) and Reunion (71).

Comment on exports of fresh meat and offal

As intervention stocks decline, exports of beef to countries such as USSR and Brazil are likely to diminish. In the event of a pan-vaccination policy exports of beef offals from Ireland to Japan and some other countries - total of 2 550 tonnes in 1987 - would be lost.

In a similar situation Denmark would lose an export trade in pork cuts, partly treated pigmeat, pig fat, offals and sausages, puddings and the like which in 1987 totalled 200 000 tonnes mainly to "White List" adherants. However this export trade is marginal in comparison to total trade and it is believed that this production can be accommodated within the Community.

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4.4 Bovine animals

4.4.1 Calves (up to 250 kgs)

In 1987 the total exported from the Community as a whole was 3 309. Principal exporters were :

France (3 299) to Switzerland (3 031) and Andorra (206).

4.4.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 77 527 was exported. Principal exporters were :

1. Ireland (64 950) to Libya (30 149), Egypt (29 577) and Malta (4 200)
2. France (7 807) to Tunisia (1 684), Saudi Arabia (1 504) and Algeria (677)
3. Germany (2 324) to Saudi Arabia (2 119)
4. Spain (2 298) to Andorra (2 260).

4.4.3 Pure bred breeding cattle

In 1987 a total of 87 119 was exported. Principal exporters were :

1. Germany (43 837) to Turkey (5 357), USSR (4 893), Morocco (4 958), Libya (3 910), Kuwait (3 661), Syria (2 267), Iraq (2 164), Iran (2 024), Jordan (2 157) and Saudi Arabia (1 026)
2. France (21 390) to Algeria (18 367), Morocco (1 406) and Canary Isles (1 045)
3. Netherlands (16 647) to Algeria (5 950), Iran (5 129), Egypt (3 316) and Jordan (836)
4. Denmark (4 307) to Egypt (2 490), USSR (1 372) and United Arab Emirates (365).

4.5 Swine

As mentioned earlier, diseases other than FMD may cause restrictions in trade.

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4.5.1 Pigs for production (up to 50 kg) Weaner pigs

In 1987 a total of 2 633 was exported. Principal exporters were :

1. Netherlands (1 188) to Philippines (579) and Faroe Islands (516)
2. Belgium (1 067) to Philippines (1 052).

4.5.2 Pigs 50 kg or over (mainly slaughter pigs)

In 1987 a total of 4 390 was exported. Principal exporter was :

France (3 502) to Canary Isles (1 891) and Switzerland (1 000).

4.5.3 Adult sows (not pure bred) (mainly sows for slaughter)

In 1987 a total of 86 was exported from Netherlands to D.D.R.

4.5.4 Pure bred pigs for breeding

In 1987 a total of 3 444 was exported. Principal exporters were :

1. U.K. (2 224) to Thailand (681), Japan (537), Philippines (176), Nigeria (178), Kenya (169), and South Korea (111)
2. Denmark (338) to Thailand (159) and South Korea (101)
3. France (285) to Canary Isles (194) and Seychelles (40).

4.6 Sheep and goats

4.6.1 Sheep and goats other than pure breds

In 1987 some 54 576 animals were exported principally by :

1. Spain (30 481) to Andorra (20 405) and Ceuta (10 07[illegible])
2. Greece (21 900) to Turkey (21 900).

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4.6.2 Pure bred breeding sheep and goats

In 1987 a total of 5 940 in this group was exported. Principal exporters were :

1. France (4 672) to Algeria (3 886), China (233) and Columbia (130)
2. Germany (723) to Poland (413) and Austria (216).

Comment on live animal exports

Exports of cattle for production/slaughter and for breeding purposes are significant. Destination countries as far as is known vaccinate systematically. Exports from Member States which do not vaccinate such as Denmark and Ireland do not appear to be affected.

Exports of pigs are not significant except perhaps for pure breds where U.K. and Denmark have favoured positions mainly in trade to the Far East. As previously mentioned diseases such as classical and African swine fevers may complicate export patterns.

Exports of sheep and goats are not significant in the context of a 2 million head intra-Community trade.

4.7 Summary and conclusions

4.7.1 Intra-Community trade

(a) Meat and meat products

In either a pan-vaccination or non-vaccination situation no obstacle can be foreseen in this trade in respect of FMD.

(b) Bovine animals

In either situation the trade in calves should remain stable. There is a possibility of trade in store (production) and slaughter animals to Denmark and U.K. Trade in pure bred cattle is unlikely to change significantly.

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(c) Pigs

Trade to some extent is influenced by diseases other than FMD. In either a pan-vaccination or non-vaccination it is difficult to foresee any great change in trading patterns.

(d) Sheep and goats

Present trends seem set to continue to be greatly influenced by Brucella melitensis requirements.

4.7.2 Trade from third countries

(a) Meat and meat products

Little change is foreseen except perhaps a tightening up on offal imports from FMD infected countries. Uniform decisions need to be taken in respect of countries in South America and Southern Africa. Account needs to be taken of the "non-comminglement" principle which is applied by U.S.A. and other "White list" countries whereby establishments preparing meat and meat products for those countries may not receive and handle meat from countries not on the "White list".

(b) Bovine animals

Overall, in a non-vaccination situation a small short fall in calves (27 000) and breeding animals (15 000) would result if Czechoslovakia and switzerland do not abandon vaccination. On the other hand Poland and Yugoslavia will be relieved of pre-export vaccination requirements.

(c) Pigs

In comparison with intra-Community trade of 7,0 million pigs the import of 52 000 animals in 1987 is not significant particularly taking into account the overall self sufficiency in the Community pig sector.

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(d) Sheep and goats

The main suppliers to the Community do not vaccinate systematically. Existing trade patterns should be maintained in either situation.

4.7.3 Trade to third countries

(a) Meat and meat products

Several situations must be examined. Firstly, existing trade is governed by many factors such as quotas (e.g. U.S.A. and Canada), export restitution (from EEC), established trading links (e.g. Denmark to Scandanavian countries) and finally animal health rules (e.g. "White list" countries).

Secondly, the pan-vaccination solution could precipitate a loss of export markets at least in fresh meat for Denmark, Ireland and to a lesser extent U.K. who export to "White list" countries such as U.S.A., Canada and Japan. This trade acts as a buffer to cyclical production trends in the Community.

Thirdly, a change to non-vaccination could result in an expansion of access for the Community as a whole to "White list" countries. However the extent of such expansion may be limited by economic restrictions. In that event Member States currently exporting substantial volumes of meat may find themselves sharing a particular market with Member States newly eligible to penetrate that market.

A fourth perhaps hypothetical situation must be recorded in relation to a Community "entity" situation of FMD freedom. Here vaccination has been withdrawn and the Community is internationally recognised as free of FMD. Will the Community status be lost in the event of an outbreak of FMD ? The answer will depend on the perceived effectiveness of regionalisation coupled with disease surveillance measures.

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The principle of regionalisation is one which the Community puts into action in the event of an outbreak of FMD or other epizootic disease for its own internal protection. For example the measures include stamping out in the infected holding, the setting-up of protection and surveillance zones, a standstill on animal movements and other measures as laid down in Directive 85/511/EEC.

From past experiences it is difficult to foresee some third countries accepting this principle unless they conclude that the controls are adequate to prevent the diffusion of FMD virus to the remainder of the Community, thus allowing them to continue to accept product.

On the other hand it is on record that in a FMD outbreak situation in U.K. (Isle of Wight 1981) the free status of Northern Ireland was maintained. However it must be recognised that the presence of a physical barrier was a factor in this case.

Conversely the Community has accepted the principle of regionalisation not alone internally, but also in third countries such as Bulgaria, South America, Southern Africa and lately in Canada where the Okanagan Valley is affected by blue tongue, and has gone to considerable lengths to allow regionalisation in USA in respect of blue tongue.

(b) Live animals

The principles enumerated for meat and meat products apply, in the main, also to live animals.

In a pan-vaccination situation many export markets in the pure bred sector will be lost. However it should be noted that some "White list" countries will accept unvaccinated animals from vaccinating countries albeit through an extensive and expensive quarantine system.

In a non-vaccination situation all Member States should be able to export freely to all third countries but of course other requirements may restrict this possibility.

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4.7.4 Suggested action

In view of the uncertainty of the reaction of third country trading partners to the development of an FMD free Community it may be wise to have informal discussions at the technical (veterinary) level to (a) inform them of the Community's intention and (b) to sound out their attitude to regionalisation. It is known that several important third countries are interested in the principle of regionalisation in order that they themselves know in advance the Community approach to them should they become infected.

It is suggested that this line of action be adopted without delay.

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ANNEX 5

MEASURES FOR THE PREVENTION OF FMD POST 1992

- REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. THE PREVENTION OF PRIMARY OUTBREAKS POST 1992

In the event of a pan-vaccination policy being adopted by the Community the measures for prevention and control of FMD are largely covered by the Council Directive 85/511/EEC.

In the event of the Community adopting a non-vaccination policy for controlling FMD the following RISK FACTORS/SAFEGUARDS must be considered to prevent or reduce primary outbreaks of the disease:

2. ANIMAL IMPORTATIONS

Although there is no recent evidence of imported live animals causing primary outbreaks in the Community any importation of livestock presents a risk. The Group therefore recommends that :

(a) importation be limited to non-vaccinated (antibody-free) animals. Imported animals should be isolated in quarantine and tested (probang and serum testing) unless they originate from an FMD free country which applies control measures equivalent to those applied by the Community.

(b) special precautions be taken to prevent the mixing of livestock in summer grazing at the borders of the Community.

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3. AIRBORNE SPREAD FROM NEIGHBOURING COUNTRIES

There is circumstantial evidence that airborne virus has caused infection to cross the eastern border of the Community. Airborne virus remains viable in cool humid conditions and is thus a greater threat in Northern Europe. The risks related to airborne infection can be reduced by :

(a) international surveillance providing information about outbreaks of disease in neighbouring countries e.g. through the OIE and CEC or bilateral communications. The Group recommends that such information systems should be strengthened.

(b) using meteorological information to provide estimates of the range and direction of virus travel. Such estimates have been used in the UK and France, and should also be applied elsewhere. The computer software is commercially available.

(c) where necessary, support from the Community of vaccination programmes in neighbouring countries and evaluation of their efficiency by regular serological surveys.

(d) collaboration with neighbouring countries to assist them in achieving eradication of FMD.

(e) providing information for Community farmers and field veterinarians on the importance of strict vigilance and prompt reporting.

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4. THE MOVEMENT OF PEOPLE FOR TRADE OR TOURISM

People moving across Community borders may carry FMD virus contaminated material. Tourists who camp in the countryside outside the Community may thus provide a risk by carrying virus on their clothes and belongings. It is recommended that :

(a) the Community should seek to educate regular migrants across Community borders of the risk of transmitting virus in food etc. Information should be clearly visible at frontier stations and airports and tourists should not be allowed to bring back any meat or other animal products.

(b) tourists should be made aware of the danger of disposal of meat and other animal products in rural areas.

5. THE MOVEMENT OF VEHICLES

Vehicles crossing Community frontiers provide a risk of carrying virus either on soil or dirt on the outside of the vehicle or on clothing and other materials carried inside. It is recommended that :

the Community should consider the possibility of setting up emergency washing facilities at Community frontiers when disease is reported in a neighbouring country.

6. THE IMPORTATION OF MEAT AND OTHER ANIMAL PRODUCTS

Meat and certain animal products (milk, hides, wool, offals, biological products and materials, including veterinary vaccines and other pharmaceutical products and feedstuffs) present a risk of infection, but it is recognized that these products could be imported under specific conditions.

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Likewise biological collections (e.g. for scientific use) from foreign countries present a risk.

It is recommended that Community regulations for the importation of the above products should be reviewed. A ban should be placed on importation of meat and other animal products by private individuals(1).

7. THE IMPORTATION OF SEMEN AND EMBRYOS

The importation of semen and embryos presents a risk. To this end reference is made to the rules already adopted by the Council for importation of semen. Similar rules for importation of embryos are currently under consideration.

8. THE STORAGE AND MANIPULATION OF FMD VIRUS IN COMMUNITY LABORATORIES AND VACCINE PRODUCTION PLANTS

It is recognised that even if the Community pursues a non-vaccination policy there will still be a need for FMD diagnostic facilities, for research into FMD, and for vaccine production both for emergency vaccine banks and for export. Being aware, however, that research laboratories and vaccine plants have given rise to a number of FMD outbreaks in the Community in the recent past, the Group recommends :

(a) that the number of laboratories and vaccine plants holding FMD virus be strictly controlled.

(b) that laboratories and vaccine plants conform with FAO recommended minimum standards for laboratories working with FMD virus in vitro and in vivo : Report of the twenty-sixth Session of the European Commission for the Control of Foot-and-Mouth Disease, FAO, Rome, 23 - 26 april, 1985.

(1) Special attention should be paid to the so-called "free port" situation and to problems of control and disposal of "international swill".

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(c) that all facilities holding FMD virus are examined at regular intervals by a Community inspectorate.

(d) that safety and potency of FMD vaccines for emergency use be carefully controlled. In this respect reference is made to the functions of the planned EEC Coordinating Institute for FMD vaccines.

9. THE USE OF FMD VACCINES

There may be occasions when trading partners require livestock from the Community to be vaccinated against FMD before export occurs. To meet this need the Group recommends that :

(a) vaccination should be carried out either at the place of destination or in a Community approved export quarantine or on the means of transport on departure.

(b) special precautions should be taken to prevent re-entry of animals thus vaccinated.

In case of an outbreak emergency vaccination may be required in specified territorial areas. Since such an emergency vaccination would be applied in a non-immune animal population two vaccinations are recommended at an interval of 3-4 weeks(1).

10. THE PREVENTION OF SECONDARY OUTBREAKS POST 1992

The necessary measures to be taken to limit the number of secondary outbreaks in a non-vaccination situation are in principle contained in the Council Directive 85/511/EEC, in particular Article 5, paragraph a.

(1) Recourse to emergency vaccination is only foreseen in exceptional circumstances where an epizootic threatens to become extensive. Such a decision should only be taken at Community level and should take into account identification of vaccinated animals and related matters.

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As far as the required epizootiological investigations are concerned reference is made to the FAO guidelines :
"Methodology for investigating the origin of infection in Foot-and-Mouth disease (FMD) outbreaks".
(REF. : Report of the Twenty-seventh Session of the European Commission for the Control of Foot-and-Mouth Disease, Rome, 21-24 april, 1987, 111-120).

The action to be taken would be facilitated by establishing skilled task forces at a local or regional level. They would be responsible for :

(a) the slaughter and disposal of animals (special attention should be paid to the practical problems associated with the disposal of large numbers of animals in a short time span).

(b) the cleansing and disinfection of infected premises.

(c) the disposal of waste products.

(d) the establishment and maintenance of disinfection of farms and surrounding areas.

(e) check-points.

(f) the posting of warning notices.

(g) the disinfection of any essential vehicles leaving or entering.

(h) the prevention of entry or exit of unauthorized personnel.

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In addition epidemiological teams should be created to support the local or regional authorities. They would include veterinary virologists and technicians from the national FMD laboratory, and meteorologists familiar with the operation of computer systems for analyzing and predicting the airborne spread of FMD. In the event of an outbreak the epidemiological team would be sent to the infected premises without delay. It would be responsible for the following :

(a) determination of the extent and pattern of disease on the premises

(b) determining the source of infection

(c) assessing the probability of secondary spread

(d) advising the veterinarian in charge of control procedures on risks to other premises

The team should be equipped with specialist vehicles and radiophones.

FMD outbreaks may become increasingly rare in the Community and regular training programmes should be undertaken to maintain skills in FMD diagnostic and control procedures. These training programmes could be supervised by a small cadre of FMD experts at the Community level. The services of this cadre should be made available to national authorities in the event of an outbreak of the disease.

11. RISK AND PREVENTION DURING THE TRANSITIONAL PERIOD

In the event of a change to a non-vaccination policy, during the transition period the proportion of vaccinated animals will be in decline while that of susceptible animals will be on the increase.

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After cessation of vaccination, an increasing proportion of susceptible animals will be in contact with the residual vaccinated animals, and thus will act as sentinels. If, during a period of about one year after discontinuation of vaccination no outbreaks have occurred, the risk of the virus being present in the bovine population can be considered to be negligible.

During a time period of one year after the implementation of a non-vaccination policy the hitherto non-vaccinating Member States should continue with serological and probang testing of live animals before importing from previously-vaccinating Member States, to exclude those animals which are seropositive for FMD or which carry FMD virus.

These tests are not necessary for movements between previously-vaccinating Member States. However, existing rules relating to FMD-freedom of the holding and area should be maintained for movements between all Member States. The requirement for pre-movement vacination would, of course, no longer apply.

The proposal for a one year transitional period is based on the following :

(a) an increasingly short lifespan for cattle has been observed in the last decade, leading to a rapidly-decreasing proportion of repeatedly-vaccinated animals which are usually identifiable.

(b) maternally-acquired antibodies in young animals are completely lost within one year.

(c) the majority of animals, vaccinated only once and destined for fattening will be eliminated from the market by the end of the year following the last vaccination campaign.

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ANNEX 6

FORESEEABLE EFFECTS OF A CESSATION OF FMD VACCINATION ON THE EMPLOYMENT OF VETERINARIANS

The situation remains essentially variable from country to country, being dictated by stocking density and by whether a system of subsidies to maintain a minimum of veterinary activity is already in operation.

The situation is complicated by the fact that in some Member States (BE) vaccination is carried out by private practitioners, in others by the State services (LUX, PO) and in others by both (DE, ES, FR, IT, NL).

Some comments have been received from Member States. Only four (BE, DE, FR, NL) predicted job losses, these being mainly in the private sector, where it is estimated that about 10% of practice income is currently derived from vaccination. A total of 1 480 jobs lost out of 22 280 veterinarians currently involved in vaccination is estimated in these Member States.

The other Member States have stated that staff could be re-deployed, particularly in the State services, to other disease eradication projects. Only France suggested that the job losses could jeopardise routine disease surveillance, this affecting about 250 veterinarians in remote areas.

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ANNEX 7

FORESEEABLE EFFECTS OF A CHANGE IN POLICY ON LABORATORIES MANIPULATING FMD VIRUS

1. EXISTING COMMUNITY LEGISLATION

1.1. Diagnosis and vaccines

Directive 85/511/EEC on the control of Foot-and-Mouth disease (FDM) in the Community which came into effect on 1 January 1987 required the Commission to propose to Council

- A Reference Laboratory for the identification of FMD virus and,
- A Coordinating Institute for FMD vaccines,

together with details of their respective functions.

Proposals were made to Council in April 1988 and Decisions are expected shortly. In each proposal a specific Article has been included to the following effect:

1. The Community Reference Laboratory/Community Coordinating Institute shall operate according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with Foot-and-Mouth disease virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the control of Foot-and-Mouth Disease, FAO, Rome, April 1985.

2. The Community Reference Laboratory/Community Coordinating Institute shall formulate and recommend the disease security measures to be taken by the national laboratories in matters of FMD diagnosis in accordance with the standards referred to in paragraph 1.

Thus national laboratories which have already been nominated by the Member States and are included in the annex to the Directive will be coordinated by the Community Reference Laboratory and Coordinating Institute particularly in matters of disease security.

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2. PRESENT SITUATION

2.1. At present more than 30 laboratories are manipulating FDM virus in Europe for diagnostic and research purposes as well as for vaccine production.

In the event of a change to non-vaccination special attention should be paid to:

- the functions of FMD laboratories
- the security systems applied by FMD laboratories
- the number of FMD laboratories

2.2. Functions of FMD laboratories

2.2.1. FMD diagnosis

A rapid laboratory diagnosis is essential for the successful eradication of FMD, especially in initial outbreaks. This applies irrespective of which policy is used. However, in a non-vaccination situation the need for prompt action is strengthened, and suspect material from possible primary outbreaks should always be sent to the diagnostic laboratory without delay for immediate examination.

In view of the potential of FMD for rapid spread it is important that farmers and field veterinarians are fully aware of the importance of strict vigilance and immediate reporting. Members of the field section of the State Veterinary Services should have the opportunity of seeing clinical cases of FMD in the Reference Laboratory (or the national laboratory) as part of their training.

The diagnostic laboratories should be equipped and skilled for handling test systems of high sensitivity for rapidly providing the initial diagnosis as well for contributing to the identification of the origin of infection. Furthermore, at the earliest possible occasion the diagnostic laboratory should send a sample of virus, preferably the original field material, from the primary outbreak to the Reference Laboratory for confirmation and further characterization.

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Diagnostic laboratories should also be equipped and skilled for large scale serological examinations for use in the necessary epizootiological investigations in connection with outbreaks.

It will be an additional, important, function of the diagnostic laboratories to carry out control testing in connection with importation of live animals from third countries which do not apply FMD control measures equivalent to those applied by the Community.

2.2.2. Vaccine production plants

There are 15 vaccine production plants within the European Community. Eight production plants are owned by the State and seven others are commercial enterprises belonging to five firms (see table I). The production capacity of the plants is quite different as is their level of safety. The State production plants are related closely to laboratories or institutes for FMD-research and diagnostics, the same facilities being used in several cases.

Production capacity

To cover the needs related to present vaccination programmes in eight EC Member States (excl : UK, Irl, DK and Gr) a total of 77.3 million doses of vaccine is produced annually by the 15 production plants. Almost 37% is produced in the State-run production plants (29 million doses).

This figure takes into account the following :

- Italy has for the time being an intensified vaccination programme for cattle and pigs;
- Spain vaccinates the cattle population twice a year and also has a vaccination programme for pigs and sheep.

To the figure of 77.3 million doses an unknown number must be added because of :

- Vaccine production for export to third countries, mainly by the commercial enterprises (E.G.-Merieux-France 5.8 million doses). However the State run production plants may also export a certain amount of vaccine, often on an ad-hoc basis;
- Vaccine production in certain Member States for emergency reserves.

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A prudent estimate of the present total vaccine production in the EC might be 85-90 million doses per year. Nothing can be said about the maximum production capacity.

If the eight member countries had the same vaccination programme in force for cattle and 85% of their cattle population was vaccinated annually, a minimum amount of ± 50 million doses of trivalent vaccine must be produced.

Import of FMD vaccine into the EC does not take place except for a small amount for use in the buffer zone in Evros (Greece).

Pan-vaccination policy

If a pan-vaccination policy should be adopted, a vaccination programme would have to be carried out in another four Member States, i.e. United Kingdom, Ireland, Denmark and Greece. These four countries together have a cattle population of ± 20.5 million.
Vaccination of 85% of this number of cattle means that another 17 million doses of vaccine would be needed.
There are three means of producing this amount of vaccine i.e.

(a) each of the four countries could expand existing facilities for their own needs (except Ireland which has no facility);
(b) production could be increased in existing plants outside the four countries but within the EC;
(c) vaccine could be imported from outside the EC.

Regarding (a) an increase of the vaccine production in the existing facilities in Denmark, UK and Greece might be expected. The establishment of production plants in Ireland is not the most likely solution unless it is necessary for political reasons. It might be much cheaper however for all four countries to buy the vaccine within the EC.

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Regarding (b) increasing the production of vaccine to provide an extra 17 million doses in the existing plants in the EC would present no problems (see above paragraph on production capacity).

Regarding (c) an import of vaccine from outside the EC will be very unlikely because;

- there is no need for such imports;
- importing vaccine into the EC might increase the risk of introducing the FMD virus.

Non-vaccination policy

Adopting a non-vaccination policy will result in the cessation of preventive vaccination against FMD in the Community as a whole. Vaccine will only be necessary for emergency campaigns in certain areas around outbreaks, if stamping-out does not lead to the rapid eradication of the disease or if the disease becomes widespread.
A strategic store of vaccine (a Community vaccine bank) will be necessary. An estimation of the number of vaccine doses for this purpose has yet to be made.
Nevertheless a non-vaccination policy would drastically reduce the need for vaccine within the EC.

Commercial production plants, which have an important export trade to third countries in relation to the total production of FMD vaccine, should be allowed to continue but under strict security controls. Others will close the FMD vaccine production facilities or redeploy them for other purposes.

It will also be necessary to take into account the O.I.E. recommendations concerning international traffic of pathological and biological products containing FMD virus.

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The fate of state-run or state-owned production plants, which produce to a great extent only for the needs of their home country, depends on a number of factors e.g.:

a. the maintenance of diagnostic expertise;
b. the research into FMD control and epidemiology;
c. the production and storage, including associated research, of a reserve of vaccine for the Community vaccine bank.
d. the possibility of production of vaccine for export to third countries.

If a Member State decides to close down all production facilities, part of the savings could be used for the development of modern diagnostic techniques and training of staff.

2.2.3 FMD research

Whatever the future control policy (vaccination or non-vaccination) there will be a need for research into FMD. Topics of current importance are:

- development and standardisation of sensitive test systems
- utilisation of monoclonal antibodies for the characterization of field strains, vaccine strains and challenge strains
- the molecular biology of FMD virus
- problems related to the storage of FMD virus antigen in banks
- alternative data for evaluating vaccine potency
- safety of animal products
- development of new vaccines e.g. gene deleted, sub-unit and peptide.

The introduction of sensitive ELISA test systems and of molecular biological and biotechnological methods, e.g. for rapid and precise identification and characterization of FMD virus strains, are examples from recent years of practical applications of research with unique prospects. Thus it seems likely that the classical subtyping of virus isolates will be replaced by more precise characterizations using combinations of different parameters such as nucleotide sequencing and/or reactions with relevant panels of monoclonal antibodies in addition to the classical antigen relationships ("r"- values).

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This type of characterization will be of great use both for identification of the origin of infection and for possible selection of appropriate vaccines.

Research in these fields is in progress in several of the European FMD laboratories and should be encouraged to continue. In future such research activities can be expected to be coordinated by the Community Reference Laboratory/Community Coordinating Institute.

2.3 Security systems applied by FMD laboratories

In the light of the experiences of virus escapes from FMD laboratories it is imperative that all laboratories handling FMD virus, irrespective of the type of work, be operated according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with FMD virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the Control of Foot and Mouth Disease, FAO, Rome, April 1985.

It may be advisable to nominate a Community expert group to act as an inspectorate to ensure compliance with the safety standards.

2.4 The number of FMD laboratories

The risk of virus escapes from FMD laboratories suggests that the number of such laboratories should be reduced to a minimim, especially in the event of a change to non-vaccination. On the other hand the need for FMD laboratories is evident.

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Considering the importance of a rapid primary diagnosis in emergency situations, it should be possible for suspect material, irrespective of the location of the herd of origin, to reach the diagnostic laboratory within a few hours after collection, or at least within the same day. When also taking into account the need for research into FMD and the high level of research activities actually being carried out at several of the major National Laboratories, a reasonable compromise would be to keep just one of the existing National Laboratories per country in future.

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TABLE 1

Member State	Production Plants: State	Production Plants: Commercial	Annual needs of vaccine for vaccination campaigns (1986)	Remarks
Belgium	1 Uccle	-	2.3 mill. AOC (triv.)	
Denmark	1 Lindholm	-	0.45 mill. A) O) C) 0.15 mill. each	As a reserve
Germany	-	3 Cooper Behring-werke Bayer	13 mill. AOC (triv)	Vaccine is also imported from Merieux France
Greece	1 Athens	-	0.12 mill A-0.038 mill. 0-0.034 mill. C-0.043 mill.	As a reserve. Besides this 60,000 doses are imported from Merieux Teheran for use in buffer zone
France	-	1 Merieux	19.0 mill. AOC (triv)	Also export to EEC & third countries 9 mill. doses
Ireland	-	-	-	-
Italy	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Period 15/3/87 to 3/7/88. Extended vacc. campaign, vaccination of cattle & pigs
Luxembourg	-	-	0.2 mill. AOC (triv)	From diff. firms within the EEC
Netherlands	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Imported from Spain & France
Spain	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	used in cattle & pigs (figures are for 1987). Maximum capacity of the 3 labs 102 mill. vaccine (mono)
UK	-	Cooper	-	Some production for U.K. vaccine bank
TOTAL	8	7	77.3 mill	0.6 mill as reserve

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KOMMISSIONEN FOR DE EUROPÆISKE FÆLLESSKABER

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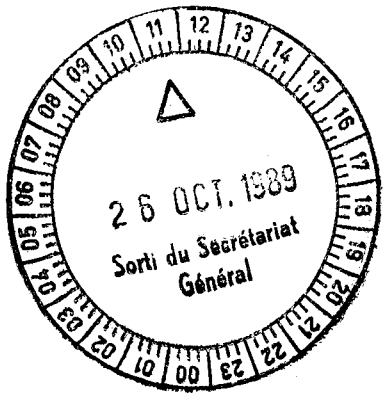
Bruxelles, den 18. oktober 1989

RAPPORT

fra Kommissionen til Rådet om en undersøgelse, som Kommissionen har foretaget af medlemsstaternes aktuelle politik med hensyn til bekæmpelse af mund- og klovesyge

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BEGRUNDELSE

Mund- og klovesyge er en af de alvorligste husdyrsygdomme. Den breder sig hurtigt, angriber alle klovbærende dyr og har betydelig økonomisk effekt dels på grund af dens direkte indvirkning på husdyrproduktionen, dels på grund af den indvirkning, som dens forekomst har på handelen med husdyr, husdyrprodukter og visse landbrugsprodukter.

Metoderne til bekæmpelse af mund- og klovesyge afviger fra den ene medlemsstat til den anden, men alle anvender enten vaccination sammen med total eller delvis sanering (slagtning og destruktion) eller ingen vaccination med totalsanering. Der er andre bekæmpelsesforanstaltninger, som er fælles for begge politikker, som f.eks. importkontrol, overvågning af modtagelige dyr, opretholdelse af diagnostiske faciliteter og kontrol med flytning af husdyr.

For øjeblikket kan medlemsstater, der ikke vaccinerer, begrænse den fri handel med husdyr fra de medlemsstater, som vaccinerer. Dette gør de, fordi sådanne dyr kan bære skjult smitte, og fordi forekomsten af vaccinerede dyr ville begrænse handelen med visse tredjelande.

Efter gennemførelsen af det indre marked i januar 1993 forventes handelen med husdyr og husdyrprodukter at kunne foregå frit i hele Fællesskabet. Dette kan kun lade sig gøre, hvis alle medlemsstater vedtager fælles foranstaltninger til bekæmpelse af mund- og klovesyge.

De eksisterende retsforskrifter vedrørende mund- og klovesyge findes i:

- Rådets beslutning 77/97/EØF (finansiering af hasteforanstaltninger)
- Rådets direktiv 64/432/EØF (handel inden for Fællesskabet)
- Rådets direktiv 85/511/EØF (bekæmpelse af mund- og klovesyge).

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Kommissionens direktiv 64/432/EØF skulle gennemgås i 1988 (artikel 4a), og direktiv 85/511/EØF skal gennemgås inden udgangen af 1989.

På grund af kravet om at foretage to gennemgange og udarbejde to rapporter til Rådet inden for et kort tidsrum og på grund af gennemførelsen af det indre marked efter 1992 besluttede Kommissionen at foretage en grundigere undersøgelse af mund- og klovesygeproblemet. Det stod straks klart, at det var umuligt at have fri handel uden risiko for virusspredning med det nuværende differentierede system, hvor der både vaccineres og ikke vaccineres. Det blev derfor besluttet i samarbejde med medlemsstaterne at udføre costbenefitundersøgelser og tilknyttede analyser for at opnå et klart grundlag for at vælge den rette politik.

Kommissionen har fået stor hjælp fra mange eksperter fra medlemsstaterne til at fortage gennemgangen og udforme rapporten. Det arbejde, som Den Videnskabelige Veterinærkomités undergruppe har udført med hensyn til at vurdere forudberegninger og risikofaktorer, fortjener i særdeleshed at blive nævnt.

Ved udarbejdelsen af undersøgelsen er følgende blevet taget i betragtning:

- Forekomsten af mund- og klovesyge i Fællesskabet i de sidste 20 år;
- Risikoen for, at der udbryder mund- og klovesyge i Fællesskabet efter 1992, hvad enten der føres den ene eller den anden politik;
- De økonomiske konsekvenser af de forskellige politikker, dvs. costbenefitanalyser;
- Virkningerne på handelsmønstrene;
- De foranstaltninger, der kræves for at forebygge primære og sekundære udbrud efter 1992;
- De ændringer i anvendelsen af ressourcer, der kan forventes alt efter, hvilken politik der vælges.

De konklusioner, som Kommissionen har draget af undersøgelserne, kan sammenfattes således:

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- En politik, hvor der ikke vaccineres, vil helt klart koste mindre end en politik, hvor alle dyr vaccineres.
- Produktionen og anvendelsen af vaccine kan i sig selv medføre, at der overføres smittefarlig virus til en dyrepopulation via laboratorieudslip eller anvendelse af utilstrækkeligt inaktiveret vaccine. Det er derfor klart sikrere at undlade at vaccinere.
- Foranstaltningerne til forebyggelse af, at der føres smitte ind i Fællesskabet, og til effektiv udryddelse af udbrud skal forbedres. I den forbindelse vil Kommissionen foreslå øget finansielt tilstand fra EF til betaling af skadeserstatning til husdyrbrugere i tilfælde at et udbrud.
- Mønstret for handelen mellem medlemsstaterne og for importen fra tredjelande vil ved en ændret politik blive påvirket således, at der ikke længere vil kunne accepteres vaccinerede dyr fra tredjelande, hvis det vedtages, at der ikke skal vaccineres. Hvis man går over til generel vaccination, vil det betyde, at eksporten til visse tredjelande vil ophøre, medens hele Fællesskabet, hvis der ikke bliver vaccineret, skulle kunne handle med alle tredjelande. Sker der et udbrud i den sidstnævnte situation, ville eksporten fra Fællesskabet som helhed kunne sikres ved effektive kontrol- og udryddelsesforanstaltninger på regionalt plan (regionaliseringsprincippet).
- Dyrlæger, der hidtil har været beskæftiget med vaccinationsprogrammer i nogle medlemsstater, vil stadig kunne bruges:
  - til at forbedre de nationale veterinærtjenesters struktur til imødekommelse af de supplerende krav i forbindelse med, at der ophøres med vaccination;
  - til at gennemføre andre foranstaltninger til bekæmpelse af f.eks. Aujeszkys syge og Brucella melitensis;
  - til at medvirke til den udbygning af de nationale veterinærtjenester, som er nødvendig for gennemførelsen af det indre marked.

- De laboratorier, der fremstiller mund- og klovesygevaccine, må tilpasse sig en ny situation, hvor vaccineproduktionen vil blive stærkt reduceret, hvis ikke den helt ophører. Her vil personalet kunne oplæres i diagnosticering af mund- og klovesyge, og der vil kunne udvikles bedre diagnostiske metoder.

Kommissionen er helt og fuldt overbevist om, at Fællesskabet for at nå målene med det indre marked, dvs. at harmonisere sundhedsnormerne på et højt niveau og at sikre frie varebevægelser, må undlade at vaccine. Det henstilles kraftigt til medlemsstaterne at følge denne linje, og der vil blive fremsat forslag til Rådet med henblik på at ændre de gældende retsforskrifter.

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RAPPORT FRA KOMMISSIONEN TIL RÅDET (1)

Vedr.: En undersøgelse, som Kommissionen har foretaget af medlemsstaternes aktuelle politik med hensyn til bekæmpelse af mund- og klovesyge.

1. INDLEDNING

1.1. Efter oprettelsen af Det Europæiske Økonomiske Fællesskab i 1957 drøftede de seks oprindelige medlemsstater en række foranstaltninger, der skulle give mulighed for fri handel med dyr og produkter heraf medlemsstaterne imellem. Til at begynde med krævede nationale foranstaltninger, at der blev givet garantier for dyresundhed, som sikrede, at dyr, der ankom til en medlemsstat, var sunde og ikke kunne overføre sygdom til de besætninger, som de blev indsat i.

1.2. Den første officielle harmonisering fandt sted i 1964 med vedtagelsen af Rådets direktiv 64/432/EØF, som stadig er i kraft, omend i ændret og udvidet form. Dette direktiv regulerer handlen inden for Fællesskabet med kvæg og svin. Ved udgangen af 1988 gjaldt der stadig nationale regler for handel med andre arter.

1.3. En af de vigtigste sygdomme, der falder ind under det oprindelige direktiv, er mund- og klovesyge. Det var ikke særlig vanskeligt at nå til enighed om regler for mund- og klovesyge, da det var alle seks medlemsstaters politik at vaccinere. Bortset fra kravet om, at sygdomsfri besætning og område var den vigtigste beskyttelse, at alle kreaturer på over 4 måneder skulle vaccineres, før de blev sendt til en anden medlemsstat. Overholdelsen af disse regler blev sikret ved et officielt veterinærcertifikat, som ledsagede hver sending dyr.

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(1) De bilag, der henvises til i denne rapport, findes i Kommissionens dokument VI/3198/89.

1.4. Ved Danmarks, Irlands og Det Forenede Kongeriges tiltrædelse af Fællesskabet i 1973 måtte der foretages betydelige tilpasninger af direktiv 64/432/EØF, da de nye medlemsstater ikke vaccinerede og foretog totalsanering i tilfælde af udbrud. Trods langvarige forhandlinger var det ikke muligt umiddelbart at forlige de forskellige filosofier. Ifølge tiltrædelsestraktaten kunne de nye medlemsstater fastholde deres nationale regler til beskyttelse mod mund- og klovesyge i fem år, i løbet af hvilken periode der skulle gøres forsøg på at nå frem til harmoniserede fællesskabsregler.

1.5. I 1984 vedtog Rådet endelig et ændringsdirektiv (84/643/EØF), hvorved der indførtes nye regler for beskyttelse mod mund- og klovesyge, som gjaldt for alle medlemsstaterne. Direktivet kom samtidig til at omfatte blæresyge hos svin på grund af denne sygdoms store lighed med mund- og klovesyge hos svin. Ændringsdirektivet indeholder en detaljeret beskrivelse af de supplerende garantier, som en medlemsstat kan forlange afhængigt af den dens sygdomsstatus og vaccinationsstatus er på det pågældende tidspunkt. Anvendelsen af den pågældende artikel 4a skal tages op til fornyet gennemgang.

1.6. Udvidelsen af Fællesskabet med Grækenland (1981) og Spanien og Portugal (1986) resulterede ikke i nogen større ændringer af direktiv 64/432/EØF.

1.7. I 1985 vedtog Rådet et direktiv (85/511/EØF) vedrørende bekæmpelse af mund- og klovesyge i Fællesskabet. Der fastsættes væsentlige fælles foranstaltninger til ensartet behandling af udbrud af mund- og klovesyge. De medlemsstater, som vaccinerer, har dog stadig mulighed for at vælge mellem total eller delvis sanering.

1.8. Rådet gav Kommissionen mange vigtige opgaver i forbindelse hermed, herunder:

- at udarbejde regler for delvis sanering,
- at udpege et EF-referencelaboratorium for diagnosticering af mund- og klovesyge til Rådet,
- at udpege et EF-vaccinekontrolinstitut til Rådet,

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- at samordne medlemsstaternes vaccinationsplaner,
- at udarbejde et forslag til Rådet om oprettelse af en EF-vaccinebank,
- forpligtelse til at udarbejde en rapport til Rådet inden 1990 om, hvorledes direktivets bestemmelser har fungeret, tillige med eventuelle forslag.

1.9. I 1985 vedtog Rådet en ændring af beslutningen om finansiering af hasteforanstaltninger (77/97/EØF). Indtil da kunne der ifølge beslutningen kun stilles midler til rådighed, hvis der i en medlemsstat opstod sygdomme, som var eksotiske for Fællesskabet. Ifølge ændringen kan der ud over støtte til eksotisk mund- og klovesyge også stilles midler til rådighed til europæisk mund- og klovesyge ved de første 20 udbrud, der forekommer i de første 30 dage af en epizooti, forudsat at der omgående anvendes totalsanering.

2. RETSGRUNDLAG

2.1. Retsgrundlaget for denne rapport findes i:
- Rådets direktiv 64/432/EØF (gennemgang af artikel 4a) og
- Rådets direktiv 85/511/EØF (gennemgang som foreskrevet i artikel 18).

2.2. Som nævnt i indledningen til denne rapport stammer direktivet vedrørende handelen inden for Fællesskabet med kvæg og svin fra 1964 (64/432/EØF).

Der blev fastsat undtagelsesbestemmelser med hensyn til handelen inden for Fællesskabet med kvæg og svin for Danmark, Irland og Det Forenede Kongerige ved disse landes tiltrædelse i 1973, hvorefter de kunne opretholde deres nationale regler til beskyttelse mod mund- og klovesyge. Disse foranstaltninger blev forlænget til at gælde indtil den 31. december 1984, hvorefter der blev indført nye bestemmelser, som kunne gælde for alle medlemsstater til beskyttelse mod mund- og klovesyge.

De nye bestemmelser blev fastsat i Rådets direktiv 84/643/EØF af 11. december 1984 og omfattede indsættelse af en artikel 4a i det grundlæggende direktiv vedrørende handel med kvæg og svin. Artiklen indeholder en detaljeret beskrivelse af de supplerende garantier, som en medlemsstat kan forlange afhængigt af dens sygdomsstatus og vaccinationspolitik på det pågældende tidspunkt.

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I artikel 4a er det endvidere fastsat, at Rådet, der på forslag af Kommissionen træffer afgørelse med kvalificeret flertal, hvert tredje år og første gang tre år efter artiklens ikrafttrædelse, dvs. 1. januar 1988, skal foretage en fornyet gennemgang af denne artikel. Den fornyede gennemgang foretages på grundlag af en rapport fra Kommissionen, som eventuelt er vedlagt forslag.

2.3. Kommissionen er i perioden fra 1. januar 1985 ikke blevet informeret om, at medlemsstaterne skulle have haft nogen særlige problemer hverken med hensyn til udførsel eller modtagelse af dyr i samhandelen inden for Fællesskabet. Den 28. juli 1987 underrettede Kommissionen medlemsstaterne om, at den havde til hensigt at foretage en fornyet gennemgang af den pågældende artikels anvendelse, og anmodede dem om straks at sende Kommissionen de bemærkninger, de måtte have til bestemmelserne i artikel 4a.

Nogle medlemsstater meddelte Kommissionen, at de gerne så en øjeblikkelig lempelse af de foranstaltninger, som gjaldt for slagtedyr. Kommissionen erkender, at denne artikel og de deri fastsatte karantæneprocedurer skaber et problem for den fri omsætning af dyr i Fællesskabet.

2.4. Det andet direktiv, der kræver, at Kommissionen skal forelægge Rådet en rapport om mund- og klovesyge, er Rådets direktiv 85/511/EØF, særlig artikel 18. Ved dette direktiv iværksattes en række fællesskabsforanstaltninger, der skal sikre en ensartet fremgangsmåde ved udbrud af mund- og klovesyge. Kommissionen skal forelægge Rådet en rapport om anvendelsen af dette direktiv inden den 1. januar 1990. I forbindelse med Kommissionens rapport kan der om nødvendigt også fremsættes forslag.

3. KOMMISSIONENS INDSATS

3.1. På grund af kravet om at foretage to gennemgange og udarbejde to rapporter til Rådet inden for et kort tidsrum og på grund af gennemførelsen af det indre marked efter 1992, besluttede Kommissionen at foretage en grundigere undersøgelse af mund- og klovesygeproblemet.

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Det stod straks klart, at det var umuligt at fortsætte med det nuværende differentierede system, hvor der både vaccineres og ikke vaccineres. Det blev derfor besluttet i samarbejde med medlemsstaterne at udføre costbenefitundersøgelser og tilknyttede analyser for at opnå et klart grundlag for at vælge den rette politik.

3.2. Kommissionen forelagde for at opfylde sine forpligtelser til Rådet med hensyn til at gennemgå artikel 4a i direktiv 64/432/EØF den 14. januar 1988 Rådet en rapport, hvori den gjorde rede for sin beslutning om at foretage den detaljerede undersøgelse og anførte, at den håbede at kunne forelægge en rapport og eventuelle forslag inden udgangen af 1988.

3.3. Kommissionen har fået stor hjælp fra mange eksperter fra medlemsstaterne til at foretage gennemgangen og udforme rapporten. Det arbejde, som Den Videnskabelige Veterinærkomités undergruppe har udført med hensyn til at vurdere forudberegninger og risikofaktorer, fortjener i særdeleshed at blive nævnt. Kommissionen noterer sig, at Den Videnskabelige Veterinærkomité afgav positiv udtalelse om gruppens rapport, og denne udtalelse kan Kommissionens tjenestegrene fuldt ud tilslutte sig.

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4. BEKÆMPELSE AF MUND- OG KLOVESYGE I DET EUROPÆISKE FÆLLESSKAB

4.1. Indledning

4.1.1. I dette dokument gøres der rede for de faktorer, der har indflydelse på valget af en EF-politik til bekæmpelse af mund- og klovesyge. Skønt det er blevet udarbejdet forud for ophævelsen af grænserne ved udgangen af 1992, tages der hensyn til behovet for at iværksætte en fælles EF-politik så hurtigt som muligt før det tidspunkt.

4.1.2. Mund- og klovesyge er en af de alvorligste husdyrsygdomme. Den breder sig hurtigt, angriber alle klovbærende dyr og har betydelig økonomisk effekt, dels på grund af dens direkte indvirkning på husdyrproduktionen, dels på grund af den indvirkning, som dens forekomst har på handelen med husdyr, husdyrprodukter og visse landbrugsprodukter.

4.2. Baggrund

4.2.1. Europæisk husdyrbrug blev for første gang alvorlig ramt af mund- og klovesyge i 1930'erne, og det drejede sig om type O, A og C, som vi kender dem i dag. Efter anden verdenskrig var der et ophold i forekomsten af mund- og klovesyge, antagelig på grund af flytningsrestriktioner og genopbygning af nationale besætninger. I begyndelsen af 1950'erne skete der en stigning i udbruddene med alvorlige konsekvenser, hvilket medførte, at IOE og FAO blev mere organiseret på et kontinentalt grundlag til bekæmpelse af sygdommen. Udviklingen af Frenkel-vaccinen førte til en hurtig udvidelse af vaccineproduktionen og dermed af beskyttelsen. Derudover indførte de fleste lande en slagtningspolitik, skønt nogle endvidere anvendte massevaccination omkring udbrud som en yderligere foranstaltning. I disse år indførte de fleste europæiske lande obligatorisk vaccination, i hvert fald af kvæg.

4.2.2. De skandinaviske lande, Det Forenede Kongerige og Irland, der ligger uden for det kontinentale Europa, forblev relativt fri for sygdommen. I Spanien opstod der regelmæssigt alvorlige udbrud indtil 1980. Det nære Østen og i særdeleshed Tyrkiet udgjorde en stor trussel for Vesteuropa.

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Denne trussel eksisterer stadig i dag, men anvendelsn i Trakien af en strategi med vaccinationsområder, der virker som stød-pudezoner, har vist sig yderst værdifuld. Sygdommen forekommer i Afrika, hvor der findes tre specifikke afrikanske virustyper. Nogle asiatiske lande har en type, som er speciel for det kontinent.

Bortset fra Sydamerika, hvor de fleste af landene er ramt af virustyper, der ligner de europæiske, er resten af verden fri for sygdommen og vaccinerer ikke. Store landarealer som Mellem- og Nordamerika, Australien, New Zealand, Japan, Korea og andre fjernøstlige områder er i denne kategori.

Oversigter over forholdene findes i bilag 1, tabel 2 og 3.

4.2.3. De store epidemier, der forekom i Europa i 1960'erne og først i 1970'erne, er stort set ophørt på grund af anvendelsen af massevaccinationskampagner og restriktioner med hensyn til import af kød og andre animalske produkter til Fællesskabet. Siden 1980 har kun Italien (1984-87) og Portugal (1980-84) oplevet alvorlige epizootier.

4.2.4. De registrerede udbrud i medlemsstaterne fremgår af bilag 1, tabel 1. Et udbrud defineres som sygdom, der opstår på en bedrift (IOE). Det ses, at der i de sidste 20 år er sket en brat nedgang i antallet af udbrud i Fællesskabet som helhed. I de fleste medlemsstater har der kun været lidt eller ingen sygdom i de sidste fem år bortset fra Italien, der har haft en række epidemier i den nordlige del af landet.

4.2.5. Mund- og klovesygesituationen i nabolandene er sammenfattet i bilag 1, tabel 2, medens situationen i tredjelande med handels-forbindelser til Fællesskabet er vist i bilag 1, tabel 3. I bilag 1, tabel 4, findes en oversigt over vaccinationsplanerne i medlemsstaterne.

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4.3. Alternativerne

4.3.1. Metoderne til bekæmpelse af mund- og klovesyge varierer fra den ene medlemsstat til den anden, men alle anvender en af to alternative politikker:

a) Vaccination. Dette defineres som systematisk årlig vaccination af alle kreaturer. Ved sygdomsudbrud anvendes total eller delvis sanering ud over vaccination og andre bekæmpelsesforanstaltninger.

b) Ingen vaccination. Dette defineres som et generelt forbud mod mund- og klovesygevaccination. Ved udbrud anvendes totalsanering ud over andre bekæmpelsesforanstaltninger. Det kan under ganske særlige omstændigheder være nødvendigt at iværksætte en zonevaccination.

4.3.2. Begge politikker følges op af importkontrol, regelmæssig overvågning af de modtagelige husdyrpopulationer, opretholdelse af diagnostiske laboratoriefaciliteter og i tilfælde af sygdom kontrol med flytning af husdyr.

4.3.3. For øjeblikket kan medlemsstater, der ikke vaccinerer, begrænse handelen med husdyr fra de medlemsstater, som vaccinerer. Dette begrundes for det første med, at vaccinerede dyr kan indeholde virus efter en feltprovokationstest, selv om de forbliver klinisk normale. Den risiko, der er forbundet med vaccinerede dyr, hvis der ikke forekommer feltvirus gennem længere tid, er minimal. Det er imidlertid umuligt at garantere, at der ikke findes virus i en vaccineret population, fordi der når som helst kan overføres virus, som ikke opdages. Der er derfor risiko for, at der kan overføres virus til tidligere smittefri områder, ved flytning af vaccinerede dyr. Denne mulighed for virusspredning er uacceptabel på grund af sygdommens betydning.

For det andet betragtes forekomsten af vaccinerede dyr i et land af mange tredjelande, f.eks. USA og dets "hvidliste"-partnere, som ensbetydende med, at sygdommen forekommer, med de åbenbare og alvorlige følger for handelen, som det giver.

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4.3.4. Efter gennemførelsen af det indre marked i januar 1993 forventes handelen med husdyr og husdyrprodukter at kunne foregå frit i hele Fællesskabet. Dette kan kun lade sig gøre, hvis alle medlemsstaterne vedtager en fælles politik til bekæmpelse af mund- og klovesyge. For øjeblikket er der tre medlemsstater, som ikke vaccinerer (Danmark, Irland og Det Forenede Kongerige), medens de øvrige ni vaccinerer. I bilag 1, tabel 4, findes en oversigt over vaccinationsplaner.

4.3.5. Valget af en EF-politik til bekæmpelse af mund- og klovesyge står mellem de to politikker, som er beskrevet i afsnit 4.3.1., dvs. vaccination og ingen vaccination.

Følgende faktorer har indflydelse på dette valg:

a) Forekomsten af mund- og klovesyge i Fællesskabet i de sidste 20 år (bilag 1, tabel 1).

b) Risikoen for, at der udbryder mund- og klovesyge i Fællesskabet efter 1992 hvad enten der føres den ene eller den anden politik. Rapport fra undergruppen under Den Videnskabelige Veterinærkomité (bilag 2) (1).

c) De økonomiske konsekvenser af de to alternative politikker, dvs. udgifter for det offentlige og for det private erhvervsliv (bilag 3).

d) Virkningerne på handelen i Fællesskabet og på Fællesskabets handel med tredjelande med husdyr, husdyrprodukter og andre varer (bilag 4).

e) De foranstaltninger, der kræves til forebyggelse af primære og sekundære udbrud efter 1992 og i en overgangsperiode. Rapport fra undergruppen under Den Videnskabelige Veterinærkomité (bilag 5) (1).

f) De ændringer i anvendelsen af ressourcer, der kan forventes alt efter, hvilken politik, der vælges, som f.eks.:

   i) dyrlæger, der for øjeblikket er beskæftiget med vaccinations-programmer (bilag 6),

   ii) laboratorier, der for øjeblikket er beskæftiget med mund- og klovesygediagnosticering, vaccineproduktion og forskning (bilag 7).

(1) Det skal nævnes, at nogle spørgsmål, såsom det vaccinerede dyrs rolle som potentiel smittebærer, var vanskelige at løse. Undergruppen godkendte dog enstemmigt teksten i dens foreliggende form, og Den Videnskabelige Veterinærkomité gav sin tilslutning den 1. februar 1989.

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4.4. Risikoen for udbrud af mund- og klovesyge efter 1992

4.4.1. Risikoen for udbrud af mund- og klovesyge efter 1992, hvad enten der føres den ene eller den anden politik, er blevet vurderet af en undergruppe under Den Videnskabelige Veterinærkomité. Da det forventes, at der ikke vil være nogen restriktioner for medlemsstaternes samhandel med husdyr efter 1992, er risikoen blevet vurderet på EF-plan frem for på medlemsstatsplan. Resultaterne af undergruppens arbejde er anført i bilag 2.

4.4.2. Gruppen har undersøgt registrene over udbrud i alle medlemsstaterne i de sidste 11 år (1977-1987) og har identificeret 34 primære udbrud af mund- og klovesyge.

Af disse skyldtes 8 antagelig en kilde uden for Fællesskabet, hovedsagelig forbundet med import af kød (jf. bilag 2, tabel 3). Undergruppen mente, at yderligere 13 eventuelt kunne skyldes enten udslip af virus fra laboratorier eller produktion og anvendelse af vaccine, som ikke var tilstrækkeligt inaktiveret. Kilden til de resterende 13 primære udbrud er ukendt.

4.3.4. Ud fra det eksisterende materiale fra de forløbne 11 år udarbejdede undergruppen beregninger for 1993-2003 både for det tilfælde, at det vedtages, at der skal vaccineres, og for det tilfælde, at der ikke skal vaccineres. Risikoen for primære udbrud blev først taget i betragtning.

4.4.4. Undergruppen mente, at risikoen for indslæbning af smitte til Fællesskabet i 1993-2003 hverken ville blive større eller mindre end i de forløbne 11 år. Den forventede indtil 13 primære udbrud, eksklusive udbrud, som skyldes udslip af virus og anvendelse af utilstrækkeligt inaktiveret vaccine (bilag 2, afsnit 12).

4.4.5. Undergruppen accepterede, at der ikke er nogen endemisk kilde til mund- og klovesygefeltvirus i Fællesskabets besætninger og flokke. Risikoen for primære udbrud, der stammer fra kilder i Fællesskabet, afhænger i så fald af, i hvilket omfang der arbejdes med levende mund- og klovesygevirus på laboratorier, og af, om der anvendes utilstrækkeligt inaktiveret vaccine.

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4.4.6. Hvis der fortsættes med vaccination mod mund- og klovesyge og vaccineinaktiveringsmetoderne ikke forbedres og man fortsat arbejder med virus på laboratorier under forhold, hvor der ikke iagttages de strengeste sikkerhedsforanstaltninger, vil den nuværende risiko fortsat eksistere. Under disse omstændigheder forudså gruppen, at der bliver 13 yderligere udbrud i den 11-årige periode. Forbedrede metoder til produktion af vaccine kan imidlertid reducere risikoen. Hvis der ophøres med vaccination og laboratorierne arbejder under iagttagelse af de strengeste sikkerhedsforanstaltninger, vil risikoen blive meget lille, og gruppen forventede ingen yderligere udbrud.

4.4.7. Undergruppen gik over til at behandle risikoen for sekundære udbrud som følge af de primære. I de 11 år fra 1977 til 1987 gav mange primære udbrud ikke anledning til kraftig spredning af sygdommen, uanset om udbruddene forekom i lande, der vaccinerede eller ikke vaccinerede. På den anden side havde der været tilfælde af kraftig spredning i den pågældende periode, men gruppen mente, at spredningens omfang snarere var afhængig af, hvor strenge bekæmpelsesforanstaltningerne var, end af, om der vaccineredes. Dette er i særdeleshed tilfældet, hvor der er store svinepopulationer. Undergruppen konkluderede, at variationen i spredningens omfang er for stor til at beregne en forskel i antallet af sekundære udbrud pr. primært udbrud med hver af de to politikker.

4.5. <u>De økonomiske konsekvenser af de alternative politikker</u>

4.5.1. Hvis der opstår mund- og klovesyge i Fællesskabet, udryddes den så hurtigt som muligt (direktiv 85/511/EØF), således at selve sygdommens skadelige virkninger ikke får lov at udvikle sig. Omkostningerne i forbindelse med et udbrud er derfor bekæmpelsesomkostninger (der indbefatter saneringsomkostninger og/eller omkostninger ved systematisk vaccination) og tab af produktion og handel. De af medlemsstaterne angivne omkostninger er sammenfattet i bilag 3.

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4.5.2. Omkostningerne er blevet vurderet ud fra en økonomisk model, der er udviklet af FAO's europæiske kommission for bekæmpelse af mund- og klovesyge. Der er udarbejdet skøn over omkostningerne for Fællesskabet ved regelmæssig vaccination af kvægbestanden og sanering ved udbrud. Alle andre omkostninger, som f.eks. omkostninger forbundet med overvågning og opretholdelse af diagnostiske faciliteter, er fælles for begge politikker og er derfor ikke blevet taget i betragtning.

Bekæmpelsesomkostningerne afhænger i vid udstrækning af antallet af sygdomsudbrud. I den økonomiske analyse er der taget hensyn til sandsynligheden for udbrud i Fællesskabet med hver af de to politikker. Den økonomiske analyse findes i bilag 3 og er sammenfattet i nedenstående afsnit 4.8.

4.5.3. FAO-modelanalysen kræver, at det tages i betragtning, hvilke virkninger det har for handelen inden for Fællesskabet og eksporten til tredjelande, at der vaccineres eller ikke vaccineres. Kommissionen har foretaget en analyse af disse virkninger, og rapporten herom findes i bilag 4.

4.6. Vaccinationsomkostninger

4.6.1. Otte medlemsstater (Belgien, Frankrig, Forbundsrepublikken Tyskland, Italien, Luxembourg, Nederlandene, Portugal og Spanien) vaccinerer rutinemæssigt alt kvæg. Nogle vaccinerer desuden svin, får og geder. Omkostningerne ved en enkelt årlig vaccination af kvæg i nationale besætninger som beregnet af disse medlemsstater er sammenfattet i bilag 3, tabel 1.

4.6.2. De øvrige fire medlemsstater (Danmark, Grækenland (1), Irland og Det Forenede Kongerige) vaccinerer ikke mod mund- og klovesyge. De har beregnet omkostningerne, hvis de skulle blive tvunget til at vaccinere, og deres tal fremgår også af bilag 3, tabel 1.

(1) Undtagen stødpudezonen i Trakien.

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4.6.3. De årlige direkte offentlige omkostninger ved et generelt EF-vaccinationsprogram med en enkelt årlig vaccination af kvæget i alle medlemsstaterne anslås til ca. 133 mio ECU i 1987-priser. Omkostningerne omfatter køb af vaccine og opbevaring heraf, vaccine-anvendelse og generel administration. De omfatter ikke omkostninger ved eventuelle skadelige bivirkninger, som skyldes brugen af vaccine.

4.6.4. Det skal bemærkes, at den vaccination, der udføres i Fællesskabet, kun yder beskyttelse mod de europæiske A-, O- og C-stammer af mund- og klovesyge. Denne vaccination beskytter ikke dyrene mod de eksotiske stammer, som forekommer i andre dele af verden.

4.6.5. Endvidere fremgår det af tabellen over vaccinationsplaner (bilag 1, tabel 4), at immuniseringen er på langt under 100%, fordi svin, får og geder sjældent vaccineres. Endvidere vaccineres slagtekalve-enheder og "feed lots" ofte ikke, og kalve, der er under 3-4 måneder på tidspunktet for den årlige vaccination, bliver måske ikke vaccineret før det følgende år.

4.7. <u>Omkostningerne ved et udbrud af mund- og klovesyge</u>

4.7.1. Det Internationale Kontor for Epizootier i Paris (IOE) definerer et udbrud som sygdom, der opstår på en bedrift. Mund- og klovesygeepidemier bekæmpes bedrift for bedrift, og omkostningerne ved et udbrud er derfor nemme at beregne. Medlemsstaterne er blevet bedt om at beregne de gennemsnitlige omkostninger ved et udbrud af mund- og klovesyge. Omkostningerne indbefatter omkostninger ved slagtning, bortskaffelse af kroppe, desinfektion, rengøring og tilknyttede foranstaltninger, den slagtede besætnings værdi, bedriftens produktionstab som følge af den tid, der går, inden der kan genindsættes ny besætning, og administrationsomkostninger i forbindelse med udbruddet. Beregningerne er baseret på, at alle modtagelige dyr på bedriften slagtes.

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4.7.2. En større mund- og klovesygeepidemi kan i det land eller i den region, hvor den forekommer, medføre omkostninger, som ikke kan henføres til individuelle udbrud. Disse omkostninger kan omfatte lukning af slagterier eller markeder, men de har ikke kunnet bestemmes ved tidligere analyser af de økonomiske virkninger af mund- og klovesygeepidemier.

4.7.3. De medlemsstater, der har nylige erfaringer med at bekæmpe udbrud, har i vid udstrækning baseret deres skøn på de faktiske omkostninger. De, der ikke har nylige erfaringer med mund- og klovesyge, har beregnet anslåede omkostninger. Disse omkostninger er anført i bilag 3, tabel 2.

4.7.4. Den følgende økonomiske analyse er baseret på en gennemsnitlig omkostning ved et udbrud på 158.000 ECU, med 31.914 ECU og 600.000 ECU som henholdsvis det laveste og højeste skøn.

4.8. Økonomisk analyse

4.8.1. Skønnene over vaccinationsomkostninger og omkostninger ved mund- og klovesygeudbrud er blevet anvendt til at foretage en økonomisk analyse af en politik med vaccination og en politik uden vaccination i en 10-årig periode. Analysen giver en række skøn ud fra variationer i omkostninger og antal af udbrud, og disse er blevet samlet til tre scenarier: en central (eller mest sandsynlig) situation, en værst tænkelig situation og en optimal situation. Analysen findes i sin helhed i bilag 3.

4.8.2. Det mest sandsynlige udfald er det, der er beskrevet i analysens "centrale situation". Det er baseret på omkostningerne ved et middelsvært udbrud og det antal primære og sekundære udbrud, som Den Videnskabelige Veterinærkomité har beregnet.

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Hvis der vælges en politik, hvor man ikke vaccinerer, anslås de samlede omkostninger for Fællesskabet (nutidsværdien for 10 år (til 5%)) til 35 mio ECU.

Hvis der vælges en politik med vaccination anslås de samlede omkostninger for Fællesskabet (nutidsværdien for 10 år (til 5%)) til 1.134 mio ECU.

4.8.3. Det skal bemærkes, at der for øjeblikket stilles EF-midler til rådighed for medlemsstaterne til udryddelse af mund- og klovesyge, idet der refunderes 50% af omkostningerne ved slagtning og destruktion og 100% af omkostningerne ved hastevaccination. Ved udbrud af mund- og klovesyge af klassiske europæiske typer er støtten begrænset til de første 20 udbrud, som forekommer i de første 30 dage under en epizooti.

4.8.4. Det skal også bemærkes, at hvis det vælges at ophøre med at vaccinere, vil der ikke længere påløbe omkostninger i forbindelse med vaccination af kreaturer forud for udførsel. De vaccinerende medlemsstater har en samhandel på ca. 2 mio dyr om året. Hvis der vaccineres 1 mio dyr forud for udførsel (kalve på under 4 måneder og nogle slagtedyr kan fritages) til 3 ECU pr. dyr (vaccine og vaccination), kan der opnås en besparelse på 3 mio ECU.

4.9. De alternative politikkers virkninger på handelen med husdyr og husdyrprodukter

I den økonomiske analyse, der er beskrevet i afsnit 4.8. tages der ikke hensyn til de alternative politikkers virkninger på handelen inden for Fællesskabet og Fællesskabets handel med tredjelande med husdyr og husdyrprodukter. Kommissionens rapport om handelen findes i bilag 4, og hovedkonklusionerne er som følger:

(a) Uanset hvilken politik der vælges, får det ingen større indflydelse på handelen inden for Fællesskabet med levende dyr og husdyrprodukter.

(b) Hvis det vedtages at undlade at vaccinere, betyder det, at der ikke kan importeres vaccinerede dyr uden supplerende garantier, men det vil ikke få indflydelse på importen af fersk kød og produkter med indhold af kød, forudsat at alle de sædvanlige procedurer fastholdes (modning, udbening).

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(c) Det er klart, at en generel EF-vaccinationspolitik vil få alvorlige konsekvenser for eksporten til mange tredjelande. På den anden side vil det være vigtigt at føre tekniske drøftelser med handelspartnernes veterinære tjenester for at overbevise dem om, at de regionaliserings-foranstaltninger, der vedtages i tilfælde af et udbrud i en situation, hvor der ikke vaccineres, er effektive.

4.10. Konsekvenserne af ophør med mund- og klovesygevaccination for dyrlægers beskæftigelse

Ophører man med at vaccinere mod mund- og klovesyge, skulle det, så vidt det kan beregnes, kun få begrænsede konsekvenser for dyrlægernes beskæftigelsessituation. De portugisiske og de spanske myndigheder regner med at kunne anvende dyrlægerne til andet arbejde. Frankrig forventer problemer med at kunne sikre dyrlægedækning i fjerntliggende landbrugsområder, hvorved det veterinære overvågningsnet bringes i fare (se bilag 6).

Hvis der ikke vaccineres, kræves der en nøje planlagt sygdomskontrolordning, som forvaltes af en centralt styret statslig veterinærtjeneste, der hurtigt og effektivt kan klare nødsituationer. Dyrlæger, der hidtil har været beskæftiget med vaccinationskampagner, vil kunne anvendes til dette formål og til den generelle udbygning af veterinærtjenesterne, der er nødvendig for gennemførelsen af det indre marked.

4.11. Konsekvenserne af en ændret mund- og klovesygepolitik for laboratorier

For øjeblikket arbejder mere end 30 laboratorier med mund- og klovesygevirus i Europa. 15 af dem fremstiller vaccine, og de resterende ligger inde med virus til diagnostiske formål eller forskningsformål.

Hvis der indføres generel vaccination, vil den øgede efterspørgsel efter vaccine kunne imødekommes, ved at EF-produktionen udvides. Hvis det vedtages, at man skal ophøre med at vaccinere, kræves der kun vaccine til opretholdelse af et strategisk EF-lager og til videreførelse af eksporten til tredjelande. I de tilfælde, hvor vaccinevirksomhederne nu ejes af staten, vil en del af besparelserne fra virksomhedslukninger kunne anvendes til oplæring af personalet i mund- og klovesygediagnosticering og til udvikling af bedre diagnostiske metoder.

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Uanset hvilken bekæmpelsespolitik der vælges, vil der være behov for at forske i mund- og klovesyge. Antallet af EF-laboratorier, der beskæftiger sig med dette arbejde, vil sandsynligvis blive reduceret. De, der fortsætter, må iagttage strenge sikkerhedsforanstaltninger for at undgå udslip af mund- og klovesygevirus (jf. bilag 7).

5. KONKLUSIONER

5.1. Det er vigtigt at nå frem til en fælles EF-holdning til mund- og klovesyge, for at det indre marked kan realiseres.

5.2. Den politik, som medlemsstaterne fører for øjeblikket med hensyn til at vaccinere eller ikke vaccinere, er blevet gennemgået i detaljer og undersøgt navnlig med hensyn til de økonomiske aspekter.

5.3. Muligheden for fri handel med modtagelige arter mellem dele af Fællesskabet, som fører forskellig politik, er blevet overvejet, men igen forkastet på grund af risikoen for overførsel af mund- og klovesygevirus til tidligere smittefri områder. Denne risiko er ikke acceptabel på baggrund af ønsket om harmonisering med henblik på opnåelse af en høj sundhedsstatus, som er et af målene i Den Europæiske Fælles Akt. For Fællesskabet som helhed må der derfor træffes et klart valg mellem at vaccinere eller ikke at vaccinere.

5.4. Det fremgår klart af undersøgelserne, at det vil koste langt mindre at lade være med at vaccinere end at foretage generel vaccination. Da der forventes flere udbrud, hvis der vaccineres, end hvis der ikke vaccineres, er det klart, at det på grund af risikoen, som er forbundet med manipulation af mund- og klovesygevirus, er sikrere for Fællesskabet som helhed at vedtage at undlade at vaccinere.

5.5. Hvis der ikke vaccineres, vil det blive nødvendigt at skærpe foranstaltningerne til forebyggelse af indslæbning af smitte til Fællesskabet og til effektiv bekæmpelse af eventuelle udbrud.

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5.6. Undersøgelserne af handelsmønstrene viser, at en ændring af de nuværende politikker ikke vil få større indflydelse på handelen inden for Fællesskabet og Fællesskabets import fra tredjelande. I nogle tilfælde vil importen fra vaccinerende tredjelande kunne blive bragt i fare, hvis der ikke vaccineres i EF, men det vil kunne aftales med det pågældende land, at begge parter holder op med at vaccinere. Hvis der indføres generel vaccination, er det sikkert, at eksporten til mange tredjelande vil ophøre. På den anden side kan Fællesskabet, hvis der ikke vaccineres, samtidig med at det drager fordel af at kunne handle med mange flere lande end før, at nogle lande kunne blive betragtet som en helhed hvad sygdomsstatus angår. I så fald vil et mund- og klovesygeudbrud kunne få indflydelse på, om eksporten fra Fællesskabet som helhed kan accepteres, medmindre de regionale kontrol- og udryddelsesforanstaltninger anerkendes internationalt.

5.7. Hvad de menneskelige ressourcer angår, kan de fleste dyrlæger, både statsansatte og praktiserende dyrlæger, der for øjeblikket er beskæftiget med vaccinationskampagner, anvendes til udbygning af en statslig tjeneste, som er i stand til at klare de supplerende krav i forbindelse med, at der ikke længere vaccineres, ligesom de kan anvendes til andet arbejde, som f.eks. bekæmpelse af Aujeszkys syge og Brucella melitensis.

5.8. Ophører man med at vaccinere, må de eksisterende mund- og klovesyge-laboratorier tilpasse sig en situation, hvor vaccineproduktionen skæres kraftigt ned. Hvis dette bliver tilfældet, må ressourcerne anvendes til at oplære personalet, både i marken og på laboratorierne, i at diagnosticere mund- og klovesyge og på at udvikle bedre diagnostiske metoder.

5.9. Kommissionen er fuldt overbevist om, at Fællesskabet for at kunne realisere det indre marked må vælge mellem slet ikke at vaccinere eller at vaccinere alle modtagelige dyr. Som det fremgår af denne rapport er det klart sikrere og billigere at undlade at vaccinere, samtidig med at der både opnås en høj sundhedsstandard og frie varebevægelser på det indre marked, hvorfor det kraftigt henstilles til medlemsstaterne at vælge denne politik. Der vil blive fremsat forslag til Rådet med henblik på at ændre de nugældende retsforskrifter.

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ANNEXES

TO THE REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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FOOT AND MOUTH DISEASE - MEMBER STATES
(1968 - 1988)

COUNTRY	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIUM	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
WEST GERMANY	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GREECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
U.K.	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SPAIN	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
1984 onward : ADNS

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ANNEX 1

TABLE 2

FMD situation in neighbouring countries (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
Norway	P	(1952)
Sweden	P	(1966)
Finland	P	(1959)
DDR	V	(1982)
Poland	P	(1971)
Czechoslovakia	V	(1975)
Austria	P	(1981)
Switzerland	V	(1980)
Yugoslavia	P	(1978)
Albania	P	(1960)
Bulgaria	P(1)	(1973)
USSR	V	O_1, A22
Hungary	V	(1972)
Turkey	V	O_1, A22
Tunisia	V	(1982)
Algeria	V	(1978)
Morocco	V	(1983)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

(1) = vaccination in buffer zone with Turkey

*Source = FAO Yearbook

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ANNEX 1

TABLE 3

FMD situation in non-Member States with trade links to the Community (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
USA	P	(1929)
Canada	P	(1952)
Japan	P	(1908)
Korea (Republic)	P	(1934)
China	V	-
Australia	P	(1971)
New Zealand	P	0000
Brazil	V	O_1A_1C
Argentina	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	0
Chile	P	0
Colombia	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibia	V	(1980)
South Africa	V	(1985)
Swaziland	V	(1988)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

0000 = never recorded

*Source = FAO Yearbook

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SUMMARY ANALYSIS OF VACCINATION PLANS IN MEMBER STATES 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

NB Denmark, Ireland and United Kingdom do not practice vaccination. Greece vaccinates only in the Evros (Thrace) buffer zone.

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ANNEX 2

THE RISK OF FOOT AND MOUTH DISEASE (FMD) OCCURRING IN THE EUROPEAN COMMUNITY FOLLOWING COMPLETION OF THE INTERNAL MARKET - REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. The Group has been asked to provide an opinion on the extent of the risk of FMD occurring in the Community following 1992, in the event of (a) a vaccination policy* or (b) a non-vaccination policy** being adopted throughout the Community in future.

2. The Group has based this assessment of risk on the epidemiological and laboratory evidence available for the FMD outbreaks which have occurred during the last eleven years (1977-87). First of all it has identified the primary outbreaks in each epizootic to determine, as far as possible, the source of infection.

   Secondly it has looked at the spread of infection (number of SECONDARY outbreaks) which occurred from these outbreaks to determine, as far as possible, and bearing in mind the great variety of factors influencing the rate of secondary spread, how much this has been affected by vaccination and other control measures.

   The eleven years period was chosen in order to include both the beginning and end of the epizootics in question.

PRIMARY OUTBREAKS

3. There appear to have been thirty four (34) primary outbreaks of FMD in eleven Member States during the years 1977-87***

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* Vaccination policy : Systematic annual vaccinations of all cattle. In case of an outbreak stamping out (total or partial) is applied in addition to vaccination and other control measures.

** Non-vaccination policy : A general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. It may be necessary to launch a ring vaccination.

*** The Group does not have detailed records of the circumstances surrounding outbreaks in Spain (whether they were primary or secondary).

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FMD INFECTION ORIGINATING OUTSIDE THE COMMUNITY

4. The Group has identified eight (8) primary outbreaks that occurred during the years 1977-87 where the evidence very strongly suggests that the source was outside the Community(1). The majority of these outbreaks seems to be associated with meat coming into the Community. Other outbreaks were probably caused by airborne transmission from outside, e.g. 1 outbreak in Denmark.

   The risk associated with the importation of meat changed in 1978 when the Community regulations were amended in that importation of meat on the bone was no longer allowed(2).

FMD INFECTION ORIGINATING WITHIN THE COMMUNITY

5. The Group has examined records from all Member States and it does not appear that there is any endemic source of FMD within the herds and flocks of the Community. Nevertheless there have been some thirteen (13) primary outbreaks which cannot be attributed with any certainty to extra-Community sources. As for the origin of these outbreaks it is difficult to be precise but it is possible that all were, in some way or other, connected either with escapes from laboratories or use of improperly inactivated vaccines.

FMD INFECTION OF UNKNOWN ORIGIN

6. There remain thirteen (13) primary outbreaks, where the origin of infection appears to be completely unknown.

SECONDARY OUTBREAKS

7. TABLE 1 shows that during the period 1977-87 there were a total of 1.923 outbreaks of FMD in the twelve Member States. The data for primary and secondary outbreaks were not available for Spain but in the other eleven Member States there were a total of 1.858 outbreaks of which thirty four (34) are considered to be primaries (paragraphs 3-6 above). This leaves 1.824 secondary outbreaks. The number of primary and secondary outbreaks that occurred in each Member State is shown in TABLE 2.

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(1) See Annex 2, Table 3

(2) Community requirements for deboning apply only to certain high risk areas such as South America and Africa.

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8. The amount of spread of disease (the size of the epizootic originating from a primary outbreak) varies considerably. In some cases the primary outbreaks have not given rise to further outbreaks but in others the number of secondary outbreaks has been high, e.g. as high as 153 in Italy during the A_5 epizootic 1984-85, and possibly even higher in Portugal in the early eighties.

9. The amount of spread (the ratio of primary to secondary outbreaks) shown in Table 2 (<u>averages</u>) falls into three groups :

   (a) those outbreaks where there has been virtually no spread (less than three secondary outbreaks per primary).

   (b) those epidemics where there has been limited spread (less than 25 secondary outbreaks per primary).

   (c) those epidemics where there has been extensive spread (more than 25 secondary outbreaks).

   When looking at the above differences several factors should be taken into consideration, i.e. not only the question of vaccination versus non-vaccination strategy, but also differences between individual countries as regards agricultural infrastructure, farm management, herd size, geographical conditions, veterinary service etc. Differences in virulence and transmissibility between field virus strains may also have contributed to the high degree of variation.

10. Where vaccination has been employed to protect the cattle population the secondary outbreaks have occurred mainly (but by no means entirely) in non-vaccinated pig herds. Infected pigs excrete large amounts of virus and these have perpetuated the epizootics, e.g. the type C epizootic in Italy 1985-86.

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Where vaccination has not been used (in four Member States*) seven primary outbreaks have given rise to 28 secondaries. Two of the primary outbreaks occurred in Denmark where there is also a high density of pigs.

PREDICTIONS FOR THE YEARS 1993-2003
(in the present Member States)

11. Whatever the control policy within the Community (vaccination or non-vaccination) there will remain the risk of infection entering the Community from outside. The risk due to the importation of meat (even in large amounts) from outside appears to have declined since the importation rules were made more strict. On the other hand the risk of infection entering the Community from outside is still present, particularly if large numbers of animals are imported. However, the risk from official importation of animals can be reduced by Community regulations. If it is due to illegal importation or airborne infection it is not directly controllable by the Community.

12. The best estimate that the Group can make is that the risk of infection entering the Community in the years 1993-2003 will be no worse and no better than during the last eleven years, i.e. causing some eight (8) primary outbreaks originating from outside the Community. If to those is added a proportion of the 13 outbreaks where the origin was completely unknown (paragraph 6) the risk increases to about twelve-thirteen (12-13) outbreaks. This figure may be an overestimate of the predicted risk in that the restriction on imported meat introduced in 1978 appears to have been effective in preventing the entry of disease.

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* Denmark, Ireland and United Kingdom do not vaccinate. Greece does not vaccinate except in a buffer zone in the department of Evros.

13. The employment of non-vaccination or of vaccination policies within the Community might also make a difference to this estimate in that vaccination may have prevented some primary outbreaks during the period 1977-87. The number of outbreaks thus prevented cannot be assessed. However, experience in areas of the Community where vaccine is not used could suggest that it is small. It should be noted, however, that the areas of the Community, where vaccination is not practised, have the additional advantages of geographical isolation (islands, peninsula) and strict importation controls, as well as advantages of the protection provided by the regular vaccinations in neighbouring countries.

14. In some Member States special risks can be anticipated from cross-frontier contacts, including illegal importations, which are favoured by the long borders of the Community. In any event, if non-vaccination was to become Community policy the Group would recommend that no susceptible animals be imported into the Community without rigorous safeguards (see later).

THE RISK OF INFECTION ORIGINATING INSIDE THE COMMUNITY

15. If vaccination is not used within the Community in the future and on the basis that there is no evidence of a source of FMD within the Community then it is most unlikely that there will be any primary outbreaks additional to those originating from outside the Community (paragraph 12) and a proportion of the 13 primary outbreaks of unknown origin (paragraph 6), provided laboratories which manipulate FMD virus are operated effectively in conditions of high security.

16. If prophylactic vaccination is used within the Community in future then there is a risk that in addition to the outbreaks mentioned in paragraph 15 there will be some outbreaks associated either with the production or the administration of vaccine. If the experiences of the years 1977-87 were repeated in the years 1993-2003 then we could reasonably expect some 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine. However, it is likely that vaccine inactivation techniques will improve and that escapes from laboratories will decline.

In other respects and whatever the origin of the outbreaks, some of them will be likely to be prevented by the use of prophylactic vaccination.

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THE RISK OF SPREAD OCCURRING WITHIN THE COMMUNITY

17. The data contained in TABLE 2 and in paragraphs 7-10 suggest that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. On the basis of the information available, the Group considers that the variation is too great as to make it possible to draw clear conclusions as to the predicted rate of spread in the event of non-vaccination or of vaccination becoming Community policy. In this respect geographical conditions, agricultural infrastructure and veterinary controls in individual countries should be considered as factors of crucial importance.

The Group is particularly aware of the risk of secondary spread in areas of high animal density. If vaccination was discontinued, the risk to cattle would be increased, but would not be significantly altered for pigs, which are not normally vaccinated. In case of an outbreak the epizootic may be restricted in size and duration by applying the methods described in paragraphs 29-32 (see later), and if necessary by launching a ring vaccination.

18. It is apparent, however, that the amount of spread of infection from a primary outbreak, in addition to the virulence and transmissibility of the field virus, is highly dependent on the rigour of the control procedures employed. Where only stamping out is used to control an epizootic and the stamping out procedures are carried out thoroughly and promptly (and accompanied by strict movement controls etc.) the infection may be contained to a small number of secondary outbreaks. Likewise the experience of 1977-87 suggests that whether or not prophylactic vaccination is employed, if control measures (stamping out and movement controls etc.) are not applied strictly, then spread, including particularly spread into the pig population, may be extensive.

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ANNEX 2
TABLE 1

TABLE 1

FMD OUTBREAKS IN MEMBER STATES
1977 - 1987

Country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgium	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	–	–	–	–	–	22	1	–	–	–	–	23
Germany	7*	3	–	2	–	1	–	9**	–	–	6***	28
Greece	3	–	–	–	5	–	–	2	–	–	–	10
Spain	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Ireland	–	–	–	–	–	–	–	–	–	–	–	–
Italy	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
United Kingdom	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** incl. six serological cases found a posteriori
*** 1987/88

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ANNEX 2

TABLE 2

FMD OUTBREAKS IN MEMBER STATES

1977 - 1987

RATE OF SPREAD

MEMBER STATES USING A NON-VACCINATION POLICY

	Primary Outbreaks	Secondary Outbreaks	Ratio
Denmark	2	21	1:21/1:0
Greece	3	7	1:2.3
Ireland	-	-	-
United Kingdom	2	0	1:0

MEMBER STATES USING A VACCINATION POLICY

Belgium	-	-	-
Germany	8	20	1:2.5
Spain	Not known	Not known	Not known
France	2	38	1:19
Italy	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Netherlands	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEX 2

TABLE 3

EIGHT PRIMARY OUTBREAKS OF FMD

where the evidence very strongly suggests that the source was outside the Community

1976/77	Greece	Type A	- similarity with South American types - swill feeding
1976/77	FRG	Type A	- Aachen (similarity with A 24) swill feeding
1977	Italy	Type A	- similarity with South American types, virus isolated from imported meat products/bone marrow
1978	Italy	Type O	- probably associated with imported meat
1979	Italy	Type A	- similarity with South American types
1982	Denmark	Type O	- probably airborne introduction from Eastern Europe
1982	Germany	Type O_1	- related to O_1 Austria 1981
1984	Greece	ASIA-1	- probably airborne introduction

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ANNEX 3

1. THE ECONOMIC ANALYSIS

1.1. The estimates of the costs of vaccination and of outbreaks given in Tables 1 and 2, and the predicted number of outbreaks provided by the Scientific Veterinary Committee in Annex 2 have been used in an economic analysis which shows the possible outcomes given a vaccination or a non-vaccination policy. These outcomes have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case.

1.2. The analysis covers the ten year period 1993-2002. This is considered to be a reasonable period on which to base policy considerations.

2. THE ASSUMPTIONS

2.1. The cost of vaccination

The cost of a Community vaccination programme involving a single annual vaccination of all eligible cattle is estimated at 133 million ECU per annum (Table 1).

2.2. The cost of outbreaks

The cost of an outbreak as provided by Member States varies considerably (Table 2). The most important cause of the variation is the difference in the size of the herds and the value of the livestock slaughtered. The values shown in Table 2 are the average for each Member State but even within Member States there are great variations in herd size from small holdings to large intensive units.

The lowest cost for an outbreak is that provided by the Portuguese authorities. In that country, holdings with less than 5 hectares account for 86 % of all holdings and the outbreak cost quoted is for a holding containing only 4 cattle and 5 pigs. This is not typical of the Community as a whole and so, for the purpose of the economic analysis, the next lowest cost estimate (Greece 32 000 ECU) has been taken as the "low" estimate.

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The highest cost for an outbreak is that provided by the Spanish authorities (470 000 ECU) and is based on the costs recorded during an epidemic in 1983. The average number of cattle on the holdings affected is given as 1 535. However, a scrutiny of the national submissions showed that the Italian authorities estimated costs of 600 000 ECU for total slaughter in very large intensive pig units. Therefore, in order to give proper weight to the risk attached to disease occurring in large intensive units, this figure has been used as the "high" estimate in the analysis.

Excluding Portugal because of its untypical herd structure, the average of costs submitted by Member States is 158 000 ECU and this has been used as the "central" estimate in the analysis.

2.3. The number of outbreaks

The number of outbreaks used in constructing the most likely, worst and best cases are derived from the estimates provided by the Scientific Veterinary Committee (Annex 2).

The Committee estimated that under a non-vaccination policy there are likely to be 13 primary outbreaks over a 10 year period. This figure may be an overestimate of the predicted risk in that the restrictions on imported meat introduced during 1978 appear to have been effective in preventing the entry of disease.

The Committee estimated that under a vaccination policy there would be the 13 primary outbreaks referred to above and an additional 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine in the field. However, the Committee considered that improved techniques ought to lead to a reduction in this risk and for the purpose of the economic analysis the estimate of the number of laboratory or vaccine-related outbreaks has been reduced to 7 over a 10 year period. This, together with the 13 outbreaks from external sources makes a total of 20 primary outbreaks overall during the 10 years under a vaccination policy.

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The data examined by the Committee suggested that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. Therefore, for this economic analysis, the same estimate has been used for the two alternative policies.

The report of the Committee provides a range for the ratio of primary to secondary outbreaks. The ratios given are reasonably uniform between Member States except for Portugal. The figure given for this country of 1:591 represents a situation before Portugal applied Community control measures. Disregarding the Portuguese experience, the average ratio of primaries to secondaries over the last 10 years is 1 primary to 20 secondaries and this has been taken as the central or most likely estimate. It is possible that this ratio exaggerates the rate of spread as in some of the major epidemics more of the outbreaks may have been primary rather than secondary e.g. the multiple seeding of outbreaks due to improperly inactivated vaccine.

The lowest rate of spread is taken as 1:0, i.e. there are no further outbreaks beyond the primary. This has happened several times over the last 10 years under both policies.

The highest rate of spread - the most pessimistic estimate - is taken as 1:150. This represents the highest ratio of primaries to secondaries recorded in recent epidemics in the intensive livestock areas of northern Italy.

3. THE SCENARIO ANALYSIS

3.1. Three possible outcomes are presented depending on the variations in the number and cost of outbreaks described in paragraphs 2.2 and 2.3 above. They are :

- a central (or most likely) case,
- a best case,
- a worst case.

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3.2. The central case

This gives the most likely outcome. It is based on the cost of an average outbreak (158 000 ECU) (see 2.2. above) and the most likely number of secondary oubreaks (20) arising from a primary (2.3. above).

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
20 secondaries per primary

Total = 13 + (13 x 20) = 273

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Total cost = 273 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 35 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years)
20 primaries
20 secondaries per primary

Total = 20 + (20 x 20) = 420

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Cost of outbreaks = 420 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 54 million ECU.

Cost of vaccination = 133 million ECU per annum. The discounted present value over 10 years (at 5 %) = 1080 million ECU.

Total cost = 54 million ECU + 1080 million ECU = 1134 million ECU.

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3.3. The best case

This gives the most optimistic outcome i.e. outbreaks all occurring on the smallest livestock holdings and no secondary outbreaks arising out of the primaries. A situation where there are no secondary outbreaks is not unusual. It is unlikely however that all outbreaks would occur in the smallest herds.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :

13 primaries

0 secondaries

Total = 13 + (13 x 0) = 13

Expected cost per outbreak (1987 values) = 32000 ECU (see para. 2.2.)

Total cost = 13 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 337000 ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :

20 primaries

0 secondaries

Total = 20 + (20 x 0) = 20

Expected cost per outbreak = 32000 ECU

Cost of outbreaks = 20 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 519000 ECU.

The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 519 000 ECU + 1 080 million ECU = 1 080,5 million ECU

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3.4. The worst case

This gives the worst possible outcome. It is assumed that 150 secondary outbreaks would arise from each and every primary and that the outbreaks would all occur in the largest herds and cost 600000 ECU each.

Such a combination of circumstances is only a remote possibility. A spread of 150 outbreaks from a primary has only occurred once (in Italy) in the last 11 years. Furthermore, even in the most intensive livestock zones only a proportion of the holdings are very large.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
150 secondaries per primary

Total = 13 + (13 x 150) = 1963

Expected cost per outbreak (1987 values) = 600000 ECU

Total cost = 1963 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 955 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :
20 primaries
150 secondaries per primary

Total = 20 + (20 x 150) = 3020

Expected cost per outbreak (1987 values) = 600000 ECU

Cost of outbreaks = 3020 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 1470 million ECU.

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The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 1470 million ECU + 1080 million ECU = 2550 million ECU.

4. SUMMARY

	Present value over 10 years (million ECU)		
	Central case	Best case	Worst case
A. Non Vaccination Policy (Outbreaks only)	35	0,3	995
B. Vaccination Policy (Outbreaks and vaccination)	1134	1080,5	2550

The analysis demonstrates that the most probable outcome during the next 10 years will be for a vaccination policy to cost considerably more than a non-vaccination policy. Even in the most unlikely worst case, i.e. where all outbreaks occur in the very largest livestock units and there is a high rate of spread of infection, the non-vaccination policy is still the most cost-effective.

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ANNEX 3

TABLE 1

THE COST OF AN FMD VACCINATION PROGRAMME

IN THE EUROPEAN COMMUNITY

(annual costs at 1987 prices)

	Cattle vaccinated ('000 head)	Cost per head		National cost	
		National currency	ECU	National currency (millions)	ECU (millions)
Belgium	2 232	54 BFR	1,25	121,0	2,8
Denmark*	2 250	17,90 DKR	2,25	40,3	5,1
Germany	14 560	3,14 DM	1,18	38,6	18,6
Greece*	761	122 DRA	0,74	92,5	0,6
Spain	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Ireland*	6 647	1,50 IRL	1,94	10,0	12,9
Italy	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Netherlands	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
U.K.*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (rounded)	133,0

NOTES

(i) Costs are for vaccination of all eligible cattle once a year. (Except for France and Luxembourg where only total cattle population figures were available).

(ii) Costs are as recorded for Member States which currently vaccinate their national herds. Costs are estimated for Member States that do not vaccinate (indicated*).

(iii) Costs include vaccine, vaccination and general administration. They do not include costs of possible side effects.

(iv) Greece vaccinates cattle only in the Evros Valley; France does not vaccinate in Finisterre.

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ANNEX 3

TABLE 2

ESTIMATED COSTS OF A SINGLE OUTBREAK OF FMD

(as provided by Member States at 1987 prices)

The costs include : Compensation
Cleansing, disinfection and associated measures
Loss of production on farm
General administration of outbreak control

They do not include : Ring vaccination

Cost per outbreak (see notes)

	National currency	ECU
Belgium	2 203 055 BFR	50 650
Denmark	1 210 000 DKR	150 239
Germany	100 000 DM	48 309
Greece	5 281 911 DRA	31 914
Spain	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Ireland	164 500 IRL	212 258
Italy	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Netherlands	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
U.K.	70 000 UKL	104 979

NOTES

(1) An outbreak is disease occurring on one farm or holding (OIE definition for European conditions)

(2) The estimates are based as far as possible on actual costs as recorded in recent outbreaks; where there have been no recent outbreaks the costs have been estimated for an average sized herd at risk.

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ANNEX 4

COMMUNITY TRADE PATTERNS IN LIVESTOCK AND CERTAIN LIVESTOCK PRODUCTS

1. Introduction

1.1 FMD Susceptible Species

In examining trade patterns it should be noted that the species susceptible to FMD most involved in trade are bovine animals, swine, sheep and goats.

1.2 Current rules in trade

Given a normal FMD free situation, those Member States which vaccinate against FMD can export fresh meat and meat products of the species mentioned above to Member States which do not vaccinate in so far as the risk of spread of FMD is concerned.

Should an outbreak of FMD occur in any Member State then prohibition areas around the outbreak are set up by way of Directive 85/511/EEC (general control measures) and Directive 64/432/EEC (intra-Community trade) which prevent trade in animals, fresh meat and meat products (other than those heat treated to at least 70°C).

In the case of live bovine animals and swine, trade restrictions exist according to Community law between the vaccinating and non-vaccinating States. Rules are laid down in Article 4(a) of Directive 64/432/EEC and are one of the reasons why this study has been undertaken. At 1 January 1989 national rules on sheep and goats were still in force.

The provisions of Article 4(a) give Member States which are free of FMD for two years and do not vaccinate the right to request isolation and/or quarantine in addition to certain tests to ensure that the animal in question has not been vaccinated and is not a carrier of FMD virus.

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In terms of intra-Community trade the provisions concerning live animals are the most important in projecting the advantages and disadvantages of adopting a pan-vaccination or a non-vaccination policy.

2. Intra-Community trade[1]

2.1 Bovine animals

2.1.1 Calves (up to 250 kgs)

In 1987 some two million calves were traded between Member States. The principal exporters and importers were :

1. France (838 000) to Italy (689 000), Netherlands (65 000) and Germany (64 000)
2. UK (376 000) to France (221 000), Netherlands (133 000) and Italy (6 000)
3. Netherlands (332 000) to Germany (102 000), Belgium/Luxembourg (99 000) and France (88 000).

Comment

In either a non-vaccination or pan-vaccination situation trade in calves is unlikely to alter to any great extent. UK appears to have an exportable excess while trade to Denmark and Ireland is only likely to develop if cow numbers there are cut back sharply.

2.1.2 Adult cattle for fattening, production and slaughter

In 1987 1,15 million adult cattle were traded between Member States. The principal exporters and importers were :

1. France (795 000) to Italy (709 000), Germany (34 000) and Belgium/Luxembourg (21 000)

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(1) Source of data is Nimexe as quoted in Eurostat for the year 1987. Figures are to the nearest thousand in head.

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2. Ireland (152 000) to UK (151 000) and Portugal (1 000)
3. Germany (117 000) to Netherlands (64 000), Italy (37 000) and Belgium/Luxembourg (11 000).

Comment

In either a non-vaccination or pan-vaccination situation it is unlikely that trade patterns will alter as Denmark, Ireland and UK are self sufficient with Ireland being a substantial exporter. However, trade in slaughter cattle to Denmark and UK could develop due to their proximity to States such as Germany, France and the Netherlands.

2.1.3 Pure-bred breeding cattle

In 1987 38 000 of this category moved in intra-Community trade. The principal exporters and importers were :

1. Germany (22 000) to Spain (13 000), Portugal (5 000) and Italy (2 000).
2. U.K. (6 000) to Portugal (3 000) and Ireland (3 000).
3. France (5 000) to Spain (1 000), Portugal (1 000) and Italy (1 000).

NB Exports to Spain and Portugal during 1987 were supported by export refunds.

Comment

In either situation a change in these trade patterns is unlikely as the demand for these cattle is limited and the unit value is high. Because of this high unit value, quarantine and testing costs under the present regime are relatively easily absorbed. These would be eliminated on changing to a uniform policy and a marginal increase in trade could be expected. However this could be counterbalanced by an increase in trade in semen and embryos.

2.2 Swine

Trade in pigs at present is influenced by the presence or absence of four virus diseases, namely FMD, Classical Swine Fever (CSF), African Swine Fever (ASF) and Swine Vesicular Disease (SVD). Thus Member States which are officially free of CSF may prohibit entry of pigs and pigmeat into their territories from States not of the same status.

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Concerning ASF, exports from Spain (partly as and from 14 May 1989), Portugal and Sardinia are prohibited except for certain heat-treated products. Rules for SVD allow Member States not vaccinating against FMD and free of FMD for two years to require a negative serological test for SVD on breeding and production pigs before entry into their territories.

2.2.1 Pigs for Production (up to 50 kgs) (Weaner pigs)

In 1987 a total of 2,5 million of such pigs were traded between Member States. The principal exporters and importers were :

1. Germany (1 371 000) to Belgium/Luxembourg (744 000), Spain (332 000) and France (275 000)
2. France (423 000) to Spain (225 000), Belgium/Luxembourg (145 000) and Italy (52 000)
3. Netherlands (681 000) to Italy (308 000), Spain (184 000) and Belgium/Luxembourg (128 000).

2.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total traded in 1987 was 4,233 million. The principal exporters and importers were :

1. Netherlands (2 990 000) to Germany (924 000), Italy (724 000) and France (710 000).
2. Belgium/Luxembourg (958 000) to France (558 000) and Italy (326 000).
3. France (111 000) to Italy (70 000) and Belgium/Luxembourg (25 000).

2.2.3 Adult sows (not pure bred) (Mainly sows for slaughter)

In 1987 a total of 337 000 sows in this category were traded between Member States. The principal exporters and importers were :

1. Netherlands (307 000) to Belgium/Luxembourg (196 000) and Germany (110 000).
2. France (23 000) to Belgium/Luxembourg (22 000).

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2.2.4 Pure bred pigs for breeding

In 1987 some 19 000 pure bred pigs were traded. The principal exporters and importers were :

1. U.K. (9 000) to Spain (5 000), Ireland (1 000) and Germany (1 000).
2. Netherlands (3 000) to Spain (1 000) and Belgium/Luxembourg (1 000).
3. France (2 000) to Spain (2 000).

Comment on trade in pigs

As stated above, three diseases apart from FMD can influence the trade in pigs. It is therefore difficult to predict altered trade flows in the immediate future. Because of current self sufficiency it is unlikely that a trade into Denmark, Ireland and UK will develop to any great extent.

2.3. Sheep and goats

At 1 January 1989 no Community rules concerning trade in sheep and goats existed. Therefore national rules apply. Apart from FMD, Brucella melitensis would appear to be a disease which militates against trade from the Southern Mediterranean States to the Northern ones.

2.3.1 Sheep and goats other than pure breds

A total of 1,77 million sheep and goats were traded between Member States in 1987. The principal exporters and importers were :

1. France (457 000) to Italy (272 000) and Spain (183 000).
2. UK (392 000) to France (295 000) and Ireland (85 000).
3. Netherlands (336 000) to France (198 000) and Belgium/Luxembourg (134 000).
4. Germany (298 000) to Belgium/Luxembourg (128 000) and Italy (88 000).

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2.3.2 Pure bred breeding sheep and goats

A total of 17 000 sheep and goats in this category were traded in 1987. Principal exporters and importers were :

1. U.K. (7 400) to Ireland (5 000) and France (2 400).
2. Portugal (4 500) to Spain (2 500) and UK (1 000).
3. Spain (2 000) to France (1 000) and UK (700).

Comment

Trade in each category appears to be mainly from north to south probably a reflection of Brucella requirements. Present trends would seem to be set to continue. There does not seem to be an opening for trade to Denmark, Ireland or U.K. due to self sufficiencies and price differentials.

3. Trade from third countries

Trade in fresh meat and meat products :

This takes place from approximately 50 third countries into the Community. While, in the event of a change to non-vaccination, the Community is unlikely to demand that meat originates from non-vaccinated third country animals, two problem areas can be foreseen. Firstly the Latin American countries (Argentina, Brazil, Paraguay and Uruguay) where FMD flares to epizootic proportions, control FMD partly by vaccination. Meat for the Community from these countries is prepared under a strict set of conditions including maturation and deboning. It may be that a further tightening of conditions will be considered necessary especially in the case of offals. The second problem is Southern Africa - South Africa (including Namibia), Swaziland, Botswana and Zimbabwe. Here we find that current legislation(1) requires non vaccination of cattle for 12 months prior to slaughter plus freedom from FMD for the same period. However the animal health decisions for these countries are not binding on all Member States at present. In the near future decisions applicable to all Member States will be necessary.

(1) Directive 72/462/EEC Articles 14 and 15.

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On the whole therefore shipments of meat and products to the Community should not suffer in the event of a change in Community vaccination policies.

Trade in live animals :

This trade may take place from 21 countries as far as cattle and pigs are concerned, the trade in sheep and goats being subject to national rules. Bovine animals entering Member States which routinely vaccinate must be vaccinated prior to entry.

3.1 Bovine animals

3.1.1 Calves (up to 250 kgs)

In 1987 a total of 272 000 calves were imported into the Community. The principal senders and receiving Member States were :

1. Poland (219 000) to Italy (149,000) and Germany (61 000).
2. Czeckoslovakia (27 000) to Italy (18 000) and Germany (9 000).

3.1.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 350 000 cattle in this category were imported into the Community. The principal senders and receiving Member States were :

1. Yugoslavia (170 000) to Italy (111 000) and Greece (59 000).
2. Poland (80 000) to Italy (75 000) and Greece (4 000).
3. Austria (56 000) to Italy (38 000) and Germany (16 000)

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3.1.3 Pure-bred breeding cattle

In 1987 some 44 000 of these cattle were imported into the Community. The principal senders and receiving Member States were :

1. Austria (23 000) to Italy (18 000) and Spain (4 000).
2. Switzerland (15 000) to Italy (14 000).

Comment

As can be noted from the above lists the main supplies of cattle are destined for Italy and are obtained largely from third countries which at present do not systematically vaccinate, the exceptions being Czeckoslovakia and Switzerland. In the event that neither of these countries abandon vaccination then a small shortfall in calves (27,000) and breeding animals (15,000) will result. This should pose little difficulty in terms of alternate suppliers.

A policy change to pan-vaccination would, it is thought, cause little change to the import flows into Denmark, Ireland or U.K. A change to non-vaccination would mean non-acceptance of vaccinated animals and the supply of store cattle from some Eastern European countries e.g. DDR, Czeckoslovakia and Switzerland might cease depending on those countries' willingness also to abandon vaccination. On the other hand countries like Poland and Yugoslavia which do not vaccinate systematically would be relieved of their responsibility to apply pre-export vaccination.

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3.2 Swine

3.2.1 Pigs for production (up to 50 kg) weaner pigs

In 1987 a total of 13 566 weaner pigs were imported into the Community principally to :

Italy (12 245) from Czeckoslovakia (11 601).

3.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total imported in 1987 was 37 935 principally into :

Belgium/Luxembourg (37 590) from DDR (37 425)
Spain (241) from Switzerland (241).

3.2.3 Adult sows (not pure bred) (mainly sows for slaughter)

Only 7 in this category were imported in 1987.

3.2.4 Pure bred pigs for breeding

A total of 428 imported in 1987 principally into :

Netherlands (122) from Canada (122)
Greece (89) from Sweden (40) and Austria (34)
Germany (67) from Hungary (30) and Austria (22).

Comment on imports of pigs

In comparison with Intra-Community trade (7 million in 1987) imports from third countries of 52 000 pigs are insignificant. No consequences of a change in vaccination policy can be foreseen.

3.3 Sheep and goats

3.3.1 Sheep and goats other than pure breds

In 1987 2 043 000 head were imported principally into :

1. Italy (1 492 000) from Hungary (865 000), Poland (278 000) and Bulgaria (266 000)
2. Germany (286 000) from Poland (201 000) and Hungary (85 000)
3. France (163 000) from Poland (94 000) and Hungary (69 000)
4. Greece (89 000) from Hungary (50 000) and Bulgaria (35 000).

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3.3.2 Pure bred breeding sheep and goats

In 1987 5 102 animals in this category were imported principally into :

1. United Kingdom from New Zealand (3 222), Australia (294) and Canada (197)
2. France (728) from Canada (343), Australia (222) and Algeria (117)
3. Italy (195) from Austria (102) and Switzerland (92).

Comment

The main suppliers of sheep and goats to the Community do not vaccinate systematically against FMD and therefore existing patterns should be maintained. Total imports are limited by constraint agreements.

4. Trade to third countries

Current rules in trade

Animal health rules governing exports of FMD susceptible animals and their products are not entirely uniform. This is because receiving third countries, having particular attitudes and positions regarding FMD, lay down their own import rules. However it can be noted that most third countries which are free of FMD and do not vaccinate will not freely accept animals and their products from countries which vaccinate. The prime example of this practice is U.S.A. which maintains an official listing (often referred to as the "White List") of countries which it considers free of FMD. A "knock-on" effect ensues when countries on the list emulate or exceed U.S.A. rules for unclear reasons. This problem will be discussed later.

4.1 Meat and meat products

Meat and meat products which are heat treated to at least 70°C will satisfy most veterinary regulations as regards FMD virus survival. The statistics which follow are for those meats and products which are not heat treated.

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4.1.1 Meat of bovine animals, fresh, chilled, frozen

In 1987 a total of 692 791 tonnes in this category was exported principally by :

1. France (215 897) to USSR (39 400), Iran (37 156), Egypt (19 682), Brasil (14 008), Saudi Arabia (12 034), Angola (11 021) and Iraq (10 478)
2. Ireland (159 560) to Egypt (43 904), Iran (23 105), Iraq (18 549), Yugoslavia (14 014) and South Africa (13 122)
3. Germany (119 637) to Egypt (46 188), Yugoslavia (22 361) and Iran (13 102)
4. Italy (60 510) to Brazil (16 711), Peru (9 625), Saudi Arabia (9 564) and Libya (8 119)
5. Netherlands (54 389) to Zaire (10 753), Yugoslavia (10 305) and Egypt (6 504).

Tonnage exported by other Member States to various countries were : Denmark (38 076), UK (37 341), Belgium (5 928), Spain (1 297), Greece (136) and Portugal (22).

4.1.2 Preparations of uncooked bovine meat, offals and mixtures

In 1987 some 10 006 tonnes of such preparations were exported principally by :

1. Denmark (7 884) to Saudi Arabia (2 432), Bulgaria (1 252), United Arab Emirates (779) and Bahrain (722)
2. Italy (1 528) to Saudi Arabia (1 084) and Jordan (239).

4.1.3 Offals of bovine animals

In 1987 some 12 048 tonnes of offals were exported principally by :

1. France (3 295) to Ivory Coast (1 018), Guadeloupe (465), Martinique (403), Gabon (340) and Israel (299)
2. Ireland (2 550) to Japan (1 529), Israel (346), Egypt (295) and Trinidad/Tobago (154)
3. Germany (2 199) to Austria (1 111), Egypt (185) and Ivory Coast (185)
4. Netherlands (2 152) to Israel (683), Zaire (251) and Yugoslavia (163).

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4.1.4 Unrendered fats of bovine animals for food

In 1987 a total of 27 179 tonnes in this category was exported principally by :

1. Germany (15 782) to Iran (6 369), Cuba (2 076), Nigeria (1 813) and Burundi (1 511)
2. Denmark (7 300) to Rwanda (1 869), Kenya (1 681) and Tanzania (1 500).

4.1.5 Stomachs, Intestines, Bladders of animals (all food animals)

In 1987 a total of 22 868 tonnes were exported principally by :

1. Germany (8 698) to U.S.A. (2 573), Austria (1 211) and Brazil (1 006)
2. Denmark (3,676) to U.S.A. (1,788), Norway (493), Finland (386) and D.D.R. (167)
3. Netherlands (2 910) to U.S.A. (675), Brazil (433), Yugoslavia (247), Switzerland (246) and Finland (239)
4. France (2 582) to South Africa (612), Hungary (334), Sweden (172), Taiwan (152), Morocco (160) and Poland (144).

4.2 Pig meat

4.2.1 Carcases and half carcases, fresh, chilled or frozen

In 1987 2 720 tonnes of pig meat in this category was exported to third countries. Principal exporters were :

1. Spain (1 572) to Canary Isles (1 455) and Andorra (74)
2. France (455) to Canary Isles (142), Seychelles (85) and Reunion (66)
3. Belgium (311) to Canary Isles (287).

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4.2.2 Pig meat in cuts

In 1987 197 921 tonnes was exported principally by :

1. Denmark (164 272) to Japan (94 519), U.S.A. (54 158) and Canada (9 768)
2. France (9 512) to Reunion (4 415) and Martinique (1 093)
3. Belgium (6 537) to Czeckoslovakia (4 026) and Dutch Antilles (676).

4.2.3 Pig meat salted, brined, dried or smoked

In 1987 9 637 tonnes of this category mainly bacon was exported principally by :

1. Spain (3 007) to Canary Isles (2 379) and Andorra (315)
2. Denmark (3,000) to Sweden (1 155), U.S.A. (613), Greenland (196) and Singapore (194)
3. France (1 409) to Guadeloupe (483), Martinique (213) and Reunion (213).

4.2.4 Pig fat (and poultry fat) fresh, chilled and frozen

In 1987 2 085 tonnes were exported principally by :

1. Denmark (1 488) to Norway (907) and Cyprus (177)
2. France (242) to Reunion (176).

4.2.5 Sausages, puddings and the like

In 1987 65 425 tonnes were exported principally by :

1. Spain (28 414) to Canary Isles (23,881), Andorra (454) and Lebanon (263)
2. Denmark (16 742) to U.S.A. (4 027), Canary Isles (3 505), Singapore (1 073) and Saudi Arabia (1 006)
3. France (6 910) to Reunion (1 279), Guadeloupe (1 278) and Martinique (1 170)
4. Italy (4 666) to Switzerland (2 605) and Lebanon (463).

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4.2.6 Pork offals

In 1987 35 725 tonnes of pork offals were exported principally by :

1. Denmark (14 674) to Sweden (7 572), Japan (3 354) and Liberia (1 229)
2. Netherlands (8 481) to Sweden (2 243), Ivory Coast (2 167) and Cameroon (960)
3. Germany (4 440) to Sweden (3 970) and Switzerland (243).

4.3 Sheep and goat meat, fresh, chilled, frozen etc.

Only one classification exists for statistical purposes.

4.3.1 All sheep and goat meat

In 1987 a total of 5 169 tonnes was exported principally by :

1. United Kingdom (2 475) to Switzerland (2 172)
2. Italy (906) to Libya (906)
3. France (678) to Switzerland (312) and Reunion (71).

Comment on exports of fresh meat and offal

As intervention stocks decline, exports of beef to countries such as USSR and Brazil are likely to diminish. In the event of a pan-vaccination policy exports of beef offals from Ireland to Japan and some other countries - total of 2 550 tonnes in 1987 - would be lost.

In a similar situation Denmark would lose an export trade in pork cuts, partly treated pigmeat, pig fat, offals and sausages, puddings and the like which in 1987 totalled 200 000 tonnes mainly to "White List" adherants. However this export trade is marginal in comparison to total trade and it is believed that this production can be accommodated within the Community.

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4.4 Bovine animals

4.4.1 Calves (up to 250 kgs)

In 1987 the total exported from the Community as a whole was 3 309. Principal exporters were :

France (3 299) to Switzerland (3 031) and Andorra (206).

4.4.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 77 527 was exported. Principal exporters were :

1. Ireland (64 950) to Libya (30 149), Egypt (29 577) and Malta (4 200)
2. France (7 807) to Tunisia (1 684), Saudi Arabia (1 504) and Algeria (677)
3. Germany (2 324) to Saudi Arabia (2 119)
4. Spain (2 298) to Andorra (2 260).

4.4.3 Pure bred breeding cattle

In 1987 a total of 87 119 was exported. Principal exporters were :

1. Germany (43 837) to Turkey (5 357), USSR (4 893), Morocco (4 958), Libya (3 910), Kuwait (3 661), Syria (2 267), Iraq (2 164), Iran (2 024), Jordan (2 157) and Saudi Arabia (1 026)
2. France (21 390) to Algeria (18 367), Morocco (1 406) and Canary Isles (1 045)
3. Netherlands (16 647) to Algeria (5 950), Iran (5 129), Egypt (3 316) and Jordan (836)
4. Denmark (4 307) to Egypt (2 490), USSR (1 372) and United Arab Emirates (365).

4.5 Swine

As mentioned earlier, diseases other than FMD may cause restrictions in trade.

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4.5.1 Pigs for production (up to 50 kg) Weaner pigs

In 1987 a total of 2 633 was exported. Principal exporters were :

1. Netherlands (1 188) to Philippines (579) and Faroe Islands (516)
2. Belgium (1 067) to Philippines (1 052).

4.5.2 Pigs 50 kg or over (mainly slaughter pigs)

In 1987 a total of 4 390 was exported. Principal exporter was :

France (3 502) to Canary Isles (1 891) and Switzerland (1 000).

4.5.3 Adult sows (not pure bred) (mainly sows for slaughter)

In 1987 a total of 86 was exported from Netherlands to D.D.R.

4.5.4 Pure bred pigs for breeding

In 1987 a total of 3 444 was exported. Principal exporters were :

1. U.K. (2 224) to Thailand (681), Japan (537), Philippines (176), Nigeria (178), Kenya (169), and South Korea (111)
2. Denmark (338) to Thailand (159) and South Korea (101)
3. France (285) to Canary Isles (194) and Seychelles (40).

4.6 Sheep and goats

4.6.1 Sheep and goats other than pure breds

In 1987 some 54 576 animals were exported principally by :

1. Spain (30 481) to Andorra (20 405) and Ceuta (10 07[illegible])
2. Greece (21 900) to Turkey (21 900).

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4.6.2 Pure bred breeding sheep and goats

In 1987 a total of 5 940 in this group was exported. Principal exporters were :

1. France (4 672) to Algeria (3 886), China (233) and Columbia (130)
2. Germany (723) to Poland (413) and Austria (216).

Comment on live animal exports

Exports of cattle for production/slaughter and for breeding purposes are significant. Destination countries as far as is known vaccinate systematically. Exports from Member States which do not vaccinate such as Denmark and Ireland do not appear to be affected.

Exports of pigs are not significant except perhaps for pure breds where U.K. and Denmark have favoured positions mainly in trade to the Far East. As previously mentioned diseases such as classical and African swine fevers may complicate export patterns.

Exports of sheep and goats are not significant in the context of a 2 million head intra-Community trade.

4.7 Summary and conclusions

4.7.1 Intra-Community trade

(a) Meat and meat products

In either a pan-vaccination or non-vaccination situation no obstacle can be foreseen in this trade in respect of FMD.

(b) Bovine animals

In either situation the trade in calves should remain stable. There is a possibility of trade in store (production) and slaughter animals to Denmark and U.K. Trade in pure bred cattle is unlikely to change significantly.

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(c) Pigs

Trade to some extent is influenced by diseases other than FMD. In either a pan-vaccination or non-vaccination it is difficult to foresee any great change in trading patterns.

(d) Sheep and goats

Present trends seem set to continue to be greatly influenced by Brucella melitensis requirements.

4.7.2 Trade from third countries

(a) Meat and meat products

Little change is foreseen except perhaps a tightening up on offal imports from FMD infected countries. Uniform decisions need to be taken in respect of countries in South America and Southern Africa. Account needs to be taken of the "non-comminglement" principle which is applied by U.S.A. and other "White list" countries whereby establishments preparing meat and meat products for those countries may not receive and handle meat from countries not on the "White list".

(b) Bovine animals

Overall, in a non-vaccination situation a small short fall in calves (27 000) and breeding animals (15 000) would result if Czechoslovakia and switzerland do not abandon vaccination. On the other hand Poland and Yugoslavia will be relieved of pre-export vaccination requirements.

(c) Pigs

In comparison with intra-Community trade of 7,0 million pigs the import of 52 000 animals in 1987 is not significant particularly taking into account the overall self sufficiency in the Community pig sector.

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(d) Sheep and goats

The main suppliers to the Community do not vaccinate systematically. Existing trade patterns should be maintained in either situation.

4.7.3 Trade to third countries

(a) Meat and meat products

Several situations must be examined. Firstly, existing trade is governed by many factors such as quotas (e.g. U.S.A. and Canada), export restitution (from EEC), established trading links (e.g. Denmark to Scandanavian countries) and finally animal health rules (e.g. "White list" countries).

Secondly, the pan-vaccination solution could precipitate a loss of export markets at least in fresh meat for Denmark, Ireland and to a lesser extent U.K. who export to "White list" countries such as U.S.A., Canada and Japan. This trade acts as a buffer to cyclical production trends in the Community.

Thirdly, a change to non-vaccination could result in an expansion of access for the Community as a whole to "White list" countries. However the extent of such expansion may be limited by economic restrictions. In that event Member States currently exporting substantial volumes of meat may find themselves sharing a particular market with Member States newly eligible to penetrate that market.

A fourth perhaps hypothetical situation must be recorded in relation to a Community "entity" situation of FMD freedom. Here vaccination has been withdrawn and the Community is internationally recognised as free of FMD. Will the Community status be lost in the event of an outbreak of FMD ? The answer will depend on the perceived effectiveness of regionalisation coupled with disease surveillance measures.

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The principle of regionalisation is one which the Community puts into action in the event of an outbreak of FMD or other epizootic disease for its own internal protection. For example the measures include stamping out in the infected holding, the setting-up of protection and surveillance zones, a standstill on animal movements and other measures as laid down in Directive 85/511/EEC.

From past experiences it is difficult to foresee some third countries accepting this principle unless they conclude that the controls are adequate to prevent the diffusion of FMD virus to the remainder of the Community, thus allowing them to continue to accept product.

On the other hand it is on record that in a FMD outbreak situation in U.K. (Isle of Wight 1981) the free status of Northern Ireland was maintained. However it must be recognised that the presence of a physical barrier was a factor in this case.

Conversely the Community has accepted the principle of regionalisation not alone internally, but also in third countries such as Bulgaria, South America, Southern Africa and lately in Canada where the Okanagan Valley is affected by blue tongue, and has gone to considerable lengths to allow regionalisation in USA in respect of blue tongue.

(b) Live animals

The principles enumerated for meat and meat products apply, in the main, also to live animals.

In a pan-vaccination situation many export markets in the pure bred sector will be lost. However it should be noted that some "White list" countries will accept unvaccinated animals from vaccinating countries albeit through an extensive and expensive quarantine system.

In a non-vaccination situation all Member States should be able to export freely to all third countries but of course other requirements may restrict this possibility.

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4.7.4 Suggested action

In view of the uncertainty of the reaction of third country trading partners to the development of an FMD free Community it may be wise to have informal discussions at the technical (veterinary) level to (a) inform them of the Community's intention and (b) to sound out their attitude to regionalisation. It is known that several important third countries are interested in the principle of regionalisation in order that they themselves know in advance the Community approach to them should they become infected.

It is suggested that this line of action be adopted without delay.

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ANNEX 5

MEASURES FOR THE PREVENTION OF FMD POST 1992

- REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. THE PREVENTION OF PRIMARY OUTBREAKS POST 1992

In the event of a pan-vaccination policy being adopted by the Community the measures for prevention and control of FMD are largely covered by the Council Directive 85/511/EEC.

In the event of the Community adopting a non-vaccination policy for controlling FMD the following RISK FACTORS/SAFEGUARDS must be considered to prevent or reduce primary outbreaks of the disease:

2. ANIMAL IMPORTATIONS

Although there is no recent evidence of imported live animals causing primary outbreaks in the Community any importation of livestock presents a risk. The Group therefore recommends that :

(a) importation be limited to non-vaccinated (antibody-free) animals. Imported animals should be isolated in quarantine and tested (probang and serum testing) unless they originate from an FMD free country which applies control measures equivalent to those applied by the Community.

(b) special precautions be taken to prevent the mixing of livestock in summer grazing at the borders of the Community.

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3. AIRBORNE SPREAD FROM NEIGHBOURING COUNTRIES

There is circumstantial evidence that airborne virus has caused infection to cross the eastern border of the Community. Airborne virus remains viable in cool humid conditions and is thus a greater threat in Northern Europe. The risks related to airborne infection can be reduced by :

(a) international surveillance providing information about outbreaks of disease in neighbouring countries e.g. through the OIE and CEC or bilateral communications. The Group recommends that such information systems should be strengthened.

(b) using meteorological information to provide estimates of the range and direction of virus travel. Such estimates have been used in the UK and France, and should also be applied elsewhere. The computer software is commercially available.

(c) where necessary, support from the Community of vaccination programmes in neighbouring countries and evaluation of their efficiency by regular serological surveys.

(d) collaboration with neighbouring countries to assist them in achieving eradication of FMD.

(e) providing information for Community farmers and field veterinarians on the importance of strict vigilance and prompt reporting.

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4. THE MOVEMENT OF PEOPLE FOR TRADE OR TOURISM

People moving across Community borders may carry FMD virus contaminated material. Tourists who camp in the countryside outside the Community may thus provide a risk by carrying virus on their clothes and belongings. It is recommended that :

(a) the Community should seek to educate regular migrants across Community borders of the risk of transmitting virus in food etc. Information should be clearly visible at frontier stations and airports and tourists should not be allowed to bring back any meat or other animal products.

(b) tourists should be made aware of the danger of disposal of meat and other animal products in rural areas.

5. THE MOVEMENT OF VEHICLES

Vehicles crossing Community frontiers provide a risk of carrying virus either on soil or dirt on the outside of the vehicle or on clothing and other materials carried inside. It is recommended that :

the Community should consider the possibility of setting up emergency washing facilities at Community frontiers when disease is reported in a neighbouring country.

6. THE IMPORTATION OF MEAT AND OTHER ANIMAL PRODUCTS

Meat and certain animal products (milk, hides, wool, offals, biological products and materials, including veterinary vaccines and other pharmaceutical products and feedstuffs) present a risk of infection, but it is recognized that these products could be imported under specific conditions.

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Likewise biological collections (e.g. for scientific use) from foreign countries present a risk.

It is recommended that Community regulations for the importation of the above products should be reviewed. A ban should be placed on importation of meat and other animal products by private individuals(1).

7. THE IMPORTATION OF SEMEN AND EMBRYOS

The importation of semen and embryos presents a risk. To this end reference is made to the rules already adopted by the Council for importation of semen. Similar rules for importation of embryos are currently under consideration.

8. THE STORAGE AND MANIPULATION OF FMD VIRUS IN COMMUNITY LABORATORIES AND VACCINE PRODUCTION PLANTS

It is recognised that even if the Community pursues a non-vaccination policy there will still be a need for FMD diagnostic facilities, for research into FMD, and for vaccine production both for emergency vaccine banks and for export. Being aware, however, that research laboratories and vaccine plants have given rise to a number of FMD outbreaks in the Community in the recent past, the Group recommends :

(a) that the number of laboratories and vaccine plants holding FMD virus be strictly controlled.

(b) that laboratories and vaccine plants conform with FAO recommended minimum standards for laboratories working with FMD virus in vitro and in vivo : Report of the twenty-sixth Session of the European Commission for the Control of Foot-and-Mouth Disease, FAO, Rome, 23 - 26 april, 1985.

(1) Special attention should be paid to the so-called "free port" situation and to problems of control and disposal of "international swill".

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(c) that all facilities holding FMD virus are examined at regular intervals by a Community inspectorate.

(d) that safety and potency of FMD vaccines for emergency use be carefully controlled. In this respect reference is made to the functions of the planned EEC Coordinating Institute for FMD vaccines.

9. THE USE OF FMD VACCINES

There may be occasions when trading partners require livestock from the Community to be vaccinated against FMD before export occurs. To meet this need the Group recommends that :

(a) vaccination should be carried out either at the place of destination or in a Community approved export quarantine or on the means of transport on departure.

(b) special precautions should be taken to prevent re-entry of animals thus vaccinated.

In case of an outbreak emergency vaccination may be required in specified territorial areas. Since such an emergency vaccination would be applied in a non-immune animal population two vaccinations are recommended at an interval of 3-4 weeks(1).

10. THE PREVENTION OF SECONDARY OUTBREAKS POST 1992

The necessary measures to be taken to limit the number of secondary outbreaks in a non-vaccination situation are in principle contained in the Council Directive 85/511/EEC, in particular Article 5, paragraph a.

(1) Recourse to emergency vaccination is only foreseen in exceptional circumstances where an epizootic threatens to become extensive. Such a decision should only be taken at Community level and should take into account identification of vaccinated animals and related matters.

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As far as the required epizootiological investigations are concerned reference is made to the FAO guidelines :
"Methodology for investigating the origin of infection in Foot-and-Mouth disease (FMD) outbreaks".
(REF. : Report of the Twenty-seventh Session of the European Commission for the Control of Foot-and-Mouth Disease, Rome, 21-24 april, 1987, 111-120).

The action to be taken would be facilitated by establishing skilled task forces at a local or regional level. They would be responsible for :

(a) the slaughter and disposal of animals (special attention should be paid to the practical problems associated with the disposal of large numbers of animals in a short time span).

(b) the cleansing and disinfection of infected premises.

(c) the disposal of waste products.

(d) the establishment and maintenance of disinfection of farms and surrounding areas.

(e) check-points.

(f) the posting of warning notices.

(g) the disinfection of any essential vehicles leaving or entering.

(h) the prevention of entry or exit of unauthorized personnel.

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In addition epidemiological teams should be created to support the local or regional authorities. They would include veterinary virologists and technicians from the national FMD laboratory, and meteorologists familiar with the operation of computer systems for analyzing and predicting the airborne spread of FMD. In the event of an outbreak the epidemiological team would be sent to the infected premises without delay. It would be responsible for the following :

(a) determination of the extent and pattern of disease on the premises

(b) determining the source of infection

(c) assessing the probability of secondary spread

(d) advising the veterinarian in charge of control procedures on risks to other premises

The team should be equipped with specialist vehicles and radiophones.

FMD outbreaks may become increasingly rare in the Community and regular training programmes should be undertaken to maintain skills in FMD diagnostic and control procedures. These training programmes could be supervised by a small cadre of FMD experts at the Community level. The services of this cadre should be made available to national authorities in the event of an outbreak of the disease.

11. RISK AND PREVENTION DURING THE TRANSITIONAL PERIOD

In the event of a change to a non-vaccination policy, during the transition period the proportion of vaccinated animals will be in decline while that of susceptible animals will be on the increase.

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After cessation of vaccination, an increasing proportion of susceptible animals will be in contact with the residual vaccinated animals, and thus will act as sentinels. If, during a period of about one year after discontinuation of vaccination no outbreaks have occurred, the risk of the virus being present in the bovine population can be considered to be negligible.

During a time period of one year after the implementation of a non-vaccination policy the hitherto non-vaccinating Member States should continue with serological and probang testing of live animals before importing from previously-vaccinating Member States, to exclude those animals which are seropositive for FMD or which carry FMD virus.

These tests are not necessary for movements between previously-vaccinating Member States. However, existing rules relating to FMD-freedom of the holding and area should be maintained for movements between all Member States. The requirement for pre-movement vacination would, of course, no longer apply.

The proposal for a one year transitional period is based on the following :

(a) an increasingly short lifespan for cattle has been observed in the last decade, leading to a rapidly-decreasing proportion of repeatedly-vaccinated animals which are usually identifiable.

(b) maternally-acquired antibodies in young animals are completely lost within one year.

(c) the majority of animals, vaccinated only once and destined for fattening will be eliminated from the market by the end of the year following the last vaccination campaign.

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ANNEX 6

FORESEEABLE EFFECTS OF A CESSATION OF FMD VACCINATION ON THE EMPLOYMENT OF VETERINARIANS

The situation remains essentially variable from country to country, being dictated by stocking density and by whether a system of subsidies to maintain a minimum of veterinary activity is already in operation.

The situation is complicated by the fact that in some Member States (BE) vaccination is carried out by private practitioners, in others by the State services (LUX, PO) and in others by both (DE, ES, FR, IT, NL).

Some comments have been received from Member States. Only four (BE, DE, FR, NL) predicted job losses, these being mainly in the private sector, where it is estimated that about 10% of practice income is currently derived from vaccination. A total of 1 480 jobs lost out of 22 280 veterinarians currently involved in vaccination is estimated in these Member States.

The other Member States have stated that staff could be re-deployed, particularly in the State services, to other disease eradication projects. Only France suggested that the job losses could jeopardise routine disease surveillance, this affecting about 250 veterinarians in remote areas.

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ANNEX 7

FORESEEABLE EFFECTS OF A CHANGE IN POLICY ON LABORATORIES MANIPULATING FMD VIRUS

1. EXISTING COMMUNITY LEGISLATION

1.1. Diagnosis and vaccines

Directive 85/511/EEC on the control of Foot-and-Mouth disease (FDM) in the Community which came into effect on 1 January 1987 required the Commission to propose to Council

- A Reference Laboratory for the identification of FMD virus and,
- A Coordinating Institute for FMD vaccines,

together with details of their respective functions.

Proposals were made to Council in April 1988 and Decisions are expected shortly. In each proposal a specific Article has been included to the following effect:

1. The Community Reference Laboratory/Community Coordinating Institute shall operate according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with Foot-and-Mouth disease virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the control of Foot-and-Mouth Disease, FAO, Rome, April 1985.

2. The Community Reference Laboratory/Community Coordinating Institute shall formulate and recommend the disease security measures to be taken by the national laboratories in matters of FMD diagnosis in accordance with the standards referred to in paragraph 1.

Thus national laboratories which have already been nominated by the Member States and are included in the annex to the Directive will be coordinated by the Community Reference Laboratory and Coordinating Institute particularly in matters of disease security.

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2. PRESENT SITUATION

2.1. At present more than 30 laboratories are manipulating FDM virus in Europe for diagnostic and research purposes as well as for vaccine production.

In the event of a change to non-vaccination special attention should be paid to:

- the functions of FMD laboratories
- the security systems applied by FMD laboratories
- the number of FMD laboratories

2.2. Functions of FMD laboratories

2.2.1. FMD diagnosis

A rapid laboratory diagnosis is essential for the successful eradication of FMD, especially in initial outbreaks. This applies irrespective of which policy is used. However, in a non-vaccination situation the need for prompt action is strengthened, and suspect material from possible primary outbreaks should always be sent to the diagnostic laboratory without delay for immediate examination.

In view of the potential of FMD for rapid spread it is important that farmers and field veterinarians are fully aware of the importance of strict vigilance and immediate reporting. Members of the field section of the State Veterinary Services should have the opportunity of seeing clinical cases of FMD in the Reference Laboratory (or the national laboratory) as part of their training.

The diagnostic laboratories should be equipped and skilled for handling test systems of high sensitivity for rapidly providing the initial diagnosis as well for contributing to the identification of the origin of infection. Furthermore, at the earliest possible occasion the diagnostic laboratory should send a sample of virus, preferably the original field material, from the primary outbreak to the Reference Laboratory for confirmation and further characterization.

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Diagnostic laboratories should also be equipped and skilled for large scale serological examinations for use in the necessary epizootiological investigations in connection with outbreaks.

It will be an additional, important, function of the diagnostic laboratories to carry out control testing in connection with importation of live animals from third countries which do not apply FMD control measures equivalent to those applied by the Community.

2.2.2. Vaccine production plants

There are 15 vaccine production plants within the European Community. Eight production plants are owned by the State and seven others are commercial enterprises belonging to five firms (see table I). The production capacity of the plants is quite different as is their level of safety. The State production plants are related closely to laboratories or institutes for FMD-research and diagnostics, the same facilities being used in several cases.

Production capacity

To cover the needs related to present vaccination programmes in eight EC Member States (excl : UK, Irl, DK and Gr) a total of 77.3 million doses of vaccine is produced annually by the 15 production plants. Almost 37% is produced in the State-run production plants (29 million doses).

This figure takes into account the following :

- Italy has for the time being an intensified vaccination programme for cattle and pigs;
- Spain vaccinates the cattle population twice a year and also has a vaccination programme for pigs and sheep.

To the figure of 77.3 million doses an unknown number must be added because of :

- Vaccine production for export to third countries, mainly by the commercial enterprises (E.G.-Merieux-France 5.8 million doses). However the State run production plants may also export a certain amount of vaccine, often on an ad-hoc basis;
- Vaccine production in certain Member States for emergency reserves.

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A prudent estimate of the present total vaccine production in the EC might be 85-90 million doses per year. Nothing can be said about the maximum production capacity.

If the eight member countries had the same vaccination programme in force for cattle and 85% of their cattle population was vaccinated annually, a minimum amount of ± 50 million doses of trivalent vaccine must be produced.

Import of FMD vaccine into the EC does not take place except for a small amount for use in the buffer zone in Evros (Greece).

Pan-vaccination policy

If a pan-vaccination policy should be adopted, a vaccination programme would have to be carried out in another four Member States, i.e. United Kingdom, Ireland, Denmark and Greece. These four countries together have a cattle population of ± 20.5 million.
Vaccination of 85% of this number of cattle means that another 17 million doses of vaccine would be needed.
There are three means of producing this amount of vaccine i.e.

(a) each of the four countries could expand existing facilities for their own needs (except Ireland which has no facility);
(b) production could be increased in existing plants outside the four countries but within the EC;
(c) vaccine could be imported from outside the EC.

Regarding (a) an increase of the vaccine production in the existing facilities in Denmark, UK and Greece might be expected. The establishment of production plants in Ireland is not the most likely solution unless it is necessary for political reasons. It might be much cheaper however for all four countries to buy the vaccine within the EC.

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Regarding (b) increasing the production of vaccine to provide an extra 17 million doses in the existing plants in the EC would present no problems (see above paragraph on production capacity).

Regarding (c) an import of vaccine from outside the EC will be very unlikely because;

- there is no need for such imports;
- importing vaccine into the EC might increase the risk of introducing the FMD virus.

Non-vaccination policy

Adopting a non-vaccination policy will result in the cessation of preventive vaccination against FMD in the Community as a whole. Vaccine will only be necessary for emergency campaigns in certain areas around outbreaks, if stamping-out does not lead to the rapid eradication of the disease or if the disease becomes widespread.
A strategic store of vaccine (a Community vaccine bank) will be necessary. An estimation of the number of vaccine doses for this purpose has yet to be made.
Nevertheless a non-vaccination policy would drastically reduce the need for vaccine within the EC.

Commercial production plants, which have an important export trade to third countries in relation to the total production of FMD vaccine, should be allowed to continue but under strict security controls. Others will close the FMD vaccine production facilities or redeploy them for other purposes.

It will also be necessary to take into account the O.I.E. recommendations concerning international traffic of pathological and biological products containing FMD virus.

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The fate of state-run or state-owned production plants, which produce to a great extent only for the needs of their home country, depends on a number of factors e.g.:

a. the maintenance of diagnostic expertise;
b. the research into FMD control and epidemiology;
c. the production and storage, including associated research, of a reserve of vaccine for the Community vaccine bank.
d. the possibility of production of vaccine for export to third countries.

If a Member State decides to close down all production facilities, part of the savings could be used for the development of modern diagnostic techniques and training of staff.

2.2.3 FMD research

Whatever the future control policy (vaccination or non-vaccination) there will be a need for research into FMD. Topics of current importance are:

- development and standardisation of sensitive test systems
- utilisation of monoclonal antibodies for the characterization of field strains, vaccine strains and challenge strains
- the molecular biology of FMD virus
- problems related to the storage of FMD virus antigen in banks
- alternative data for evaluating vaccine potency
- safety of animal products
- development of new vaccines e.g. gene deleted, sub-unit and peptide.

The introduction of sensitive ELISA test systems and of molecular biological and biotechnological methods, e.g. for rapid and precise identification and characterization of FMD virus strains, are examples from recent years of practical applications of research with unique prospects. Thus it seems likely that the classical subtyping of virus isolates will be replaced by more precise characterizations using combinations of different parameters such as nucleotide sequencing and/or reactions with relevant panels of monoclonal antibodies in addition to the classical antigen relationships ("r"- values).

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This type of characterization will be of great use both for identification of the origin of infection and for possible selection of appropriate vaccines.

Research in these fields is in progress in several of the European FMD laboratories and should be encouraged to continue. In future such research activities can be expected to be coordinated by the Community Reference Laboratory/Community Coordinating Institute.

2.3 Security systems applied by FMD laboratories

In the light of the experiences of virus escapes from FMD laboratories it is imperative that all laboratories handling FMD virus, irrespective of the type of work, be operated according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with FMD virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the Control of Foot and Mouth Disease, FAO, Rome, April 1985.

It may be advisable to nominate a Community expert group to act as an inspectorate to ensure compliance with the safety standards.

2.4 The number of FMD laboratories

The risk of virus escapes from FMD laboratories suggests that the number of such laboratories should be reduced to a minimim, especially in the event of a change to non-vaccination. On the other hand the need for FMD laboratories is evident.

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Considering the importance of a rapid primary diagnosis in emergency situations, it should be possible for suspect material, irrespective of the location of the herd of origin, to reach the diagnostic laboratory within a few hours after collection, or at least within the same day. When also taking into account the need for research into FMD and the high level of research activities actually being carried out at several of the major National Laboratories, a reasonable compromise would be to keep just one of the existing National Laboratories per country in future.

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TABLE 1

Member State	Production Plants: State	Production Plants: Commercial	Annual needs of vaccine for vaccination campaigns (1986)	Remarks
Belgium	1 Uccle	-	2.3 mill. AOC (triv.)	
Denmark	1 Lindholm	-	0.45 mill. A) 0) 0.15 mill. C) each	As a reserve
Germany	-	3 Cooper Behring-werke Bayer	)) 13 mill. AOC (triv))	Vaccine is also imported from Merieux France
Greece	1 Athens	-	0.12 mill) A-0.038 mill.) 0-0.034 mill.) C-0.043 mill.	As a reserve. Besides this 60,000 doses are imported from Merieux Teheran for use in buffer zone
France	-	1 Merieux	19.0 mill. AOC (triv)	Also export to EEC & third countries 9 mill. doses
Ireland	-	-	-	-
Italy	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Period 15/3/87 to 3/7/88. Extended vacc. campaign, vaccination of cattle & pigs
Luxembourg	-	-	0.2 mill. AOC (triv)	From diff. firms within the EEC
Netherlands	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Imported from Spain & France
Spain	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	used in cattle & pigs (figures are for 1987). Maximum capacity of the 3 labs 102 mill. vaccine (mono)
UK	-	Cooper	-	Some production for U.K. vaccine bank
TOTAL	8	7	77.3 mill	0.6 mill as reserve

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ΕΠΙΤΡΟΠΗ ΤΩΝ ΕΥΡΩΠΑΤΚΩΝ ΚΟΙΝΟΤΗΤΩΝ

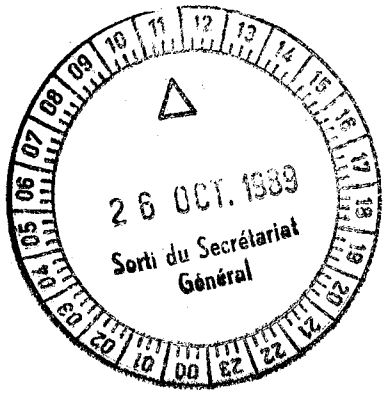
ΣΕΚ (89) 1731 τελικό

Βρυξέλλες, 18 Οκτωβρίου 1989

ΕΚΘΕΣΗ

της Επιτροπής προς το Συμβούλιο για μελέτη που πραγματοποιήθηκε από την Επιτροπή σχετικά με τις πολιτικές που εφαρμόζουν σήμερα τα κράτη μέλη για τον έλεγχο του αφθώδους πυρετού

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ΕΠΙΤΡΟΠΗ ΤΩΝ ΕΥΡΩΠΑΤΚΩΝ ΚΟΙΝΟΤΗΤΩΝ

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ΑΙΤΙΟΛΟΓΙΚΗ ΕΚΘΕΣΗ

Ο αφθώδης πυρετός είναι μία από τις πιο σοβαρές ασθένειες των ζώων. Εξαπλώνεται γρήγορα, προσβάλλοντας όλα τα δίχειλα ζώα και έχει σηματνικές οικονομικές επιπτώσεις εν μέρει εξαιτίας της άμεσης επίδρασής του στην παραγωγή του ζωικού κεφαλαίου και εν μέρει λόγω της επίπτωσης που έχει η εμφάνισή του στο εμπόριο ζώων, ζωικών προϊόντων και ορισμένων αγροτικών αγαθών.

Οι μέθοδοι που χρησιμοποιούνται για τον έλεγχο του αφθώδους πυρετού, διαφέρουν στα διάφορα κράτη μέλη αλλά όλα χρησιμοποιούν είτε εμβολιασμό μαζί με μερική ή ολική "εξολόθρευση". Άλλα μέτρα ελέγχου απαντώνται και στις ανωτέρω δύο πρακτικές όπως έλεγχος κατά την εισαγωγή, επιτήρηση επιρρεπών στην ασθένεια αυτή ζώων, εξασφάλιση διαγνωστικών μέσων και έλεγχοι στη διακίνηση των ζώων.

Σήμερα τα κράτη μέλη που ακολουθούν μία πολιτική μη εμβολιασμού μπορούν να επιβάλουν περιορισμούς στην ελεύθερη εμπορία ζώων που προέρχονται από τους κοινοτικούς τους εταίρους οι οποίοι χρησιμοποιούν τον εμβολιασμό. Αυτό συμβαίνει επειδή τα ζώα αυτά είναι δυνατόν να είναι φορείς καλυμμένης μόλυνσης και επειδή η παρουσία εμβολιασμένων ζώων θα περιόριζε το εμπόριο με ορισμένες χώρες μη μέλη.

Με την ολοκλήρωση της εσωτερικής αγοράς τον Ιανουάριο του 1983 αναμένεται ότι τα ζώα και τα ζωικά προϊόντα θα διακινούνται ελεύθερα σε όλη την Κοινότητα. Αυτό μπορεί να επιτευχθεί μόνο εφόσον όλα τα κράτη μέλη υιοθετήσουν κοινά μέτρα για τον αφθώδη πυρετό.

Η υφιστάμενη νομοθεσία σχετικά με τον αφθώδη πυρετό περιλαμβάνεται:

- Στην απόφαση του Συμβουλίου 77/97/ΕΟΚ (Απόφαση επείγουσας χρηματοδότησης)
- Στην οδηγία του Συμβουλίου 64/432/ΕΟΚ (Οδηγία ενδοκοινοτικού Εμπορίου)
- Στην οδηγία του Συμβουλίου 85/511/ΕΟΚ ('Ελεγχος οδηγίας αφθώδους πυρετού)

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Το 1988 έπρεπε να επανεξετασθεί από την Επιτροπή η οδηγία 64/432/ΕΟΚ (άρθρο 4α) και το 1989 πρέπει να επανεξετασθεί η οδηγία 85/511/ΕΟΚ.

Λόγω της απαίτησης πραγματοποίησης δύο επενεξετάσεων και εκθέσεων προς το Συμβούλιο σε σύντομη χρονική περίοδο και ενόψει της ολοκλήρωσης της εσωτερικής αγοράς μετά το 1992, η Επιτροπή απόφασισε να εξετάσει λεπτομερέστερα το πρόβλημα του αφθώδους πυρετού. Η αδυναμία ύπαρξης ελευθέρου εμπορίου χωρίς τον κίνδυνο εξάπλωσης του ιού με τα ισχύοντα διαφορετικά συστήματα του εμβολιασμού και του μη εμβολιασμού έγινε αμέσως προφανής. Αποφασίστηκε ως εκ τούτου από κοινού με τα κράτη μέλη να πραγματοποιηθούν μελέτες ανάλυσης κόστους ωφελείας και συναφείς αναλύσεις στην προσπάθεια να εξευρεθεί μία σαφής κατεύθυνση πολιτκής.

Το έργο της Επιτροπής σε ό,τι αφορά την επανεξέταση και τη σύνταξη της έκθεσης υποβλήθηκε σημαντικά από πολλούς εμπειρογνώμονες από τα κράτη μέλη. Αξίζει να αναφερθεί ιδιαίτερα το έργο της υπο-ομάδας, της κτηνιατρικής επιστημονικής επιτροπής, στο οποίο έγινε αξιολόγηση των μελλοντικών προβλέψεων και των παραγόντων που ενέχουν κινδύνους.

Τα θέματα που λήφθηκαν υπόψη κατά την σύνταξη της μελέτης περιλαμβάνουν:

- Την επίπτωση του αφθώδους πυρετού στην Κοινότητα κατά τα τελευταία 20 χρόνια
- Τον κίνδυνο αφθώδους πυρετού που διατρέχει η Κοινότητα στο πλαίσιο των εναλλακτικών πολιτικών μετά το 1992
- Τις οικονομικές επιπτώσεις των πολιτικών δηλαδή μία ανάλυση κόστους ωφέλειας
- Τις επιπτώσεις των εμπορικών προτύπων
- Τα μέτρα που απαιτούνται για την πρόληψη πρωτογενών καιδ ευτερογενών εμφανίσεων της νόσου, μετά το 1992, και
- Τις αναμενόμενες αλλαγές ως προς τους πόρους στα πλαίσια της καθεμίας πολιτικής.

Τα συμπεράσματα που εξήγαγε η Επιτροπή ως αποτέλεσμα των μελετών μπορούν να συνοψισθούν ως ακολούθως:

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- Μία πολιτική μη-εμβολιασμού θα κοστίσει σαφώς λιγότερο από μία πολιτική γενικευμένου εμβολιασμού.
- θα πρέπει να ενισχυθούν τα μέτρα που έχουν ληφθεί για την πρόληψη εισόδου της μόλυνσης στην Κοινότητα και την αποτελεσματική αποφυγή αιφνίδιας εξάπλωσης της νόσου.
- Τα εμπορικά πρότυπα σε ό,τι αφορά το ενδοκοινοτικό εμπόριο και τις εισαγωγές από χώρες μη-μέλη θα θιγούν σημαντικά από μία αλλαγή στην πολιτική. Μία αλλαγή προς την κατεύθυνση του γενικευμένου εμβολιασμού θα σήμαινε ότι θα σταματήσουν οι εξαγωγές προς ορισμένες τρίτες χώρες, ενώ σε μία κατάσταση μη-εμβολιασμού το σύνολο της Κοινότητας θα μπορούσε να έχει εμπορικές συναλλαγές με όλες τις χώρες μη-μέλη. Εάν εμφανισθεί, στην δεύτερη περίπτωση, αιφνίδια εξάπλωση της ασθένειας, η αποδοχή εξαγωγών από την Κοινότητα εν γένει θα επηρεασθεί από την αποτελεσματικότητα των μέτρων ελέγχου και εξάλειψης σε περιφερειακή βάση.
- Οι κτηνίατροι που εργάζονται σε προγράμματα εμβολιασμού σε ορισμένα κράτη μέλη θα στερηθούν μία πηγή εισοδήματος αλλά είναι δυνατόν να απασχοληθούν σε μέτρα ελέγχου άλλων ασθενειών όπως η νόσος του AUJESZKY και ο μελιταίος πυρετός.
- Τα υφιστάμενα εργαστήρια για τον αφθώδη πυρετό που παράγουν εμβόλια θα πρέπει να προσαρμοσθούν σε μία νέα κατάσταση κατά την οποία η παραγωγή εμβολίων θα μειωθεί σημαντικά ή θα μηδενισθεί. Θα μπορεί τότε να δοθεί έμφαση στην κατάρτιση του προσωπικού σε ό,τι αφορά τη διάγνωση του αφθώδους πυρετού και την ανάπτυξη καλύτερων διαγνωστικών τεχνικών.

Η Επιτροπή είναι απόλυτα πεισμένη ότι για την επίτευξη των στόχων της εσωτερικής αγοράς η Κοινότητα πρέπει να κατευθυνθεί προς μία πολιτική μη-εμβολιασμού. Προς την κατεύθυνση αυτή γίνονται θερμές συστάσεις προς τα κράτη μέλη και θα υποβληθούν κατάλληλες προτάσεις προς το Συμβούλιο με σκοπό την τροποποίηση της σημερινής νομοθεσίας.

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ΕΚΘΕΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ ΠΡΟΣ ΤΟ ΣΥΜΒΟΥΛΙΟ (1)

Θέμα: Μελέτη που πραγματοποιήθηκε από την Επιτροπή σχετικά με τις πολιτικές που εφαρμόζονται σήμερα από τα κράτη μέλη για τον έλεγχο του αφθώδους πυρετού

1. ΕΙΣΑΓΩΓΗ

1.1. Μετά τη δημιουργία της Ευρωπαϊκής Οικονομικής Κοινότητας το 1957, τα έξι αρχικά κράτη μέλη συζήτησαν σειρά μέτρων που σκοπό είχαν να επιτρέψουν την ελεύθερη διακίνηση ζώων και των προϊόντων τους στο ενδοκοινοτικό εμπόριο. Αρχικά τα εθνικά μέτρα απαιτούσαν να δίνονται εγγυήσεις για την υγεία των ζώων, με τις οποίες διασφαλιζόταν ότι τα ζώα που έφθαναν σε ένα κράτος μέλος ήταν υγιή και δεν ήταν δυνατόν να μεταδώσουν ασθένεια στα κοπάδια στα οποία συντάσσονταν.

1.2. Η πρώτη τυπική εναρμόνιση έγινε το 1964 με την έγκριση από το Συμβούλιο της οδηγίας 64/432/ΕΟΚ, η οποία ισχύει ακόμη, τροποποιημένη όμως και πιο εκτεταμένη. Αυτή η οδηγία καλύπτει το ενδοκοινοτικό εμπόριο βοοειδών και χοίρων. Κανονικά μέχρι το τέλος του 1988 στην εμπορία άλλων ειδών εφαρμόζονται εθνικοί κανόνες.

1.3. Μία από τις πιο σημαντικές ασθένειες που καλύπτονται από την αρχική οδηγία είναι ο αφθώδης πυρετός. Δεν ήταν ιδιαίτερα δύσκολο να υπάρξει συμφωνία για τους κανόνες σχετικά με τον αφθώδη πυρετό δεδομένου ότι και τα έξι κράτη μέλη εφήρμοζαν πολιτική εμβολιασμού. Εκτός από την ελευθερία σε ό,τι αφορά το κοπάδι και την περιοχή η κυριότερη καθοριζόμενη προφύλαξη ήταν ο εμβολιασμός των βοοειδών ηλικίας άνω των τεσσάρων μηνών πριν αποσταλούν σε άλλο κράτος μέλος. Η τήρηση αυτών των κανόνων διασφαλιζόταν από ένα επίσημο κτηνιατρικό πιστοποιητικό που συνόδευε κάθε παρτίδα ζώων.

(1) Τα Παραρτήματα που αναφέρονται σε αυτή την έκθεση περιλαμβάνονται στο έγγραφο της Επιτροπής VI3198/89.

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1.4. Η προσχώρηση της Δανίας, Ιρλανδίας και Ηνωμένου Βασιλείου στην Κοινότητα το 1973, επέφερε σημαντικές προσαρμογές στην οδηγία 64/432/ΕΟΚ, καθώς τα νέα κράτη μέλη εφήρμοζαν πολιτική μη-εμβολιασμού η οποία περιελάμβανε πλήρη εξολόθρευση σε περίπτωση αιφνίδιας εξάπλωσης της ασθένειας. Παρά τις εκτενείς διαπραγματεύσεις δεν μπόρεσε να επιτευχθεί προσέγγιση των διαφορετικών αντιλήψεων. Οι όροι της συνθήκης προσχώρησης προέβλεπαν ότι τα νέα κράτη μέλη θα μπορούσαν να διατηρήσουν τους εθνικούς τους κανόνες προστασίας από τον αφθώδη πυρετό για μία περίοδο πέντε ετών κατά τη διάρκεια της οποίας προβλεπόταν να υπάρξουν νέες προσπάθειες εναρμόνισης σε κοινοτική βάση.

1.5. Τελικά το 1984, υιοθετήθηκε από το Συμβούλιο μία τροποποιητική οδηγία που εισήγαγε νέους κανόνες προστασίας από τον αφθώδη πυρετό που εφαρμόζονταν σε όλα τα κράτη μέλη. Ταυτόχρονα καλυπτόταν μία άλλη φυσαλιδώδης κατάσταση των χοίρων (φυσαλιδώδης νόσος των χοίρων), λόγω της μεγάλης ομοιότητάς της με τον αφθώδη πυρετό των χοίρων. Η τροποποιητική οδηγία περιγράφει λεπτομερώς τις πρόσθετες εγγυήσεις που μπορεί ένα κράτος μέλος να ζητήσει ανάλογα με την ένταση της ασθένειας και του εμβολιασμού κατά τη δεδομένη στιγμή. Η εφαρμογή του εν λόγω τροποποιητικού άρθρου 4.α υπόκειται σε επανεξέταση.

1.6. Η προσχώρηση της Ελλάδας (1981), της Ισπανίας και της Πορτογαλίας (1986) δεν επέφερε καμμία σημαντική μεταβολή στην οδηγία 64/432/ΕΟΚ.

1.7. Το 1985 το Συμβούλιο ενέκρινε μία οδηγία (85/511/ΕΟΚ), για τον έλεγχο του αφθώδους πυρετού σε όλη την Κοινότητα. Σ'αυτήν καθορίζονται βασικά κοινά μέτρα για την ενιαία αντιμετώπιση μίας εμφάνισης της νόσου του αφθώδους πυρετού. Ωστόσο, διατηρείται δυνατότητα επιλογής σε ό,τι αφορά την ολική ή μερική εξολόθρευση για τα κράτη μέλη που εφαρμόζουν τον εμβολιασμό.

1.8. Το Συμβούλιο ανέθεσε στην Επιτροπή πολλά σημαντικά συμπληρωματικά καθήκοντα που περιλαμβάνουν:

- τον καθορισμό κανόνων για την μερική σφαγή,
- την υπόδειξη στο Συμβούλιο ενός κοινοτικού εργαστηρίου τεκμηρίωσης για τη διάγνωση του αφθώδους πυρετού,
- την υπόδειξη στο Συμβούλιο ενός κοινοτικού ινστιτούτου ελέγχου εμβολίων,

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- τον συντονισμό των προγραμμάτων εμβολιασμών των κρατών μελών,
- μία πρόταση προς το Συμβούλιο για ίδρυση κοινοτικής τράπεζας εμβολίων· και
- την υποχρέωση υποβολής έκθεσης προς το Συμβούλιο πριν από το 1990 σχετικά με την εφαρμογή των διατάξεων της οδηγίας μαζί με προτάσεις εάν είναι αναγκαίο.

1.9. Το 1985 υιοθετήθηκε από το Συμβούλιο μία τροποποίηση της απόφασης επείγουσας χρηματοδότησης (77/97/ΕΟΚ). Μέχρι τότε η απόφαση αυτή προέβλεπε ότι η χρηματοδότηση θα ήταν δυνατή μόνον εφόσον εμφανιζόταν σε ένα κράτος μέλος εξωτικές ασθένειες. Η τροποποίηση προβλέπει ότι, όπως συμβαίνει για τον εξωτικής προέλευσης αφθώδη πυρετό, η χρηματοδότηση θα ήταν δυνατή και για κλασσικού τύπου ευρωπαϊκό αφθώδη πυρετό για τις πρώτες είκοσι εμφανίσεις της νόσου που σημειώνονται στις πρώτες τριάντα ημέρες μία επιζωοτίας υπό τον όρο ότι θα εφαρμοσθεί άμεση εξολόθρευση.

2. ΝΟΜΙΚΟ ΥΠΟΒΑΘΡΟ

2.1. Το νομικό υπόβαρθο αυτής της έκθεσης περιλαμβάνεται:
- στην οδηγία του Συμβουλίου 64/432/ΕΟΚ (αναθεώρηση του άρθρου 4α) και
- στην οδηγία του Συμβουλίου 85/511/ΕΟΚ (αναθεώρηση που προβλέπεται στο άρθρο 18).

2.2. Όπως αναφέρθηκε γενικά στην εισαγωγή αυτής της έκθεσης, η οδηγία που καλύπτει το ενδοκοινοτικό εμπόριο βοοειδών και χοίρων ανάγεται στο 1984 ως οδηγία 64/432/ΕΟΚ.

Παρεκκλίσεις σε ό,τι αφορά το ενδοκοινοτικό εμπόριο βοοειδών και χοίρων εφαρμόστηκαν στην περίπτωση της Δανίας, της Ιρλανδίας και του Ηνωμένου Βασιλείου, κατά την προσχώρησή τους το 1973, και τους έδωσαν την δυνατότητα να διατηρήσουν τους εθνικούς τους κανόνες προστασίας από τον αφθώδη πυρετό. Αυτά τα μέτρα επεκτάθηκαν τελικά μέχρι την 31η Δεκεμβρίου 1984, ημερομηνία μετά την οποία καθορίστηκαν νέοι κανόνες που θα μπορούσαν να εφαρμόζονται σε όλα τα κράτη μέλη σε ό,τι αφορά την προστασία από τον αφθώδη πυρετό.

Νέοι κανόνες καθορίζονται στην οδηγία του Συμβουλίου 84/643/ΕΟΚ της 11ης Δεκεμβρίου 1984 και αναφέρουν ρητώς ότι ένα άρθρο 4α) πρέπει να εισαχθεί στη βασική εμπορική οδηγία για τα βοοειδή και τους χοίρους. Το άρθρο περιγράφει λεπτομερώς τις συμπληρωματικές εγγυήσεις που μπορεί να απαιτήσει ένα κράτος μέλος ανάλογα με την κατάστασή του σε σχέση με την ασθένεια και την πολιτική εμβολιασμού που ακολουθεί κατά τη δεδομένη στιγμή.

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Το άρθρο 4α) προβλέπει επιπλέον ότι κάθε τρία χρόνια, και για πρώτη φορά τρία χρόνια μετά τη θέση του σε ισχύ, δηλαδή την 1η Ιανουαρίου 1988, το Συμβούλιο θα λάβει απόφαση με ειδική πλειοψηφία για μία πρόταση της Επιτροπής για αναθεώρηση των διατάξεων αυτού του άρθρου. Η αναθεώρηση θα πραγματοποιηθεί με βάση έκθεση της Επιτροπής συνοδευόμενη, αν χρειασθεί, από προτάσεις.

2.3. Η Επιτροπή, στα πλαίσια αυτού του καθήκοντος διαπίστωσε ότι κατά την περίοδο από 1ης Ιανουαρίου 1985 δεν ενημερώθηκε για κανένα ειδικό πρόβλημα που να αντιμετώπισαν τα κράτη μέλη είτε κατά την εξαγωγή, είτε κατά την εισαγωγή ζώων στα πλαίσια του ενδοκοινοτικού εμπορίου. Η Επιτροπή, στις 28 Ιουλίου 1987, ενημέρωσε τα κράτη μέλη για την πρόθεσή της να προβεί σε επανεξέταση της εφαρμογής του εν λόγω άρθρου και ζήτησε από αυτά να της διαβιβάσουν το ταχύτερο δυνατόν οποιαδήποτε σχόλια θα είχαν σχετικά με τους κανόνες που καθορίζονται στο άρθρο 4α).

Ορισμένα κράτη μέλη ενημέρωσαν την Επιτροπή ότι θα αντιμετώπιζαν ευνοϊκά άμεση μείωση των μέτρων που εφαρμόζονται σε ζώα προς σφαγή. Η Επιτροπή αναγνωρίζει ότι η ύπαρξη αυτού του άρθρου και οι διαδικασίες απομόνωσης που προβλέπονται σε αυτό δημιουργούν πρόβλημα στην ελεύθερη διακίνηση ζώων στην Κοινότητα.

2.4. Η δεύτερη οδηγία που ζητεί από την Επιτροπή να υποβάλει έκθεση στο Συμβούλιο για τον αφθώδη πυρετό είναι η οδηγία του Συμβουλίου 85/511/ΕΟΚ και ειδικά το άρθρο 18. Η οδηγία θέτει σε εφαρμογή μία σειρά κοινοτικών μέτρων με σκοπό την ενιαία αντιμετώπιση σε περίπτωση εμφάνισης νόσου αφθώδους πυρετού. Με άλλα λόγια, ζητείται από την Επιτροπή να υποβάλει έκθεση στο Συμβούλιο για την εφαρμογή αυτής της οδηγίας πριν από την 1η Ιανουαρίου 1990. Είναι επίσης πιθανό η έκθεση της Επιτροπής να συνοδεύεται από προτάσεις εάν χρειάζεται.

3. Η ΔΡΑΣΗ ΤΗΣ ΕΠΙΤΡΟΠΗΣ

3.1. Δεδομένης της απαίτησης για δύο αναθεωρήσεις και υποβολή εκθέσεων προς το Συμβούλιο σε μικρό χρονικό διάστημα και ενόψει της ολοκλήρωσης της αγοράς μετά το 1992, η Επιτροπή αποφάσισε να εξετάσει λεπτομερέστερα το πρόβλημα του αφθώδους πυρετού.

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Κατέστη αμέσως προφανής η αδυναμία συνέχισης του σημερινού συστήματος που φέρει αντιμέτωπο τον εμβολιασμό με τον μη-εμβολιασμό. Αποφασίστηκε ως εκ τούτου από κοινού με τα κράτη μέλη να πραγματοποιηθούν μελέτες κόστους ωφέλειας και συναφείς αναλύσεις σε μία προσπάθεια εξεύρεσης μίας σαφούς κατεύθυνσης πολιτικής.

3.2. Προκειμένου να ανταποκριθεί στις υποχρεώσεις της προς το Συμβούλιο, σχετικά με την αναθεώρηση του άρθρου 4α), της οδηγίας 64/432/ΕΟΚ, η Επιτροπή υπέβαλε στο Συμβούλιο, στις 14 Ιανουαρίου 1988, έκθεση στην οποία επεξηγεί την απόφασή της να πραγματοποιήσει τη βασική μελέτη και εκφράζει την ελπίδα ότι θα υποβάλει έκθεση και κατάλληλες προτάσεις πριν από το τέλος του 1988.

3.3. Το έργο της Επιτροπής για την αναθεώρηση και τη σύνταξη της έκθεσης υποβλήθηκε σημαντικά από πολλούς εμπειρογνώμονες από τα κράτη μέλη. Αξίζει να αναφερθεί ιδιαίτερα το έργο της υπο-ομάδας της κτηνιατρικής επιστημονικής επιτροπής στο οποίο έγινε αξιολόγηση των μελλοντικών προβλέψεων και των παραγόντων που ενέχουν κινδύνους. Η Επιτροπή σημειώνει ότι για την έκθεση αυτής της ομάδας εκδόθηκε ευνοϊκή γνωμοδότηση στο πλάισιο της ολομέλειας της κτηνιατρικής επιστημονικής επιτροπής, γνωμοδότηση με την οποία οι υπηρεσίες της Επιτροπής συμφωνούν πλήρως.

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4. ΕΛΕΓΧΟΣ ΤΟΥ ΑΦΘΩΔΟΥΣ ΠΥΡΕΤΟΥ ΣΤΗΝ ΕΥΡΩΠΑΙΚΗ ΚΟΙΝΟΤΗΤΑ

4.1. Εισαγωγή

4.1.1. Στο έγγραφο αυτό δίνονται σε γενικές γραμμές τα στοιχεία που αφορούν τον καθορισμό μιας κοινοτικής πολιτικής για τον έλεγχο του αφθώδους πυρετού. Αν και έχει καταρτισθεί ενόψει της καταργήσεως των συνόρων στο τέλος του 1992 ,λαμβάνει υπόψη την αναγκαιότητα εφαρμογής μιας κοινής κοινοτικής πολιτικής πριν από αυτήν την ημερομηνία, όσον το δυνατόν συντομότερο.

4.1.2. Ο αφθώδης πυρετός είναι μια από τις πιο σοβαρές ασθένειες του ζωικού κεφαλαίου. Εξαπλώνεται ταχέως, προσβάλλει όλα τα ζώα με μονόχειλο οπλή και έχει σημαντικές οικονομικές επιπτώσεις, εν μέρει γιατί επιδρά άμεσα στην παραγωγή ζωικού κεφαλαίου και εν μέρει γιατί η παρουσία του επιδρά στις εμπορικές συναλλαγές ζωικού κεφαλαίου, προϊόντων του ζωικού κεφαλαίου και ορισμένων γεωργικών προϊόντων.

4.2. Ιστορικό

4.2.1. Η Ευρωπαϊκή βιομηχανία ζωικού κεφαλαίου προσβλήθηκε για πρώτη φορά σοβαρά από τον αφθώδη πυρετό το 1930 και οι τύποι του ιού ήταν οι O, A και Γ, όπως είναι γνωστοί σήμερα. Μετά από τον δεύτερο παγκόσμιο πόλεμο σημειώθηκε κάμψη των περιπτώσεων αφθώδους πυρετού, η οποία προφανώς οφείλετο στους περιορισμούς της κίνησης του ζωικού κεφαλαίου και στην αναδημιουργία εθνικών κοπαδιών. Στην αρχή της δεκαετίας του 1950 σημειώθηκε αύξηση των εμφανίσεων με σοβαρές επιπτώσεις οι οποίες είχαν ως αποτέλεσμα να οργανωθούν περισσότερο το ΔΓΕ και ο FAO σε ευρωπαϊκή βάση για την καταπολέμηση της ασθένειας. Το εμβόλιο FRENKEL οδήγησε στην ταχεία διάδοση των διαθέσιμων ποσοτήτων εμβολίου και στη συνακόλουθη κάλυψη. Επιπλέον οι περισσότερες χώρες εφάρμοσαν την πολιτική της σφαγής αν και ορισμένες χρησιμοποίησαν το μαζικό εμβολιασμό στην περιοχή της εμφάνισης της νόσου ως ένα πρόσθετο μέτρο. Κατά την διάρκεια αυτών των ετών, οι περισσότερες χώρες υιοθέτησαν την πολιτική του αναγκαστικού εμβολιασμού τουλάχιστον στα βοοειδή.

4.2.2. Εκτός της ηπειρωτικής Ευρώπης, οι σκανδιναβικές χώρες, το Ηνωμένο Βασίλειο και η Ιρλανδία παράμειναν σχετικά απρόσβλητες.

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Στην Ισπανία, μέχρι το 1980, σημειώνονταν τακτικά σοβαρές εμφανίσεις της νόσου. Η εγγύς Ανατολή και ιδίως η Τουρκία αποτέλεσαν σοβαρή απειλή για την Δυτική Ευρώπη.
Η απειλή αυτή παραμενει και σήμερα αλλά μια στρατηγική εμβολιασμού σε μια προστατευτική ζώνη στην περιοχή της θράκης αποδείχθηκε εξαιρετικά χρήσιμη. Η ασθένεια εμφανίζεται στην Αφρική όπου υπάρχουν τρεις ειδικοί αφρικανικοί τύποι του ιού. Σε ορισμένες ασιατικές χώρες εμφανίζεται ένας τύπος ο οποίος υπάρχει στην ασιατική ήπειρο. Εκτός από τη νότια Αμερική όπου οι περισσότερες χώρες προσβάλλονται από σχεδόν κλασικούς ευρωπαϊκούς τύπους του ιού, ο υπόλοιπος κόσμος είναι απαλλαγμένος από την ασθένεια και δεν εφαρμόζει τον εμβολιασμό. Μεγάλες εκτάσεις γης στην κατηγορία αυτή βρίσκονται στην κεντρική και βόρειο Αμερική, την Αυστραλία, τη Νέα Ζηλανδία, την Ιαπωνία, την Κορέα και άλλα εδάφη της Απω Ανατολής.

Συνόψεις αυτών των καταστάσεων περιλαμβάνονται στους πίνακες 2 και 3 του Παραρτήματος 1.

4.2.3. Οι μεγάλες επιδημίες που ξέσπασαν στην Ευρώπη κατά τη διάρκεια του 1960 και στην αρχή της δεκαετίας του 1970 έχουν σε μεγάλο βαθμό εξαφανιστεί λόγω της εφαρμογής προγραμμάτων μαζικού εμβολιασμού και του περιορισμού των εισαγωγών κρεάτων και άλλων γεωργικών προϊόντων στην Κοινότητα. Από το 1980 μόνο στην Ιταλία (1984-87) και στην Πορτογαλία (1980-84) εμφανίστηκαν σοβαρές επιζωοτίες.

4.2.4. Οι εμφανίσεις που καταγραφηκαν στα κράτη μέλη περιλαμβάνονται στον πίνακα 1 του Παραρτήματος 1. Ως εμφάνιση ορίζονται τα περιστατικά της νόσου σε ένα αγρόκτημα ή μια εκμετάλλευση. (ΔΓΕ). Παρατηρείται ότι κατά τα τελευταία είκοσι έτη σημειώθηκε απότομη πτώση των εμφανίσεων της νόσου στο σύνολο της Κοινότητας. Στα περισσότερα κράτη μέλη η ασθένεια εμφανίστηκε πολύ λίγο ή και καθόλου κατά τα τελευταία πέντε χρόνια, με εξαίρεση την Ιταλία όπου σημειώθηκε μια σειρά επιδημιών στο βορειο μέρος της χώρας.

4.2.5. Η κατάσταση του αφθώδους πυρετού στις χώρες που συνορεύουν συνοψίζεται στον πίνακα 2 του Παραρτήματος 1 ενώ η κατάσταση στα μη κράτη μέλη που έχουν εμπορικές σχεσεις με την Κοινότητα δίνεται στον πίνακα 3 του Παραρτήματος 1. Μια συνοπτική αναλυση των προγραμματων εμβολιασμού στα κράτη μελη περιλαμβανεται στον πίνακα 4 του παραρτήματος 1.

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4.3 Εναλλακτικές λύσεις

4.3.1. Οι μέθοδοι που χρησιμοποιήθηκαν για τον έλεγχο του αφθώδους πυρετού διαφέρουν στα διάφορα κράτη μέλη, αλλά όλα εφαρμόζουν μία από τις ακόλουθες δύο εναλλακτικές πολιτικές :

α) ΠΟΛΙΤΙΚΗ ΕΜΒΟΛΙΑΣΜΟΥ. Η πολιτική αυτή έγκειται στον ετήσιο συστηματικό εμβολιασμό όλου του κοπαδιού. Σε περίπτωση εμφάνισης της ασθένειας, εκτός από τον εμβολιασμό και τα άλλα μέτρα ελέγχου, εφαρμόζεται και η συνολική ή μερική εξολόθρευση.

β) ΠΟΛΙΤΙΚΗ ΜΗ ΕΜΒΟΛΙΑΣΜΟΥ. Η πολιτική αυτή έγκειται στη γενική απαγόρευση του εμβολιασμού στην περίπτωση του αφθώδους πυρετού. Σε περίπτωση εμφάνισης της ασθένειας, εκτός από τα άλλα μέτρα ελέγχου, εφαρμόζεται η συνολική εξολόθρευση. Σε εξαιρετικές περιπτώσεις μπορεί να καταστεί αναγκαία η εφαρμογή ενός προγράμματος εμβολιασμού δακτυλίου.

4.3.2. Και οι δύο πολιτικές συνοδεύονται από ελέγχους των εισαγωγών, τακτική παρακολούθηση των πληθυσμών του ζωικού κεφαλαίου που βρίσκονται σε κίνδυνο, την ύπαρξη εργαστηριακών εγκαταστάσεων διάγνωσης, και, σε περίπτωση εμφάνισης της ασθένειας, από ελέγχους της κίνησης του ζωικού κεφαλαίου.

4.3.3 Σήμερα, τα κράτη μέλη που ακολουθούν την πολιτική του μη εμβολιασμού μπορούν να περιορίζουν τις εμπορικές συναλλαγές ζωικού κεφαλαίου με τους κοινοτικούς εταίρους οι οποίοι εφαρμόζουν τον εμβολιασμό. Το αιτιολογικό αυτής τους της ενέργειας είναι ότι, πρώτον, τα εμβολιασμένα ζωα μπορεί να συντηρούν τον ιό μετά από μία προσβολή στο εκτροφείο ενώ παραμένουν κλινικά φυσιολογικά. Ο κίνδυνος που συνδέεται με τα εμβολιασμένα ζώα στην περίπτωση παρατεταμένης απουσίας εξω-εργαστηριακού ιού είναι μικρός. Είναι, εντούτοις, αδύνατο να εξασφαλισθεί η απουσία του ιού σε εμβολιασμένο πληθυσμό, δεδομένου ότι ο ιός μπορεί ενίοτε να εισέρχεται και να μην εντοπίζεται. Υπάρχει, επιμένως, ο κίνδυνος να εισέλθει ο ιός σε μη μολυσμένες προηγουμένως περιοχές με τη διακίνηση των εμβολιασμένων ζώων. Αυτή η δυνατότητα εξάπλωσης του ιού είναι απαράδεκτη δεδομένης της σημασίας της ασθένειας.

Δεύτερον, η παρουσία εμβολιασμένων ζώων σε μία χώρα θεωρείται από πολλές τρίτες χώρες, όπως π.χ. τις Ηνωμένες Πολιτείες και τους οπαδούς τους της "Λευκής Λίστας", ως ταυτόσημες με την παρουσία της ασθένειας με σαφείς και σοβαρές επιπτώσεις στο εμπόριο.

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4.3.5. Η επιλογή μιας κοινοτικής πολιτικής ελέγχου και αφθώδους πυρετού πρέπει να γίνει μεταξύ των δύο υφισταμένων πολιτικών οι οποίες έχουν περιγραφεί στην παράγραφο 4.3.1, δηλαδή της πολιτικής του εμβολιασμού και του μη εμβολιασμού.

Τα στοιχεία που λαμβάνονται υπόψη σ'αυτή την επιλογή είναι:

α) η συχνότης εμφανίσεως του αφθώδους πυρετού στην Κοινότητα κατά τη διάρκεια των τελευταίων είκοσι ετών (Παράρτημα 1, Πίνακας 1).

β) ο κίνδυνος εμφάνισης του αφθώδους πυρετού στην Κοινότητα στο πλαίσιο των εναλλακτικών πολιτικών μετά το 1992. Έκθεση της υποομάδας της επιστημονικής κτηνιατρικής επιτροπής. (Παράρτημα 2 (1).

γ) οι οικονομικές συνέπειες των δύο εναλλακτικών πολιτικών, δηλαδή το κόστος για τον δημόσιο και ιδιωτικό τομέα. (Παράρτημα 3).

δ) οι επιπτώσεις εισαγωγικό και εξαγωγικό κοινοτικό εμπόριο του ζωικού κεφαλάιου, των προϊόντων του ζωικού κεφαλαίου και άλλων προϊόντων.
(Παράρτημα 4).

ε) τα μέτρα που απαιτούνται για την πρόβλεψη των πρωτογενών δευτερογενών εμφανίσεων μετα το 1992 και κατά τη διαρκεια μιας μεταβατικής περιόδου. Έκθεση της υπόομάδας της Επιστημονικής Κτηνιατρικής Επιτροπής. (Παράρτημα 5) (1).

ζ) οι αλλαγές που αναμένονται, στο πλαίσιο μιας εκ των δύο πολιτικών, σχετικά με τη χρησιμοποίηση των πόρων όπως:

ι) κτηνιάτρων που απασχολούνται σήμερα στα προγράμματα εμβολιασμού (Παραρτημα 6), και,

ιι) εργαστηρίων στα οποία πραγματοποιούνται σήμερα η διάγνωση του αφθώδους πυρετού, η παραγωγή εμβολίων και η έρευνα (Παράρτημα 7)

4.4 Ο κίνδυνος εμφάνισης της ασθένειας αφθώδους πυρετού μετά το 1992

4.4.1. Ο κίνδυνος εμφάνισης του αφθώδους πυρετού στο πλαίσιο μιας εκ των δύο πολιτικών μετά το 1992 εξετασθηκε από μια υποομάδα της επιστημονικής κτηνιατρικής επιτροπής. Με την προϋποθεση ότι το κοινοτικό ζωικό κεφάλαιο θα μετακινείται χωρίς περιορισμούς μετά το 1992, ο κίνδυνος υπολογίσθηκε σε κοινοτική βαση και όχι σε βάση μεμονωμένων κρατών μελών. Τα αποτελέσματα της έκθεσης της υποομάδας δίνονται στο παράρτημα 2.

(1) Πρέπει να αναφερθεί ότι ορισμένα σημεία, όπως ο ρόλος του εμβολιασμένου ζώου ως δυνάμει φορέως, ήταν δύσκολο να επιλυθούν. Ωστόσο, η υποομάδα συμφώνησε ομόφωνα ως προς το τελικό κείμενο και η επιστημονική κτηνιατρική επιτροπή το επικύρωσε την 1η Φεβρουαρίου 1989.

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4.4.2. Η ομάδα εξέτασε τις εμφανίσεις που καταγραφηκαν σε όλα τα κράτη μέλη κατά τη διάρκεια των τελευταίων 11 ετών (1977-87) και εντόπισε 34 πρωτογενείς εμφανίσεις αφθώδους πυρετού.
Απ'αυτές, οι 8 προέρχονταν προφανώς από μια πηγή εκτός της Κοινότητας, η οποία σχετίζεται κυρίως με την εισαγωγή κρεάτων. (Βλέπε παράρτημα 2, πίνακα 3). Η υποομάδα θεωρεί ότι άλλες 13 εμφανίσεις της νόσου είναι δυνατόν να σχετίζονται είτε με τη διαφυγή ιού από τα εργαστήρια είτε με την παραγωγή και χρησιμοποίηση εμβολίου το οποίο δεν είχε αδρανοποιηθεί καταλλήλως. Η πηγή των υπολοίπων 13 πρωτογενών εμφανίσεων της νόσου είναι άγνωστη.

4.4.3. Από τα στοιχεία που υπάρχουν από τα τελευταία 11 χρόνια, η υποομάδα έκανε προβλέψεις για τα έτη 1993-2003 για το ενδεχόμενο της υιοθέτησης μιας πολιτικής εμβολιασμού ή μη εμβολιασμού. Ο κίνδυνος των πρωτογενών εμφανίσεων ήταν ο πρώτος που ελήφθη υπόψη.

4.4.4. Η υποομάδα θεωρεί ότι ο κίνδυνος να προσβληθεί από τη νόσο η Κοινότητα κατά τη διάρκεια των ετών 1993-2003 δεν θα είναι ούτε μικρότερος ούτε μεγαλύτερος από ό,τι ήταν κατά τη διάρκεια των 11 τελευταίων ετών. Προέβλεψε 13 πρωτογενείς εμφανίσεις εξαιρουμένων αυτών που σχετίζονται με τη διαφυγή του ιού και τη χρησιμοποίηση εμβολίου που δεν έχει αδρανοποιηθεί καταλλήλως (Παράρτημα 2, παράγραφος 12).

4.4.5. Η υποομάδα δέχτηκε ότι δεν υπαρχει ενδημική πηγή του ιού του αφθώδους πυρετού στα κοπάδια της Κοινότητας. Έτσι ο κίνδυνος πρωτογενών εμφανίσεων της νόσου απο πηγές εντός της Κοινότητας θα εξαρτηθεί από τους χειρισμούς που υφίσταται ο ζωντανός ιός του αφθώδους πυρετού στα εργαστήρια και από τη χρησιμοποίηση εμβολίων που δεν έχουν αδρανοποιηθεί καταλλήλως.

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4.4.6. Εάν ο εμβολιασμός κατά του αφθώδους πυρετού συνεχιστεί, δεν βελτιωθούν οι τεχνικές αδρανοποιησης του εμβολίου και ο ιός συνεχίσει να υφίσταται χειρισμούς στα εργαστήρια σε συνθήκες που δεν εξασφαλίζουν υψιστη ασφάλεια, ο παρών κίνδυνος θα συνεχιστεί. Υπό τις συνθήκες αυτές, η ομάδα προέβλεψε ότι κατά την περιόδο των έντεκα ετών θα σημειωθούν ακόμη 13 εμφανίσεις της νόσου. Ωστόσο, η βελτίωση των μεθόδων παραγωγής εμβολίων θα μπορούσε να μειωσει αυτόν τον κίνδυνο. Εάν ο εμβολιασμός είναι ασυνεχής και τα εργαστήρια λειτουργούν σε συνθήκες υψηλής ασφάλειας, ο κίνδυνος θα είναι πολύ χαμηλός και η ομάδα προέβλεψε ότι δεν θα υπαρξει καμία επιπλέον εμφάνιση της νόσου.

4.4.7. Η υποομάδα εξέτασε τον κίνδυνο δευτερογενών εμφανίσεων οι οποίες προκύπτουν από τις πρωτογενείς. Κατά τη διαρκεια των έντεκα ετών 1977-1987, πολλές πρωτογενείς εμφανίσεις της νόσου δεν οδήγησαν σε μεγάλη εξάπλωση της ασθένειας, ανεξάρτητα από το αν εκδηλώθηκαν σε χώρες που εφαρμόζουν την πολιτική του εμβολιασμού ή μη εμβολιασμού. Από την άλλη μεριά, κατά τη διάρκεια της περιόδου που εξετάζεται σημειώθηκε μεγάλη εξάπλωση της ασθένειας, αλλά η ομάδα πιστεύει οτι ο βαθμός εξάπλωσης εξαρτατο περισσότερο από την αυστηρότητα των διαδικασιών ελέγχου που εφαρμόστηκαν παρά από την πολιτική εμβολιασμού. Αυτό ισχυει ιδίως στην περιπτωση των πληθυσμών μεγάλων χοίρων. Η υποομάδα συμπερανε ότι οι διακυμάνσεις του φάσματος της εξάπλωσης είναι πολύ μεγάλες ώστε να μπορει να προβλέψει κανείς μια διαφορά όσον αφορά τον αριθμό των δευτερογενών εμφανίσεων ανά πρωτογενή εμφάνιση στο πλαίσιο οποιασδήποτε από τις δύο πολιτικές.

4.5. Οι οικονομικές συνέπειες των εναλλακτικών πολιτικών

4.5.1. Όταν ο αφθώδης πυρετός εκδηλωνεται στην Κοινότητα, εξαλείφεται όσον το δυνατόν γρηγορότερα (Οδηγία 85/511/ΕΟΚ) έτσι ώστε να μην αυξηθούν οι βλαβερες επιπτωσεις της ίδιας της ασθένειας. Το κόστος που συνδέεται με την εμφανιση της νόσου είναι, ως εκ τούτου, το κόστος των ελέγχων (το οποίο περιλαμβάνει το κόστος εξολόθρευσης και/ή του συστηματικού εμβολιασμού) και η ζημία στους τομείς της παραγωγής και του εμπορίου.

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4.5.2.

Υπολογίσθηκε το κόστος για την Κοινότητα του τακτικού εμβολιασμού του πληθυσμού των βοοειδών και της εξολόθρευσης σε περίπτωση εμφάνισης της νόσου. Όλες οι υπόλοιπες δαπάνες, όπως αυτές που συνδέονται με την επιτήρηση και τις εγκαταστασεις για τη διάγνωση, είναι κοινές και στις δύο πολιτικές και ως εκ τούτου δεν ελήφθησαν υπόψη.
Το κόστος του ελέγχου εξαρτάται σε μεγάλο βαθμό από τον αριθμό των εμφανίσεων της νόσου. Στην οικονομική ανάλυση λαμβάνεται υπόψη η πιθανότητα εμφανίσεως της νόσου στην Κοινότητα στο πλαισιο των εναλλακτικών πολιτικών. Η οικονομική ανάλυση δίνεται στο παράρτημα 3 και συνοψίζεται στην ακόλουθη παράγραφο 4.8.

4.5.3. Το αναλυτικό μοντέλο του FAO απαιτεί να ληφθούν υπόψη οι επιπτώσεις της πολιτικής του εμβολιασμού ή της πολιτικής του μη εμβολιασμού στο εσωτερικό και εξαγωγικό εμπόριο. Η Επιτροπή πραγματοποίησε μια συνοπτική ανάλυση αυτών των επιπτώσεων και έκθεση της περιλαμβάνεται στο παράρτημα 4.

4.6. Το κόστος του εμβολιασμού

4.6.1. Οκτώ κράτη μέλη (Βέλγιο, Γαλλία, Ομοσπονδιακή Δημοκρατία της Γερμανίας, Ιταλία, Λουξεμβούργο, Κάτω Χώρες, Πορτογαλία και Ισπανία) εμβολιάζουν τακτικά όλα τα βοειδή. Εκτός από τα βοειδή, εμβολιάζουν και ορισμένους χοίρους, πρόβατα και αίγες. Το κόστος ενός μοναδικού ετήσιου εμβολιασμού βοειδών των εθνικών κοπαδιών, όπως αυτό υπολογίστηκε από τα κράτη μέλη, δίνεται συνοπτικά στον πίνακα 1 του παραρτήματος 3.

4.6.2. Τα υπόλοιπα τέσσερα κράτη μέλη (Δανία, Ελλάδα (1), Ιρλανδία και Ηνωμένο Βασίλειο) δεν εφαρμόζουν τον εμβολιασμό για τον έλεγχο του αφθώδους πυρετού. Το κόστος που θα απαιτείτο για τον εμβολιασμό και τις επιστροφές, όπως υπολογίστηκε από αυτά τα κράτη μέλη, δίνεται στον πίνακα 1 του παράρτήματος 3.

(1) Εκτός από την προστατευτική ζώνη στην Θράκη

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4.6.3. Το υπολογιζόμενο ετήσιο άμεσο δημόσιο κόστος ενός κοινοτικού προγράμματος εμβολιασμού που περιλαμβάνει ένα μοναδικό ετήσιο εμβολιασμό των βοειδών σε όλα τα κράτη μέλη, ανέρχεται περίπου σε 133 εκατ. ECU σε αξίες του 1987. Το κόστος αυτό περιλαμβάνει την αγορά και αποθήκευση του εμβολίου, τη διενέργεια του εμβολιασμού και την γενική διαχείριση. Δεν περιλαμβάνει το κόστος των δευτερογενών επιβλαβών συνεπειών που θα μπορούσαν να αποδοθούν στην χρησιμοποίηση του εμβολίου.

4.6.4. Πρέπει να σημειωθεί ότι ο εμβολιασμός, όπως διενεργείται στην Κοινότητα, παρεχει προστασία μόνον εναντι των ευρωπαικών Α, Ο και Γ στελεχών του αφθώδους πυρετού. Ο εμβολιασμός αυτός προστατευει τα ζώα έναντι των αγρίων στελεχών τα οποία εμφανίζονται στα άλλα μέρη του κόσμου.

4.6.5. Περαιτέρω, από τον πίνακα των προγραμμάτων εμβολιασμού (Παράρτημα 1, πίνακας 4), φαίνεται ότι η ανοσιολογική κάλυψη είναι πολύ μικρότερη από 100% στους χοίρους, τα πρόβατα και τις αίγες που εμβολιάζονται σπανίως. Επιπλέον οι νεαροί μόσχοι και οι παρτίδες ζωοτροφών εξαιρούνται συχνά και μόσχοι ηλικίας κάτω των 3-4 μηνών κατά την εποχή του ετήσιου εμβολιασμού μπορεί να μην εμβολιασθούν ως τον επόμενο χρόνο.

4.7. <u>Το κόστος μιας εμφάνισης αφθώδους πυρετού</u>

4.7.1. Το Διεθνές Γραφείο Επιζωοτιών στο Παρίσι (ΔΓΕ) ορίζει ως εμφάνιση την ασθένεια που εκδηλώνεται σε ένα αγρόκτημα ή μια εκμετάλλευση. Οι επιδημίες του αφθώδους πυρετού ελέγχονται σε ένα αγρόκτημα με βάση το αγρόκτημα και, ως εκ τούτου, το κόστος της εμφάνισης της νόσου μπορεί να υπολογισθεί. Ζητήθηκε από τα κράτη μέλη να υπολογίσουν το μέσο όρο του κόστους μιας εμφάνισης αφθώδους πυρετού, στο οποίο κόστος να περιλαμβάνεται το κόστος της σφαγής, της διάθεσης των σφαγίων, της απολύμανσης, του καθαρισμού και των συναφών μέτρων, της αξίας των αποθεματοποιημένων σφαγίων, των ζημιών της παραγωγής στο αγρόκτημα, οι οποίες οφείλονται στην καθυστέρηση όσον αφορά την εκ νέου αποθεματοποίηση, και του διοικητικού κόστους που αφορά ειδικά την εμφάνιση της νόσου. Στην κοστολόγηση αυτή είναι δεδομένο ότι σφαγιάζονται όλα τα ευπαθή ζώα της εκμετάλλευσης.

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4.7.2. Ο υπολογισμός του κόστους μιας μεγάλης επιδημίας αφθώδους πυρετού για την υπαιθρο ή την περιοχή όπου εκδηλώνεται δεν μπορεί να γίνει με βάση τις μεμονωμένες εμφανίσεις της ασθένειας. Το κόστος αυτό περιλαμβάνει το κλείσιμο σφαγείων ή αγορών αλλά οι προηγούμενες αναλύσεις οικονομικών επιπτώσεων των επιδημιών αφθώδους πυρετού δεν μπόρεσαν να ποσοτικοποιήσουν αυτό το κόστος.

4.7.3. Τα κράτη μέλη τα οποία είχαν πρόσφατη εμπειρία όσον αφορά τον έλεγχο των εμφανίσεων της νόσου στήριξαν σε μεγάλο βαθμό τις εκτιμήσεις τους στο σημερινό κόστος. Τα κράτη μέλη τα οποία δεν έχουν πρόσφατη εμπειρία αφθώδους πυρετού έκαναν ένα κατ'εκτίμιση υπολογισμό του κόστους. Το κόστος αυτό συνοψίζεται στον πίνακα 2 του παραρτήματος 3.

4.7.4. Για τους σκοπούς της οικονομικής ανάλυσης που ακολουθεί, ως μέσος όρος κόστους για μια εμφάνιση της νόσου θεωρήθηκαν οι 158,000 ECU, από τις οποίες οι 31.914 ECU και οι 600.000 ECU ανταποκρίνονται αντιστοιχως στο χαμηλότερο και υψηλότερο επίπεδο των εκτιμήσεων.

4.8. Οικονομική ανάλυση

4.8.1. Ο κατ' εκτίμηση υπολογισμός του κόστους του εμβολιασμού και των εμφανίσεων του αφθώδους πυρετού χρησιμοποιήθηκε για την εκπόνηση οικονομικής ανάλυσης της πολιτικής του εμβολιασμού και του μη εμβολιασμού για περίοδο 10 ετών. Στην ανάλυση δίνεται μια κλίμακα κατ'εκτίμηση των υπολογισμών λαμβανομένων υπόψη των διακυμάνσεων του κόστους και του αριθμού των εμφανίσεων της νόσου και οι υπολογισμοί αυτοί εκφράζονται με τρία σενάρια: μια κεντρική (ή πιθανότερη) περίπτωση, μια χειρότερη και μια καλύτερη περίπτωση. Στο παράρτημα 3 περιλαμβάνεται όλη η ανάλυση.

4.8.2. Η πιθανότερη έκβαση είναι αυτή που προβλέπεται στην ανάλυση ως"κεντρική περίπτωση". Βασίζεται στο κόστος μιας μέσης σημασίας εμφάνισης της νόσου και το μέσο όρο του αριθμού πρωτογενών και δευτερογενών εμφανίσεων της νόσου όπως έχει προβλεφθεί από την επιστημονική κτηνιατρική επιτροπή.

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Εάν εφορμοσθεί η πολιτική του μη εμβολιασμού, το συνολικό κόστος για την Κοινότητα (με προεξοφλούμενη παρούσα αξία για περίοδο 10 ετών (5%)) υπολογίζεται σε 35 εκατ. ECU.

Εάν εφαρμοσθεί η πολιτική του εμβολιασμού, το συνολικό κόστος για την Κοινότητα (με προεξοφλούμενη παρούσα αξία για περίοδο 10 ετών (5%)) υπολογίζεται σε 1,134 εκατ. ECU.

4.8.3. Σημειώνεται ότι στη σημερινή φάση τα κοινοτικά κεφαλαια παρεχονται στα κράτη μέλη για την εξάλειψη του αφθώδους πυρετού με βάση την επιστροφή του 50% του κόστους της σφαγής και της καταστροφής και του 100% του κόστους του επείγοντος εμβολιασμού. Στην περίπτωση κλασικών ευρωπαϊκών τύπων του αφθώδους πυρετού, η βοήθεια αυτή περιορίζεται στις πρώτες 20 εμφανίσεις της νόσου οι οποίες συμβαίνουν τις πρώτες 30 μέρες της επιζωοτίας.

4.8.4. Σημειώνεται επίσης ότι εάν εφαρμοσθεί η πολιτική του μη εμβολιασμού, τότε το κόστος εμβολιασμού βοειδών πριν από την εξαγωγή δεν θα αυξηθεί περαιτέρω. Περίπου 2 εκατ. ζώα αποτελούν ετησίως αντικείμενο εμπορικών συναλλαγών μεταξύ των κρατών μελών που εφαρμόζουν τον εμβολιασμό. Εάν 1 εκατ. υπόκεινται σε εμβολιασμό πριν από την εξαγωγή (μπορούν να εξαιρεθούν οι νεαροί μόσχοι ηλικίας κάτω των 4 μηνών και ορισμένα ζωα που προορίζονται για σφαγή) προς 3 ECU ανα ζώο (εμβόλιο και εμβολιασμός) τότε θα μπορούσε να γίνει εξοικονόμηση 3 εκατ. ECU.

4.9. Οι επιπτώσεις των εναλλακτικών πολιτικών στις εμπορικές συναλλαγές ζωικού κεφαλαίου και προϊόντων ζωικού κεφαλαίου

Η οικονομική ανάλυση που περιγράφεται στο ανωτερω σημείο 4.8. δεν λαμβάνει υπόψη τις επιπτώσεις των εναλλακτικών πολιτικών στις εμπορικές συναλλαγές ζωικού κεφαλαίου και προϊόντων ζωικών κεφαλαίων μέσα στην Κοινότητα και με χώρες εκτός Κοινότητας. Η έκθεση της Επιτροπής για τις εμπορικές συναλλαγές περιλαμβάνεται στο παράρτημα 4 και τα κύρια συμπεράσματα είναι τα ακόλουθα:

(α) Η εφαρμογή οποιασδήποτε εκ των δύο πολιτικών θα έχει μικρή επίδραση στο ενδοκοινοτικό εμπόριο ζώντων ζώων και προϊόντων του ζωικού κεφαλαίου.

(β) Η εφαρμογή της πολιτικής του μη εμβολιασμού σημαίνει ότι τα εμβολιασμένα ζώα δεν μπορούν να εισάγονται χωρίς πρόσθετα εγγυητικά στοιχεία, αλλά δεν επηρεάζει τις εισαγωγές νωπού κρέατος και προϊόντων κρέατος με την προϋπόθεση ότι τηρούνται όλες οι συνήθεις διαδικασίες (σίτεμα, αποστείρωση).

(γ) Είναι σαφές ότι μία κοινοτική πολιτική γενικού εμβολιασμού θα έχει σοβαρές επιπτώσεις στην εξαγωγή προς πολλές τρίτες χώρες. Από την άλλη μεριά, οι τεχνικές συζητήσεις με τις κτηνιατρικές υπηρεσίες των συναλλασσόμενων εταίρων θα είναι σημαντικές, προκειμένου να πεισθούν οι υπηρεσίες αυτές για την αποτελεσματικότητα των περιφερειακών μέτρων που θα εφαρμόσθούν σε πρίπτωση εμφάνισης της νόσου στο πλαίσιο της εφαρμογής της πολιτικής του μη εμβολιασμού.

4.10 Οι επιπτώσεις της παύσης της εφαρμογής του εμβολιασμού για την αντιμετώπιση του αφθώδους πυρετού στην απασχόληση κτηνιάτρων

Η παύση εμβολιασμού για την αντιμετώπιση του αφθώδους πυρετού, στο βαθμό που αυτό μπορεί να προσδιορισθεί, θα έχει περιορεσμένες επιπτώσεις στην απασχόληση των κτηνιάτρων. Οι πορτογαλικές και ισπανικές αρχές προβλέπουν την επαναπασχόληση των κτηνιάτρων σε άλλες εργασίες. Η Γαλλία προβλέπει προβλήματα όσον αφορά τη διατήρηση της παρουσίας ενός κτηνίατρου σε απομακρυσμένες αγροτικές περιοχές πράγμα το οποίο θέτει σε κίνδυνο το δίκτυο κτηνιατρικής επιτήρησης (βλ.Παράρτημα 6).
Η πολιτική του μη εμβολιασμού απαιτεί ένα τέλεια εναρμονισμένο σύστημα εποπτείας της ασθένειας με μία κεντρικά ελεγχόμενη κρατική κτηνιατρική υπηρεσία, ικανή να αντιμετωπίζει επείγουσες καταστάσεις γρήγορα και αποτελεσματικά.
Ετσι οι κτηνίατροι που έχουν προσληφθεί στα προγράμματα του εμβολιασμού μπορούν να χρησιμοποιηθούν για το σκοπό αυτό και γενικά για την ενίσχυση των κτηνιατρικών υπηρεσιών που είναι απαραίτητες για την υλοποίηση της Ενιαίας Αγοράς.

4.11 Τα αποτελέσματα μιάς αλλαγής της πολιτικής για την αντιμετώπιση του αφθώδους πυρετού στα εργαστήρια

Στην παρούσα φάση περισσότερο από 30 εργαστήρια χειρίζονται τον ιό του αφθώδους πυρετού στην Ευρώπη. Δεκαπέντε από αυτά είναι μονάδες παραγωγής του εμβολίου και τα υπόλοιπα κατέχουν τον ιό για διαγνωστικούς ή ερευνητικούς σκοπούς.

Εάν εφαρμοσθεί η πολιτική του γενικού εμβολιασμού, η αυξημένη ζήτηση για εμβόλια θα μπορούσε να αντιμετωπισθεί με την αύξηση της κοινοτικής παραγωγής. Εάν εφαρμοσθεί η πολιτική του μη εμβολιασμού, το εμβόλιο θα χρειαζόταν μόνο για την διατήρηση ενός κοινοτικού στρατηγικού αποθέματος και για τη συνέχεια των εξαγωγών στις τρίτες χώρες. Οπου οι μονάδες παραγωγής εμβολίου είναι σήμερα ιδιοκτησία του κράτους, ένα μέρος από την εξοικονόμηση που θα προκύψει από το κλείσιμο των μονάδων θα μπορούσε να χρησιμοποιηθεί για την εκπαίδευση προσωπικού ειδικευμένου στη διάγνωση του αφθώδους πυρετού και για την ανάπτυξη βελτιωμένων τεχνικών διάγνωσης.

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Ανεξάρτητα από το ποιά θα είναι η πολιτική ελέγχου στο μέλλον, υπάρχει ανάγκη για έρευνα στον τομέα του αφθώδους πυρετού. Είναι πιθανόν ότι ο αριθμός των κοινοτικών εργαστηρίων που ασχολούνται με αυτό το θέμα θα μειωθεί. Εκείνα από τα εργαστήρια τα οποία θα συνεχίσουν να λειτουργούν θα πρέπει να εφαρμόζουν αυστηρά συστήματα ασφαλείας ώστε να εμποδισθεί η διαφυγή του ιού του αφθώδους πυρετού (βλ.Παράρτημα 7).

5. ΣΥΜΠΕΡΑΣΜΑΤΑ

5.1 Μία κοινή κοινοτική θέση, όσον αφορά τον αφθώδη πυρετό, έχει ουσιαστική σημασία για την επίτευξη των στόχων της εσωτερικής αγοράς.

5.2 Οι πολιτικές που εφαρμόζουν σήμερα τα κράτη μέλη, δηλαδή του εμβολιασμού ή του μη εμβολιασμού, εξετάστηκαν και μελετήθηκαν εκτεταμένα ιδίως όσον αφορά τις οικονομικές πτυχές τους.

5.3 Εξετάστηκε η δυνατότητα διεξαγωγής ελευθέρου εμπορίου για ορισμένα είδη μεταξύ τμημάτων της Κοινότητας που εφαρμόζουν διαφορετικές πολιτικές, αλλά απορρίφθηκε διότι υπάρχει ο κίνδυνος μόλυνσης με τον ιό του αφθώδους πυρετού περιοχών μη μολυσμένων προηγουμένως. Η διακινδύνευση αυτή είναι απαράδεκτη δεδομένου ότι ένας από τους στόχους της Ενιαίας Ευρωπαϊκής Πράξης είναι η εναρμόνιση προς υψηλά υγιεινομικά πρότυπα. Είναι επομένως αναγκαία η σαφής επιλογή μεταξύ της εφαρμογής πολιτικής εμβολιασμού ή μη εμβολιασμού στο σύνολο της Κοινότας.

5.4 Από τις διεξαχθείσες μελέτες είναι σαφές ότι η πολιτική του μη εμβολιασμού κοστίζει πολύ λιγότερο από την πολιτική γενικευμένου εμβολιασμού. Δεδομένου ότι έχουν προβλεφθεί περισσότερες εμφανίσεις της νόσου στο πλαίσιο της εφαρμογής πολιτικής εμβολιασμού απ'ότι στο πλαίσιο πολιτικής μη εμβολιασμού είναι σαφές ότι η υιοθέτηση της πολιτικής του μη εμβολιασμού, λόγω του ενυπάρχοντος κινδύνου από τη χρησιμοποίηση του ιού του αφθώδους πυρετού, είναι ασφαλέστερη για το σύνολο της Κοινότητας.

5.5 Στο πλαίσιο της πολιτικής του μη εμβολιασμού θα είναι αναγκαίο να ενισχυθούν τα μέτρα τα οποία έχουν προβλεφθεί για να παρεμποδίσουν την εισαγωγή της νόσου στην Κοινότητα και για να εξαλείψουν αποτελεσματικά οποιαδήποτε εμφάνιση της νόσου.

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5.6 Οι μελέτες όσον αφορά τις εμπορικές συναλλαγές δείχνουν ότι η αλλαγή των σημερινών πολιτικών θα έχει μικρές επιπτώσεις στο ενδοκοινοτικό εμπόριο και τις εισαγωγές από τρίτες χώρες. Ενώ ορισμένες εισαγωγές από τρίτες χώρες που εφαρμόζουν τον εμβολιασμό θα μπορούσαν να θιγούν στο πλαίσιο της πολιτικής του μη εμβολιασμού θα ήταν δυνατόν να συμφωνηθεί από κοινού με την ενδιαφερόμενη χώρα η αμοιβαία παύση του εμβολιασμού. Στο πλαίσιο της πολιτικής του γενικού εμβολιασμού, είναι βέβαιο ότι οι εξαγωγές σε πολλές τρίτες χώρες θα σταματήσουν. Από την άλλη μεριά, στο πλαίσιο της πολιτικής του μη εμβολιασμού η Κοινότητα ως σύνολο, ενώ θα έχει την ευκαιρία να συναλλάσσεται με πολύ περισσότερες χώρες απ'ότι προηγουμένως, ορισμένες χώρες θα μπορούσαν να την θεωρούσαν ως σύνολο όσον αφορά το καθεστώς της ασθένειας. Στην περίπτωση αυτή μιά εμφάνιση αφθώδους πυρετού θα μπορούσε να επηρεάσει τις εξαγωγές από την Κοινότητα σε μεγάλη κλίμακα εκτός αν τα μέτρα για τον έλεγχο και την εξάλειψη της ασθένειας τα οποία λαμβάνονται σε περιφερειακή βάση γίνουν δεκτά διεθνώς.

5.7 Οσον αφορά το ανθρώπινο δυναμικό, είναι πολύ πιθανό ότι οι περισσότεροι κτηνίατροι, τόσο οι κρατικοί υπάλληλοι όσον και αυτοί που απασχολούνται σήμερα στα προγράμματα εμβολιασμού μπορούν να απασχοληθούν και πάλι σε κρατικές υπηρεσίες με στόχο τη δημιουργία υπηρεσίας που θα ασχολείται με τις πρόσθετες αιτήσεις για εφαρμογή πολιτικής μη εμβολιασμού καθώς και σε άλλες δραστηριότητες όπως στον έλεγχο της ασθένειας AUJESZKY και της BRUCELLA MELITENSIS.

5.8 Σε περίπτωση υιοθέτησης της πολιτικής του μη εμβολιασμού, τα υπάρχοντα εργαστήρια για τον αφθώδη πυρετό θα πρέπει να προσαρμοσθούν σε μία καινούργια κατάσταση κατά την οποία η παραγωγή του εμβολίου θα μειωθεί σε μεγάλο βαθμό. Στην περίπτωση αυτή πρέπει να δοθεί έμφαση στην εκπαίδευση του προσωπικού τόσο αυτού που απασχολείται στα εργαστήρια όσο και αυτού που εργάζεται στα προγράμματα εμβολιασμού, για τη διάγνωση του αφθώδους πυρετού καθώς και στην ανάπτυξη βελτιωμένων τεχνικών διάγνωσης.

5.9 Η Επιτροπή είναι απολύτως πεπεισμένη ότι, για να επιτευχθούν οι στόχοι της εσωτερικής αγοράς, η Κοινότητα πρέπει να επιλέξει μεταξύ της εφαρμογής πολιτικής μη εμβολιασμού ή πολιτικής γενικευμένου εμβολιασμού. Από την παρούσα έκθεση προκύπτει σαφώς ότι η εφαρμογή της πολιτικής του μη εμβολιασμού είναι οπωσδήποτε ασφαλέστερη και φθηνότερη και με την εφαρμογή της επιτυγχάνεται ο διπλός στόχος της εξασφάλισης υψηλών υγειονομικών προτύπων και της ελεύθερης κυκλοφορίας αγαθών στην Ενιαία Αγορά. Συνιστάται συνεπώς θερμά στα κράτη μέλη.θα υποβληθούν στο Συμβούλιο οι κατάλληλες προτάσεις για την τροποποίηση της ισχύουσας νομοθεσίας.

ANNEXES

TO THE REPORT

from the Commission to the Council on a study carried out by the Commission on policies currently applied by Member States in the control of foot and mouth disease

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ANNEXES

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FOOT AND MOUTH DISEASE - MEMBER STATES
(1968 - 1988)

COUNTRY	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIUM	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DENMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
WEST GERMANY	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GREECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALY	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
U.K.	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
SPAIN	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
1984 onward : ADNS

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ANNEX 1

TABLE 2

FMD situation in neighbouring countries (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
Norway	P	(1952)
Sweden	P	(1966)
Finland	P	(1959)
DDR	V	(1982)
Poland	P	(1971)
Czechoslovakia	V	(1975)
Austria	P	(1981)
Switzerland	V	(1980)
Yugoslavia	P	(1978)
Albania	P	(1960)
Bulgaria	P(1)	(1973)
USSR	V	O_1, A22
Hungary	V	(1972)
Turkey	V	O_1, A22
Tunisia	V	(1982)
Algeria	V	(1978)
Morocco	V	(1983)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

(1) = vaccination in buffer zone with Turkey

*Source = FAO Yearbook

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ANNEX 1

TABLE 3

FMD situation in non-Member States with trade links to the Community (1987*)

	Vaccination Policy	Virus isolated 1987 (last occurrence)
USA	P	(1929)
Canada	P	(1952)
Japan	P	(1908)
Korea (Republic)	P	(1934)
China	V	-
Australia	P	(1971)
New Zealand	P	0000
Brazil	V	O_1A_1C
Argentina	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	0
Chile	P	0
Colombia	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibia	V	(1980)
South Africa	V	(1985)
Swaziland	V	(1988)

Key:

V = routine vaccination

P = vaccination prohibited (except pre-export)

0000 = never recorded

*Source = FAO Yearbook

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SUMMARY ANALYSIS OF VACCINATION PLANS IN MEMBER STATES 1987

ANNEX 1 TABLE 4

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

NB Denmark, Ireland and United Kingdom do not practice vaccination. Greece vaccinates only in the Evros (Thrace) buffer zone.

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ANNEX 2

THE RISK OF FOOT AND MOUTH DISEASE (FMD) OCCURRING IN THE EUROPEAN COMMUNITY FOLLOWING COMPLETION OF THE INTERNAL MARKET - REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. The Group has been asked to provide an opinion on the extent of the risk of FMD occurring in the Community following 1992, in the event of (a) a vaccination policy* or (b) a non-vaccination policy** being adopted throughout the Community in future.

2. The Group has based this assessment of risk on the epidemiological and laboratory evidence available for the FMD outbreaks which have occurred during the last eleven years (1977-87). First of all it has identified the primary outbreaks in each epizootic to determine, as far as possible, the source of infection.

   Secondly it has looked at the spread of infection (number of SECONDARY outbreaks) which occurred from these outbreaks to determine, as far as possible, and bearing in mind the great variety of factors influencing the rate of secondary spread, how much this has been affected by vaccination and other control measures.

   The eleven years period was chosen in order to include both the beginning and end of the epizootics in question.

PRIMARY OUTBREAKS

3. There appear to have been thirty four (34) primary outbreaks of FMD in eleven Member States during the years 1977-87***

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* Vaccination policy : Systematic annual vaccinations of all cattle. In case of an outbreak stamping out (total or partial) is applied in addition to vaccination and other control measures.

** Non-vaccination policy : A general ban on FMD vaccination. In case of an outbreak total stamping out is applied in addition to other control measures. It may be necessary to launch a ring vaccination.

*** The Group does not have detailed records of the circumstances surrounding outbreaks in Spain (whether they were primary or secondary).

FMD INFECTION ORIGINATING OUTSIDE THE COMMUNITY

4. The Group has identified eight (8) primary outbreaks that occurred during the years 1977-87 where the evidence very strongly suggests that the source was outside the Community(1). The majority of these outbreaks seems to be associated with meat coming into the Community. Other outbreaks were probably caused by airborne transmission from outside, e.g. 1 outbreak in Denmark.

The risk associated with the importation of meat changed in 1978 when the Community regulations were amended in that importation of meat on the bone was no longer allowed(2).

FMD INFECTION ORIGINATING WITHIN THE COMMUNITY

5. The Group has examined records from all Member States and it does not appear that there is any endemic source of FMD within the herds and flocks of the Community. Nevertheless there have been some thirteen (13) primary outbreaks which cannot be attributed with any certainty to extra-Community sources. As for the origin of these outbreaks it is difficult to be precise but it is possible that all were, in some way or other, connected either with escapes from laboratories or use of improperly inactivated vaccines.

FMD INFECTION OF UNKNOWN ORIGIN

6. There remain thirteen (13) primary outbreaks, where the origin of infection appears to be completely unknown.

SECONDARY OUTBREAKS

7. TABLE 1 shows that during the period 1977-87 there were a total of 1.923 outbreaks of FMD in the twelve Member States. The data for primary and secondary outbreaks were not available for Spain but in the other eleven Member States there were a total of 1.858 outbreaks of which thirty four (34) are considered to be primaries (paragraphs 3-6 above). This leaves 1.824 secondary outbreaks. The number of primary and secondary outbreaks that occurred in each Member State is shown in TABLE 2.

(1) See Annex 2, Table 3

(2) Community requirements for deboning apply only to certain high risk areas such as South America and Africa.

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8. The amount of spread of disease (the size of the epizootic originating from a primary outbreak) varies considerably. In some cases the primary outbreaks have not given rise to further outbreaks but in others the number of secondary outbreaks has been high, e.g. as high as 153 in Italy during the A_5 epizootic 1984-85, and possibly even higher in Portugal in the early eighties.

9. The amount of spread (the ratio of primary to secondary outbreaks) shown in Table 2 (<u>averages</u>) falls into three groups :

   (a) those outbreaks where there has been virtually no spread (less than three secondary outbreaks per primary).

   (b) those epidemics where there has been limited spread (less than 25 secondary outbreaks per primary).

   (c) those epidemics where there has been extensive spread (more than 25 secondary outbreaks).

   When looking at the above differences several factors should be taken into consideration, i.e. not only the question of vaccination versus non-vaccination strategy, but also differences between individual countries as regards agricultural infrastructure, farm management, herd size, geographical conditions, veterinary service etc. Differences in virulence and transmissibility between field virus strains may also have contributed to the high degree of variation.

10. Where vaccination has been employed to protect the cattle population the secondary outbreaks have occurred mainly (but by no means entirely) in non-vaccinated pig herds. Infected pigs excrete large amounts of virus and these have perpetuated the epizootics, e.g. the type C epizootic in Italy 1985-86.

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Where vaccination has not been used (in four Member States*) seven primary outbreaks have given rise to 28 secondaries. Two of the primary outbreaks occurred in Denmark where there is also a high density of pigs.

PREDICTIONS FOR THE YEARS 1993-2003
(in the present Member States)

11. Whatever the control policy within the Community (vaccination or non-vaccination) there will remain the risk of infection entering the Community from outside. The risk due to the importation of meat (even in large amounts) from outside appears to have declined since the importation rules were made more strict. On the other hand the risk of infection entering the Community from outside is still present, particularly if large numbers of animals are imported. However, the risk from official importation of animals can be reduced by Community regulations. If it is due to illegal importation or airborne infection it is not directly controllable by the Community.

12. The best estimate that the Group can make is that the risk of infection entering the Community in the years 1993-2003 will be no worse and no better than during the last eleven years, i.e. causing some eight (8) primary outbreaks originating from outside the Community. If to those is added a proportion of the 13 outbreaks where the origin was completely unknown (paragraph 6) the risk increases to about twelve-thirteen (12-13) outbreaks. This figure may be an overestimate of the predicted risk in that the restriction on imported meat introduced in 1978 appears to have been effective in preventing the entry of disease.

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* Denmark, Ireland and United Kingdom do not vaccinate. Greece does not vaccinate except in a buffer zone in the department of Evros.

13. The employment of non-vaccination or of vaccination policies within the Community might also make a difference to this estimate in that vaccination may have prevented some primary outbreaks during the period 1977-87. The number of outbreaks thus prevented cannot be assessed. However, experience in areas of the Community where vaccine is not used could suggest that it is small. It should be noted, however, that the areas of the Community, where vaccination is not practised, have the additional advantages of geographical isolation (islands, peninsula) and strict importation controls, as well as advantages of the protection provided by the regular vaccinations in neighbouring countries.

14. In some Member States special risks can be anticipated from cross-frontier contacts, including illegal importations, which are favoured by the long borders of the Community. In any event, if non-vaccination was to become Community policy the Group would recommend that no susceptible animals be imported into the Community without rigorous safeguards (see later).

THE RISK OF INFECTION ORIGINATING INSIDE THE COMMUNITY

15. If vaccination is not used within the Community in the future and on the basis that there is no evidence of a source of FMD within the Community then it is most unlikely that there will be any primary outbreaks additional to those originating from outside the Community (paragraph 12) and a proportion of the 13 primary outbreaks of unknown origin (paragraph 6), provided laboratories which manipulate FMD virus are operated effectively in conditions of high security.

16. If prophylactic vaccination is used within the Community in future then there is a risk that in addition to the outbreaks mentioned in paragraph 15 there will be some outbreaks associated either with the production or the administration of vaccine. If the experiences of the years 1977-87 were repeated in the years 1993-2003 then we could reasonably expect some 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine. However, it is likely that vaccine inactivation techniques will improve and that escapes from laboratories will decline.
In other respects and whatever the origin of the outbreaks, some of them will be likely to be prevented by the use of prophylactic vaccination.

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THE RISK OF SPREAD OCCURRING WITHIN THE COMMUNITY

17. The data contained in TABLE 2 and in paragraphs 7-10 suggest that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. On the basis of the information available, the Group considers that the variation is too great as to make it possible to draw clear conclusions as to the predicted rate of spread in the event of non-vaccination or of vaccination becoming Community policy. In this respect geographical conditions, agricultural infrastructure and veterinary controls in individual countries should be considered as factors of crucial importance.

The Group is particularly aware of the risk of secondary spread in areas of high animal density. If vaccination was discontinued, the risk to cattle would be increased, but would not be significantly altered for pigs, which are not normally vaccinated. In case of an outbreak the epizootic may be restricted in size and duration by applying the methods described in paragraphs 29-32 (see later), and if necessary by launching a ring vaccination.

18. It is apparent, however, that the amount of spread of infection from a primary outbreak, in addition to the virulence and transmissibility of the field virus, is highly dependent on the rigour of the control procedures employed. Where only stamping out is used to control an epizootic and the stamping out procedures are carried out thoroughly and promptly (and accompanied by strict movement controls etc.) the infection may be contained to a small number of secondary outbreaks. Likewise the experience of 1977-87 suggests that whether or not prophylactic vaccination is employed, if control measures (stamping out and movement controls etc.) are not applied strictly, then spread, including particularly spread into the pig population, may be extensive.

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TABLE 1

FMD OUTBREAKS IN MEMBER STATES
1977 - 1987

Country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgium	–	–	–	–	–	–	–	–	–	–	–	–
Denmark	–	–	–	–	–	22	1	–	–	–	–	23
Germany	7*	3	–	2	–	1	–	9**	–	–	6***	28
Greece	3	–	–	–	5	–	–	2	–	–	–	10
Spain	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Ireland	–	–	–	–	–	–	–	–	–	–	–	–
Italy	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
United Kingdom	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** incl. six serological cases found a posteriori
*** 1987/88

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ANNEX 2
TABLE 1

ANNEX 2

TABLE 2

FMD OUTBREAKS IN MEMBER STATES

1977 - 1987

RATE OF SPREAD

MEMBER STATES USING A NON-VACCINATION POLICY

	Primary Outbreaks	Secondary Outbreaks	Ratio
Denmark	2	21	1:21/1:0
Greece	3	7	1:2.3
Ireland	-	-	-
United Kingdom	2	0	1:0

MEMBER STATES USING A VACCINATION POLICY

Belgium	-	-	-
Germany	8	20	1:2.5
Spain	Not known	Not known	Not known
France	2	38	1:19
Italy	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Netherlands	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEX 2

TABLE 3

EIGHT PRIMARY OUTBREAKS OF FMD

where the evidence very strongly suggests that the source was outside the Community

1976/77	Greece	Type A	- similarity with South American types - swill feeding
1976/77	FRG	Type A	- Aachen (similarity with A 24) swill feeding
1977	Italy	Type A	- similarity with South American types, virus isolated from imported meat products/bone marrow
1978	Italy	Type O	- probably associated with imported meat
1979	Italy	Type A	- similarity with South American types
1982	Denmark	Type O	- probably airborne introduction from Eastern Europe
1982	Germany	Type O_1	- related to O_1 Austria 1981
1984	Greece	ASIA-1	- probably airborne introduction

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ANNEX 3

1. THE ECONOMIC ANALYSIS

1.1. The estimates of the costs of vaccination and of outbreaks given in Tables 1 and 2, and the predicted number of outbreaks provided by the Scientific Veterinary Committee in Annex 2 have been used in an economic analysis which shows the possible outcomes given a vaccination or a non-vaccination policy. These outcomes have been consolidated into three scenarios : a central (or most likely) case, a worst case and a best case.

1.2. The analysis covers the ten year period 1993-2002. This is considered to be a reasonable period on which to base policy considerations.

2. THE ASSUMPTIONS

2.1. The cost of vaccination

The cost of a Community vaccination programme involving a single annual vaccination of all eligible cattle is estimated at 133 million ECU per annum (Table 1).

2.2. The cost of outbreaks

The cost of an outbreak as provided by Member States varies considerably (Table 2). The most important cause of the variation is the difference in the size of the herds and the value of the livestock slaughtered. The values shown in Table 2 are the average for each Member State but even within Member States there are great variations in herd size from small holdings to large intensive units.

The lowest cost for an outbreak is that provided by the Portuguese authorities. In that country, holdings with less than 5 hectares account for 86 % of all holdings and the outbreak cost quoted is for a holding containing only 4 cattle and 5 pigs. This is not typical of the Community as a whole and so, for the purpose of the economic analysis, the next lowest cost estimate (Greece 32 000 ECU) has been taken as the "low" estimate.

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The highest cost for an outbreak is that provided by the Spanish authorities (470 000 ECU) and is based on the costs recorded during an epidemic in 1983. The average number of cattle on the holdings affected is given as 1 535. However, a scrutiny of the national submissions showed that the Italian authorities estimated costs of 600 000 ECU for total slaughter in very large intensive pig units. Therefore, in order to give proper weight to the risk attached to disease occurring in large intensive units, this figure has been used as the "high" estimate in the analysis.

Excluding Portugal because of its untypical herd structure, the average of costs submitted by Member States is 158 000 ECU and this has been used as the "central" estimate in the analysis.

2.3. The number of outbreaks

The number of outbreaks used in constructing the most likely, worst and best cases are derived from the estimates provided by the Scientific Veterinary Committee (Annex 2).

The Committee estimated that under a non-vaccination policy there are likely to be 13 primary outbreaks over a 10 year period. This figure may be an overestimate of the predicted risk in that the restrictions on imported meat introduced during 1978 appear to have been effective in preventing the entry of disease.

The Committee estimated that under a vaccination policy there would be the 13 primary outbreaks referred to above and an additional 13 primary outbreaks related to the manipulation of FMD virus or the use of improperly inactivated vaccine in the field. However, the Committee considered that improved techniques ought to lead to a reduction in this risk and for the purpose of the economic analysis the estimate of the number of laboratory or vaccine-related outbreaks has been reduced to 7 over a 10 year period. This, together with the 13 outbreaks from external sources makes a total of 20 primary outbreaks overall during the 10 years under a vaccination policy.

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The data examined by the Committee suggested that it is not possible to determine a difference in the rate of spread of infection between those countries where vaccination is employed and those where control depends exclusively on stamping out and other relevant control measures. Therefore, for this economic analysis, the same estimate has been used for the two alternative policies.

The report of the Committee provides a range for the ratio of primary to secondary outbreaks. The ratios given are reasonably uniform between Member States except for Portugal. The figure given for this country of 1:591 represents a situation before Portugal applied Community control measures. Disregarding the Portuguese experience, the average ratio of primaries to secondaries over the last 10 years is 1 primary to 20 secondaries and this has been taken as the central or most likely estimate. It is possible that this ratio exaggerates the rate of spread as in some of the major epidemics more of the outbreaks may have been primary rather than secondary e.g. the multiple seeding of outbreaks due to improperly inactivated vaccine.

The lowest rate of spread is taken as 1:0, i.e. there are no further outbreaks beyond the primary. This has happened several times over the last 10 years under both policies.

The highest rate of spread - the most pessimistic estimate - is taken as 1:150. This represents the highest ratio of primaries to secondaries recorded in recent epidemics in the intensive livestock areas of northern Italy.

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3. THE SCENARIO ANALYSIS

3.1. Three possible outcomes are presented depending on the variations in the number and cost of outbreaks described in paragraphs 2.2 and 2.3 above. They are :

- a central (or most likely) case,
- a best case,
- a worst case.

3.2. The central case

This gives the most likely outcome. It is based on the cost of an average outbreak (158 000 ECU) (see 2.2. above) and the most likely number of secondary oubreaks (20) arising from a primary (2.3. above).

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
20 secondaries per primary

Total = 13 + (13 x 20) = 273

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Total cost = 273 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 35 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years)
20 primaries
20 secondaries per primary

Total = 20 + (20 x 20) = 420

Expected cost per outbreak (1987 values)
= 158000 ECU per outbreak

Cost of outbreaks = 420 x 158000 ECU. The discounted present value over 10 years (at 5 %) = 54 million ECU.

Cost of vaccination = 133 million ECU per annum. The discounted present value over 10 years (at 5 %) = 1080 million ECU.

Total cost = 54 million ECU + 1080 million ECU = 1134 million ECU.

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3.3. The best case

This gives the most optimistic outcome i.e. outbreaks all occurring on the smallest livestock holdings and no secondary outbreaks arising out of the primaries. A situation where there are no secondary outbreaks is not unusual. It is unlikely however that all outbreaks would occur in the smallest herds.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :

13 primaries

0 secondaries

Total = 13 + (13 x 0) = 13

Expected cost per outbreak (1987 values) = 32000 ECU (see para. 2.2.)

Total cost = 13 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 337000 ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :

20 primaries

0 secondaries

Total = 20 + (20 x 0) = 20

Expected cost per outbreak = 32000 ECU

Cost of outbreaks = 20 x 32000 ECU. The discounted present value over 10 years (at 5 %) = 519000 ECU.

The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 519 000 ECU + 1 080 million ECU = 1 080,5 million ECU

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3.4. The worst case

This gives the worst possible outcome. It is assumed that 150 secondary outbreaks would arise from each and every primary and that the outbreaks would all occur in the largest herds and cost 600000 ECU each.

Such a combination of circumstances is only a remote possibility. A spread of 150 outbreaks from a primary has only occurred once (in Italy) in the last 11 years. Furthermore, even in the most intensive livestock zones only a proportion of the holdings are very large.

A. Non-vaccination policy

Expected number of outbreaks (over 10 years) :
13 primaries
150 secondaries per primary

Total = 13 + (13 x 150) = 1963

Expected cost per outbreak (1987 values) = 600000 ECU

Total cost = 1963 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 955 million ECU.

B. Vaccination policy

Expected number of outbreaks (over 10 years) :
20 primaries
150 secondaries per primary

Total = 20 + (20 x 150) = 3020

Expected cost per outbreak (1987 values) = 600000 ECU

Cost of outbreaks = 3020 x 600000 ECU. The discounted present value over 10 years (at 5 %) = 1470 million ECU.

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The present value of vaccination discounted over 10 years (at 5 %) = 1080 million ECU.

Total cost = 1470 million ECU + 1080 million ECU = 2550 million ECU.

4. SUMMARY

	Present value over 10 years (million ECU)		
	Central case	Best case	Worst case
A. Non Vaccination Policy (Outbreaks only)	35	0,3	995
B. Vaccination Policy (Outbreaks and vaccination)	1134	1080,5	2550

The analysis demonstrates that the most probable outcome during the next 10 years will be for a vaccination policy to cost considerably more than a non-vaccination policy. Even in the most unlikely worst case, i.e. where all outbreaks occur in the very largest livestock units and there is a high rate of spread of infection, the non-vaccination policy is still the most cost-effective.

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ANNEX 3

TABLE 1

THE COST OF AN FMD VACCINATION PROGRAMME

IN THE EUROPEAN COMMUNITY

(annual costs at 1987 prices)

	Cattle vaccinated ('000 head)	Cost per head		National cost	
		National currency	ECU	National currency (millions)	ECU (millions)
Belgium	2 232	54 BFR	1,25	121,0	2,8
Denmark*	2 250	17,90 DKR	2,25	40,3	5,1
Germany	14 560	3,14 DM	1,18	38,6	18,6
Greece*	761	122 DRA	0,74	92,5	0,6
Spain	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Ireland*	6 647	1,50 IRL	1,94	10,0	12,9
Italy	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Netherlands	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
U.K.*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (rounded)	133,0

NOTES

(i) Costs are for vaccination of all eligible cattle once a year. (Except for France and Luxembourg where only total cattle population figures were available).

(ii) Costs are as recorded for Member States which currently vaccinate their national herds. Costs are estimated for Member States that do not vaccinate (indicated*).

(iii) Costs include vaccine, vaccination and general administration. They do not include costs of possible side effects.

(iv) Greece vaccinates cattle only in the Evros Valley; France does not vaccinate in Finisterre.

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ANNEX 3

TABLE 2

ESTIMATED COSTS OF A SINGLE OUTBREAK OF FMD

(as provided by Member States at 1987 prices)

The costs include : Compensation
Cleansing, disinfection and associated measures
Loss of production on farm
General administration of outbreak control

They do not include : Ring vaccination

Cost per outbreak (see notes)

	National currency	ECU
Belgium	2 203 055 BFR	50 650
Denmark	1 210 000 DKR	150 239
Germany	100 000 DM	48 309
Greece	5 281 911 DRA	31 914
Spain	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Ireland	164 500 IRL	212 258
Italy	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Netherlands	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
U.K.	70 000 UKL	104 979

NOTES

(1) An outbreak is disease occurring on one farm or holding (OIE definition for European conditions)

(2) The estimates are based as far as possible on actual costs as recorded in recent outbreaks; where there have been no recent outbreaks the costs have been estimated for an average sized herd at risk.

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ANNEX 4

COMMUNITY TRADE PATTERNS IN LIVESTOCK AND CERTAIN LIVESTOCK PRODUCTS

1. Introduction

1.1 FMD Susceptible Species

In examining trade patterns it should be noted that the species susceptible to FMD most involved in trade are bovine animals, swine, sheep and goats.

1.2 Current rules in trade

Given a normal FMD free situation, those Member States which vaccinate against FMD can export fresh meat and meat products of the species mentioned above to Member States which do not vaccinate in so far as the risk of spread of FMD is concerned.

Should an outbreak of FMD occur in any Member State then prohibition areas around the outbreak are set up by way of Directive 85/511/EEC (general control measures) and Directive 64/432/EEC (intra-Community trade) which prevent trade in animals, fresh meat and meat products (other than those heat treated to at least 70°C).

In the case of live bovine animals and swine, trade restrictions exist according to Community law between the vaccinating and non-vaccinating States. Rules are laid down in Article 4(a) of Directive 64/432/EEC and are one of the reasons why this study has been undertaken. At 1 January 1989 national rules on sheep and goats were still in force.

The provisions of Article 4(a) give Member States which are free of FMD for two years and do not vaccinate the right to request isolation and/or quarantine in addition to certain tests to ensure that the animal in question has not been vaccinated and is not a carrier of FMD virus.

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In terms of intra-Community trade the provisions concerning live animals are the most important in projecting the advantages and disadvantages of adopting a pan-vaccination or a non-vaccination policy.

2. Intra-Community trade[1]

2.1 Bovine animals

2.1.1 Calves (up to 250 kgs)

In 1987 some two million calves were traded between Member States. The principal exporters and importers were :

1. France (838 000) to Italy (689 000), Netherlands (65 000) and Germany (64 000)
2. UK (376 000) to France (221 000), Netherlands (133 000) and Italy (6 000)
3. Netherlands (332 000) to Germany (102 000), Belgium/Luxembourg (99 000) and France (88 000).

Comment

In either a non-vaccination or pan-vaccination situation trade in calves is unlikely to alter to any great extent. UK appears to have an exportable excess while trade to Denmark and Ireland is only likely to develop if cow numbers there are cut back sharply.

2.1.2 Adult cattle for fattening, production and slaughter

In 1987 1,15 million adult cattle were traded between Member States. The principal exporters and importers were :

1. France (795 000) to Italy (709 000), Germany (34 000) and Belgium/Luxembourg (21 000)

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(1) Source of data is Nimexe as quoted in Eurostat for the year 1987. Figures are to the nearest thousand in head.

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2. Ireland (152 000) to UK (151 000) and Portugal (1 000)
3. Germany (117 000) to Netherlands (64 000), Italy (37 000) and Belgium/Luxembourg (11 000).

Comment

In either a non-vaccination or pan-vaccination situation it is unlikely that trade patterns will alter as Denmark, Ireland and UK are self sufficient with Ireland being a substantial exporter. However, trade in slaughter cattle to Denmark and UK could develop due to their proximity to States such as Germany, France and the Netherlands.

2.1.3 Pure-bred breeding cattle

In 1987 38 000 of this category moved in intra-Community trade. The principal exporters and importers were :

1. Germany (22 000) to Spain (13 000), Portugal (5 000) and Italy (2 000).
2. U.K. (6 000) to Portugal (3 000) and Ireland (3 000).
3. France (5 000) to Spain (1 000), Portugal (1 000) and Italy (1 000).

NB Exports to Spain and Portugal during 1987 were supported by export refunds.

Comment

In either situation a change in these trade patterns is unlikely as the demand for these cattle is limited and the unit value is high. Because of this high unit value, quarantine and testing costs under the present regime are relatively easily absorbed. These would be eliminated on changing to a uniform policy and a marginal increase in trade could be expected. However this could be counterbalanced by an increase in trade in semen and embryos.

2.2 Swine

Trade in pigs at present is influenced by the presence or absence of four virus diseases, namely FMD, Classical Swine Fever (CSF), African Swine Fever (ASF) and Swine Vesicular Disease (SVD). Thus Member States which are officially free of CSF may prohibit entry of pigs and pigmeat into their territories from States not of the same status.

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Concerning ASF, exports from Spain (partly as and from 14 May 1989), Portugal and Sardinia are prohibited except for certain heat-treated products. Rules for SVD allow Member States not vaccinating against FMD and free of FMD for two years to require a negative serological test for SVD on breeding and production pigs before entry into their territories.

2.2.1 Pigs for Production (up to 50 kgs) (Weaner pigs)

In 1987 a total of 2,5 million of such pigs were traded between Member States. The principal exporters and importers were :

1. Germany (1 371 000) to Belgium/Luxembourg (744 000), Spain (332 000) and France (275 000)
2. France (423 000) to Spain (225 000), Belgium/Luxembourg (145 000) and Italy (52 000)
3. Netherlands (681 000) to Italy (308 000), Spain (184 000) and Belgium/Luxembourg (128 000).

2.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total traded in 1987 was 4,233 million. The principal exporters and importers were :

1. Netherlands (2 990 000) to Germany (924 000), Italy (724 000) and France (710 000).
2. Belgium/Luxembourg (958 000) to France (558 000) and Italy (326 000).
3. France (111 000) to Italy (70 000) and Belgium/Luxembourg (25 000).

2.2.3 Adult sows (not pure bred) (Mainly sows for slaughter)

In 1987 a total of 337 000 sows in this category were traded between Member States. The principal exporters and importers were :

1. Netherlands (307 000) to Belgium/Luxembourg (196 000) and Germany (110 000).
2. France (23 000) to Belgium/Luxembourg (22 000).

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2.2.4 Pure bred pigs for breeding

In 1987 some 19 000 pure bred pigs were traded. The principal exporters and importers were :

1. U.K. (9 000) to Spain (5 000), Ireland (1 000) and Germany (1 000).
2. Netherlands (3 000) to Spain (1 000) and Belgium/Luxembourg (1 000).
3. France (2 000) to Spain (2 000).

Comment on trade in pigs

As stated above, three diseases apart from FMD can influence the trade in pigs. It is therefore difficult to predict altered trade flows in the immediate future. Because of current self sufficiency it is unlikely that a trade into Denmark, Ireland and UK will develop to any great extent.

2.3. Sheep and goats

At 1 January 1989 no Community rules concerning trade in sheep and goats existed. Therefore national rules apply. Apart from FMD, Brucella melitensis would appear to be a disease which militates against trade from the Southern Mediterranean States to the Northern ones.

2.3.1 Sheep and goats other than pure breds

A total of 1,77 million sheep and goats were traded between Member States in 1987. The principal exporters and importers were :

1. France (457 000) to Italy (272 000) and Spain (183 000).
2. UK (392 000) to France (295 000) and Ireland (85 000).
3. Netherlands (336 000) to France (198 000) and Belgium/Luxembourg (134 000).
4. Germany (298 000) to Belgium/Luxembourg (128 000) and Italy (88 000).

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2.3.2 Pure bred breeding sheep and goats

A total of 17 000 sheep and goats in this category were traded in 1987. Principal exporters and importers were :

1. U.K. (7 400) to Ireland (5 000) and France (2 400).
2. Portugal (4 500) to Spain (2 500) and UK (1 000).
3. Spain (2 000) to France (1 000) and UK (700).

Comment

Trade in each category appears to be mainly from north to south probably a reflection of Brucella requirements. Present trends would seem to be set to continue. There does not seem to be an opening for trade to Denmark, Ireland or U.K. due to self sufficiencies and price differentials.

3. Trade from third countries

Trade in fresh meat and meat products :

This takes place from approximately 50 third countries into the Community. While, in the event of a change to non-vaccination, the Community is unlikely to demand that meat originates from non-vaccinated third country animals, two problem areas can be foreseen. Firstly the Latin American countries (Argentina, Brazil, Paraguay and Uruguay) where FMD flares to epizootic proportions, control FMD partly by vaccination. Meat for the Community from these countries is prepared under a strict set of conditions including maturation and deboning. It may be that a further tightening of conditions will be considered necessary especially in the case of offals. The second problem is Southern Africa - South Africa (including Namibia), Swaziland, Botswana and Zimbabwe. Here we find that current legislation(1) requires non vaccination of cattle for 12 months prior to slaughter plus freedom from FMD for the same period. However the animal health decisions for these countries are not binding on all Member States at present. In the near future decisions applicable to all Member States will be necessary.

(1) Directive 72/462/EEC Articles 14 and 15.

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On the whole therefore shipments of meat and products to the Community should not suffer in the event of a change in Community vaccination policies.

Trade in live animals :

This trade may take place from 21 countries as far as cattle and pigs are concerned, the trade in sheep and goats being subject to national rules. Bovine animals entering Member States which routinely vaccinate must be vaccinated prior to entry.

3.1 Bovine animals

3.1.1 Calves (up to 250 kgs)

In 1987 a total of 272 000 calves were imported into the Community. The principal senders and receiving Member States were :

1. Poland (219 000) to Italy (149,000) and Germany (61 000).
2. Czeckoslovakia (27 000) to Italy (18 000) and Germany (9 000).

3.1.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 350 000 cattle in this category were imported into the Community. The principal senders and receiving Member States were :

1. Yugoslavia (170 000) to Italy (111 000) and Greece (59 000).
2. Poland (80 000) to Italy (75 000) and Greece (4 000).
3. Austria (56 000) to Italy (38 000) and Germany (16 000)

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3.1.3 Pure-bred breeding cattle

In 1987 some 44 000 of these cattle were imported into the Community. The principal senders and receiving Member States were :

1. Austria (23 000) to Italy (18 000) and Spain (4 000).
2. Switzerland (15 000) to Italy (14 000).

Comment

As can be noted from the above lists the main supplies of cattle are destined for Italy and are obtained largely from third countries which at present do not systematically vaccinate, the exceptions being Czeckoslovakia and Switzerland. In the event that neither of these countries abandon vaccination then a small shortfall in calves (27,000) and breeding animals (15,000) will result. This should pose little difficulty in terms of alternate suppliers.

A policy change to pan-vaccination would, it is thought, cause little change to the import flows into Denmark, Ireland or U.K. A change to non-vaccination would mean non-acceptance of vaccinated animals and the supply of store cattle from some Eastern European countries e.g. DDR, Czeckoslovakia and Switzerland might cease depending on those countries' willingness also to abandon vaccination. On the other hand countries like Poland and Yugoslavia which do not vaccinate systematically would be relieved of their responsibility to apply pre-export vaccination.

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3.2 Swine

3.2.1 Pigs for production (up to 50 kg) weaner pigs

In 1987 a total of 13 566 weaner pigs were imported into the Community principally to :

Italy (12 245) from Czeckoslovakia (11 601).

3.2.2 Pigs 50 kg or over (mainly slaughter pigs)

The total imported in 1987 was 37 935 principally into :

Belgium/Luxembourg (37 590) from DDR (37 425)
Spain (241) from Switzerland (241).

3.2.3 Adult sows (not pure bred) (mainly sows for slaughter)

Only 7 in this category were imported in 1987.

3.2.4 Pure bred pigs for breeding

A total of 428 imported in 1987 principally into :

Netherlands (122) from Canada (122)
Greece (89) from Sweden (40) and Austria (34)
Germany (67) from Hungary (30) and Austria (22).

Comment on imports of pigs

In comparison with Intra-Community trade (7 million in 1987) imports from third countries of 52 000 pigs are insignificant. No consequences of a change in vaccination policy can be foreseen.

3.3 Sheep and goats

3.3.1 Sheep and goats other than pure breds

In 1987 2 043 000 head were imported principally into :

1. Italy (1 492 000) from Hungary (865 000), Poland (278 000) and Bulgaria (266 000)
2. Germany (286 000) from Poland (201 000) and Hungary (85 000)
3. France (163 000) from Poland (94 000) and Hungary (69 000)
4. Greece (89 000) from Hungary (50 000) and Bulgaria (35 000).

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3.3.2 Pure bred breeding sheep and goats

In 1987 5 102 animals in this category were imported principally into :

1. United Kingdom from New Zealand (3 222), Australia (294) and Canada (197)
2. France (728) from Canada (343), Australia (222) and Algeria (117)
3. Italy (195) from Austria (102) and Switzerland (92).

Comment

The main suppliers of sheep and goats to the Community do not vaccinate systematically against FMD and therefore existing patterns should be maintained. Total imports are limited by constraint agreements.

4. Trade to third countries

Current rules in trade

Animal health rules governing exports of FMD susceptible animals and their products are not entirely uniform. This is because receiving third countries, having particular attitudes and positions regarding FMD, lay down their own import rules. However it can be noted that most third countries which are free of FMD and do not vaccinate will not freely accept animals and their products from countries which vaccinate. The prime example of this practice is U.S.A. which maintains an official listing (often referred to as the "White List") of countries which it considers free of FMD. A "knock-on" effect ensues when countries on the list emulate or exceed U.S.A. rules for unclear reasons. This problem will be discussed later.

4.1 Meat and meat products

Meat and meat products which are heat treated to at least 70°C will satisfy most veterinary regulations as regards FMD virus survival. The statistics which follow are for those meats and products which are not heat treated.

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4.1.1 Meat of bovine animals, fresh, chilled, frozen

In 1987 a total of 692 791 tonnes in this category was exported principally by :

1. France (215 897) to USSR (39 400), Iran (37 156), Egypt (19 682), Brasil (14 008), Saudi Arabia (12 034), Angola (11 021) and Iraq (10 478)
2. Ireland (159 560) to Egypt (43 904), Iran (23 105), Iraq (18 549), Yugoslavia (14 014) and South Africa (13 122)
3. Germany (119 637) to Egypt (46 188), Yugoslavia (22 361) and Iran (13 102)
4. Italy (60 510) to Brazil (16 711), Peru (9 625), Saudi Arabia (9 564) and Libya (8 119)
5. Netherlands (54 389) to Zaire (10 753), Yugoslavia (10 305) and Egypt (6 504).

Tonnage exported by other Member States to various countries were : Denmark (38 076), UK (37 341), Belgium (5 928), Spain (1 297), Greece (136) and Portugal (22).

4.1.2 Preparations of uncooked bovine meat, offals and mixtures

In 1987 some 10 006 tonnes of such preparations were exported principally by :

1. Denmark (7 884) to Saudi Arabia (2 432), Bulgaria (1 252), United Arab Emirates (779) and Bahrain (722)
2. Italy (1 528) to Saudi Arabia (1 084) and Jordan (239).

4.1.3 Offals of bovine animals

In 1987 some 12 048 tonnes of offals were exported principally by :

1. France (3 295) to Ivory Coast (1 018), Guadeloupe (465), Martinique (403), Gabon (340) and Israel (299)
2. Ireland (2 550) to Japan (1 529), Israel (346), Egypt (295) and Trinidad/Tobago (154)
3. Germany (2 199) to Austria (1 111), Egypt (185) and Ivory Coast (185)
4. Netherlands (2 152) to Israel (683), Zaire (251) and Yugoslavia (163).

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4.1.4 Unrendered fats of bovine animals for food

In 1987 a total of 27 179 tonnes in this category was exported principally by :

1. Germany (15 782) to Iran (6 369), Cuba (2 076), Nigeria (1 813) and Burundi (1 511)
2. Denmark (7 300) to Rwanda (1 869), Kenya (1 681) and Tanzania (1 500).

4.1.5 Stomachs, Intestines, Bladders of animals (all food animals)

In 1987 a total of 22 868 tonnes were exported principally by :

1. Germany (8 698) to U.S.A. (2 573), Austria (1 211) and Brazil (1 006)
2. Denmark (3,676) to U.S.A. (1,788), Norway (493), Finland (386) and D.D.R. (167)
3. Netherlands (2 910) to U.S.A. (675), Brazil (433), Yugoslavia (247), Switzerland (246) and Finland (239)
4. France (2 582) to South Africa (612), Hungary (334), Sweden (172), Taiwan (152), Morocco (160) and Poland (144).

4.2 Pig meat

4.2.1 Carcases and half carcases, fresh, chilled or frozen

In 1987 2 720 tonnes of pig meat in this category was exported to third countries. Principal exporters were :

1. Spain (1 572) to Canary Isles (1 455) and Andorra (74)
2. France (455) to Canary Isles (142), Seychelles (85) and Reunion (66)
3. Belgium (311) to Canary Isles (287).

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4.2.2 Pig meat in cuts

In 1987 197 921 tonnes was exported principally by :

1. Denmark (164 272) to Japan (94 519), U.S.A. (54 158) and Canada (9 768)
2. France (9 512) to Reunion (4 415) and Martinique (1 093)
3. Belgium (6 537) to Czeckoslovakia (4 026) and Dutch Antilles (676).

4.2.3 Pig meat salted, brined, dried or smoked

In 1987 9 637 tonnes of this category mainly bacon was exported principally by :

1. Spain (3 007) to Canary Isles (2 379) and Andorra (315)
2. Denmark (3,000) to Sweden (1 155), U.S.A. (613), Greenland (196) and Singapore (194)
3. France (1 409) to Guadeloupe (483), Martinique (213) and Reunion (213).

4.2.4 Pig fat (and poultry fat) fresh, chilled and frozen

In 1987 2 085 tonnes were exported principally by :

1. Denmark (1 488) to Norway (907) and Cyprus (177)
2. France (242) to Reunion (176).

4.2.5 Sausages, puddings and the like

In 1987 65 425 tonnes were exported principally by :

1. Spain (28 414) to Canary Isles (23,881), Andorra (454) and Lebanon (263)
2. Denmark (16 742) to U.S.A. (4 027), Canary Isles (3 505), Singapore (1 073) and Saudi Arabia (1 006)
3. France (6 910) to Reunion (1 279), Guadeloupe (1 278) and Martinique (1 170)
4. Italy (4 666) to Switzerland (2 605) and Lebanon (463).

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4.2.6 Pork offals

In 1987 35 725 tonnes of pork offals were exported principally by :

1. Denmark (14 674) to Sweden (7 572), Japan (3 354) and Liberia (1 229)
2. Netherlands (8 481) to Sweden (2 243), Ivory Coast (2 167) and Cameroon (960)
3. Germany (4 440) to Sweden (3 970) and Switzerland (243).

4.3 Sheep and goat meat, fresh, chilled, frozen etc.

Only one classification exists for statistical purposes.

4.3.1 All sheep and goat meat

In 1987 a total of 5 169 tonnes was exported principally by :

1. United Kingdom (2 475) to Switzerland (2 172)
2. Italy (906) to Libya (906)
3. France (678) to Switzerland (312) and Reunion (71).

Comment on exports of fresh meat and offal

As intervention stocks decline, exports of beef to countries such as USSR and Brazil are likely to diminish. In the event of a pan-vaccination policy exports of beef offals from Ireland to Japan and some other countries - total of 2 550 tonnes in 1987 - would be lost.

In a similar situation Denmark would lose an export trade in pork cuts, partly treated pigmeat, pig fat, offals and sausages, puddings and the like which in 1987 totalled 200 000 tonnes mainly to "White List" adherants. However this export trade is marginal in comparison to total trade and it is believed that this production can be accommodated within the Community.

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4.4 Bovine animals

4.4.1 Calves (up to 250 kgs)

In 1987 the total exported from the Community as a whole was 3 309. Principal exporters were :

France (3 299) to Switzerland (3 031) and Andorra (206).

4.4.2 Adult cattle for fattening, production and slaughter

In 1987 a total of 77 527 was exported. Principal exporters were :

1. Ireland (64 950) to Libya (30 149), Egypt (29 577) and Malta (4 200)
2. France (7 807) to Tunisia (1 684), Saudi Arabia (1 504) and Algeria (677)
3. Germany (2 324) to Saudi Arabia (2 119)
4. Spain (2 298) to Andorra (2 260).

4.4.3 Pure bred breeding cattle

In 1987 a total of 87 119 was exported. Principal exporters were :

1. Germany (43 837) to Turkey (5 357), USSR (4 893), Morocco (4 958), Libya (3 910), Kuwait (3 661), Syria (2 267), Iraq (2 164), Iran (2 024), Jordan (2 157) and Saudi Arabia (1 026)
2. France (21 390) to Algeria (18 367), Morocco (1 406) and Canary Isles (1 045)
3. Netherlands (16 647) to Algeria (5 950), Iran (5 129), Egypt (3 316) and Jordan (836)
4. Denmark (4 307) to Egypt (2 490), USSR (1 372) and United Arab Emirates (365).

4.5 Swine

As mentioned earlier, diseases other than FMD may cause restrictions in trade.

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4.5.1 Pigs for production (up to 50 kg) Weaner pigs

In 1987 a total of 2 633 was exported. Principal exporters were :

1. Netherlands (1 188) to Philippines (579) and Faroe Islands (516)
2. Belgium (1 067) to Philippines (1 052).

4.5.2 Pigs 50 kg or over (mainly slaughter pigs)

In 1987 a total of 4 390 was exported. Principal exporter was :

France (3 502) to Canary Isles (1 891) and Switzerland (1 000).

4.5.3 Adult sows (not pure bred) (mainly sows for slaughter)

In 1987 a total of 86 was exported from Netherlands to D.D.R.

4.5.4 Pure bred pigs for breeding

In 1987 a total of 3 444 was exported. Principal exporters were :

1. U.K. (2 224) to Thailand (681), Japan (537), Philippines (176), Nigeria (178), Kenya (169), and South Korea (111)
2. Denmark (338) to Thailand (159) and South Korea (101)
3. France (285) to Canary Isles (194) and Seychelles (40).

4.6 Sheep and goats

4.6.1 Sheep and goats other than pure breds

In 1987 some 54 576 animals were exported principally by :

1. Spain (30 481) to Andorra (20 405) and Ceuta (10 07[illegible])
2. Greece (21 900) to Turkey (21 900).

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4.6.2 Pure bred breeding sheep and goats

In 1987 a total of 5 940 in this group was exported. Principal exporters were :

1. France (4 672) to Algeria (3 886), China (233) and Columbia (130)
2. Germany (723) to Poland (413) and Austria (216).

Comment on live animal exports

Exports of cattle for production/slaughter and for breeding purposes are significant. Destination countries as far as is known vaccinate systematically. Exports from Member States which do not vaccinate such as Denmark and Ireland do not appear to be affected.

Exports of pigs are not significant except perhaps for pure breds where U.K. and Denmark have favoured positions mainly in trade to the Far East. As previously mentioned diseases such as classical and African swine fevers may complicate export patterns.

Exports of sheep and goats are not significant in the context of a 2 million head intra-Community trade.

4.7 Summary and conclusions

4.7.1 Intra-Community trade

(a) Meat and meat products

In either a pan-vaccination or non-vaccination situation no obstacle can be foreseen in this trade in respect of FMD.

(b) Bovine animals

In either situation the trade in calves should remain stable. There is a possibility of trade in store (production) and slaughter animals to Denmark and U.K. Trade in pure bred cattle is unlikely to change significantly.

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(c) Pigs

Trade to some extent is influenced by diseases other than FMD. In either a pan-vaccination or non-vaccination it is difficult to foresee any great change in trading patterns.

(d) Sheep and goats

Present trends seem set to continue to be greatly influenced by Brucella melitensis requirements.

4.7.2 Trade from third countries

(a) Meat and meat products

Little change is foreseen except perhaps a tightening up on offal imports from FMD infected countries. Uniform decisions need to be taken in respect of countries in South America and Southern Africa. Account needs to be taken of the "non-comminglement" principle which is applied by U.S.A. and other "White list" countries whereby establishments preparing meat and meat products for those countries may not receive and handle meat from countries not on the "White list".

(b) Bovine animals

Overall, in a non-vaccination situation a small short fall in calves (27 000) and breeding animals (15 000) would result if Czechoslovakia and switzerland do not abandon vaccination. On the other hand Poland and Yugoslavia will be relieved of pre-export vaccination requirements.

(c) Pigs

In comparison with intra-Community trade of 7,0 million pigs the import of 52 000 animals in 1987 is not significant particularly taking into account the overall self sufficiency in the Community pig sector.

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(d) Sheep and goats

The main suppliers to the Community do not vaccinate systematically. Existing trade patterns should be maintained in either situation.

4.7.3 Trade to third countries

(a) Meat and meat products

Several situations must be examined. Firstly, existing trade is governed by many factors such as quotas (e.g. U.S.A. and Canada), export restitution (from EEC), established trading links (e.g. Denmark to Scandanavian countries) and finally animal health rules (e.g. "White list" countries).

Secondly, the pan-vaccination solution could precipitate a loss of export markets at least in fresh meat for Denmark, Ireland and to a lesser extent U.K. who export to "White list" countries such as U.S.A., Canada and Japan. This trade acts as a buffer to cyclical production trends in the Community.

Thirdly, a change to non-vaccination could result in an expansion of access for the Community as a whole to "White list" countries. However the extent of such expansion may be limited by economic restrictions. In that event Member States currently exporting substantial volumes of meat may find themselves sharing a particular market with Member States newly eligible to penetrate that market.

A fourth perhaps hypothetical situation must be recorded in relation to a Community "entity" situation of FMD freedom. Here vaccination has been withdrawn and the Community is internationally recognised as free of FMD. Will the Community status be lost in the event of an outbreak of FMD ? The answer will depend on the perceived effectiveness of regionalisation coupled with disease surveillance measures.

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The principle of regionalisation is one which the Community puts into action in the event of an outbreak of FMD or other epizootic disease for its own internal protection. For example the measures include stamping out in the infected holding, the setting-up of protection and surveillance zones, a standstill on animal movements and other measures as laid down in Directive 85/511/EEC.

From past experiences it is difficult to foresee some third countries accepting this principle unless they conclude that the controls are adequate to prevent the diffusion of FMD virus to the remainder of the Community, thus allowing them to continue to accept product.

On the other hand it is on record that in a FMD outbreak situation in U.K. (Isle of Wight 1981) the free status of Northern Ireland was maintained. However it must be recognised that the presence of a physical barrier was a factor in this case.

Conversely the Community has accepted the principle of regionalisation not alone internally, but also in third countries such as Bulgaria, South America, Southern Africa and lately in Canada where the Okanagan Valley is affected by blue tongue, and has gone to considerable lengths to allow regionalisation in USA in respect of blue tongue.

(b) Live animals

The principles enumerated for meat and meat products apply, in the main, also to live animals.

In a pan-vaccination situation many export markets in the pure bred sector will be lost. However it should be noted that some "White list" countries will accept unvaccinated animals from vaccinating countries albeit through an extensive and expensive quarantine system.

In a non-vaccination situation all Member States should be able to export freely to all third countries but of course other requirements may restrict this possibility.

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4.7.4 Suggested action

In view of the uncertainty of the reaction of third country trading partners to the development of an FMD free Community it may be wise to have informal discussions at the technical (veterinary) level to (a) inform them of the Community's intention and (b) to sound out their attitude to regionalisation. It is known that several important third countries are interested in the principle of regionalisation in order that they themselves know in advance the Community approach to them should they become infected.

It is suggested that this line of action be adopted without delay.

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ANNEX 5

MEASURES FOR THE PREVENTION OF FMD POST 1992

- REPORT OF A SUB-GROUP OF THE SCIENTIFIC VETERINARY COMMITTEE

1. THE PREVENTION OF PRIMARY OUTBREAKS POST 1992

In the event of a pan-vaccination policy being adopted by the Community the measures for prevention and control of FMD are largely covered by the Council Directive 85/511/EEC.

In the event of the Community adopting a non-vaccination policy for controlling FMD the following RISK FACTORS/SAFEGUARDS must be considered to prevent or reduce primary outbreaks of the disease:

2. ANIMAL IMPORTATIONS

Although there is no recent evidence of imported live animals causing primary outbreaks in the Community any importation of livestock presents a risk. The Group therefore recommends that :

(a) importation be limited to non-vaccinated (antibody-free) animals. Imported animals should be isolated in quarantine and tested (probang and serum testing) unless they originate from an FMD free country which applies control measures equivalent to those applied by the Community.

(b) special precautions be taken to prevent the mixing of livestock in summer grazing at the borders of the Community.

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3. AIRBORNE SPREAD FROM NEIGHBOURING COUNTRIES

There is circumstantial evidence that airborne virus has caused infection to cross the eastern border of the Community. Airborne virus remains viable in cool humid conditions and is thus a greater threat in Northern Europe. The risks related to airborne infection can be reduced by :

(a) international surveillance providing information about outbreaks of disease in neighbouring countries e.g. through the OIE and CEC or bilateral communications. The Group recommends that such information systems should be strengthened.

(b) using meteorological information to provide estimates of the range and direction of virus travel. Such estimates have been used in the UK and France, and should also be applied elsewhere. The computer software is commercially available.

(c) where necessary, support from the Community of vaccination programmes in neighbouring countries and evaluation of their efficiency by regular serological surveys.

(d) collaboration with neighbouring countries to assist them in achieving eradication of FMD.

(e) providing information for Community farmers and field veterinarians on the importance of strict vigilance and prompt reporting.

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4. THE MOVEMENT OF PEOPLE FOR TRADE OR TOURISM

People moving across Community borders may carry FMD virus contaminated material. Tourists who camp in the countryside outside the Community may thus provide a risk by carrying virus on their clothes and belongings. It is recommended that :

(a) the Community should seek to educate regular migrants across Community borders of the risk of transmitting virus in food etc. Information should be clearly visible at frontier stations and airports and tourists should not be allowed to bring back any meat or other animal products.

(b) tourists should be made aware of the danger of disposal of meat and other animal products in rural areas.

5. THE MOVEMENT OF VEHICLES

Vehicles crossing Community frontiers provide a risk of carrying virus either on soil or dirt on the outside of the vehicle or on clothing and other materials carried inside. It is recommended that :

the Community should consider the possibility of setting up emergency washing facilities at Community frontiers when disease is reported in a neighbouring country.

6. THE IMPORTATION OF MEAT AND OTHER ANIMAL PRODUCTS

Meat and certain animal products (milk, hides, wool, offals, biological products and materials, including veterinary vaccines and other pharmaceutical products and feedstuffs) present a risk of infection, but it is recognized that these products could be imported under specific conditions.

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Likewise biological collections (e.g. for scientific use) from foreign countries present a risk.

It is recommended that Community regulations for the importation of the above products should be reviewed. A ban should be placed on importation of meat and other animal products by private individuals(1).

7. THE IMPORTATION OF SEMEN AND EMBRYOS

The importation of semen and embryos presents a risk. To this end reference is made to the rules already adopted by the Council for importation of semen. Similar rules for importation of embryos are currently under consideration.

8. THE STORAGE AND MANIPULATION OF FMD VIRUS IN COMMUNITY LABORATORIES AND VACCINE PRODUCTION PLANTS

It is recognised that even if the Community pursues a non-vaccination policy there will still be a need for FMD diagnostic facilities, for research into FMD, and for vaccine production both for emergency vaccine banks and for export. Being aware, however, that research laboratories and vaccine plants have given rise to a number of FMD outbreaks in the Community in the recent past, the Group recommends :

(a) that the number of laboratories and vaccine plants holding FMD virus be strictly controlled.

(b) that laboratories and vaccine plants conform with FAO recommended minimum standards for laboratories working with FMD virus in vitro and in vivo : Report of the twenty-sixth Session of the European Commission for the Control of Foot-and-Mouth Disease, FAO, Rome, 23 - 26 april, 1985.

(1) Special attention should be paid to the so-called "free port" situation and to problems of control and disposal of "international swill".

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(c) that all facilities holding FMD virus are examined at regular intervals by a Community inspectorate.

(d) that safety and potency of FMD vaccines for emergency use be carefully controlled. In this respect reference is made to the functions of the planned EEC Coordinating Institute for FMD vaccines.

9. THE USE OF FMD VACCINES

There may be occasions when trading partners require livestock from the Community to be vaccinated against FMD before export occurs. To meet this need the Group recommends that :

(a) vaccination should be carried out either at the place of destination or in a Community approved export quarantine or on the means of transport on departure.

(b) special precautions should be taken to prevent re-entry of animals thus vaccinated.

In case of an outbreak emergency vaccination may be required in specified territorial areas. Since such an emergency vaccination would be applied in a non-immune animal population two vaccinations are recommended at an interval of 3-4 weeks(1).

10. THE PREVENTION OF SECONDARY OUTBREAKS POST 1992

The necessary measures to be taken to limit the number of secondary outbreaks in a non-vaccination situation are in principle contained in the Council Directive 85/511/EEC, in particular Article 5, paragraph a.

(1) Recourse to emergency vaccination is only foreseen in exceptional circumstances where an epizootic threatens to become extensive. Such a decision should only be taken at Community level and should take into account identification of vaccinated animals and related matters.

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As far as the required epizootiological investigations are concerned reference is made to the FAO guidelines :
"Methodology for investigating the origin of infection in Foot-and-Mouth disease (FMD) outbreaks".
(REF. : Report of the Twenty-seventh Session of the European Commission for the Control of Foot-and-Mouth Disease, Rome, 21-24 april, 1987, 111-120).

The action to be taken would be facilitated by establishing skilled task forces at a local or regional level. They would be responsible for :

(a) the slaughter and disposal of animals (special attention should be paid to the practical problems associated with the disposal of large numbers of animals in a short time span).

(b) the cleansing and disinfection of infected premises.

(c) the disposal of waste products.

(d) the establishment and maintenance of disinfection of farms and surrounding areas.

(e) check-points.

(f) the posting of warning notices.

(g) the disinfection of any essential vehicles leaving or entering.

(h) the prevention of entry or exit of unauthorized personnel.

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In addition epidemiological teams should be created to support the local or regional authorities. They would include veterinary virologists and technicians from the national FMD laboratory, and meteorologists familiar with the operation of computer systems for analyzing and predicting the airborne spread of FMD. In the event of an outbreak the epidemiological team would be sent to the infected premises without delay. It would be responsible for the following :

(a) determination of the extent and pattern of disease on the premises

(b) determining the source of infection

(c) assessing the probability of secondary spread

(d) advising the veterinarian in charge of control procedures on risks to other premises

The team should be equipped with specialist vehicles and radiophones.

FMD outbreaks may become increasingly rare in the Community and regular training programmes should be undertaken to maintain skills in FMD diagnostic and control procedures. These training programmes could be supervised by a small cadre of FMD experts at the Community level. The services of this cadre should be made available to national authorities in the event of an outbreak of the disease.

11. RISK AND PREVENTION DURING THE TRANSITIONAL PERIOD

In the event of a change to a non-vaccination policy, during the transition period the proportion of vaccinated animals will be in decline while that of susceptible animals will be on the increase.

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After cessation of vaccination, an increasing proportion of susceptible animals will be in contact with the residual vaccinated animals, and thus will act as sentinels. If, during a period of about one year after discontinuation of vaccination no outbreaks have occurred, the risk of the virus being present in the bovine population can be considered to be negligible.

During a time period of one year after the implementation of a non-vaccination policy the hitherto non-vaccinating Member States should continue with serological and probang testing of live animals before importing from previously-vaccinating Member States, to exclude those animals which are seropositive for FMD or which carry FMD virus.

These tests are not necessary for movements between previously-vaccinating Member States. However, existing rules relating to FMD-freedom of the holding and area should be maintained for movements between all Member States. The requirement for pre-movement vacination would, of course, no longer apply.

The proposal for a one year transitional period is based on the following :

(a) an increasingly short lifespan for cattle has been observed in the last decade, leading to a rapidly-decreasing proportion of repeatedly-vaccinated animals which are usually identifiable.

(b) maternally-acquired antibodies in young animals are completely lost within one year.

(c) the majority of animals, vaccinated only once and destined for fattening will be eliminated from the market by the end of the year following the last vaccination campaign.

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ANNEX 6

FORESEEABLE EFFECTS OF A CESSATION OF FMD VACCINATION ON THE EMPLOYMENT OF VETERINARIANS

The situation remains essentially variable from country to country, being dictated by stocking density and by whether a system of subsidies to maintain a minimum of veterinary activity is already in operation.

The situation is complicated by the fact that in some Member States (BE) vaccination is carried out by private practitioners, in others by the State services (LUX, PO) and in others by both (DE, ES, FR, IT, NL).

Some comments have been received from Member States. Only four (BE, DE, FR, NL) predicted job losses, these being mainly in the private sector, where it is estimated that about 10% of practice income is currently derived from vaccination. A total of 1 480 jobs lost out of 22 280 veterinarians currently involved in vaccination is estimated in these Member States.

The other Member States have stated that staff could be re-deployed, particularly in the State services, to other disease eradication projects. Only France suggested that the job losses could jeopardise routine disease surveillance, this affecting about 250 veterinarians in remote areas.

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ANNEX 7

FORESEEABLE EFFECTS OF A CHANGE IN POLICY ON LABORATORIES MANIPULATING FMD VIRUS

1. EXISTING COMMUNITY LEGISLATION

1.1. Diagnosis and vaccines

Directive 85/511/EEC on the control of Foot-and-Mouth disease (FDM) in the Community which came into effect on 1 January 1987 required the Commission to propose to Council

- A Reference Laboratory for the identification of FMD virus and,
- A Coordinating Institute for FMD vaccines,

together with details of their respective functions.

Proposals were made to Council in April 1988 and Decisions are expected shortly. In each proposal a specific Article has been included to the following effect:

1. The Community Reference Laboratory/Community Coordinating Institute shall operate according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with Foot-and-Mouth disease virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the control of Foot-and-Mouth Disease, FAO, Rome, April 1985.

2. The Community Reference Laboratory/Community Coordinating Institute shall formulate and recommend the disease security measures to be taken by the national laboratories in matters of FMD diagnosis in accordance with the standards referred to in paragraph 1.

Thus national laboratories which have already been nominated by the Member States and are included in the annex to the Directive will be coordinated by the Community Reference Laboratory and Coordinating Institute particularly in matters of disease security.

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2. PRESENT SITUATION

2.1. At present more than 30 laboratories are manipulating FDM virus in Europe for diagnostic and research purposes as well as for vaccine production.

In the event of a change to non-vaccination special attention should be paid to:

- the functions of FMD laboratories
- the security systems applied by FMD laboratories
- the number of FMD laboratories

2.2. Functions of FMD laboratories

2.2.1. FMD diagnosis

A rapid laboratory diagnosis is essential for the successful eradication of FMD, especially in initial outbreaks. This applies irrespective of which policy is used. However, in a non-vaccination situation the need for prompt action is strengthened, and suspect material from possible primary outbreaks should always be sent to the diagnostic laboratory without delay for immediate examination.

In view of the potential of FMD for rapid spread it is important that farmers and field veterinarians are fully aware of the importance of strict vigilance and immediate reporting. Members of the field section of the State Veterinary Services should have the opportunity of seeing clinical cases of FMD in the Reference Laboratory (or the national laboratory) as part of their training.

The diagnostic laboratories should be equipped and skilled for handling test systems of high sensitivity for rapidly providing the initial diagnosis as well for contributing to the identification of the origin of infection. Furthermore, at the earliest possible occasion the diagnostic laboratory should send a sample of virus, preferably the original field material, from the primary outbreak to the Reference Laboratory for confirmation and further characterization.

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Diagnostic laboratories should also be equipped and skilled for large scale serological examinations for use in the necessary epizootiological investigations in connection with outbreaks.

It will be an additional, important, function of the diagnostic laboratories to carry out control testing in connection with importation of live animals from third countries which do not apply FMD control measures equivalent to those applied by the Community.

2.2.2. Vaccine production plants

There are 15 vaccine production plants within the European Community. Eight production plants are owned by the State and seven others are commercial enterprises belonging to five firms (see table I). The production capacity of the plants is quite different as is their level of safety. The State production plants are related closely to laboratories or institutes for FMD-research and diagnostics, the same facilities being used in several cases.

Production capacity

To cover the needs related to present vaccination programmes in eight EC Member States (excl : UK, Irl, DK and Gr) a total of 77.3 million doses of vaccine is produced annually by the 15 production plants. Almost 37% is produced in the State-run production plants (29 million doses).

This figure takes into account the following :

- Italy has for the time being an intensified vaccination programme for cattle and pigs;
- Spain vaccinates the cattle population twice a year and also has a vaccination programme for pigs and sheep.

To the figure of 77.3 million doses an unknown number must be added because of :

- Vaccine production for export to third countries, mainly by the commercial enterprises (E.G.-Merieux-France 5.8 million doses). However the State run production plants may also export a certain amount of vaccine, often on an ad-hoc basis;
- Vaccine production in certain Member States for emergency reserves.

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A prudent estimate of the present total vaccine production in the EC might be 85-90 million doses per year. Nothing can be said about the maximum production capacity.

If the eight member countries had the same vaccination programme in force for cattle and 85% of their cattle population was vaccinated annually, a minimum amount of ± 50 million doses of trivalent vaccine must be produced.

Import of FMD vaccine into the EC does not take place except for a small amount for use in the buffer zone in Evros (Greece).

Pan-vaccination policy

If a pan-vaccination policy should be adopted, a vaccination programme would have to be carried out in another four Member States, i.e. United Kingdom, Ireland, Denmark and Greece. These four countries together have a cattle population of ± 20.5 million.
Vaccination of 85% of this number of cattle means that another 17 million doses of vaccine would be needed.
There are three means of producing this amount of vaccine i.e.

(a) each of the four countries could expand existing facilities for their own needs (except Ireland which has no facility);
(b) production could be increased in existing plants outside the four countries but within the EC;
(c) vaccine could be imported from outside the EC.

Regarding (a) an increase of the vaccine production in the existing facilities in Denmark, UK and Greece might be expected. The establishment of production plants in Ireland is not the most likely solution unless it is necessary for political reasons. It might be much cheaper however for all four countries to buy the vaccine within the EC.

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Regarding (b) increasing the production of vaccine to provide an extra 17 million doses in the existing plants in the EC would present no problems (see above paragraph on production capacity).

Regarding (c) an import of vaccine from outside the EC will be very unlikely because;

- there is no need for such imports;
- importing vaccine into the EC might increase the risk of introducing the FMD virus.

Non-vaccination policy

Adopting a non-vaccination policy will result in the cessation of preventive vaccination against FMD in the Community as a whole. Vaccine will only be necessary for emergency campaigns in certain areas around outbreaks, if stamping-out does not lead to the rapid eradication of the disease or if the disease becomes widespread.
A strategic store of vaccine (a Community vaccine bank) will be necessary. An estimation of the number of vaccine doses for this purpose has yet to be made.
Nevertheless a non-vaccination policy would drastically reduce the need for vaccine within the EC.

Commercial production plants, which have an important export trade to third countries in relation to the total production of FMD vaccine, should be allowed to continue but under strict security controls. Others will close the FMD vaccine production facilities or redeploy them for other purposes.

It will also be necessary to take into account the O.I.E. recommendations concerning international traffic of pathological and biological products containing FMD virus.

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The fate of state-run or state-owned production plants, which produce to a great extent only for the needs of their home country, depends on a number of factors e.g.:

a. the maintenance of diagnostic expertise;
b. the research into FMD control and epidemiology;
c. the production and storage, including associated research, of a reserve of vaccine for the Community vaccine bank.
d. the possibility of production of vaccine for export to third countries.

If a Member State decides to close down all production facilities, part of the savings could be used for the development of modern diagnostic techniques and training of staff.

2.2.3 FMD research

Whatever the future control policy (vaccination or non-vaccination) there will be a need for research into FMD. Topics of current importance are:

- development and standardisation of sensitive test systems
- utilisation of monoclonal antibodies for the characterization of field strains, vaccine strains and challenge strains
- the molecular biology of FMD virus
- problems related to the storage of FMD virus antigen in banks
- alternative data for evaluating vaccine potency
- safety of animal products
- development of new vaccines e.g. gene deleted, sub-unit and peptide.

The introduction of sensitive ELISA test systems and of molecular biological and biotechnological methods, e.g. for rapid and precise identification and characterization of FMD virus strains, are examples from recent years of practical applications of research with unique prospects. Thus it seems likely that the classical subtyping of virus isolates will be replaced by more precise characterizations using combinations of different parameters such as nucleotide sequencing and/or reactions with relevant panels of monoclonal antibodies in addition to the classical antigen relationships ("r"- values).

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This type of characterization will be of great use both for identification of the origin of infection and for possible selection of appropriate vaccines.

Research in these fields is in progress in several of the European FMD laboratories and should be encouraged to continue. In future such research activities can be expected to be coordinated by the Community Reference Laboratory/Community Coordinating Institute.

2.3 Security systems applied by FMD laboratories

In the light of the experiences of virus escapes from FMD laboratories it is imperative that all laboratories handling FMD virus, irrespective of the type of work, be operated according to recognised conditions of strict disease security as indicated in "Minimum standards for laboratories working with FMD virus in vitro and in vivo" - Report of the 26th Session of the European Commission for the Control of Foot and Mouth Disease, FAO, Rome, April 1985.

It may be advisable to nominate a Community expert group to act as an inspectorate to ensure compliance with the safety standards.

2.4 The number of FMD laboratories

The risk of virus escapes from FMD laboratories suggests that the number of such laboratories should be reduced to a minimim, especially in the event of a change to non-vaccination. On the other hand the need for FMD laboratories is evident.

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Considering the importance of a rapid primary diagnosis in emergency situations, it should be possible for suspect material, irrespective of the location of the herd of origin, to reach the diagnostic laboratory within a few hours after collection, or at least within the same day. When also taking into account the need for research into FMD and the high level of research activities actually being carried out at several of the major National Laboratories, a reasonable compromise would be to keep just one of the existing National Laboratories per country in future.

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TABLE 1

Member State	Production Plants: State	Production Plants: Commercial	Annual needs of vaccine for vaccination campaigns (1986)	Remarks
Belgium	1 Uccle	-	2.3 mill. AOC (triv.)	
Denmark	1 Lindholm	-	0.45 mill. A) O) 0.15 mill. C) each	As a reserve
Germany	-	3 Cooper, Behring-werke, Bayer	) 13 mill. AOC (triv)	Vaccine is also imported from Merieux France
Greece	1 Athens	-	0.12 mill) A-0.038 mill.) 0-0.034 mill.) C-0.043 mill.	As a reserve. Besides this 60,000 doses are imported from Merieux Teheran for use in buffer zone
France	-	1 Merieux	19.0 mill. AOC (triv)	Also export to EEC & third countries 9 mill. doses
Ireland	-	-	-	-
Italy	3 Brescia, Padua, Perugia	-	18.5 mill. AOC (triv)	Period 15/3/87 to 3/7/88. Extended vacc. campaign, vaccination of cattle & pigs
Luxembourg	-	-	0.2 mill. AOC (triv)	From diff. firms within the EEC
Netherlands	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Imported from Spain & France
Spain	1 Madrid	2 Cooper, Sabrino	10.0 mill. AOC (triv), 9.0 mill. AOC (triv)	used in cattle & pigs (figures are for 1987). Maximum capacity of the 3 labs 102 mill. vaccine (mono)
UK	-	Cooper	-	Some production for U.K. vaccine bank
TOTAL	8	7	77.3 mill	0.6 mill as reserve

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COMISIÓN DE LAS COMUNIDADES EUROPEAS

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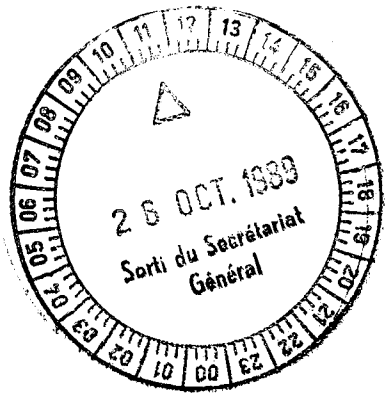
Bruselas, 18 de octubre de 1989

INFORME

de la Comisión al Consejo sobre un estudio realizado por la Comisión de la política que aplican los Estados miembros actualmente para controlar la fiebre aftosa

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EXPOSICIÓN DE MOTIVOS

La fiebre aftosa es una de las enfermedades más graves del ganado. Se extiende rápidamente, afectando a todos los biungulados, y tiene efectos económicos importantes en parte a causa de su impacto directo en la producción ganadera y en parte debido a las consecuencias que su presencia tiene en el comercio de ganado, productos ganaderos y algunos productos agrarios.

Los métodos utilizados para controlar la fiebre varían de un Estado miembro a otro, si bien todos ellos utilizan ya sea la vacunación junto con la eliminación total o parcial (sacrificio y destrucción) ya sea la no vacunación con eliminación total. Otras medidas de control resultan comunes a ambas políticas como son los controles de importación, la vigilancia de los animales sensibles, las disposiciones sobre instalaciones de diagnóstico y los controles de los movimientos del ganado.

En la actualidad los Estados miembros que utilizan una política de no vacunación pueden restringir el comercio libre de ganado procedente de sus socios comunitarios que practican la vacunación. Lo hacen porque consideran que estos animales pueden ser portadores de infecciones encubiertas y porque la presencia de animales vacunados podría restringir el comercio con algunos terceros países.

Con la consecución del mercado interior en enero de 1993 se espera que el ganado y los productos ganaderos puedan ser transportados libremente por toda la Comunidad. Ello puede lograrse únicamente si todos los Estados miembros adoptan las mismas medidas con respecto a la fiebre aftosa.

La legislación existente sobre la fiebre aftosa está contenida en los siguientes actos:

- Decisión 77/97/CEE del Consejo (Decisión sobre Fondos de emergencia)
- Directiva 64/432/CEE del Consejo (Directiva de comercio intracomunitario)
- Directiva 85/511/CEE del Consejo (Directiva sobre el control de la fiebre aftosa)

En 1988 tenía que haberse hecho la revisión del artículo 4 bis de la Directiva 64/432/CEE de la Comisión y antes de que finalice de año 89 tendría que hacerse la de la Directiva 85/511/CEE.

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Dado que había que hacer dos revisiones e informes al Consejo en un corto período de tiempo y teniendo en cuenta la proximidad del mercado interior de 1992, la Comisión decidió estudiar el problema de la fiebre aftosa con más detalle. La imposibilidad de conseguir la libertad de comercio sin peligro de propagar el virus con el actual sistema diferencial de vacunación y no vacunación resultó enseguida evidente. Por tanto, junto con los Estados miembros se decidió llevar a cabo unos estudios de rentabilidad y análisis complementarios en un esfuerzo por obtener una dirección política más clara.

Numerosos expertos de los Estados miembros han ayudado a la Comisión en su trabajo de revisión y elaboración del proyecto. Merece especial atención el trabajo del subgrupo del Comité Veterinario Permanente que enjuició las predicciones futuras y los factores de riesgo.

Las consideraciones que se tuvieron en cuenta al elaborar el estudio incluyen los siguientes elementos:

- La incidencia de la fiebre aftosa en la Comunidad durante los últimos 20 años;
- el riesgo de existencia de fiebre aftosa en la Comunidad con las políticas alternativas después de 1992;
- las consecuencias económicas de las políticas, es decir, un análisis de rentabilidad;
- los efectos en los socios comerciales;
- las medidas necesarias para evitar los brotes primarios y secundarios después de 1992;
- los cambios de recursos que serían de esperar en cualquiera de las políticas.

Las consecuencias a las que llegó la Comisión como resultado del estudio pueden resumirse de la forma siguiente:

- Una política de no vacunación saldría claramente más barata que otra de vacunación generalizada.
- La producción y el empleo de la vacuna pueden, de por sí, ocasionar la introducción del virus infeccioso en la población animal, debido a fugas de los laboratorios o a vacunas no inactivadas correctamente. Por lo tanto es evidente que una política de no vacunación es más segura.
- Deberían reforzarse las medidas para evitar la entrada de la infección en la Comunidad y para eliminar de modo eficaz cualquier brote que pudiera surgir. En este sentido, la Comisión propondrá un aumento de la

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participación financiera de la Comunidad en los costes de las compensaciones a los ganaderos en caso de que surjan brotes de la enfermedad.

- Los sistemas comerciales del comercio intracomunitario y las importaciones de terceros países se verán afectados por un cambio de política en la medida en que los animales vacunados procedentes de terceros países no serán aceptados si se adopta la política de no vacunación. Pasar a una vacunación total supondría el cese de las exportaciones a determinados terceros países mientras que en una situación de no vacunación toda la Comunidad podría comerciar con todos los países no miembros. Si, en este último caso, se produjera un brote, las exportaciones de la Comunidad deberían garantizarse mediante un control eficaz y una serie de medidas de erradicación a escala regional (principio de regionalización).
- Aún puede precisarse la ayuda de los veterinarios anteriormente encargados de los programas de vacunación en algunos Estados miembros para:
  - mejorar la estructura de los servicios veterinarios nacionales, y así satisfacer la demanda extraordinaria producida por una política de no vacunación
  - poner en práctica otras medidas de control de enfermedades tales como la enfermedad de Aujerzsky y la infección causada por la Brucella melitensis
  - participar en el afianzamiento de los servicios veterinarios nacionales necesarios para la consecición del mercado único.
- Los laboratorios que fabrican vacunas contra la fiebre aftosa tendrán que adaptarse a la nueva situación en la que se reducirá considerablemente la producción de vacunas, si es que no se elimina del todo. Entonces podrá hacerse hincapié en la formación del personal dedicaso a diagnosticar la fiebre y en el desarrollo de mejores técnicas de diagnóstico.

La Comisión está plenamente convencida de que para lograr los objetivos del mercado interior, es decir, armonizar las normas de sanidad a un alto nivel y garantizar la libertad de circulación de mercancías, la Comunidad tiene que optar por una política de no vacunación. A los Estados miembros se les recomienda encarecidamente esta línea de actuación y se harán propuestas apropiadas al Consejo con el objetivo de modificar la legislación vigente.

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INFORME DE LA COMISIÓN AL CONSEJO[1]

Asunto: Estudio realizado por la Comisión acerca de las políticas aplicadas actualmente por los Estados miembros para controlar la fiebre aftosa.

1. INTRODUCCIÓN

1.1. Tras la creación de la Comunidad Económica Europea en 1957, los seis Estados miembros fundadores discutieron una serie de medidas destinadas a permitir el libre movimiento de animales y sus productos en el comercio intracomunitario. En un principio las medidas nacionales exigían que se presentaran garantías de la salud de los animales que permitieran estar seguros de que los animales que llegaban a un Estado miembro estaban sanos y no podían transmitir enfermedades a la ganadería del Estado receptor.

1.2. La primera armonización formal se realizó en 1964 con la adopción de la Directiva 64/432/CEE del Consejo que aún sigue en vigor, aunque modificada y ampliada. Esta Directiva trata del comercio intracomunitario de bovinos y porcinos. Incluso a finales de 1988 existían normas nacionales aplicables al comercio de otras especies.

1.3. Una de las enfermedades más importantes que trataba la Directiva original es la fiebre aftosa. El acuerdo sobre las normas referentes a la fiebre aftosa no resultó especialmente difícil, ya que los seis Estados miembros llevaban a cabo una política de vacunación. Aparte de que el ganado o la zona correspondiente se encontraran libres de la enfermedad, la principal garantía establecida era la vacunación de los animales de la especie bovina de más de cuatro meses de edad antes de ser enviados a otro Estado miembro. Estas normas venían aseguradas por un certificado veterinario oficial que acompañaba a cada lote de animales.

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(1) Los Anexos a los que se refiere el presente informe se hallan recogidos en el documento de la Comisión VI/3198/89

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1.4. La incorporación de Dinamarca, Irlanda y el Reino Unido a la Comunidad en 1973 implicó considerables ajustes de la Directiva 64/432/CEE, ya que los nuevos Estados miembros practicaban una política de no vacunación que incluía la eliminación total en caso de que se diera un brote. A pesar de las largas negociaciones, no fue posible llegar a resolver de forma inmediata el problema de las distintas filosofías aplicadas. El Tratado de adhesión establece que los nuevos Estados miembros podían mantener sus formas nacionales de protección contra la fiebre aftosa durante cinco años a lo largo de los cuales se harían nuevos intentos de armonizar las distintas posiciones sobre una base comunitaria.

1.5. Finalmente en 1984 el Consejo adoptó una Directiva modificadora (84/643/CEE) que introducía nuevas normas que se aplicaban a todos los Estados miembros en el asunto de la protección contra la fiebre aftosa. Al mismo tiempo, se trató el tema de la fiebre vesicular porcina debido a su semejanza con la fiebre aftosa en el caso del cerdo. La Directiva modificadora describía en detalle las garantías adicionales que podían exigir los Estados miembros dependiendo de su situación sanitaria y su posición con respecto a la vacunación en ese momento. La aplicación del artículo modificador 4 bis en cuestión está sujeta a revisión.

1.6. La adhesión de Grecia en 1981 y de España y Portugal en 1986 no supuso cambios significativos para la Directiva 64/432/CEE.

1.7. En 1985 el Consejo adoptó la Directiva 85/511/CEE sobre control de la fiebre aftosa en la Comunidad. En ella se establecen medidas comunes esenciales para tratar el problema de los brotes de fiebre aftosa de manera uniforme. No obstante, sigue existiendo la opción de practicar la eliminación total o parcial en aquellos Estados miembros que llevan a cabo la vacunación.

1.8. El Consejo le asignó a la Comisión muchas tareas auxiliares de importancia, tales como:

- el desarrollo de las normas de sacrificio parcial;
- la presentación al Consejo de un laboratorio de referencia comunitario designado para diagnosticar la fiebre aftosa;
- la presentación al Consejo de un instituto comunitario de control de vacunas designado;

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- la coordinación de los planes de vacunación de los Estados miembros;
- una propuesta al Consejo para la creación de un banco de vacunas comunitario;
- la obligación de informar al Consejo antes de 1990 sobre el funcionamiento de las disposiciones de la Directiva, junto con propuestas si fuera necesario.

1.9. En 1985 el Consejo adoptó una modificación de la Decisión sobre fondos de emergencia (77/97/CEE). Hasta ese momento la Decisión estipulaba que solamente se dispondría de fondos cuando se presentaran enfermedades exóticas y extrañas a la Comunidad en un Estado miembro. La modificación establece que además de la ayuda en el caso de las enfermedades exóticas del tipo fiebre aftosa, deberían concederse fondos para la fiebre aftosa europea clásica en el caso de los 20 primeros brotes que tengan lugar durante los primeros 30 días de una epizootia, siempre que se aplique inmediatamente la eliminación total.

2. BASE JURÍDICA

2.1. La base jurídica de este informe está contenida en los siguientes actos:

- Directiva 64/432/CEE del Consejo (revisión del artículo 4 bis);
- Directiva 85/511/CEE del Consejo (revisión prevista del artículo 18).

2.2. Como se menciona de forma general en la introducción de este informe, la Directiva que trata del comercio intracomunitario de animales de las especies bovina y porcina data de 1964 y fue la Directiva 64/432/CEE.

En el caso de Dinamarca, Irlanda y Reino Unido se aplicaron medidas de exención en el momento de la adhesión de 1973 en el campo del comercio intracomunitario de animales de las especies bovina y porcina y se les permitió mantener sus normas nacionales de protección contra la fiebre aftosa. Estas medidas se ampliaron finalmente hasta el 31 de diciembre de 1984, fecha tras la cual se

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introdujeron nuevas normas que podían aplicarse a todos los Estados miembros en el asunto de la protección contra la fiebre aftosa.

Las nuevas normas se establecieron en la Directiva 84/643/CEE del Consejo de 11 de diciembre de 1984 y estipulaban que el artículo 4 bis debía incluirse en la Directiva sobre comercio básico de animales de la especie bovina y porcina. El artículo describe en detalle las garantías adicionales que puede exigir un Estado miembro dependiendo de su situación sanitaria y su política de vacunación en ese momento.

El artículo 4 bis establece además que cada tres años y por primera vez tres años después de su entrada vigor, es decir, el 1 de enero de 1988, el Consejo revisará las disposiciones de este artículo pronunciándose por mayoría cualificada y a propuesta de la Comisión. Tal revisión se hará sobre la base de un informe de la Comisión acompañado, en su caso, de propuestas.

2.3. Dada esta tarea, la Comisión ha hecho notar que a partir del 1 de enero de 1985 no ha sido informada de ningún problema específico encontrado por los Estados miembros en importación o exportación de animales en el comercio intracomunitario. El 28 de julio de 1987 la Comisión informó a los Estados miembros de su intención de llevar a cabo una revisión de la aplicación del artículo en cuestión y les pidió que sin dilación le enviaran cualquier comentario que pudieran tener respecto a las normas establecidas en el artículo 4 bis.

Algunos Estados miembros informaron a la Comisión de que les gustaría que se redujeran inmediatamente las medidas aplicadas a los animales para sacrificio. La Comisión reconoce que la existencia de este artículo y los procedimientos de cuarentena en él establecidos crean un problema para la libre circulación de animales dentro de la Comunidad.

2.4. La segunda Directiva que requiere un informe de la Comisión al Consejo sobre la fiebre aftosa es la Directiva 85/511/CEE del Consejo y concretamente el artículo 18. Esta Directiva desencadenó una serie de medidas comunitarias encaminadas a uniformar posturas

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cuando tuviera lugar un brote fiebre aftosa. En resumidas cuentas, la Comisión tendrá que informar al Consejo sobre al aplicación de esta Directiva antes del 1 de enero de 1990. También es posible que el informe de la Comisión vaya acompañado de propuestas, si fuera necesario.

3. ACTUACIÓN DE LA COMISIÓN

3.1. Dada la exigencia de tener que hacer dos revisiones e informes al Consejo en un plazo de tiempo muy corto y teniendo en cuenta la llegada del mercado interior después de 1992, la Comisión decidió estudiar el problema de la fiebre aftosa en más detalle.

Enseguida se vio claro que resultaba imposible continuar con el sistema diferencial actual de vacunación y no vacunación. Por lo tanto, se decidió junto con los Estados miembros llevar a cabo unos estudios de costes y beneficios y análisis con ellos relacionados con el fin de clarificar la futura política.

3.2. Con el fin de cumplir sus obligaciones para con el Consejo en cuanto a la revisión del artículo 4 bis de la Directiva 64/432/CEE, la Comisión hizo un informe al Consejo el 14 de enero de 1988 explicándole su decisión de llevar a cabo un estudio fundamental y expresando su esperanza de poder presentarle un informe y las propuestas apropiadas antes de finales de 1988.

3.3. Numerosos expertos de los Estados miembros han ayudado enormemente a la Comisión a llevar a cabo la revisión y elaboración del informe. Mención especial merece el trabajo del subgrupo del Comité Veterinario Permanente que evaluó las predicciones futuras y los factores de riesgo. La Comisión señala que el informe de este grupo recibió un dictamen favorable dentro del Comité Científico Veterinario, dictamen con el que los Servicios de la Comisión están plenamente de acuerdo.

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4. CONTROL DE LA FIEBRE AFTOSA EN LA COMUNIDAD EUROPEA

4.1. Introducción

4.1.1. El presente documento esboza las consideraciones que supone determinar una política comunitaria para el control de la fiebre aftosa. Aunque ha sido preparado previamente a la abolición de las fronteras de finales de 1992, considera la necesidad de llevar a la práctica una política comunitaria común lo más pronto posible antes de esa fecha.

4.1.1. La fiebre aftosa es una de las enfermedades del ganado más graves. Se extiende con rapidez, afecta a los animales biungulados y tiene repercusiones económicas considerables, en parte debido a su efecto directo sobre la producción ganadera y en parte al efecto que tiene su presencia en el comercio ganadero, los productos ganaderos y algunos productos agrarios.

4.2. Proceso histórico

4.2.1. La industria ganadera europea se vio afectada gravemente por primera vez por la fiebre aftosa en la década de 1930; se trataba de los tipos O, A y C, según sabemos hoy. Tras la segunda guerra mundial hubo un estancamiento en la frecuencia de fiebre aftosa, debido probablemente a las restricciones del movimiento del ganado y a la reconstitución de las cabañas nacionales. A principios de los años cincuenta resurgieron los brotes con serias consecuencias, lo que hizo que la OIE y la FAO se organizaran mejor a escala continental para luchar contra la enfermedad. La aparición de la vacuna de Frenkel llevó a una rápida expansión de la producción de vacunas y a la consiguiente protección. Además, la mayor parte de los países adoptó un política de sacrificio, aunque algunos también llevaban a cabo la vacunación en masa en torno al brote como medida complementaria. Durante estos años la mayoría de los países europeos adoptó la política de vacunación obligatoria al menos con el ganado vacuno.

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4.2.2. Fuera de la Europa continental, los países Escandinavos, el Reino Unido e Irlanda permanecieron relativamente libres de esta enfermedad. En España se dieron brotes importantes con regularidad hasta 1980. El Cercano Oriente, sobre todo Turquía, supuso una seria amenaza para Europa occidental.

La amenaza continúa hoy día pero la estrategia de zona tampón de vacunación en la región de Tracia ha demostrado ser muy acercada. La enfermedad existe en África donde se dan tres tipos de virus africanos específicos. Algunos países asiáticos tienen un tipo establecido en ese continente.
Excepto en Sudamérica, donde la mayor parte de los países están infectados con tipos de virus europeos casi clásicos, el resto del mundo se halla libre de esta enfermedad y no practica la vacunación. Dentro de esta categoría se encuentran Centroamérica y Norteamérica, Australia, Nueva Zelanda, Japón, Corea y otros territorios del Lejano Oriente.

En los cuadros 2 y 3 del Anexo I se presentan resúmenes de las distintas situaciones.

4.2.3. Las grandes epidemias que tuvieron lugar en Europa durante los años sesenta y a comienzos de los setenta han desaparecido en gran parte debido a las campañas de vacunación en masa y a las restricciones de las importaciones de carne y otros productos animales en la Comunidad. Desde 1980 los únicos países que han experimentado epizootias graves son Italia (198487) y Portugal (1980-84)

4.2.4. Los brotes registrados en los Estados miembros aparecen en el cuadro 1 del Anexo I. Un brote se define como la enfermedad que surge en una granja o explotación (OIE). Puede verse que durante los últimos 20 años ha disminuido mucho el número de brotes en toda la Comunidad. Durante los últimos cinco años la enfermedad no se dio o se dio

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escasamente en la mayoría de los Estados miembros, con la excepción de Italia en cuya parte norte se dic una serie de epidemias.

4.2.5. En el cuadro 2 del Anexo I se resume la situación de la fiebre aftosa en los países vecinos mientras que la de los Estados que no son miembros de la Comunidad y que tienen vínculos comerciales con la misma se presenta en el cuadro 3 del Anexo I. En el cuadro 4 del Anexo I se presenta un análisis resumido de los planes de vacunación de los Estados miembros.

4.3. Alternativas

4.3.1. Los métodos utilizados para controlar la fiebre aftosa difiere según los Estados miembros pero todos emplean una de las dos políticas alternativas siguientes:

a) POLÍTICA DE VACUNACIÓN. Consiste en la vacunación anual sistemática de todo el ganado. Cuando se da un brote de la enfermedad se aplica la eliminación total o parcial además de la vacunación y otras medidas de control.

b) POLÍTICA DE NO VACUNACIÓN. Consiste en la prohibicón general de la vacunación contra la fiebre aftosa. En caso de que se dé un brote se aplica la eliminación total además de otras medidas de control. En circunstancias excepcionales, puede resultar necesario lanzar una campaña de vacunación de cordón sanitario.

4.3.2. Ambas políticas se ven forzadas por los controles de importación, la vigilancia regular del ganado de riesgo, el suministro de instalaciones de laboratorio para diagnóstico y, en caso de enfermedad, controles de los movimientos del ganado.

4.3.3. En la actualidad, los Estados miembros que llevan a cabo una política de no vacunación pueden restringir el comercio de ganado procedente de sus socios comunitarios

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que vacunan. En primer lugar, esto se justifica por el hecho de que los animales vacunados pueden ser portadores del virus después de haber entrado en contacto con el virus silvestre mientras permanecen clínicamente normales. El peligro que presentan los animales vacunados con una ausencia prolongada de virus silvestre es muy pequeño. No obstante, es imposible garantizar que una población vacunada se halle exenta de virus, ya que éste puede aparecer de cuando en cuando y no ser detectado. Por lo tanto, existe el riesgo de que el virus se introduzca en zonas que no se hallaban contaminadas a través de los movimientos de animales vacunados. Teniendo en cuenta la gravedad de la enfermedad, la posibilidad de que se propague el virus es inaceptable.

En segundo lugar, muchos terceros países como los Estados Unidos y los que forman parte de su "lista blanca" consideran la existencia de animales vacunados en un país equivalente a la presencia de la enfermedad, lo que supone obvias y graves consecuencias para el comercio.

4.3.4. Tras la consecución del mercado interior en enero de 1993, se espera que los animales y los productos animales se muevan libremente por toda la Comunidad. Esto sólo es posible si todos los Estados miembros adoptan una política común con respecto a la fiebre aftosa. En los momentos actuales hay tres Estados miembros que no vacunan (Dinamarca, Irlanda y el Reino Unido) mientras que los otros 9 vacunan. En el cuadro 4 del Anexo I se muestra un resumen de los planes de vacunación.

4.3.5. La elección de una política comunitaria de control de la fiebre aftosa oscila entre las dos políticas descritas en el apartado 4.3.1., es decir, VACUNACIÓN Y NO VACUNACIÓN.

Las consideraciones que se refieren a esta elección son las siguientes:

a) la incidencia de la fiebre aftosa en la Comunidad durante los últimos 20 años (cuadro 1 del Anexo);

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b) el riesgo de que se dé la fiebre aftosa en la Comunidad habiendo políticas alternativas después de 1992. Informe del subgrupo del Comité Científico Veterinario (Anexo II)(1);

c) las consecuencias económicas de las dos políticas alternativas, es decir, los costes que supondrán para el sector público y privado (Anexo III);

d) los efectos del comercio comunitario interior y exterior de ganado, productos animales y otros productos (Anexo IV);

e) las medidas necesarias para la prevención de los brotes primarios y secundarios después de 1992 y durante el período de transición. Informe del subgrupo del Comité Científico Veterinario (Anexo V)(1);

f) los cambios que podrían esperarse, en el caso de cualquiera de las dos políticas, en el uso de recursos tales como:

i) veterinarios empleados normalmente en los programas de vacunación (Anexo VI), y

ii) laboratorios que se ocupan normalmente del diagnóstico de la fiebre aftosa, producción de vacunas e investigación (Anexo VII).

4.4. El riesgo de que se dé la fiebre aftosa después de 1992

4.4.1. El riesgo de que se dé la fiebre aftosa con cualquiera de las dos políticas después de 1992 ha sido valorado por un subgrupo del Comité Científico Veterinario. Dado que el ganado comunitario podrá moverse sin restricciones después de 1992, los riesgos se han calculado sobre una base comunitaria más que sobre la de un Estado miembro. El informe de las conclusiones del subgrupo se presenta en el Anexo II.

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(1) Cabe señalar que algunos puntos como el del papel del animal vacunado como portador potencial resultaron difíciles de resolver. No obstante, el subgrupo aprobó el texto presentado por unanimidad y fue aceptado por el Comité Científico Veterinario el 1 de febrero de 1989.

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4.4.2. El grupo ha estudiado los registros de brotes en todos los Estados miembros durante los últimos 11 años (1977-87) y ha localizado 34 brotes primarios de fiebre aftosa.
De éstos, ocho se debieron probablemente a una fuente exterior a la Comunidad, asociada fundamentalmente con la importación de carne (cuadro 3 del Anexo II). El subgrupo consideró que otros trece estaban posiblemente relacionados con el escape del virus de un laboratorio o la producción y uso de una vacuna que no había sido debidamente inactivada Se desconoce la fuente de los restantes trece brotes primarios.

4.4.3. De acuerdo con las pruebas disponibles de los últimos once años, el subgrupo hizo sus predicciones para los años 1993-2003 en el caso de que se adopte una política de vacunación o, como alternativa, una política de no vacunación. En primer lugar se consideró el riesgo de brotes primarios.

4.4.4. El subgrupo consideró que el riesgo de infección que pudiera penetrar en la Comunidad durante los años 1993-2003 no será ni mejor ni peor que el habido durante los últimos once años. Predijo hasta 13 brotes primarios, excluyendo los relacionados con escape de virus y el uso de vacunas indebidamente inactivadas (apartado 12 del Anexo II).

4.4.5. El subgrupo aceptó que no hay una fuente endémica del virus salvaje de la fiebre aftosa en las manadas y rebaños de la Comunidad. Que siendo así, el riesgo de brotes primarios procedentes de la Comunidad dependerá de hasta qué punto el virus vivo de la fiebre aftosa se manipule en los laboratorios y del uso de vacunas indebidamente inactivadas.

4.4.6. Si continúa la vacunación contra la fiebre aftosa, si las técnicas de inactivación de la vacuna no se mejoran y el virus continúa siendo manipulado en los laboratorios en condiciones que no sean de la mayor seguridad, el riesgo actual continuará existiendo. En tales circunstancias el

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grupo predijo que habría 13 brotes más durante el período de once años. No obstante, el perfeccionamiento de los métodos de producción de vacunas podrían reducir ese riesgo. Si la vacunación es discontinua y los laboratorios trabajan en condiciones de máxima seguridad, el riesgo sería muy pequeño y el grupo predijo que, en tal caso, no habría brotes adicionales.

4.4.7. El subgrupo pasó a considerar el riesgo de brotes secundarios a partir de los primarios. Durante los once años comprendidos entre 1977 y 1987 muchos brotes primarios no dieron lugar a que la enfermedad se propagara de forma extensiva tanto si tuvieron lugar en países que empleaban la vacunación como en los que no la empleaban. Por otra parte, tuvo lugar la propagación extensiva durante el período de referencia pero el grupo consideró que el grado de propagación dependía más del rigor de los procedimientos de control que de la política de vacunación. Este es concretamente el caso cuando se trata de grandes poblaciones de cerdos. El subgrupo concluyó que la variación en el ritmo de propagación es demasiado grande como para predecir la diferencia en el número de brotes secundarios por brote primario en el caso de cualquiera de las dos políticas.

4.5. Consecuencias económicas de las políticas alternativas

4.5.1. Cuando la fiebre aftosa se da dentro de la Comunidad, trata de eliminarse con la mayor rapidez posible (Directiva 85/511/CEE) para que no puedan propagarse los efectos dañinos de la enfermedad. Los costes que supone un brote son los costes de los controles (que incluyen los de la eliminación y/o la vacunación sistemática) y la pérdida de producción y comercio. Los costes presentados por los Estados miembros se resumen en el Anexo III.

4.5.2. Los costes se han calculado utilizando un modelo económico desarrollado por la Comisión Europea de la FAO para controlar la fiebre aftosa. Se han calculado los costes que le supone a la Comunidad la vacunación regular del

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ganado y los brotes que conllevan la eliminación. Los costes restantes, como los que supone la vigilancia y suministro de instalaciones de diagnóstico, son comunes a ambas políticas y por lo tanto no se han considerado.

Los costes del control dependen en gran medida del número de brotes de la enfermedad. El análisis económico toma en consideración la posibilidad de que existan brotes dentro de la Comunidad con ambas políticas. El análisis económico considera la posibilidad de que existan brotes dentro de la Comunidad con ambas políticas. El análisis económico se da en el Anexo III y se resume en el apartado 4.8. que viene a continuación.

4.5.3. El análisis del modelo de la FAO exige que se tomen en consideración los efectos de una política de vacunación o de no vacunación dentro del comercio exterior e interior. El análisis de estos efectos fue recogido por la Comisión y el informe aparece en el Anexo IV.

4.6. El coste de la vacunación

4.6.1. Ocho Estados miembros (Bélgica, Francia, República Federal de Alemania, Italia, Luxemburgo, Países Bajos, Portugal y España) vacunan de forma rutinaria a todo el ganado vacuno. Los costes de una sola vacunación anual de las cabañas nacionales de ganado vacuno, tal como los calculan estos Estados miembros, se resumen en el cuadro 1 del Anexo III.

4.6.2. Los otros cuatro Estados miembros (Dinamarca, Grecia[1], Irlanda y Reino Unido) no emplean la vacunación para controlar la fiebre aftosa. Han calculado el coste en caso de que se les exigiera vacunar y los resultados se muestran en el cuadro A del Anexo III.

---

(1) Excepto la zona tampón de Tracia

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4.6.3. El coste público directo anual calculado de un programa de vacunación de la totalidad de la Comunidad con una sola vacunación anual del ganado vacuno en todos los Estados miembros es de unos 133 millones de ecus, en valores de 1987. Este coste incluye la compra y almacenamiento de la vacuna, la aplicación y la administración general de la misma. No incluye el coste de cualquier efecto secundario perjudicial que pudiera tener lugar, atribuible al uso de la vacuna.

4.6.4. Cabe señalar que esa vacunación practicada en la Comunidad protege únicamente contra las cepas europeas "A", "O" y "C" de la fiebre aftosa. Esta vacunación no protege a los animales contra cepas exóticas de otros lugares del mundo.

4.6.5. Por otra parte, puede verse en el cuadro de los planes de vacunación (cuadro 4 del Anexo I) que la protección de la inmunización es bastante menor de un 100% ya que los cerdos, ovejas y cabras raramente son vacunados. Además las unidades de terneros de cebo y las de terneros de engorde ("feed lots") se excluyen con frecuencia y los terneros que tengan menos de 3 ó 4 meses de edad en el momento de la vacunación anual pueden quedarse sin vacunar hasta el año siguiente.

4.7. El coste de un brote de fiebre aftosa

4.7.1. La Oficina Internacional de Epizootias de París (OIE) define un brote como la enfermedad que tiene lugar en una granja o explotación. Las epidemias de fiebre aftosa se controlan explotación por explotación y, por tanto, es conveniente calcular los costes de un brote. Se ha pedido a los Estados miembros que calculen el coste medio de un brote de fiebre aftosa, los costes que incluyen el coste del sacrificio, eliminación de canales, desinfección, lavado y medidas afines, el valor del ganado sacrificado, el coste de producción de la explotación debido al retraso en la reposición del ganado y los costes de administración

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específicos del brote. El cálculo de los costes supone que todo el ganado vulnerable de la explotación es sacrificado.

4.7.2. De una epidemia grave de fiebre aftosa pueden resultar costes para el país o la región donde tiene lugar que no pueden atribuirse a brotes individuales. Estos costes podrían incluir el cierre de mataderos o mercados, pero los análisis pasados de los efectos económicos de las epidemias de fiebre aftosa no han servido para cuantificar estos costes.

4.7.3. Los Estados miembros con experiencia reciente en el control de los brotes han basado sus cálculos en gran medida en los costes reales producidos. Aquéllos que carecen de experiencia en la fiebre aftosa han hecho unos cálculos supuestos. Estos costes se resumen en el cuadro 2 del Anexo III.

4.7.4. A los efectos del análisis económico que sigue a continuación, se ha tomado como coste medio de un brote la cantidad de 158.000 ecus, con 31.914 ecus y 600.000 ecus como las cantidades calculadas menor y mayor, respectivamente.

4.8. Análisis económico

4.8.1. Los cálculos de los costes de vacunación y de los brotes de fiebre aftosa se han utilizado para llevar a cabo un análisis económico de las políticas de vacunación y de no vacunación a lo largo de un período de 10 años. El análisis proporciona un abanico de cálculos dadas las variaciones de coste y número de brotes y éstos se han establecido en tres categorías: la de un caso central o más probable, la del caso peor y la del mejor. El análisis se muestra en su totalidad en el Anexo III.

4.8.2. El resultado más probable es el proporcionado por el "caso central" en el análisis. Se basa en el coste de un brote medio y en el número de brotes primarios y secundarios predichos por el Comité Económico Veterinario.

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Si se lleva a cabo una política de no vacunación, el coste total para la Comunidad (descontando el valor presente durante 10 años al 5%) se calcula en 35 millones de ecus.

Si se lleva a cabo una política de vacunación, el coste total para la Comunidad (descontando el valor presente durante 10 años al 5%) se calcula en 1.134 millones de ecus.

4.8.3. Debe señalarse que en estos momentos los fondos comunitarios están a disposición de los Estados miembros para la erradicación de la fiebre aftosa sobre la base de la devolución del 50% del coste del sacrificio y la destrucción y del 100% de los costes de vacunación de emergencia. Cuando se trate de tipos europeos clásicos de fiebre aftosa, esta ayuda queda limitada a los primeros veinte brotes que tengan lugar durante los primeros 30 días de una epizootia.

4.8.4. También debe señalarse que, si se lleva a cabo una polítia de no vacunación, el coste de la vacunación de los bovinos anterior a la exportación dejará de acumularse. Los Estados miembros que vacunan comercian anualmente con aproximadamente 2 millones de animales. Si un millón se somete a la vacunación previa a la exportación (pueden exceptuarse los terneros de menos de 4 meses y algunos animales para sacrificio) a 3 ecus por animal (vacuna y vacunación), podrían llegar a ahorrarse 3 millones de ecus.

4.9. Efectos de las políticas alternativas en el comercio de ganado y de productos animales

El análisis económico descrito en el punto 4.8. anterior no toma en consideración los efectos de las políticas alternativas del comercio intra y extracomunitario de ganado y productos animales. El informe de la Comisión sobre el comercio se recoge en el Anexo IV y las conclusiones principales son las siguientes:

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(a) La adopción de cualquiera de las dos políticas tendría escasos efectos en el comercio intracomunitario de animales vivos y productos animales.

(b) La adopción de la política de no vacunación implicaría la imposibilidad de importar animales vacunados sin una serie de garantías adicionales pero no afectaría a la importación de carne y productos cárnicos frescos siempre que se sigan practicando los procedimientos acostumbrados (curado, deshuesado).

(c) Resulta claro que una política comunitaria de vacunación general afectaría seriamente a las exportaciones de muchos terceros países. Por otra parte, las discusiones técnicas con los servicios veterinarios de los socios comerciales resultarán esenciales para convencerlos de la efectividad de las medidas de regionalización adoptadas en caso de un brote en una situación de no vacunación.

4.10. Efectos del abondono de la vacunación contra la fiebre aftosa en el empleo de los veterinarios

Hasta donde es posible hacer previsiones, el abandono de la vacunación contra la fiebre aftosa tendría efectos muy limitados en el empleo de los veterinarios. Las autoridades españolas y portuguesas prevén nuevos empleos de los veterinarios en otros trabajos. Francia ve problemas en mantener la presencia de un veterinario en zonas agrarias remotas, poniendo así en peligro la red de vigilancia veterinaria (vésase el Anexo VI).

La política de no vacunación exige un sistema de vigilancia de la enfermedad muy estricto dirgido por un servicio veterinario estatal controlado de modo central, que sea capaz de resolver las situaciones de emergencia de un modo rápido y eficaz.

Los veterinarios que hasta la fecha se encargaban de las campañas de vacunación podrían dedicarse a esa otra actividad y al afianzamiento general de los servicios veterinarios para la consecución del mercado único.

4.11. Efectos de un cambio en la política de la fiebre aftosa sobre los laboratorios

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En estos momentos hay más de 30 laboratorios que manipulan virus de la fiebre aftosa en Europa. De ellos 15 constituyen plantas de producción de vacuna y los restantes tienen los virus con fines de diagnóstico e investigación.

Si se adoptara una política de vacunación generalizada, la mayor demanda de vacunas sería seguida por una expansión de la producción comunitaria. Si se adoptara, por el contrario, una política de no vacunación, sólo se necesitarían vacunas para mantener una cantidad estratégica suficiente y para continuar con la exportación a terceros países. Cuando sea el Estado el que en la actualidad posea las plantas de vacunas, parte del ahorro resultante del cierre de las plantas podría utilizarse para formar al personal en el diagnóstico y desarrollo de mejores técnicas de diagnóstico de la fiebre aftosa.

Sea cual sea la futura política de control, se necesitarán investigaciones sobre la fiebre aftosa. Es probable que disminuya el número de laboratorios comunitarios implicados en este trabajo. Los que continúen tendrán que mantener una seguridad estricta para evitar todo escape de virus de la fiebre aftosa (vésase el Anexo VII).

5. CONCLUSIONES

5.1 Resulta esencial que la Comunidad tenga una postura común sobre la fiebre aftosa para permitir que se cumplan los objetivos del mercado común.

5.2 Las políticas actuales llevadas a cabo por los Estados miembros, es decir, la vacunación o la no vacunación, han sido ampliamente revisadas y estudiadas sobre todo en lo que respecta a sus aspectos económicos.

5.3 Se ha considerado la posibilidad de comerciar libremente con algunas de las especies sensibles en ciertas partes de la Comunidad, utilizando políticas diferentes, pero esto ha sido descartado debido al peligro de introducir el virus de la fiebre aftosa en zonas que no se hallaban afectadas, riesgo que resulta inaceptable si se tiene en cuenta uno de los objetivos del Acta Única Europea: la armonización

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para lograr un alto nivel de las condiciones sanitarias. Por lo tanto, es necesario elegir entre la política de vacunación y la de no vacunación para toda la Comunidad.

5.4 De los estudios se desprende claramente que una política de no vacunación costaría mucho menos que una política de vacunación generalizada. Dado que se han predicho más brotes con una política de vacunación que con una de no vacunación, resulta claro que la adopción de una política de no vacunación resultaría más segura para la Comunidad en su conjunto, debido a los riesgos que comporta la manipulación del virus de la fiebre aftosa.

5.5 Con una política de no vacunación será necesario reforzar las medidas para impedir la introducción de infecciones en la Comunidad y eliminar efectivamente cualquier brote que aparezca.

5.6 Los estudios sobre asuntos comerciales muestran que el comercio intracomunitario y las importaciones de terceros países se verán afectados de forma marginal por un cambio de la política actual . Si bien hay importaciones de terceros países que aplican la vacunación que podría peligrar con una política de no vacunación, podría coordinarse el abandono mutuo de la vacunación con el país correspondiente. Es cierto que en una situación de vacunación generalizada cesarían las importaciones a muchos terceros países. Por otro lado, en una situación de no vacunación la Comunidad en su totalidad tendría la oportunidad de comerciar con muchos más países que antes al tiempo que podría ser considerada como una entidad por algunos países en lo referente a la situación sanitaria. En este caso, un brote de fiebre aftosa podría influir de forma general en la aceptabilidad de las exportaciones comunitarias a no ser que se acepten internacionalmente medidas regionales de control y erradicación.

5.7 En cuanto a los recursos humanos, es probable que la mayor parte de los veterinarios, tanto los empleados estatales como los que normalmente participan en la campañas de vacunación, puedan reciclarse en servicios estatales que ofrezcan la posibilidad de cubrir la demanda extraordinaria de una política de no vacunación así como en otras actividades como el control de la enfermedad de Aujeszky y de la infección por Brucella Melitensis.

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5.8 En caso de que se pase a una política de no vacunación, los laboratorios de fiebre aftosa existentes tendrán que adaptarse a una situación en que la producción de vacuna se habrá reducido considerablemente. En tal caso, deberá darse mayor importancia a la formación del personal, tanto de campo como de laboratorio, para diagnosticar la fiebre aftosa y al desarrollo de mejores técnicas de diagnóstico.

5.9 La Comisión está totalmente convencida que que para llevar a cabo los objetivos del mercado interior, la Comunidad debe elegir entre una política de no vacunación y una política de vacunación general. De acuerdo con los datos que aporta este informe, la política de no vacunación es claramente más segura y barata, y cumple el objetivo de garantizar unas normas sanitarias más exigentes y la libertad de movimiento de mercancías en el mercado único, por lo que se recomienda encarecidamente a los Estados miembros. Se presentarán las propuestas correspondientes al Consejo para modificar la legislación actual.

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ANNEXES

DU RAPPORT

DE LA COMMISSION AU CONSEIL CONCERNANT UNE ETUDE
EFFECTUEE PAR LA COMMISSION SUR LES POLITIQUES ACTUELLES
DES ETATS MEMBRES DANS LE DOMAINE DE LA LUTTE CONTRE LA FIEVRE APHTEUSE

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ANNEXES

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(PLOI/321-3)

ANNEXE 1

TABLEAU 1

FIEVRE APHTEUSE DANS LES ETATS MEMBRES (1968-1988)

PAYS	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIQUE	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DANEMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
RFA	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GRECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRLANDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALIE	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAYS-BAS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
ROYAUME-UNI	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
ESPAGNE	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
A partir de 1984 : ADNS

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ANNEXE 1

TABLEAU 2

Fièvre aphteuse dans les pays voisins (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
Norvège	I	(1952)
Suède	I	(1966)
Finlande	I	(1959)
RDA	V	(1982)
Pologne	I	(1971)
Tchéchoslovaquie	V	(1975)
Autriche	I	(1981)
Suisse	V	(1980)
Yougoslavie	I	(1978)
Albanie	I	(1960)
Bulgarie	I (1)	(1973)
URSS	V	O_1,A22
Hongrie	V	(1972)
Turquie	V	O_1, A 22
Tunisie	V	(1982)
Algérie	V	(1978)
Maroc	V	(1983)

Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

(1) = vaccination dans la zone tampon contiguë à la Turquie

* Source = annuaire de l'OAA

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ANNEXE 1

TABLEAU 3

Fièvre aphteuse dans les pays tiers ayant des relations commerciales avec la Communauté (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
USA	I	(1929)
Canada	I	(1952)
Japon	I	(1908)
Corée (République)	I	(1934)
Chine	V	-
Australie	I	(1971)
Nouvelle Zélande	I	0000
Brésil	V	O_1A_1C
Argentine	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	O
Chili	I	O
Colombie	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibie	V	(1980)
Afrique du Sud	V	(1985)
Swaziland	V	(1988)

Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

0000 = jamais enregistré

* Source = annuaire de l'OAA

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ANNEXE 1
TABLEAU 4

VI.BII.2 TABLEAU SYNOPTIQUE DES PROGRAMMES DE VACCINATION DANS LES ETATS MEMBRES EN 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10PD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.H. Inst. Rome	EP 7PD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5. breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

Note du traducteur : en accord avec le demandeur, ce tableau n'a pas été traduit

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ANNEXE 2

RISQUE D'APPARITION DE LA FIEVRE APHTEUSE (FA) DANS LA COMMUNAUTE EUROPEENNE A LA SUITE DE L'ACHEVEMENT DU MARCHE INTERIEUR

- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. Le groupe a été chargé d'émettre un avis sur les risques de foyers de fièvre aphteuse dans la Communauté après 1992, en cas d'adoption (a) d'une politique de vaccination* ou (b) d'une politique de non-vaccination*, à l'avenir, dans l'ensemble de la Communauté.

2. Pour son estimation du risque, le groupe s'est basé sur les faits établis par les études épidémiologiques et de laboratoire relatives aux foyers de FA qui se sont manifestés au cours des onze dernières années (1977-1987). Pour chaque épizootie, il a commencé par identifier les foyers primaires, afin de cerner au mieux la source d'infection.

   En deuxième lieu, il a analysé la propagation de l'infection (nombre de foyers SECONDAIRES) à partir de ces foyers, en vue de déterminer - dans la mesure du possible et tout en tenant compte de la multiplicité des facteurs qui influencent le taux de propagation, l'impact de la vaccination et d'autres moyens de lutte sur la propagation de la maladie.

   Le choix de cette période de onze ans s'explique par le fait qu'elle marque à la fois le début et la fin de l'apparition des épizooties concernées.

FOYERS PRIMAIRES

3. Au cours de la période 1977-1987***, on a dénombré 34 (trente-quatre) foyers primaires de FA dans onze Etats membres.

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* Politique de vaccination : vaccination annuelle systématique de tous les bovins. En cas d'apparition de la maladie, abattage sanitaire (total ou partiel) en plus de la vaccination et des autres mesures de lutte contre la maladie.

** Politique de non-vaccination : interdiction totale des vaccinations contre la FA. En cas d'apparition de la maladie, abattage total en plus des autres mesures de lutte. La vaccination en anneau peut s'avérer nécessaire.

*** Le groupe ne dispose pas de données détaillées en ce qui concerne les foyers apparus en Espagne (il ne sait pas s'il s'agissait de foyers primaires ou de foyers secondaires).

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INFECTIONS D'ORIGINE EXTRACOMMUNAUTAIRE

4. Le groupe a identifié huit (8) foyers primaires au cours de la période de 1977 à 1987, foyers dont l'origine se situait très probablement à l'extérieur de la Communauté(1). La plupart de ces foyers semblent être liés à des entrées de viande dans la Communauté. D'autres foyers - et cela vaut notamment pour un foyer au Danemark - ont probablement été provoqués par des agents pathogènes venus de l'extérieur et transmis par voie aérienne.

   Depuis 1978, les risques liés à l'importation de viandes ont changé, la réglementation communautaire n'autorisant plus en effet l'importation de viande avec os(2).

INFECTIONS D'ORIGINE INTRACOMMUNAUTAIRE

5. A l'analyse des données fournies par tous les Etats membres, il ne semble pas qu'il existe une source endémique de FA dans les cheptels communautaires. On a néanmoins enregistré environ treize (13) foyers primaires qu'il est impossible d'attribuer avec certitude à des sources extracommunautaires. Il est difficile de formuler un jugement précis, sur l'origine de ces foyers, mais il se peut que tous soient liés, d'une manière ou d'une autre, soit à des fuites dues à des manipulations en laboratoire soit à l'utilisation de vaccins mal inactivés.

INFECTIONS D'ORIGINE INCONNUE

6. Il reste treize (13) foyers primaires dont l'origine est tout à fait inconnue.

FOYERS SECONDAIRES

7. Le tableau 1 révèle qu'on a recensé au total 1.923 foyers de FA dans les douze Etats membres au cours de la période 1977-1987. En l'absence des données concernant les foyers primaires et secondaires en Espagne, on a enregistré, dans les onze autres Etats membres, 1.858 foyers au total, dont trente-quatre (34) sont considérés comme des foyers primaires (voir paragraphes 3 à 6). Il reste donc 1.824 foyers secondaires. Le nombre de foyers primaires et secondaires dans chaque Etat membre figure au tableau 2.

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(1) Voir annexe 2, tableau 3

(2) La réglementation communautaire relative au désossage s'applique uniquement à certaines régions à haut risque, telles que l'Amérique du Sud et l'Afrique.

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8. Le taux de propagation de la maladie (l'ampleur de l'épizootie provoquée par un foyer primaire) est très variable. Dans certains cas, les foyers primaires ne donnent pas naissance à d'autres foyers, alors que dans d'autres cas, le nombre de foyers secondaires est élevé (153 par exemple en Italie lors de l'épizootie A_5 de 1984 à 1985, voire même plus au Portugal au début des années quatre-vingt).

9. Le taux de propagation (rapport entre le foyer primaire et les foyers secondaires) mentionné au tableau 2 (moyennes) se répartit en trois catégories :

   (a) les foyers qui n'ont pratiquement donné lieu à aucune propagation (moins de trois foyers secondaires par foyer primaire);

   (b) les épizooties à propagation limitée (moins de 25 foyers secondaires par foyer primaire);

   (c) les épizooties à très large propagation (plus de 25 foyers secondaires).

   En examinant les différences ci-dessus, il convient de tenir compte de plusieurs facteurs, c'est-à-dire non seulement du choix d'une politique de vaccination ou de non-vaccination, mais aussi des différences entre les pays en ce qui concerne l'infrastructure agricole, la gestion des exploitations agricoles, l'importance du cheptel, les conditions géographiques, le service vétérinaire, etc. Des différences au niveau de la virulence et de la transmissibilité des souches sauvages de virus peuvent également être à l'origine des importantes variations enregistrées.

10. Lorsque l'on a utilisé la vaccination pour protéger les bovins, les foyers secondaires se sont essentiellement déclarés (mais pas intégralement) dans des cheptels porcins non vaccinés. Les excréments de porcs infectés renferment un nombre considérable de virus qui perpétuent les épizooties (par exemple l'épizootie de type C en Italie de 1985 à 1986).

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En l'absence de vaccinations, (dans quatre Etats membres*), sept foyers primaires ont donné naissance à 28 foyers secondaires. Deux des foyers primaires se sont déclarés au Danemark, pays à forte densité de peuplement porcin.

PREVISIONS POUR LA PERIODE 1993-2003
(dans les Etats membres actuels)

11. Quelle que soit la politique de lutte contre la maladie au sein de la Communauté (vaccination ou non-vaccination), le risque d'infection venant de l'extérieur subsiste, si les risques liés aux importations de viande (même en grandes quantités) semblent avoir diminué depuis le durcissement du régime d'importation, le risque d'introduction d'une infection dans la Communauté subsiste toutefois, notamment en cas d'importation de grandes quantités d'animaux. Le risque inhérent à l'importation officielle d'animaux peut être réduit par la réglementation communautaire, mais s'il s'agit de risques liés à une importation illégale ou à une infection transmise par voie aérienne, la Communauté n'est pas en mesure de les maîtriser directement.

12. La meilleure estimation que le groupe puisse formuler est que le risque d'introduction d'une infection dans la Communauté au cours des années 1993 à 2003 n'est plus grave ni moins grave qu'au cours des onze dernières années, c'est-à-dire qu'il faut s'attendre à l'apparition de huit (8) foyers primaires d'origine extracommunautaire.
Si l'on y ajoute la fraction des 13 foyers dont l'origine était tout à fait inconnue (voir paragraphe 6) le risque passe ainsi à douze-treize (12-13) foyers environ. Ce chiffre constitue peut-être une surestimation par rapport au risque prévisible, en ce sens que les restrictions à l'importation de viandes, instaurées en 1978, semblent être une mesure préventive efficace contre l'introduction de la maladie.

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* Le Danemark, l'Irlande et le Royaume-Uni ne pratiquent pas la vaccination. La Grèce ne pratique pas la vaccination non plus, sauf dans une zone tampon dans le département d'Evros.

13. L'adoption d'une politique de non-vaccination ou de vaccination au sein de la Communauté peut également modifier les chiffres, en ce sens que la vaccination peut avoir empêché l'apparition de certains foyers primaires au cours de la période 1977-1987. S'il est impossible d'évaluer le nombre de foyers évités de la sorte, les données constatées dans les zones de la Communauté où le vaccin n'est pas utilisé donnent toutefois à penser que ce nombre est faible. Il convient encore de préciser que les zones de la Communauté où la vaccination n'est pas pratiquée bénéficient non seulement d'un isolement géographique (îles, péninsules) et de contrôles rigoureux à l'importation, mais aussi de la protection assurée par les vaccinations régulières dans les pays voisins.

14. Dans certains Etats membres, il faut s'attendre à des risques particuliers liés au trafic transfrontalier, y compris les importations illégales facilitées par les longues frontières de la Communauté. En tout état de cause, si la Communauté opte pour une politique de non-vaccination, le groupe recommande qu'aucun animal sensible ne soit importé dans la Communauté s'il n'a pas fait l'objet de mesures de protection rigoureuses (voir ci-après).

RISQUE D'INFECTION INTRACOMMUNAUTAIRE

15. Si la vaccination n'est pas pratiquée à l'avenir dans la Communauté et si aucune source de fièvre aphteuse n'y est constatée, il y a peu de chances que des foyers primaires autres que les foyers d'origine extracommunautaire (paragraphe 12) plus une partie des 13 foyers primaires d'origine inconnue (paragraphe 6) se déclarent, pour autant que les laboratoires qui manipulent le virus de la FA soient gérés dans des conditions de haute sécurité.

16. En cas de vaccination prophylactique à l'avenir au sein de la Communauté, quelques foyers imputables à la production ou à l'administration des vaccins risquent par contre de s'ajouter aux foyers mentionnés au paragraphe 15. Si les faits observés au cours de la période 1977-87 se reproduisent au cours des années 1993-2003, on peut raisonnablement prévoir l'apparition de 13 foyers primaires dus à la manipulation de virus aphteux ou à l'utilisation de vaccins mal inactivés. Il est toutefois vraisemblable que les techniques d'inactivation du vaccin vont s'améliorer et que les fuites dues aux manipulations en laboratoire vont diminuer. A d'autres égards, une vaccination prophylactique pourra vraisemblablement prévenir l'apparition de certains foyers, quelle que soit leur origine.

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RISQUE DE PROPAGATION AU SEIN DE LA COMMUNAUTE

17. Les données figurant au tableau 2 et aux paragraphes 7 à 10 donnent à penser qu'il n'est pas possible d'établir une différence de taux de propagation de l'infection entre les pays où il est fait usage de la vaccination et ceux où la lutte contre la maladie repose exclusivement sur l'abattage sanitaire et d'autres mesures de lutte appropriées. En fonction des informations dont il dispose, le groupe estime que les fluctuations sont trop importantes pour permettre de tirer des conclusions précises quant au taux de propagation en cas d'adoption par la Communauté d'une politique de non-vaccination ou de vaccination. A cet égard, les conditions géographiques, l'infrastructure agricole et les contrôles vétérinaires dans les différents pays doivent être considérés comme des facteurs d'une importance capitale.

Le groupe est particulièrement conscient du risque de propagation secondaire dans les zones à forte densité animale. Si la vaccination est abandonnée, le risque augmentera pour les bovins mais ne changera pas sensiblement pour les porcins qui ne sont généralement pas vaccinés. En cas d'apparition d'un foyer, l'ampleur et la durée de l'épizootie peuvent être réduites grâce à l'application des méthodes décrites ci-après et, si nécessaire, grâce à la vaccination en anneau.

18. Il est toutefois évident que le taux de propagation de l'infection à partir d'un foyer primaire dépend non seulement de la virulence et de la transmissibilité des souches sauvages mais aussi, et dans une large mesure, de la qualité des moyens de lutte mis en oeuvre. Si on se limite à l'abattage sanitaire pour lutter contre une épizootie et si cet abattage est correctement et rapidement appliqué (et accompagné d'un contrôle strict de la circulation des animaux, etc.), l'infection pourra être limitée à un nombre restreint de foyers secondaires. En outre, l'expérience acquise au cours de la période 1977-1987 nous apprend qu'abstraction faite de l'application ou de la non-application de la vaccination prophylactique, l'infection peut très rapidement se propager (dans le cheptel porcin notamment) si les mesures de lutte (abattage sanitaire, restrictions de circulation, etc.) ne sont pas strictement appliquées.

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ANNEXE 2

TABLEAU 1

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES
1977 - 1987

Pays	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgique	–	–	–	–	–	–	–	–	–	–	–	–
Danemark	–	–	–	–	–	22	1	–	–	–	–	23
Allemagne	7*	3	–	2	–	1	–	9**	–	–	6***	28
Grèce	3	–	–	–	5	–	–	2	–	–	–	10
Espagne	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Irlande	–	–	–	–	–	–	–	–	–	–	–	–
Italie	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Pays-Bas	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
Royaume-Uni	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** y compris six cas sérologiques constatés a posteriori
*** 1987/88

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ANNEXE 2

TABLEAU 2

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES

1977 - 1987

TAUX DE PROPAGATION

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE NON-VACCINATION

	Foyers primaires	Foyers secondaires	Rapport
Danemark	2	21	1:21/1:0
Grèce	3	7	1:2.3
Irlande	-	-	-
Royaume-Uni	2	0	1:0

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE VACCINATION

Belgique	-	-	-
Allemagne	8	20	1:2.5
Espagne	chiffre non connu	Chiffre non connu	Chiffre non connu
France	2	38	1:19
Italie	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Pays-Bas	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEXE 2

TABLEAU 3

HUIT FOYERS PRIMAIRES DE FIEVRE APHTEUSE
très probablement d'origine extracommunautaire

1976/77	Grèce	Type A	- ressemble aux types d'Amérique du Sud - eaux grasses
1976/77	RFA	Type A	- Aix la Chapelle (ressemble au A24) eaux grasses
1977	Italie	Type A	- ressemble aux types d'Amérique du Sud virus isolé provenant de l'importation de produits de viande/de moëlle
1978	Italie	Type O	- probablement lié à des importations de viandes
1979	Italie	Type A	- ressemble aux types d'Amérique du Sud
1982	Danemark	Type O	- probablement introduit d'Europe de l'Est par voie aérienne
1982	Allemagne	Type O_1	- lié au type O_1 d'Autriche en 1981
1984	Gréce	ASIA-1	- probablement introduit par voie aérienne

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ANNEXE 3

I. ANALYSE ECONOMIQUE

1.1. En nous basant sur les estimations de coûts des vaccinations et des foyers (voir tableau 1 et 2) et sur le nombre de foyers prévu par le Comité Scientifique Vétérinaire (voir annexe 2), nous avons procédé à une analyse économique qui montre les résultats possibles d'une politique de vaccination ou de non-vaccination. Ces résultats ont été obtenus à partir de trois scénarios : un scénario neutre (le plus probable), un scénario pessimiste et un scénario optimiste.

1.2. L'analyse couvre une période de 10 ans (1993-2002) qui nous semble être une période raisonnable pour l'élaboration d'une politique.

2. HYPOTHESES

2.1. Coût des vaccinations

Le coût d'un programme de vaccination communautaire à raison d'une seule vaccination annuelle pratiquée sur l'ensemble du bétail concerné est évalué à 133 millions d'écus par an (tableau 1).

2.2. Coût des foyers

Le coût d'un foyer varie considérablement d'un Etat membre à l'autre (tableau 2). Ces variations sont essentiellement dues à la taille des troupeaux et à la valeur du cheptel abattu. Les valeurs données au tableau 2 constituent une moyenne pour chaque Etat membre, car même à l'intérieur d'un Etat membre la taille du troupeau varie considérablement selon qu'il s'agit de petites exploitations ou de grandes unités d'élevage intensif.

Le coût le moins élevé par foyer nous a été fourni par les autorités portugaises. Dans ce pays, les exploitations de moins de 5 hectares représentent 86 % de l'ensemble des exploitations et le coût mentionné par foyer concerne une exploitation élevant seulement 4 bovins et 5 porcs. Ce chiffre n'est pas représentatif de la Communauté dans son ensemble et, dans notre analyse économique, nous avons donc retenu comme estimation "inférieure" la deuxième estimation de coût en commençant par le bas (Grèce 32.000 écus).

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Le coût le plus élevé par foyer nous est fourni par les autorités espagnoles (470.000 ecus) et se base sur les coûts enregistrés lors de l'épidémie de 1983. Le nombre moyen de bovins dans les exploitations touchées est de 1535. Toutefois, en analysant les données nationales transmises, on s'aperçoit que les autorités italiennes ont estimé à 600.000 écus le coût d'un abattage total dans de très grands élevages intensifs de porcs. Dès lors, afin d'accorder la pondération voulue aux risques liés à l'apparition de la maladie dans de grandes unités d'élevage intensif, ce chiffre représente l'estimation "élevée" de notre analyse.

Abstraction faite du Portugal en raison du caractère atypique de la structure de son cheptel, le coût moyen transmis par les Etats membres est de 158.000 écus, chiffre que nous avons retenu comme estimation "moyenne" de l'analyse.

2.3. Nombre de foyers

Le nombre de foyers retenu pour la construciton des scénarios neutre, pessimiste et optimiste provient des estimations fournies par le Comié Scientifique Vétérinaire (annexe 2);

Le Comité a estimé que, dans le cadre d'une politique de non-vaccination, le nombre probable de foyers primaires sur une période de 10 ans est de 13. Ce chiffre risque d'être une surestimation du risque prévisible, en ce sens que les restrictions à l'importation de viandes introduites en 1978 semblent avoir constitué une protection efficace contre l'entrée de la maladie.

Si le Comité a estimé que, dans le cas d'une politique de vaccination, 13 autres foyers primaires liés à la manipulation du virus ou à l'emploi de vaccins inactivés de manière inadéquate, viendraient s'ajouter aux 13 foyers primaires susmentionnés, il pense toutefois que l'amélioration des techniques devrait permettre de réduire ces risques. Pour l'analyse économique, nous avons donc ramené à 7 l'estimation du nombre de foyers liée aux laboratoires ou aux vaccins sur une période de 10 ans. Ainsi, en y ajoutant les 13 foyers d'origine étrangère, nous arrivons à un total de 20 foyers primaires sur une durée de 10 ans dans le cadre d'une politique de vaccination.

(2)

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D'après les données analysées par le Comité, il n'est pas possible de détecter une différence dans le taux de propagation de l'infection entre les pays qui pratiquent la vaccination et les pays qui se limitent à l'abattage sanitaire et autres mesures appropriées de lutte contre la maladie. Pour la présente analyse économique, nous avons dès lors utilisé la même estimation pour les deux politiques.

Le rapport du Comité fournit des données détaillées en ce qui concerne le rapport entre le foyer primaire et les foyers secondaires. Les taux de propagation mentionnés sont relativement homogènes dans l'ensemble de la Communauté exception faite du Portugal. Le rapport donné pour ce pays (1:591) concerne la situation au Portugal avant l'application des mesures communautaires de lutte contre la maladie. En faisant abstraction du Portugal, le rapport moyen entre les foyers primaires et les foyers secondaires au cours des dix dernières années est de 1 à 20, rapport que nous avons retenu comme estimation moyenne ou la plus probable. Il se peut que ce rapport exagère le taux de propagation : en effet, dans certaines épidémies importantes, plus de foyers risquent d'être des foyers primaires plutôt que secondaires, (par exemple dans le cas de la multiplication des foyers due à des vaccins mal inactivés).

Le taux de propagation le plus faible est de 1:0, c'est-à-dire qu'il n'y a pas de foyer au-delà du foyer primaire. Cette hypothèse s'est vérifiée plusieurs fois au cours des dix dernières années dans le cadre des deux politiques (vaccination et non-vaccination).

Le taux de propagation le plus élevé - estimation la plus pessimiste - est de 1:150. Il s'agit là du taux le plus élevé enregistré lors des épizooties qui ont récemment touché les zones d'élevage intensif du nord de l'Italie.

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3. SCENARIOS

3.1. Nous présentons ci-après trois résultats possibles en fonction des différentes hypothèses de départ quant au nombre et au coût des foyers visés aux paragraphes 2.2. et 2.3. ci-dessus. Il s'agit en l'occurrence :

- d'un scénario neutre (le plus probable);
- d'un scénario optimiste;
- d'un scénario pessimiste.

3.2. Scénario neutre

Ce scénario, qui nous donne le résultat le plus probable, est basé sur le coût d'un foyer moyen (158.000 écus) (cf. 2.2. ci-dessus) et du nombre le plus probable de foyers secondaires (20) par foyer primaire (2.3. ci-dessus).

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
20 foyers secondaires par foyer primaire

Total = 13 + (13 x 20) = 273

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût total = 273 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 35 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
20 foyers secondaires par foyer primaire

Total = 20 + (20 x 20) = 420

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût des foyers = 420 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 1.080 millions d'écus.

Coût total = 54 millions d'écus + 1.080 millions d'écus = 1.134 millions d'écus.

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3.3. Scénario optimiste

Il s'agit ici du scénario le plus optimiste dans lequel tous les foyers touchent de très petites exploitations et ne donnent lieu à aucun foyer secondaire. S'il n'est pas rare qu'il n'y ait pas de foyers secondaires, il est improbable par contre que tous les foyers touchent les plus petits troupeaux.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :

13 foyers primaires

0 foyer secondaire

Total = 13 + (13 x 0) = 13

Coût prévu par foyer (valeurs : 1987) = 32.000 écus (cf. paragraphe 2.2.).

Coût total = 13 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 337.000 écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :

20 foyers primaires

0 foyer secondaire

Total = 20 + (20 x 0) = 20

Coût prévu par foyer = 32.000 écus

Coût des foyers = 20 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 519.000 écus.

Valeur actuelle de la vaccination déduction faite d'un placement pendant 10 ans (à 5 %) = 1.808 millions d'écus.

Coût total = 519.000 écus + 1.080 millions d'écus = 1.080,5 millions d'écus.

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3.4. Scénario pessimiste

Ce scénario pessimiste part du principe que chaque foyer primaire donnera lieu à 150 foyers secondaires et que les foyers se déclareront tous dans les troupeaux les plus importants (coût : 600.000 écus par foyer).

Une telle conjugaison de facteurs ne représente qu'une possibilité hautement improbable. Au cours des onze dernières années, il n'est arrivé qu'une fois (en Italie) qu'un foyer primaire ait donné lieu à 150 foyers secondaires. De plus, même dans les zones d'élevage intensif, un pourcentage seulement des exploitations sont de très grandes exploitations.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
150 foyers secondaires par foyer primaire

Total = 13 + (13 x 150) = 1.963

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût total = 1.963 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 955 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
150 foyers secondaires par foyer primaire

Total = 20 + (20 x 150) = 3.020

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût des foyers = 3.020 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 1.470 millions d'écus.

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Valeur actuelle de la vaccination déduction faite d'un placement pendant dix ans (à 5 %) = 1.080 millions d'écus.

Coût total = 1.470 millions d'écus + 1.080 millions d'écus = 2.550 millions d'écus.

4. SYNTHESE

	Valeur actuelle sur 10 ans (en millions d'écus)		
	Scénario neutre	Scénario optimiste	Scénario pessimiste
A. Politique de non-vaccination (foyers uniquement)	35	0,3	995
B. Politique de vaccination (foyers et vaccination)	1134	1080,5	2550

L'analyse montre que, dans l'hypothèse la plus probable sur les dix prochaines années, une politique de vaccination serait sensiblement plus coûteuse qu'une politique de non-vaccination. Même dans le pire des cas (hautement improbable) où tous les foyers se déclareraient dans les unités d'élevage les plus importantes avec un taux élevé de propagation de l'infection, la politique de non-vaccination reste la moins onéreuse.

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ANNEXE 3

TABLEAU 1

COUT D'UN PROGRAMME DE VACCINATION CONTRE
LA FIEVRE APHTEUSE AU SEIN DE LA COMMUNAUTE EUROPEENNE

(coûts annuels aux prix de 1987)

	Bovins vaccinés en milliers de têtes)	Coût par tête		Coût national	
		Monnaie nationale	Ecus	Monnaie nationale (en millions)	Ecus (en millions)
Belgique	2 232	54 BFR	1,25	121,0	2,8
Danemark*	2 250	17,90 DKR	2,25	40,3	5,1
Allemagne	14 560	3,14 DM	1,18	38,6	18,6
Grèce*	761	122 DRA	0,74	92,5	0,6
Espagne	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Irlande*	6 647	1,50 IRL	1,94	10,0	12,9
Italie	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Pays-Bas	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
Royaume-Uni*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (chiffe arrondi)	133,0

REMARQUES

(i) Les coûts sont donnés pour la vaccination de l'ensemble des bovins concernés une fois par an (sauf pour la France et le Luxembourg où seuls les chiffres de l'ensemble des bovins étaient disponibles).

(ii) Les coûts sont soit les coûts effectifs dans le cas des Etats membres qui vaccinent actuellement leur cheptel national soit les coûts estimés dans le cas des Etats membres qui ne pratiquent pas la vaccination (suivis d'un *).

(iii) Les coûts comprennent le vaccin, la vaccination et les frais administratifs mais ne comprennent pas les coûts des effets secondaires éventuels.

(iv) La Grèce ne vaccine les bovins que dans le nome d'Evros; la France ne vaccine pas dans le Finistère.

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ANNEXE 3

TABLEAU 2

COUT ESTIMATIF D'UN SEUL FOYER DE FIEVRE APHTEUSE

(données fournies par les Etats membres aux prix de 1987)

Ces coûts comprennent : les indemnités;
les opérations de nettoyage, de désinfection et autres mesures connexes;
les pertes de production dans l'exploitation;
les frais administratifs généraux.

Ils ne comprennent pas : la vaccination en anneau.

Coût par foyer (cf. remarques)

	Monnaie nationale	Ecus
Belgique	2 203 055 BFR	50 650
Danemark	1 210 000 DKR	150 239
Allemagne	100 000 DM	48 309
Grèce	5 281 911 DRA	31 914
Espagne	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Irlande	164 500 IRL	212 258
Italie	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Pays-Bas	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
Royaume-Uni	70 000 UKL	104 979

REMARQUES

(1) Par foyer, on entend l'apparition de la maladie dans une exploitation agricole (définition de l'OIE pour l'Europe).

(2) Les estimations sont basées, dans la mesure du possible, sur les coûts effectifs enregistrés lors des foyers récents; en l'absence de foyers récents, les coûts sont des coûts estimés pour un troupeau à risques de taille moyenne.

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ANNEXE 4

STRUCTURE DES ECHANGES COMMUNAUTAIRES
DE CHEPTELS ET DE CERTAINS PRODUITS ANIMAUX

1. Introduction

1.1. Espèces sensibles à la fièvre aphteuse

En examinant la structure des échanges, on constate que les espèces sensibles à la fièvre aphteuse les plus concernées par les échanges sont les bovins, les porcins, les ovins et les caprins.

1.2. Règles régissant actuellement les échanges

En temps normal, les Etats membres qui pratiquent la vaccination contre la fièvre aphteuse peuvent exporter de la viande fraîche et des produits de viande des espèces susmentionnées vers les Etats membres ne pratiquant pas la vaccination.

En cas d'apparition d'un foyer de fièvre aphteuse dans quelque Etat membre que ce soit, des zones d'interdiction autour du foyer sont fixées par la directive 85/511/CEE (mesures générales de lutte contre la maladie) et par la directive 64/432/CEE (échanges intracommunautaires) aux termes desquelles les échanges d'animaux, de viandes fraîches et de produits de viande qui n'ont pas subi un traitement thermique à 70° C au moins sont interdits.

Dans le cas des bovins et des porcins vivants, la législation communautaire prévoit des restrictions aux échanges entre les Etats qui pratiquent la vaccination et ceux qui ne la pratiquent pas. Ces règles, fixées à l'article 4 bis de la directive 64/432/CEE, sont une des raisons pour lesquelles nous avons entrepris la présente étude. Au 1er janvier 1989, les réglementations nationales en ce qui concerne les ovins et les caprins étaient toujours en vigueur.

L'article 4 bis de ladite directive autorise les Etats membres, qui sont indemnes de fièvre aphteuse d'au moins deux ans et qui ne pratiquent pas la vaccination, à demander l'isolement et/ou la mise en quarantaine en plus de certains tests, afin de s'assurer que les animaux concernés n'ont pas été vaccinés et ne sont pas porteurs du virus de la fièvre aphteuse.

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En termes d'échanges intracommunautaires, les dispositions relatives aux animaux vivants revêtent une importance primordiale dans les projections des avantages et des inconvénients de l'adoption d'une politique de vaccination générale ou d'une politique de non-vaccination.

2. Echanges intracommunautaires(1)

2.1. Bovins

2.1.1. Veaux (jusqu'à 250 kg)

En 1987, les échanges intracommunautaires de veaux se sont chiffrés à 2 millions d'unités environ. Les principaux pays exportateurs et importateurs ont été :

1. la France (838.000) vers l'Italie (689.000), les Pays-Bas (65.000) et l'Allemagne (64.000);

2. le Royaume-Uni (376.000) vers la France (221.000), les Pays-Bas (133.000) et l'Italie (6.000);

3. les Pays-Bas (332.000) vers l'Allemagne (102.000), l'UEBL (99.000) et la France (88.000).

Commentaires

Que l'on pratique une politique de non-vaccination ou de vaccination générale, les échanges de veaux ne risquent pas de se modifier sensiblement. Le Royaume-Uni semble disposer d'un surplus exportable, tandis que les exportations à destination du Danemark et de l'Irlande n'ont des chances de se développer que si le nombre de vaches diminue sensiblement dans ces pays.

2.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les échanges intracommunautaires de gros bovins se sont chiffrés à 1,15 million d'unités. Les principaux pays exportateurs et importateurs ont été :

1. la France (795.000) vers l'Italie (709.000), l'Allemagne (34.000) et l'UEBL (21.000);

(1) Source : données Nimexe citées dans Eurostat (année 1987). Les chiffres sont arrondis au millier près.

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2. l'Irlande (152.000) vers le Royaume-Uni (151.000) et le Portugal (1.000);
3. l'Allemagne (117.000) vers les Pays-Bas (64.000), l'Italie (37.000) et l'UEBL (11.000).

Commentaires

Quelle que soit la politique adoptée (non-vaccination ou vaccination généralisée), il est improbable que la structure des échanges se modifie, étant donné que le Danemark, l'Irlande et le Royaume-Uni sont autosuffisants, l'Irlande étant un exportateur important. Néanmoins, les échanges de bovins de boucherie à destination du Danemark et du Royaume-Uni pourraient se développer du fait de leur proximité d'Etats tels que l'Allemagne, la France et les Pays-Bas.

2.1.3. Bovins reproducteurs de race pure

En 1987, les échanges intracommunautaires de cette catégorie se sont élevés à 38.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (22.000) vers l'Espagne (13.000), le Portugal (5.000) et l'Italie (2.000);
2. le Royaume-uni (6.000) vers le Portugal (3.000) et l'Irlande (3.000);
3. la France (5.000) vers l'Espagne (1.000), le Portugal (1.000) et l'Italie (1.000).

N.B. : En 1987, les exportations à destination de l'Espagne et du Portugal ont bénéficié de restitutions à l'exportation.

Commentaires

Quelle que soit la solution adoptée, il est peu probable que la structure de ces échanges se modifie, étant donné que la demande de ce type de bovins est limitée et que la valeur unitaire est élevée. Du fait de cette forte valeur unitaire, les frais d'analyse et de mise en quarantaine du système actuel peuvent être facilement absorbés. En cas de passage à une politique uniforme, ces frais disparaîtraient et on pourrait normalement s'attendre à une légère augmentation des échanges (qui risque toutefois de ne pas se produire en raison du développement des échanges de semences et d'embryons).

2.2. Porcs

Les échanges de porcs sont actuellement influencés par la présence ou l'absence de quatre maladies virales, à savoir la fièvre aphteuse (F.A.), la peste porcine classique (PPC), la peste porcine africaine (PPA) et la maladie vésiculeuse du porc (MVP). Les Etats membres officiellement indemnes de PPC peuvent interdire l'entrée sur leur territoire de porcs et de viande porcines en provenance d'Etats n'ayant pas le même statut.

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En ce qui concerne la PPA, les exportations en provenance de l'Espagne (en partie depuis le 14 mai 1989), du Portugal et de la Sardaigne sont interdites sauf pour certains produits traités thermiquement. La réglementation relative à la MVP autorise les Etats membres ne pratiquant pas la vaccination contre la fièvre aphteuse et indemnes de fièvre aphteuse depuis deux ans d'exiger un test sérologique négatif de MVP avant d'autoriser l'entrée de porcs d'élevage et de rente sur leur territoire.

2.2.1. Porcs de rente (jusqu'à 50 kg) (porcelets sevrés)

En 1987, les échanges intracommunautaires de porcs de cette catégorie se sont chiffrés au total à 2,5 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (1.371.000) vers l'UEBL (744.000), l'Espagne (332.000) et la France (275.000);
2. la France (423.000) vers l'Espagne (225.000), l'UEBL (145.000) et l'Italie (52.000);
3. les Pays-Bas (681.000) vers l'Italie (308.000), l'Espagne (184.000) et l'UEBL (128.000).

2.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les échanges se sont chiffrés au total à 4,233 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (2.990.000) vers l'Allemagne (924.000), l'Italie (724.000) et la France (710.000);
2. l'UEBL (958.000) vers la France (558.000) et l'Italie (326.000);
3. la France (111.000) vers l'Italie (70.000) et l'UEBL (25.000).

2.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les échanges intracommunautaires ont porté au total sur 337.000 truies de cette catégorie. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (307.000) vers l'UEBL (196.000) et l'Allemagne (110.000);
2. la France (23.000) vers l'UEBL (22.000).

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2.2.4. Porcs reproducteurs de race pure

En 1987, les échanges ont porté sur quelque 19.000 porcs reproducteurs de race pure. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (9.000) vers l'Espagne (5.000), l'Irlande (1.000) et l'Allemagne (1.000);
2. les Pays-Bas (3.000) vers l'Espagne (1.000) et l'UEBL (1.000);
3. la France (2.000) vers l'Espagne (2.000).

Commentaires sur les échanges porcins

Comme nous l'avons signalé précédemment, outre la fièvre aphteuse, trois autres maladies peuvent influencer les échanges procins. Il est dès lors difficile de prévoir une modification des courants commerciaux dans un avenir proche. En raison de l'autosuffisance actuelle, il est toutefois improbable que les échanges à destination du Danemark, de l'Irlande et du Royaume-Uni se développent considérablement.

2.3. Ovins et caprins

Au 1er janvier 1989, il n'existait aucune réglementation communautaire en la matière et c'est donc la réglementation nationale qui s'applique. En-dehors de la fièvre aphteuse, la brucellose ovine et caprine (Brucella melitensis) semble être une maladie qui constitue un frein aux échanges des pays méridionaux vers les pays septentrionnaux.

2.3.1. Ovins et caprins autres que de race pure

En 1987, les échanges intracommunautaires ont porté au total sur 1,77 million d'ovins et de caprins de ce type. Les principaux pays exportateurs et importateurs ont été :

1. la France (457.000) vers l'Italie (272.000) et l'Espagne (183.000);
2. le Royaume-Uni (392.000) vers la France (295.000) et l'Irlande (85.000);
3. les Pays-Bas (336.000) vers la France (198.000) et l'UEBL (134.000);
4. l'Allemagne (298.000) vers l'UEBL (128.000) et l'Italie (88.000).

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2.3.2. Ovins et caprins reproducteurs de race pure

En 1987, les échanges d'ovins et de caprins reproducteurs de race pure se sont chiffrés à 17.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (7.400) vers l'Irlande (5.000) et la France (2.400);
2. le Portugal (4.500) vers l'Espagne (2.500) et le Royaume-uni (1.000)
3. l'Espagne (2.000) vers la France (1.000) et le Royaume-Uni (700).

Commentaires

Les échanges semblent s'opérer essentiellement du nord vers le sud (probablement en raison de la brucellose). La tendance actuelle semble devoir se poursuivre. Il ne semble pas y avoir une ouverture des échanges vers le Danemark, l'Irlande ou le Royaume-Uni en raison de l'auto-suffisance et de l'écart des prix.

3. Echanges en provenance des pays tiers

Echanges de viandes fraîches et de produits à base de viande

Il s'agit ici des échanges à destination de la Communauté en provenance de 50 pays tiers environ. S'il est improbable, en cas de passage à une politique de non-vaccination, que la Communauté demande que la viande en provenance de pays tiers provienne d'animaux non vaccinés, deux zones à problèmes sont toutefois prévisibles. Premièrement, les pays d'Amérique latine (Argentine, Brésil, Paraguay et Uruguay) où la fièvre aphteuse prend des proportions d'épizootie, luttent partiellement contre la fièvre aphteuse par la vaccination. La viande destinée à la Communauté en provenance de ces pays est préparée dans des conditions fort strictes (maturation et désossage). Il se peut qu'un renforcement du contrôle soit jugé nécessaire notamment pour les abats. La seconde zone à problèmes est constituée par l'Afrique du sud, l'Afrique australe (y compris la Namibie), le Swaziland, le Botswana et le Zimbabwe. Nous constatons en effet que la législation actuelle (1) exige que les animaux n'aient pas été vaccinés pendant les 12 mois qui précèdent l'abattage et soient indemnes de la fièvre aphteuse depuis 12 mois également. Actuellement, les décisions zoosanitaires concernant ces pays ne sont toutefois pas applicables à tous les Etats membres et des décisions applicables à tous les Etats membres seront nécessaires dans un proche avenir.

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(1) Directive 72/462/CEE articles 14 et 15.

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Dans l'ensemble, les exportations vers la Communauté de viandes et de produits à base de viande ne devraient dès lors pas souffrir d'un changement de politique communautaire en matière de vaccination.

Echanges d'animaux vivants :
Les importations de bovins et de porcins peuvent provenir de 21 pays et les échanges d'ovins et de caprins sont régis par la réglementation nationale. Les bovins entrant dans les Etats membres qui pratiquent la vaccination doivent être vaccinés avant leur entrée sur le territoire.

3.1. Bovins

3.1.1. Veaux (jusqau'à 250 kg)

En 1987, 272.000 veaux ont été importés dans la Communauté. Les principaux pays tiers exportateurs et Etats membres importateurs ont été :

1. la Pologne (219.000) vers l'Italie (149.000) et l'Allemagne (61.000);
2. la Tchécoslovaquie (27.000) vers l'Italie (18.000) et l'Allemagne (9.000).

3.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, 350.000 bovins de cette catégorie ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. la Yougoslavie (170.000) vers l'Italie (111.000) et la Grèce (59.000);
2. la Pologne (80.000) vers l'Italie (75.000) et la Grèce (4.000);
3. l'Autriche (56.000) vers l'Italie (38.000) et l'Allemagne (16.000).

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3.1.3. Bovins reproducteurs de race pure

En 1987, 44.000 bovins reproducteurs de race pure ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. l'Autriche (23.000) vers l'Italie (18.000) et l'Espagne (4.000);
2. la Suisse (15.000) vers l'Italie (14.000).

Commentaires

Comme il ressort des chiffres mentionnés ci-dessus, les importations de bovins sont essentiellement destinées à l'Italie et proviennent en grande partie de pays tiers qui ne vaccinent pas de façon systématique à l'heure actuelle, exception faite de la Tchécoslovaquie et de la Grèce. Dans l'éventualité où ni l'un ni l'autre de ces pays n'abandonne la vaccination, il en résultera une légère pénurie de veaux (27.000) et d'animaux reproducteurs (15.000), ce qui posera quelques problèmes de recherche de nouveaux fournisseurs.

Le passage à une politique de vaccination générale n'entraînera, semble-t-il que peu de changements au niveau des importations au Danemark, en Irlande ou au Royaume-Uni. Au contraire, dans le cas d'une politique de non-vaccination, les animaux vaccinés ne seront plus acceptés et les approvisionnements de jeunes bovins maigres en provenance de certains pays d'Europe de l'Est (RDA, Tchécoslovaquie) et de la Suisse cesseront si ces pays ne veulent pas abandonner la vaccination. Par contre, des pays tels que la Pologne et la Yougoslavie qui ne pratiquent pas la vaccination systématique ne devront plus pratiquer la vaccination avant l'exportation.

3.2. Porcins

3.2.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, 13.566 porcelets sevrés ont été importés dans la Communauté principalement à destination de :

l'Italie (12.245) en provenance de la Tchécoslovaquie (11.601).

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3.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)
En 1987, 37.935 porcs de ce type ont au total été importés essentiellement en :

Belgique/Luxembourg (37.500) en provenance de la RDA (37.425)
Espagne (241) en provenance de la Suisse (241).

3.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)
Sept unités seulement de cette catégorie ont été importées en 1987.

3.2.4. Porcs reproducteurs de race pure
En 1987, 428 porcs de ce type ont été importés essentiellement :

aux Pays-Bas (122) en provenance du Canada (122);
en Grèce (89) en provenance de Suède (40) et d'Autriche (34);
en Allemagne (67) en provenance d'Hongrie (30) et d'Autriche (22).

Commentaires sur les importations de porcs

Par rapport aux échanges intracommunautaires (7 millions en 1987), les importations en provenance des pays tiers (52.000 porcs) sont insignifiantes. Un changement de politique ne devrait avoir aucun effet dans ce secteur.

3.3. Ovins et caprins

3.3. . Ovins et caprins autres que de race pure
En 1987, 2.043.000 têtes ont été importées principalement :

1. en Italie (1.492.000) en provenance d'Hongrie (865.000), de Pologne (278.000) et de Bulgarie (266.000);
2. en Allemagne (286.000) en provenance de Pologne (201.000) et d'Hongrie (85.000);
3. en France (163.000) en provenance de Pologne (94.000) et d'Hongrie (69.000);
4. en Grèce (89.000) en provenance d'Hongrie (50.000) et de Bulgarie (35.000).

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3.3.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.102 animaux de cette catégorie ont été importés essentiellement :

1. au Royaume-Uni en provenance de Nouvelle-Zélande (3.222), d'Australie (294) et du Canada (197);
2. en France (728) en provenance du Canada (343), d'Australie (222) et d'Algérie (117);
3. en Italie (195) en provenance d'Autriche (102) et de Suisse (92).

Commentaires

Les principaux fournisseurs d'ovins et de caprins ne pratiquent pas de vaccination systématique contre la fièvre aphteuse. Les courants commerciaux actuels devraient dès lors se maintenir. Le volume global des importations est limité par des accords.

4. Echanges à destination des pays tiers

Règles applicables aux échanges

Les règles zoosanitaires régissant les exportations d'animaux (et de produits animaux) sensibles à la fièvre aphteuse ne sont pas uniformes, du fait que les pays tiers importateurs adoptent des positions différentes vis-à-vis de la fièvre aphteuse et définissent leurs propres règles d'importation. On peut toutefois constater que la plupart des pays tiers indemnes de fièvre aphteuse et ne pratiquant pas la vaccination n'accepteront pas facilement des animaux et produits animaux provenant de pays pratiquant la vaccination. Le premier exemple à cet égard nous est donné par les Etats-Unis qui dressent une liste officielle (souvent appelée "liste blanche") des pays qu'ils considèrent indemnes de fièvre aphteuse. Il en résulte un effet "d'entraînement" lorsque les pays figurant sur la liste veulent adopter une réglementation aussi stricte, voire plus stricte que la réglementation américaine pour des raisons assez obscures. Nous aborderons ce problème par la suite.

4.5. Viandes et produits à base de viande

Les viandes et produits à base de viande traités thermiquement à 70° C au moins respecteront la plupart des réglementations vétérinaires en ce qui concerne la survie du virus de la fièvre aphteuse. Les statistiques qui suivent concernent les viandes et produits à base de viande qui ne sont pas traités thermiquement.

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4.1.1. Viandes de l'espèce bovine fraîches, réfrigérées ou congelées

En 1987, 692.791 tonnes de viandes de cette catégorie ont été exportées essentiellement par :

1. la France (215.897) vers l'URSS (39.400), l'Iran (37.156), l'Egypte (19.682), le Brésil (14.008), l'Arabie Saoudite (12.034), l'Angola (11.021) et l'Irak (10.478);
2. l'Irlande (159.560) vers l'Egypte (43.904), l'Iran (23.105), l'Irak (18.549), la Yougoslavie (14.014) et l'Afrique du Sud (13.122);
3. l'Allemagne (119.637) vers l'Egypte (46.188), la Yougoslavie (22.361) et l'Iran (13.102);
4. l'Italie (60.510) vers le Brésil (16.711), le Pérou (9.625), l'Arabie Saoudite (9.564) et la Lybie (8.119);
5. les Pays-Bas (54.389) vers le Zaïre (10.753), la Yougoslavie (10.305) et l'Egypte (6.504).

Les tonnages exportés par d'autres Etats membres à destination de différents pays ont été les suivants :
Danemark (38.076), Royaume-Uni (37.341), Belgique (5.928), Espagne (1.297), Grèce (136) et Portugal (22).

4.1.2. Préparations à base de viandes bovines crues, abats et mélanges

En 1987, 10.006 tonnes environ de ces préparations ont été exportées essentiellement par :

1. le Danemark (7.884) vers l'Arabie Saoudite (2.432), la Bulgarie (1.252), les Emirats Arabes Unis (779) et le Barheïn (722);
2. l'Italie (1.528) vers l'Arabie Saoudite (1.084) et la Jordanie (239).

4.1.3. Abats d'animaux de l'espèce bovine

En 1987, environ 12.048 tonnes d'abats ont été exportées essentiellement par :

1. la France (3.295) vers la Côte d'Ivoire (1.018), la Guadeloupe (465), la Martinique (403), le Gabon (340) et Israël (299);
2. l'Irlande (2.550) vers le Japon (1.529), Israël (346), l'Egypte (295) et l'Ile de Trinité et Tobago (154);
3. l'Allemagne (2.199) vers l'Autriche (1.111), l'Egypte (185) et la Côte d'Ivoire (185);
4. les Pays-Bas (2.152) vers Israël (683), le Zaïre (251) et la Yougoslavie (163).

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4.1.4. Graisse de boeuf non fondue destinée à l'alimentation

En 1987, 27.179 tonnes de produits de cette catégorie ont été exportées essentiellement par :

1. l'Allemagne (15.782) vers l'Iran (6.369), Cuba (2.076), le Nigéria (1.813) et le Burundi (1.511);
2. le Danemark (7.300) vers le Rwanda (1.869), le Kenya (1.681) et la Tanzanie (1.500).

4.1.5. Estomacs, intestins, vessies d'animaux (ensemble des animaux destinés à la consommation humaine)

En 1987, 22.868 tonnes ont été exportées principalement par :

1. l'Allemagne (8.698) vers les USA (2.573), l'Autriche (1.211) et le Brésil (1.006);
2. le Danemark (3.676) vers les USA (1.788), la Norvège (493), la Finlande (386) et la RDA (167);
3. les Pays-Bas (2.910) vers les USA (675), le Brésil (433), la Yougoslavie (247), la Suisse (246) et la Finlande (239);
4. la France (2.582) vers l'Afrique du Sud (612), la Hongrie (334), la Suède (172), Taïwan (152), le Maroc (160) et la Pologne (144).

4.2. Viande de porc

4.2.1. Carcasses et demi-carcasses fraîches, réfrigérées ou congelées

En 1987, 2.720 tonnes de viande de porc de cette catégorie ont été exportées vers les pays tiers. Les principaux pays exportateurs ont été :

1. l'Espagne (1.572) vers les Iles Canaries (1475) et Andorre (74);
2. la France (455) vers les Iles Canaries (142), les Seychelles (85) et la Réunion (66);
3. la Belgique (311) vers les Iles Canaries (287).

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4.2.2. Viande de porc en morceaux

En 1987, 197.921 tonnes ont été exportées essentiellement par :

1. le Danemark (164.272) vers le Japon (94.519), les USA (54.158) et le Canada (9.768);
2. la France (9.512) vers la Réunion (4.415) et la Martinique (1.093);
3. la Belgique (6.537) vers la Tchécoslovaquie (4.026) et les Antilles Néerlandaises (676).

4.2.3. Viande de porc salée ou en saumure, séchée ou fumée

En 1987, 9.637 tonnes de cette catégorie (principalement du bacon) ont été exportées essentiellement par :

1. l'Espagne (3.007) vers les Iles Canaries (2.379) et Andorre (315);
2. le Danemark (3.000) vers la Suède (1.155), les USA (613), le Groenland (196) et Singapour (194);
3. la France (1.409) vers la Guadeloupe (483), la Martinique (213) et la Réunion (213).

4.2.4. Graisse de porc (et graisse de volaille) fraîche, réfrigérée et congelée

En 1987, 2.085 tonnes ont été exportées essentiellement par :

1. le Danemark (1.488) vers la Norvège (907) et Chypre (177);
2. la France (242) vers la Réunion (176).

4.2.5. Saucisses, boudins et autres

En 1987, 65.425 tonnes ont été exportées essentiellement par :

1. l'Espagne (28.414) vers les Iles Canaries (23.811), Andorre (454) et le Liban (263);
2. le Danemark (16.742) vers les USA (4.027), les Iles Canaries (3.505), Singapour (1.073) et l'Arabie Saoudite (1.006);
3. la France (6.910) vers la Réunion (1.279), la Guadeloupe (1.278) et la Martinique (1.170);
4. l'Italie (4.666) vers la Suisse (2.605) et le Liban (463).

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4.2.6. Abats de porcs

En 1987, 35.725 tonnes d'abats de porc ont été exportées essentiellement par :

1. le Danemark (14.674) vers la Suède (7.572), le Japon (3.354) et le Libéria (1.229);
2. les Pays-Bas (8.481) vers la Suède (2.243), la Côte d'Ivoire (2.167) et le Cameroun (960);
3. l'Allemagne (4.440) vers la Suède (3.970) et la Suisse (243).

4.3. Viande des animaux des espèces ovine ou caprine, fraîche, réfrigérée ou congelée

Une seule classification à des fins statistiques.

4.3.1. Toutes viandes ovines et caprines

En 1987, 5.169 tonnes au total ont été exportées essentiellement par :

1. le Royaume-Uni (2.475) vers la Suisse (2.172);
2. l'Italie (906) vers la Lybie (906);
3. la France (678) vers la Suisse (312) et la Réunion (71).

Commentaires sur les exportations d'abats et de viandes fraîches

Etant donné que les stocks d'intervention diminuent, les exportations de viande bovine vers les pays tels que l'URSS et le Brésil risquent de diminuer. Si l'on opte pour une politique de vaccination générale, les exportations d'abats de bovins de l'Irlande vers le Japon et d'autres pays, qui représentaient un total de 2.550 tonnes en 1987, seront perdues.

Par ailleurs, le Danemark perdrait ses exportations de porc en morceaux, de viandes de porc partiellement traitées, de graisse de porc, d'abats, de saucisses, de boudins et autres, d'un total de 200.000 tonnes en 1987, essentiellement à destination des pays figurant sur la "liste blanche". Ces exportations sont toutefois marginales par rapport à l'ensemble des échanges et nous pensons qu'il est possible de trouver des débouchés pour cette production au sein de la Communauté.

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4.4 Bovins

4.4.1. Veaux (jusqu'à 250 kg)

En 1987, 3.309 veaux ont été exportés par la Communuaté. Le principal pays exportateur a été :

la France (3.299) vers la Suisse (3.031) et Andorre (206).

4.4.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les exportations ont porté sur un total de 77.527 unités. Les principaux pays exportateurs ont été :

1. l'Irlande (64.950) vers la Lybie (30.149), l'Egypte (29.577) et Malte (4.200);
2. la France (7.807) vers la Tunisie (1.684), l'Arabie Saoudite (1.504) et l'Algérie (677);
3. l'Allemagne (2.324) vers l'Arabie Saoudite (2.119);
4. l'Espagne (2.298) vers Andorre (2.260).

4.4.3. Bovins reproducteurs de race pure

En 1987, les exportations ont porté sur un total de 87.119 unités. Les principaux pays exportateurs ont été :

1. l'Allemagne (43.837) vers la Turquie (5.357), l'URSS (4.893), le Maroc (4.958), la Lybie (3.910), le Koweit (3.661), la Syrie (2.267), l'Irak (2.164), l'Iran (2.024), la Jordanie (2.157) et l'Arabie Saoudite (1.026);
2. la France (21.390) vers l'Algérie (18.367), le Maroc (1.406) et les Iles Canaries (1.045);
3. les Pays-Bas (16.647) vers l'Algérie (5.950), l'Iran (5.129), l'Egypte (3.316) et la Jordanie (836);
4. le Danemark (4.307) vers l'Egypte (2.490), l'URSS (1.372) et les Emirats Arabes Unis (365).

4.5. Porcs

Comme nous l'avons signalé précédemment, des maladies autres que la fièvre aphteuse peuvent limiter les échanges.

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4.5.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, les exportations ont porté sur un total de 2.633 unités. Les principaux pays exportateurs ont été :

1. les Pays-Bas (1.188) vers les Philippines (579) et les Iles Faroe (516);
2. la Belgique (1.067) vers les Philippines (1.052).

4.5.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les exportations se sont chiffrées à 4.390 porcs au total. Le principal pays exportateur a été :

la France (3.502) vers les Iles Canaries (1.891) et la Suisse (1.000).

4.5.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les exportations se sont chiffrées au total à 86 unités (Pays-Bas vers RDA).

4.5.4. Porcs reproducteurs de race pure

En 1987, les exportations se sont chiffrées au total à 3.444 unités. Les principaux pays exportateurs ont été :

1. le Royaume-Uni (2.224) vers la Thaïlande (681), le Japon (537), les Philippines (176), le Nigéria (178), le Kenya (169) et la Corée du Sud (111);
2. le Danemark (338) vers la Thaïlande (159) et la Corée du Sud (101);
3. la France (285) vers les Iles Canaries (194) et les Seychelles (40).

4.6. Ovins et caprins

4.6.1. Ovins et caprins autres que de race pure

En 1987, 54.576 animaux de ce type ont été exportés essentiellement par :

1. l'Espagne (30.481) vers Andorre (20.405) et Ceuta (10.076);
2. la Grèce (21.900) vers la Turquie (21.900).

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4.6.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.940 animaux de ce type ont été exportés. Les principaux pays exportateurs ont été :

1. la France (4.672) vers l'Algérie (3.886), la Chine (233) et la Colombie (130);
2. l'Allemagne (723) vers la Pologne (413) et l'Autriche (216).

Commentaires sur les exportations d'animaux vivants

Les exportations de bovins de rente/de boucherie et d'élevage sont importantes. Les pays destinataires pratiquent la vaccination systématique. Le fait que certains Etats membres, comme le Danemark et l'Irlande, ne pratiquent pas la vaccination ne semble pas avoir d'influence sur les exportations.

Les exportations de porcs ne sont pas importantes, sauf peut-être en ce qui concerne les reproducteurs de race pure où le Royaume-Uni et le Danemark détiennent des positions avantageuses essentiellement dans les échanges à destination de l'Extrême-Orient. Comme nous l'avons mentionné précédemment, des maladies telles que la peste porcine classique et la peste porcine africaine peuvent compliquer la structure des exportations.

Les exportations d'ovins et de caprins ne sont pas importantes face aux échanges intracommunautaires (2 millions de têtes).

4.7. Résumé et conclusions

4.7.1. Echanges intracommunautaires

(a) Viande et produits à base de viande

Quelle que soit la politique adoptée (vaccination générale ou non-vaccination contre la fièvre aphteuse), il ne devrait y avoir aucun obstacle aux échanges.

(b) Bovins

Quelle que soit la formule choisie, les échanges de veaux devraient rester stables. Il existe une possibilité d'échanges de jeunes bovins maigres (de rente) et de bovins de boucherie vers le Danemark et le Royaume-Uni. Il est peu probable que les échanges de bovins reproducteurs de race pure se modifient sensiblement.

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(c) Porcs

Les échanges sont également influencés par d'autres maladies que la fièvre aphteuse. Qu'il s'agisse d'une politique de vaccination générale ou de non-vaccination, il est difficile de prévoir des changements appréciables sur le plan de la structure des échanges.

(d) Ovins et caprins

Les échanges actuels semblent être toujours fortement influencés par les dispositions applicables en matière de brucellose (Brucella melitensis).

4.7.2. Echanges en provenance des pays tiers

(a) Viande et produits de viande

On prévoit peu de changements sauf peut-être un renforcement des contrôles à l'importation des abats en provenance de pays infectés de fièvre aphteuse. Des décisions uniformes doivent être prises vis-à-vis des pays d'Amérique du Sud et d'Afrique Australe. Il faut tenir compte du principe de "non-interférence" appliqué par les Pays-Bas et d'autres pays figurant sur la "liste blanche", aux termes duquel les établissements préparant de la viande et des produits à base de viande à destination de ces pays ne peuvent recevoir et traiter de la viande en provenance de pays ne figurant pas sur la "liste blanche".

(b) Bovins

Dans le cas d'une politique de non-vaccination, une légère baisse des échanges de veaux (27.000) et d'animaux d'élevage (15.000) se fera sentir si la Tchécoslovaquie et la Suisse n'abandonnent pas la vaccination. La Pologne et la Yougoslavie ne seront, par contre, plus obligées de pratiquer la vaccination avant l'exportation.

(c) Porcs

Les importations, qui se sont chiffrées à 52.000 têtes en 1987, sont insignifiantes par rapport à l'ensemble des échanges intracommunautaires (7,0 millions de porcs), notamment si l'on tient compte du degré d'auto-suffisance global du secteur porcin dans la Communauté.

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(d) Ovins et caprins

Les principaux fournisseurs de la Communauté ne pratiquent pas la vaccination systématique. Quelle que soit la politique adoptée, la structure actuelle des échanges devrait normalement se maintenir.

4.7.3. Echanges à destination des pays tiers

(a) Viande et produits à base de viande

Il faut envisager plusieurs cas. Premièrement, les échanges actuels sont régis par de nombreux facteurs, tels que les quotas (par ex. U.S.A. et Canada), les restitutions à l'exportation (accordées par la CEE), les liens commerciaux établis (par ex. le Danemark vers les pays scandinaves) et enfin les règles zoosanitaires (par ex. les pays figurant sur la "liste blanche").

Deuxièmement, une politique de vaccination généralisée pourrait rétrécir les marchés d'exportation (du moins en ce qui concerne la viande fraîche) du Danemark, de l'Irlande et du Royaume-Uni dans une moindre mesure, qui exportent vers les pays figurant sur la "liste blanche" tels que les U.S.A., le Canada et le Japon. Ces échanges servent de tampon aux variations conjoncturelles de production dans la Communauté.

Troisièmement, le passage à une politique de non-vaccination pourrait élargir l'accès de la Communauté dans son ensemble aux pays de la "liste blanche". Cet élargissement pourrait, toutefois, être limité par des restrictions de nature économique. Dans ce cas, les Etats membres qui exportent actuellement d'importants volumes de viande risquent de devoir partager un marché déterminé avec des Etats membres remplissant depuis peu les conditions de pénétration de ce marché.

Un quatrième cas, sans doute hypothétique, doit être envisagé, à savoir le cas dans lequel la Communauté, en tant qu'"entité", est indemne de fièvre aphteuse. La vaccination étant supprimée, la Communauté serait internationalement reconnue indemne de fièvre aphteuse. La Communauté perdrait-elle son statut en cas d'apparition d'un foyer de fièvre aphteuse ? La réponse dépend de l'efficacité de la régionalisation et des mesures de surveillance de la maladie.

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Le principe de la régionalisation est un principe que la Communauté applique en cas d'apparition d'un foyer de fièvre aphteuse ou d'une autre maladie épizootique en vue d'assurer sa propre protection. Les mesures comprennent l'abattage sanitaire dans l'exploitation infectée, la création de zones de protection et de surveillance, l'interdiction de circulation des animaux et d'autres mesures fixées par la directive 85/511/CEE.

L'expérience acquise jusqu'à présent nous amène à penser que certains pays tiers accepteront difficilement ce principe à moins d'être convaincus que les contrôles empêchent effectivement la propagation du virus vers le restant de la Communauté, ce qui leur permettrait de continuer à accepter le produit.

D'autre part, il est établi que lors de l'apparition de la fièvre aphteuse au Royaume-uni (Isle of Wight en 1981), l'Irlande du Nord a conservé son statut de zone indemne. Dès lors, il faut admettre que l'existence d'une barrière physique a joué dans ce cas.

Par ailleurs, la Communauté a accepté ce principe de la régionalisation non seulement pour elle-même, mais aussi pour les pays tiers tels que la Bulgarie, l'Amérique du Sud, l'Afrique du Sud et dernièrement le Canada, pays dans lequel la vallée de l'Okanagan est touchée par la fièvre catarrhale du mouton et est allée jusqu'à admette la régionalisation aux Etats-Unis pour cette dernière maladie.

(b) Animaux vivants

Les principes énoncés pour la viande et les produits à base de viande s'appliquent aussi dans une large mesure aux animaux vivants.

En cas de vaccination générale, de nombreux marchés d'exportation seront perdus dans le secteur des reproducteurs de race pure. Il convient toutefois de signaler que certains pays figurant sur la "liste blanche" accepteront les animaux non vaccinés provenant de pays pratiquant la vaccination, à condition toutefois de pratiquer une mise en quarantaine sévère et coûteuse.

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En cas de non-vaccination, tous les Etats membres seraient en mesure d'exporter librement vers l'ensemble des pays tiers dans la limite toutefois d'éventuelles restrictions d'autre nature.

4.7.4. Lignes d'action proposées

Etant donné que nous ne savons pas quelles seront les réactions de nos partenaires commerciaux des pays tiers face au statut de zone indemne acquis par la Communauté, il serait raisonnable d'organiser des discussions informelles au niveau (vétérinaire) technique afin : (a) de les informer des intentions de la Communauté et (b) de sonder leur attitude face à la régionalisation. Nous savons que plusieurs pays tiers importants sont intéressés par le principe de la régionalisation, car ils aimeraient connaître quelle serait l'attitude adoptée par la Communauté à leur égard s'ils étaient un jour infectés.

Nous suggérons d'adopter cette ligne de conduite sans tarder.

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ANNEXE V

MESURES DE PREVENTION DE LA FIEVRE APHTEUSE APRES 1992
- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. PREVENTION DES FOYERS PRIMAIRES APRES 1992

En cas d'adoption par la Communauté d'une politique de vaccination généralisée, les mesures de prévention et de lutte contre la FA sont largement couvertes par la directive 85/511/CEE du Conseil.

En cas d'adoption par la Communauté d'une politique de non-vaccination en matière de lutte contre la FA, il est indispensable d'envisager les FACTEURS DE RISQUES/MESURES DE PROTECTION ci-après, afin d'empêcher ou de réduire l'apparition de foyers primaires :

2. IMPORTATIONS D'ANIMAUX

Bien qu'aucune importation d'animaux vivants n'ait provoqué récemment de foyers primaires dans la Communauté, toute importation de bétail comporte un risque en soi. Aussi, le groupe recommande-t-il :

(a) de limiter les importations aux animaux non vaccinés (exempts d'anticorps), les animaux importés devant être mis en quarantaine et soumis à des tests ("probang test" et test sérologique), sauf s'ils sont originaires d'un pays indemne de FA qui applique des méthodes de lutte équivalentes à celles appliquées par la Communauté;

(b) de prendre des précautions particulières, afin d'empêcher le mélange du bétail en estivage aux confins de la Communauté.

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3. PROPAGATION PAR VOIE AERIENNE DE LA MALADIE A PARTIR DE PAYS VOISINS

Il a été indirectement prouvé que l'infection a franchi la frontière orientale de la Communauté grâce à un virus en suspension dans l'air. Ce type de virus reste viable dans un milieu froid et humide et constitue, de ce fait, une menace plus importante pour l'Europe septentrionale. Les risques que comporte une infection transmise par voie aérienne peuvent être réduits grâce aux mesures ci-après :

(a) en mettant en place un système de surveillance international permettant d'obtenir des renseignements sur les foyers de maladie dans les pays voisins (par exemple par l'intermédiaire de l'OIE, de la CCE ou de communications bilatérales). Le groupe recommande de renforcer ces systèmes d'information;

(b) en se servant des informations météorologiques pour procéder à des estimations sur la façon dont les virus sont susceptibles de se déplacer et de se propager. De telles estimations ont été effectuées au Royaume-Uni et en France et devraient être introduites ailleurs. Les logiciels correspondants sont disponibles dans le commerce;

(c) en apportant si nécessaire le concours de la Communauté aux programmes de vaccination dans les pays voisins et en évaluant l'efficacité de ces programmes grâce à des enquêtes sérologiques régulières;

(d) en collaborant avec les pays voisins pour les seconder dans l'éradication de la FA;

(e) en informant les exploitants agricoles de la Communauté et les vétérinaires de terrain sur l'importance d'une surveillance rigoureuse et de comptes rendus rapides.

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4. CIRCULATION DES PERSONNES A DES FINS COMMERCIALES OU TOURISTIQUES

Les personnes franchissant les frontières de la Communauté peuvent transporter des objets contaminés par le virus de la fièvre aphteuse. Les touristes, qui vont camper à la campagne à l'extérieur de la Communauté, constituent un risque, car ils peuvent transporter le virus sur leurs vêtements et objets personnels. Le groupe recommande que :

(a) la Communauté s'efforce d'informer les personnes franchissant régulièrement ses frontières sur le risque de transmission du virus par les denrées alimentaires, etc., en posant des panneaux très visibles aux douanes et dans les aéroports et en interdisant aux touristes de rapporter de la viande ou d'autres produits animaux;

(b) les touristes soient sensibilisés au danger qu'il y a à jeter de la viande et d'autres produits animaux à la campagne.

5. CIRCULATION DES VEHICULES

Les véhicules franchissant les frontières de la Communauté risquent de transporter le virus dans la terre ou la poussière adhérant à l'extérieur du véhicule, aux vêtements ou à d'autres objets à l'intérieur du véhicule. Le groupe recommande que la Communauté envisage la possibilité de mettre en place des installations de lavage d'urgence aux frontières lorsque la maladie a été signalée dans un pays voisin.

6. IMPORTATION DE VIANDE ET D'AUTRES PRODUITS ANIMAUX

La viande et certains produits animaux (lait, peaux, laines, abats, biomatériaux, y compris les vaccins et poduits pharmaceutiques utilisés à des fins vétérinaires et les aliments de bétail) présentent un risque d'infection; on s'accorde toutefois à reconnaître que ces produits peuvent être importés dans des conditions particulières.

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De même l'introduction de matériel biologique (à des fins scientifiques par exemple) en provenance de l'étranger présente des risques.

Le groupe recommande que la réglementation communautaire régissant l'importation de ces produits soit réexaminée. Il convient d'interdire l'importation de viande et d'autres produits animaux par des particuliers(1).

7. IMPORTATION DE SEMENCES ET D'EMBRYONS

L'importation de semences et d'embryons présente un risque. A cet égard, il convient de rappeler les règles déjà arrêtées par le Conseil en ce qui concerne l'importation de semences. Des règles analogues concernant l'importation d'embryons sont actuellement à l'étude.

8. STOCKAGE ET MANIPULATION DU VIRUS DE LA FIEVRE APHTEUSE DANS LES LABORATOIRES ET LES ETABLISSEMENTS DE FABRICATION DU VACCIN AU SEIN DE LA COMMUNAUTE

Même si la Communauté applique une politique de non-vaccination, on s'accorde à reconnaître qu'il sera toujours nécessaire de disposer d'installations pour le diagnostic de la FA, de procéder à des recherches sur la FA et de fabriquer des vaccins à la fois pour les banques de vaccins d'urgence et pour l'exportation. Conscient du fait que les laboratoires de recherche et les établissements de fabrication des vaccins, ont, dans un passé récent, donné lieu à un certain nombre de foyers de FA au sein de la Communauté, le groupe recommande :

(a) que le nombre de laboratoires et d'établissements de fabrication de vaccins détenant des virus aphteux soit strictement contrôlé;

(b) que les laboratoires et les établissements de fabrication de vaccins se conforment aux normes minimales recommandées par l'OAA pour les laboratoires effectuant des travaux sur le virus aphteux in vitro et in vivo - rapport de la 26ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, 23-26 avril 1985.

(1) Il convient de prêter particulièrement attention au "port franc" et aux problèmes de contrôle et d'élimination des "eaux grasses d'origine internationale".

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(c) que tous les services détenant des virus aphteux soient contrôlés, à intervalles réguliers, par une équipe d'inspecteurs de la Communauté;

(d) que l'innocuité et l'activité des vaccins antiaphteux utilisés en cas d'urgence soient contrôlées. Il est fait référence à cet égard au rôle de l'institut communautaire pour la coordination des vaccinations contre la fièvre aphteuse.

9. UTILISATION DE VACCINS ANTIAPHTEUX

Il peut arriver que des partenaires commerciaux demandent que le bétail en provenance de la Communauté soit vacciné avant son exportation. Pour répondre à ce besoin, le groupe demande :

(a) que la vaccination soit pratiquée au lieu de destination, dans un centre de mise en quarantaine aux fins d'exportation agréé par la Communauté ou sur le véhicule au moment du départ;

(b) que des précautions particulières soient prises, afin d'empêcher le retour des animaux vaccinés dans la Communauté.

En cas d'apparition d'un foyer, il peut être nécessaire de procéder à une vaccination d'urgence dans une zone territoriale déterminée. Etant donné qu'une telle vaccination d'urgence serait pratiquée sur du cheptel non immunisé, il est recommandé de procéder à deux vaccinations à trois à quatre semaines d'intervalle(1).

10. PREVENTION DES FOYERS SECONDAIRES APRES 1992

En cas de non-vaccination, les mesures nécessaires à prendre pour limiter le nombre de foyers secondaires sont précisées en principe dans la directive 85/511/CEE du Conseil, et plus particulièrement à l'article 5, paragraphe a.

(1) Le recours à la vaccination d'urgence n'est prévu que dans des circonstances exceptionnelles lorsqu'une épizootie risque de se propager. Cette décision devrait être prise au niveau communautaire et permettre d'identifier les animaux vaccinés.

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Quant aux enquêtes épidémiologiques, il convient de se référer aux principes énoncés par l'OAA : "méthodes de recherche de l'origine de l'infection en ce qui concerne les foyers de fièvre aphteuse FA)". (REF. : Rapport de la 27ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, Rome, 21-24 avril 1987, pp 111-120).

L'application des mesures à prendre serait facilitée par la mise en place d'équipes de travail qualifiées au niveau local ou régional. Ces équipes seraient chargées des tâches ci-après :

(a) abattage et destruction des animaux (il convient de prêter une attention toute particulière aux problèmes pratiques liés à la destruction d'un grand nombre d'animaux en un espace de temps réduit);

(b) nettoyage et désinfection des locaux infectés;

(c) évacuation des déchets;

(d) création et maintien d'un service de désinfection des exploitations agricoles et des environs;

(e) points de contrôle;

(f) mise en place de panneaux avertisseurs;

(g) désinfection de tous les véhicules importants qui sortent ou entrent dans la zone infectée;

(g) interdiction des entrées ou sorties d'agents non autorisés.

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En outre, il convient de constituer des équipes épidémiologiques qui apporteraient leur concours aux autorités locales ou régionales. Ces équipes se composeraient de vétérinaires virologues, d'agents techniques du laboratoire national de la FA ainsi que de météorologues connaissant le fonctionnement des systèmes informatiques permettant d'analyser et de prévoir la propagation de la FA par voie aérienne. En cas d'apparition d'un foyer, l'équipe épidémiologique se rendrait immédiatement dans les locaux infectés et serait chargée :

(a) de déterminer sur place l'étendue et le type de la maladie;

(b) de déterminer la source d'infection;

(c) d'évaluer les probabilités de foyers secondaires;

(d) d'informer le vétérinaire chargé de la lutte contre la maladie sur les risques de contamination d'autres locaux.

L'équipe devrait être dotée de véhicules spécialisés et de radiotéléphones.

Il est probable que les foyers de FA deviennent de plus en plus rares au sein de la Communauté et des programmes de formation continue devraient être mis en place, afin d'entretenir les compétences techniques en matière à la fois de diagnostic de la fièvre aphteuse et de lutte contre cette maladie. Ces programmes de formation pourraient être supervisés par un petit groupe d'experts en fièvre aphteuse au niveau communautaire. En cas d'apparition d'un foyer, les autorités nationales devraient pouvoir faire appel aux services de ce groupe.

11. RISQUES ET PREVENTION AU COURS DE LA PERIODE TRANSITOIRE

En cas de passage à une politique de non-vaccination, la proportion d'animaux vaccinés diminuera au cours de la période transitoire alors que celle ces animaux sensibles augmentera.

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Après l'abandon de la vaccination, de plus en plus d'animaux sensibles seront en contact avec les derniers animaux vaccinés et serviront ainsi de révélateur. Si environ un an après l'abandon de la vaccination aucun foyer ne s'est déclaré, le risque de la présence du virus au sein du cheptel bovin peut être considéré comme négligeable.

Pendant un an à compter de l'introduction de la politique de non-vaccination, les Etats membres n'ayant pas pratiqué la vaccination jusqu'alors, devraient continuer à effectuer des tests sérologiques et des "probang test" sur les animaux vivants avant l'importation en provenance des Etats membres ayant préalablement pratiqué la vaccination, afin d'exclure les animaux séropositifs ou porteurs du virus.

Ces tests ne sont pas nécessaires pour la circulation des animaux entre les Etats membres ayant préalablement pratiqué la vaccination. Les règles qui régissent l'exemption de fièvre aphteuse d'une exploitation agricole ou d'une zone devraient toutefois être maintenues en ce qui concerne la circulation des animaux entre tous les Etats membres. Il va de soi que la vaccination obligatoire avant la mise en circulation ne serait plus applicable.

La proposition d'une période transitoire d'un an s'appuie sur les arguments suivants :

(a) au cours de la dernière décennie, la durée de vie des bovins s'est de plus en plus raccourcie, faisant ainsi rapidement diminuer le pourcentage d'animaux revaccinés facilement identifiables;

(b) les anticorps maternels transmis aux jeunes animaux disparaissent complètement au bout d'un an;

(c) la plupart des animaux vaccinés une seule fois et destinés à l'engraissement seront éliminés du marché à la fin de l'année qui suit la dernière campagne de vaccination.

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ANNEXE 6

EFFETS PREVISIBLES D'UNE INTERRUPTION DE LA VACCINATION CONTRE LA FIEVRE APHTEUSE SUR L'EMPLOI DES VETERINAIRES

La situation risque de varier considérablement d'un pays à l'autre en fonction de la densité du cheptel et de l'existence ou non d'un système de subvention destinées à maintenir un minimum d'activités vétérinaires.

La situation est compliquée par le fait que dans certains Etats membres (BE) la vaccination est pratiquée par des vétérinaires privés, dans d'autres par les services de l'Etat (LUX, PO) et dans d'autres par les deux à la fois (DE, ES, FR, IT, NL).

Les Etats membres ont envoyé leurs observations. 4 seulement (BE, DE, FR, NL) prévoient des pertes d'emploi essentiellement dans le secteur privé, où selon les estimations, 10 % environ des honoraires proviennent actuellement de la vaccination. Dans ces Etats membres, on estime que sur les 22.280 vétérinaires pratiquant actuellement la vaccination, 1.480 emplois seront perdus.

Les autres Etats membres estiment que le personnel (des services publics essentiellement) pourra être réaffecté à d'autres projets d'éradication. Seule la France a laissé entendre que les pertes d'emplois pourraient compromettre la surveillance de la maladie et toucher environ 250 vétérinaires dans les régions fort reculées.

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ANNEXE 7

EFFETS PREVISIBLES D'UN CHANGEMENT DE POLITIQUE SUR LES LABORATOIRES MANIPULANT LE VIRUS DE LA FIEVRE APHTEUSE

1. LEGISLATION COMMUNAUTAIRE EXISTANTE

1.1. Diagnostic et vaccins

La directive 85/511/CEE établissant des mesures communautaires de lutte contre la fièvre aphteuse, entrée en vigueur le 1er janvier 1987, demandait à la Commission de proposer au Conseil :

- un laboratoire de référence pour l'identification du virus de la fièvre aphteuse et
- un institut de coordination des vaccins aphteux,

en précisant leurs attributions respectives.

Des propositions ont été soumises au Conseil en avril 1988 et les décisions devraient intervenir sous peu. Dans chaque proposition, un article a été prévu à cet effet, à savoir :

1. le laboratoire de référence communautaire/l'institut de coordination communautaire travaillera dans des conditions de sécurité sanitaire, agréées, telles qu'elles sont contenues dans les "normes minimales applicables aux laboratoires manipulant le virus de la fièvre aphteuse in vitro et in vivo" - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985;

2. le laboratoire de référence communautaire/institut de coordination communautaire formulera et recommandera les mesures de sécurité sanitaire à adopter par les laboratoires nationaux lors du diagnostic de la fièvre aphteuse conformément aux normes mentionnées au paragraphe 1.

Les laboratoires nationaux qui ont déjà été désignés par les Etats membres et qui figurent dans l'annexe de la directive seront coordonnés par le laboratoire de référence communautaire et l'institut de coordination, dans le domaine de la sécurité sanitaire notamment.

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2. SITUATION ACTUELLE

2.1. A l'heure actuelle, plus de 30 laboratoires manipulent le virus de la fièvre aphteuse en Europe à des fins de diagnostic et de recherche d'une part, et de fabrication de vaccins d'autre part.

En cas d'adoption d'une politique de non-vaccination, une attention toute particulière doit être accordée :

- aux fonctions des laboratoires s'occupant de fièvre aphteuse;
- aux systèmes de sécurité appliqués par lesdits laboratoires;
- au nombre desdits laboratoires.

2.2. Fonctions des laboratoires s'occupant de fièvre aphteuse

2.2.1. Diagnostic de la fièvre aphteuse.

L'établissement d'un diagnostic rapide en laboratoire est essentiel pour permettre l'éradication de la fièvre aphteuse, surtout lors de l'apparition des premiers foyers. Cette remarque vaut quelle que soit la politique adoptée. Toutefois, en cas de non-vaccination, il est d'autant plus nécessaire d'agir vite et les éléments suspects de foyers primaires éventuels doivent toujours être envoyés sans tarder au laboratoire de diagnostic pour une analyse immédiate.

Compte tenu du risque de propagation rapide de la fièvre aphteuse, il est important que les agriculteurs et les vétérinaires de terrain soient pleinement conscients de l'importance que revêtent une vigilance stricte et une notification immédiate. Les membres de l'équipe de terrain des services vétérinaires de l'Etat devraient avoir la possibilité d'observer des cas cliniques de fièvre aphteuse au Laboratoire de Référence (ou laboratoire national) dans le cadre de leur formation.

Les laboratoires de diagnostic devraient disposer d'un matériel et d'un personnel leur permettant de pratiquer des tests à haute sensibilité de façon à pouvoir établir rapidement un premier diagnostic et identifier plus facilement l'origine de l'infection. En outre, le laboratoire établissant le diagnostic devrait envoyer le plus rapidement possible un échantillon des virus (de préférence le matériel d'analyse recueilli sur le terrain) du premier foyer au Laboratoire de Référence à des fins de confirmation et de caractérisation complète.

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Les laboratoires de diagnostic devraient être équipés (en matériel et en personnel) pour procéder à des tests sérologiques à grande échelle indispensables lors des analyses épizootiologiques liées à l'apparition de foyers.

Les laboratoires de diagnostic auront une autre fonction importante à remplir, à savoir procéder à des tests de contrôle lors de l'importation d'animaux vivants en provenance de pays tiers qui n'appliquent pas des mesures de lutte contre la fièvre aphteuse équivalentes à celles appliquées par la Communauté.

2.2.2. Etablissement de fabrication de vaccins

Il existe 15 établissements qui fabriquent des vaccins au sein de la Communauté. Parmi ces établissements, huit appartiennent à l'Etat et sept sont des sociétés commerciales appartenant à cinq firmes (voir tableau 1). La capacité de production de ces établissements varie très fort de même que leur niveau de sécurité. Les établissements de l'Etat sont fort proches des laboratoires ou instituts de recherche et de diagnostic de la fièvre aphteuse (souvent, ils utilisent les mêmes installations).

Capacité de production

Pour couvrir les besoins liés aux programmes de vaccination actuels dans huit Etats membres de la Communauté (à l'exclusion du Royaume-Uni, de l'Irlande, du Danemark et de la Grèce), 77,3 millions de doses vaccinales sont produites chaque année par les quinze établissements. 37 % environ des vaccins sont produits dans les établissements de l'Etat (29 millions de doses).

Ce chiffre tient compte des données suivantes :

- pour l'instant, l'Italie a un gros programme de vaccination pour les bovins et les porcins;
- l'Espagne vaccine le cheptel bovin deux fois par an et a également un programme de vaccination pour les porcins et les ovins.

A ce chiffre de 77,3 millions de doses, il convient d'ajouter un nombre indéterminé de doses nécessaires pour :

- la fabrication de vaccins destinés à l'exportation vers les pays tiers, essentiellement par les sociétés commerciales (EG-Merieux-France : 5,8 millions de doses). Les établissements de l'Etat peuvent également exporter une certaine quantité de vaccins, mais généralement au coup par coup;
- la fabrication de vaccins dans certains Etats membres pour la constitution de stocks d'urgence.

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En étant prudents, on peut estimer à 85/90 millions de doses la fabrication annuelle totale de vaccins au sein de la Communauté. Il est impossible de donner une estimation quelconque des capacités de production maximales.

Si les huit Etats membres poursuivent le même programme de vaccination pour les bovins et vaccinent 85 % de leur cheptel bovin une fois par an, il est nécessaire de produire au minimum plus ou moins 50 millions de doses de vaccin trivalent.

La Communauté n'importe pas de vaccin aphteux sauf une petite quantité de vaccins destinés à la zone tampon dans le nome d'Evros (Grèce).

Politique de vaccination générale

Si l'on opte pour la vaccination générale, un programme de vaccination devra être introduit dans les quatre Etats membres restants, à savoir le Royaume-Uni, l'Irlande, le Danemark et la Grèce. Ces quatre pays totalisent ± 20,5 millions de bovins.

Si l'on vaccine 85 % de ce cheptel bovin, il faudra 17 millions de doses vaccinales en plus. Ces vaccins supplémentaires peuvent être fabriqués de trois façons différentes, à savoir :

(a) chacun des quatre pays peut accroître ses installations existantes pour couvrir ses propres besoins (exception faite de l'Irlande qui ne dispose pas d'installations);
(b) les établissements qui existent à l'extérieur des quatre pays mais à l'intérieur de la Communauté peuvent augmenter leur production;
(c) la Communauté peut importer des vaccins de l'étranger.

En ce qui concerne le point (a), on peut raisonnablement s'attendre à une augmentation de la production de vaccins dans les installations dont disposent le Danemark, le Royaume-Uni et la Grèce. La construction d'unités de production en Irlande n'est pas une solution très plausible, à moins qu'elle ne soit nécessaire pour des raisons politiques. Il serait toutefois sans doute beaucoup moins onéreux que les quatre pays achètent leurs vaccins aux autres Etats membres.

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En ce qui concerne le point (b), augmenter la fabrication de vaccins dans les établissements actuels de la Communauté pour fournir les 17 millions de doses supplémentaires ne devrait poser aucun problème (voir paragraphe ci-dessus sur les capacités de production).

En ce qui concerne le point (c), l'importation de vaccins dans la Communauté semble hautement improbable pour les raisons suivantes :
- de telles importations ne sont pas nécessaires;
- l'importation de vaccins dans la Communauté pourrait accroître le risque d'introduction du virus aphteux.

Politique de non-vaccination

L'adoption d'une politique de non-vaccination signifierait automatiquement l'abandon de toute vaccination préventive contre la fièvre aphteuse dans toute la Communauté. La vaccination ne serait plus nécessaire que pour les campagnes de vaccination d'urgence dans certaines zones autour des foyers lorsque l'abattage sanitaire ne permet pas une éradication rapide de la maladie ou si la maladie se propage. Des stocks stratégiques de vaccins (une banque communautaire des vaccins) seront nécessaires. L'estimation du nombre de doses vaccinales nécessaires à cet effet doit encore être faite.
Il est clair toutefois qu'une politique de non-vaccination diminuera sensiblement le nombre de vaccins nécessaires au sein de la Communauté.

Les sociétés commerciales de fabrication de vaccins qui exportent vers les pays tiers une grande quantité de leur production par rapport à la production totale de vaccins aphteux devraient pouvoir continuer leurs activités en étant soumises à de stricts contrôles de sécurité.
D'autres fermeront leurs installations de fabrication de vaccins aphteux ou réorienteront leurs activités.

Il sera par ailleurs nécessaire de tenir compte des recommandations de l'OIE en ce qui concerne le trafic international de produits pathologiques et de produits biologiques contenant le virus aphteux.

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Quant au sort des établissements de l'Etat, qui produisent en grande partie uniquement pour couvrir les besoins de leur propre pays, ils dépendent d'un certain nombre de facteurs, à savoir :

a. le maintien des capacités de diagnostic;
b. la recherche dans le domaine de l'épidémiologie et de la lutte contre la fièvre aphteuse;
c. la fabrication et le stockage - ainsi que la recherche qui y est associée - d'une certaine quantité de vaccins pour la constitution des réserves de la banque communautaire des vaccins;
d. les possibilités de fabrication de vaccins destinés à l'exportation vers les pays tiers.

Si un Etat membre décide de fermer toutes ses unités de production, une partie des économies réalisées de la sorte pourrait être utilisée pour mettre au point des techniques modernes de diagnostic et pour former le personnel.

2.2.3. Travaux de recherche sur la fièvre aphteuse

Quelle que soit la politique adoptée à l'avenir (vaccination ou non-vaccination), il sera nécessaire d'effectuer des travaux de recherche sur la fièvre aphteuse. Parmi les sujets d'actualité, il convient de citer :

- la mise au point et la normalisation de systèmes de tests sensibles;
- l'emploi d'anticorps monoclonaux pour la caractérisation des souches sauvages, des souches vaccinales et des souches d'épreuve;
- la biologie moléculaire du virus aphteux;
- les problèmes liés au stockage de l'antigène viral de la fièvre aphteuse dans les banques;
- de nouvelles sources d'information pour évaluer l'activité du vaccin;
- la sécurité des produits animaux;
- la mise au point de nouveaux vaccins (ex. délétion génétique, sous-unité et peptide).

Les systèmes de tests sensibles ELISA et les méthodes de biotechnologie et de biologie moléculaire, par exemple en vue de l'identification et de la caractérisation rapides et précises des souches virales de la fièvre aphteuse, constituent autant d'exemples des applications pratiques des travaux de recherche de ces dernières années qui offrent d'énormes perspectives. Il est dès lors probable que le "sous-typage" classique des isolats viraux sera remplacé par des caractérisations plus précises, combinant différents paramètres, tels que la détermination de la séquence des nucléotides et/ou les réactions avec une gamme appropriée d'anticorps monoclonaux en plus des relations antigéniques classifiques (valeurs "r").

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Ce type de caractérisation sera très utile à la fois pour identifier l'origine de l'infection et pour sélectionner les vaccins appropriés.

Les travaux de recherche dans ces domaines progressent dans plusieurs laboratoires européens s'occupant de fièvre aphteuse et devraient être encouragés. A l'avenir, ces activités de recherche pourraient être coordonnées par le laboratoire de référence communautaire/institut de coordination communautaire.

2.3. Systèmes de sécurité appliqués par les laboratoires s'occupant de la fièvre aphteuse

Compte tenu des fuites de virus dues aux manipulation en laboratoire, il est impératif que tous les laboratoires travaillant sur le virus aphteux travaillent, quel que soit le type de travaux qu'ils effectuent, selon les normes de sécurité sanitaire reconnues, telles qu'elles sont contenues dans les : "Normes minimales applicables aux laboratoires travaillant sur le virus aphteux in vitro et in vivo - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985.

Il serait peut-être souhaitable de désigner un groupe d'experts communautaires chargé de contrôler le respect de ces normes de sécurité.

2.4. Nombre de laboratoires s'occupant de la fièvre aphteuse

En raison du risque de fuites de virus dues aux manipulations en laboratoire, il convient de limiter le plus possible le nombre de laboratoires, surtout si l'on opte pour une politique de non-vaccination. Il est évident qu'il faut toutefois en conserver quelques-uns.

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Compte tenu de l'importance d'un diagnostic rapide en cas d'urgence, quelle que soit la localisation du cheptel d'origine, le matériel suspect devrait pouvoir atteindre le laboratoire de diagnostic dans les heures qui suivent son prélèvement ou au moins le même jour. En tenant compte de la nécessité des travaux de recherche sur la fièvre aphteuse et de la qualité des travaux de recherche effectués à l'heure actuelle dans plusieurs des principaux laboratoires nationaux, un compromis raisonnable serait de conserver à l'avenir un seul laboratore national par pays.

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TABLEAU 1

Etat membre	Usines de production		Besoins annuels de vaccins pour les campagnes de vaccination (1986)	Commentaires
	de l'Etat	commercial.		
Belgique	1 Uccle	-	2.3 mill. AOC (triv.)	
Danemark	1 Lindholm	-	0.45 mill. A) O) 0.15 mill. C) chacun	Comme réserve
Allemagne	-	3 Cooper Behring-werke Bayer	)) 13 mill. AOC (triv)))	Egalement importation de vaccins de de l'institut Merieux France
Grèce	1 Athènes	-	0.12 mill) A-0.038 mill.) O-0.034 mill.) C-0.043 mill.	Comme réserve. De plus, 60.000 doses sont importées de l'institut Merieux-Téhéran pour servir dans la zone tampon
France	-	1 Merieux	19.0 mill. AOC (triv)	9 mill. de doses également exportées vers la CEE et les pays tiers
Irlande	-	-	-	-
Italie	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Periode 15/3/87 au 3/7/88. Grosse campagne de vaccination, vaccination des bovins et porc.
Luxembourg	-	-	0.2 mill. AOC (triv)	Vaccins provenant de différentes firmes au sein de CEE
Pays-Bas	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Vaccins importés d'Espagne et France
Espagne	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	Vaccins utilisés pour les bovins et porcins (chiffres de 1987) capacité maximale des 3 laboratoires: 102 millions de vaccins (mono)
Royaume-Uni	-	Cooper	-	Fabrication destinée à la banque de vaccins du Roy.Uni
TOTAL	8	7	77.3 millions	0.6 mill. comme réserve

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COMISSÃO DAS COMUNIDADES EUROPEIAS

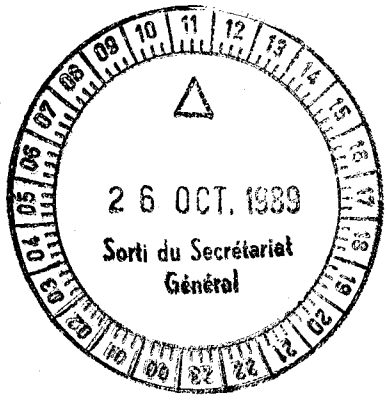
SEC (89) 1731 final

Bruxelas, 18 de Outubro de 1989

RELATÓRIO

da Comissão ao Conselho sobre um estudo efectuado pela Comissão relativamente às políticas de luta contra a febre aftosa aplicadas actualmente pelos Estados-membros

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RELATÓRIO DA COMISSÃO AO CONSELHO (1)

Assunto: Estudo efectuado pela Comissão relativamente às políticas de luta contra a febre aftosa aplicadas actualmente pelos Estados-membros

1. INTRODUÇÃO

1.1. Após a criação da Comunidade Económica Europeia em 1957, os seis Estados-membros fundadores discutiram uma série de medidas destinadas a permitir a livre circulação de animais e seus produtos no comércio intracomunitário. Inicialmente, as medidas nacionais exigiam a apresentação de garantias sanitárias de que os animais que davam entrada num Estado-membro eram sãos e não susceptíveis de transmitir doenças aos efectivos onde eram integrados.

1.2. A primeira harmonização formal surgiu em 1964 com a adopção pelo Conselho da Directiva 64/432/CEE, que se mantém em vigor, embora num formato alterado e alargado. Essa directiva diz respeito ao comércio intracomunitário de bovinos e suínos. No final de 1988, o comércio de outras espécies é ainda regido por disposições nacionais.

1.3. Uma das mais importantes doenças abrangidas pela directiva original é a febre aftosa (FA). Nao foi especialmente difícil chegar a acordo quanto às disposições relativas à FA, uma vez que os seis Estados-membros praticavam todos uma política de vacinação. Além da exigência de efectivos e zonas indemnes, a principal medida de protecção prevista foi a vacinação dos bovinos com idade superior a quatro meses antes do envio para outro Estado-membro. O cumprimento destas regras era assegurado por um certificado passado pelo veterinário oficial e que acompanhava cada lote de animais.

1.4. A adesão da Dinamarca, Irlanda e Reino Unido à Comunidade em 1973 fazia prever adaptações consideráveis da Directiva 64/432/CEE, uma vez que os novos Estados-membros praticavam uma política de não vacinação que incluia a eliminação precoce (stamping_out) total em caso de manifestação de um foco de doença. Apesar de terem sido mantidas longas negociações, não foi possível chegar a uma resolução imediata das concepções

(1) Os anexos a que se faz referência no presente relatório constam do documento da Comissao VI/3198/89.

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divergentes. No Tratado de Adesão foi definido que os novos Estados-membros podiam manter as disposições nacionais de luta contra a FA por um período de cinco anos, durante o qual seriam feitas novas tentativas no sentido de se chegar a uma harmonização a nível comunitário.

1.5. Por fim, em 1984 o Conselho adoptou a Directiva 84/643/CEE, que introduziu novas regras aplicáveis a todos os Estados-membros em matéria de luta contra a FA. Simultaneamente, outro estado vesiculoso dos suínos, a doença vesiculosa do suíno, passou a estar abrangido pelas disposições em causa, dada a sua semelhança com a febre aftosa nos suínos. A já referida directiva descreve de forma pormenorizada as garantias complementares que um Estado-membro pode exigir, dependendo da sua situação sanitária e da sua situação de vacinação na altura. A aplicação do artigo 4º A da já referida directiva está sujeita a revisão.

1.6. A adesão da Grécia (1981) e de Espanha e Portugal (1986) à Comunidade não originou alterações significativas à Directiva 64/432/CEE.

1.7. Em 1985, o Conselho adoptou a Directiva 85/511/CEE relativa à luta contra a febre aftosa na Comunidade. São aí definidas medidas comuns essenciais para lutar de maneira uniforme contra um foco de FA. No entanto, no que diz respeito aos Estados-membros que praticam a vacinação, mantém-se uma opção quanto à eliminação precoce total ou parcial.

1.8. Muitas tarefas subsidiárias importantes foram atribuídas pelo Conselho à Comissão, entre as quais:

- a elaboração de regras sobre o abate parcial,
- a apresentação ao Conselho de uma proposta de laboratório de referência comunitário para diagnóstico da FA,
- a apresentação ao Conselho de uma proposta de instituto comunitário para controlo de vacinas,
- a coordenação dos planos de vacinação dos Estados-membros,
- a apresentação ao Conselho de uma proposta de constituição de um banco de vacinas comunitário,
- a obrigação de, antes de 1990, transmitir ao Conselho um relatório sobre a aplicação das disposições da directiva em questão, acompanhado de eventuais propostas.

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1.9. Em 1985, o Conselho adoptou uma alteração à decisão do fundo de emergência (77/97/CEE). Até essa altura, a referida decisão previa uma afectação de fundos apenas no caso de ocorrência de doenças exóticas para a Comunidade num Estado-membro. A referida alteração prevê que, além do apoio fornecido em relação à FA de tipo exótico, sejam afectados fundos para a FA europeia clássica em relaçao aos vinte primeiros focos surgidos nos primeiros trinta dias de uma epizootia, desde que se proceda imediatamente à eliminação precoce total.

2. BASE JURÍDICA

2.1. A base jurídica do presente relatório é constituída por:

- Directiva 64/432/CEE do Conselho (revisão do artigo 4º-A),
- Directiva 85/511/CEE do Conselho (revisão conforme previsto no artigo 18º).

2.2. Conforme referido em termos gerais na introdução ao presente relatório, o comércio intracomunitário de bovinos e suínos começou a ser regulado em 1964 pela Directiva 64/432/CEE.

Aquando da adesão da Dinamarca, Irlanda e Reino Unido em 1973, estes Estados beneficiaram da aplicação de medidas derrogatórias que lhes permitiram manter as suas disposições nacionais de luta contra a febre aftosa. Essas medidads derrogatórias acabaram por ser prolongadas até 31 de Dezembro de 1984, após o que foram introduzidas novas regras aplicáveis a todos os Estados-membros em matéria de luta contra a febre aftosa.

As novas regras foram estabelecidas pela Directiva 84/643/CEE do Conselho, de 11 de Dezembro de 1984, que estipulou que fosse inserido um artigo 4º-A na directiva de base relativa ao comércio de bovinos e suínos. Esse artigo descreve em pormenor as garantias complementares exigíveis por parte de um Estado-membro, dependendo da sua situação sanitária e da política de vacinação que aplicar na altura.

O artigo 4º-A prevê além disso que, de 3 em 3 anos, e, pela primeira vez, 3 anos após a sua entrada em vigor, ou seja, em 1 de Janeiro de 1988, o Conselho, deliberando por maioria qualificada sob proposta da Comissão, proceda à revisão do disposto nesse mesmo artigo. Essa revisão é efectuada com base num relatório da Comissão acompanhado, se necessário, de propostas.

2.3. Incumbida da referida tarefa, a Comissão verificou não ter sido informada, desde 1 de Janeiro de 1985, de qualquer problema específico sentido pelos Estados-membros no comércio intracomunitário de animais, tanto na exportação como na importação.

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Em 28 de Julho de 1987, a Comissão deu a conhecer aos Estados-membros a sua intenção de proceder a uma análise da aplicação do artigo em causa, solicitando-lhes que lhe fossem comunicados sem demora eventuais comentários relativamente às regras estabelecidas no artigo 4º-A.

Alguns Estados-membros informaram a Comissão de que veriam com bons olhos uma redução imediata das medidas aplicáveis aos animais para abate. A Comissão reconhece que a existência do referido artigo e as medidas de quarentena aí previstas criam problemas à livre circulação de animais na Comunidade.

2.4. A segunda directiva que prevê que a Comissão apresente um relatório ao Conselho sobre a FA é a Directiva 85/511/CEE do Conselho, mais concretamente o seu artigo 18º. Esta directiva estabeleceu uma série de medidas comunitárias com vista a uma actuação uniforme face à manifestação de um foco de FA. Em termos simples, a Comissão foi incumbida de apresentar um relatório ao Conselho sobre a aplicação da já referida directiva antes de 1 de Janeiro de 1990. O relatório da Comissão pode ser acompanhado de propostas, se necessário.

3. ACTUAÇÃO DA COMISSÃO

3.1. Dada a necessidade de apresentar dois relatórios ao Conselho num prazo curto, e tendo em conta o advento do mercado interno após 1992, a Comissão decidiu examinar a questão da FA de forma mais aprofundada.

Era evidente não ser possível prosseguir com o actual sistema diferencial de vacinação *versus* não vacinação. Por conseguinte, foi decidido em conjunto com os Estados-membros efectuar estudos custo/benefício e análises relacionadas, numa tentativa de chegar a uma orientação política clara.

3.2. A fim de dar cumprimento às suas obrigações perante o Conselho no que diz respeito à revisão do artigo 4º-A da Directiva 64/432/CEE, em 14 de Janeiro de 1988 a Comissão apresentou ao Conselho um relatório explicando a sua decisão de efectuar o estudo aprofundado e indicando esperar poder apresentar um relatório e propostas adequadas no final de 1988.

3.3. No seu trabalho de revisão e de formulação do relatório, a Comissão recebeu uma colaboração importante da parte de muitos peritos dos Estados-membros. Merece referência especial o trabalho desenvolvido pelo subgrupo do Comité Veterinário Científico que estabeleceu prognósticos futuros e factores de risco. A Comissão salienta que o relatório desse grupo mereceu um parecer favorável por parte do Comité Veterinário Científico no seu conjunto, parecer esse que é totalmente partilhado pelos serviços da Comissão.

Impressão do Parlamento Europeu

4. LUTA CONTRA A FEBRE AFTOSA NA COMUNIDADE EUROPEIA

4.1. Introdução

4.1.1. O presente documento trata os vários aspectos envolvidos na definição de uma política comunitária de luta contra a febre aftosa (FA). Embora tenha sido preparado prevendo já a abolição das fronteiras no final de 1992, não deixa de ter em conta a necessidade de pôr em prática uma política comum logo que possível antes dessa data.

4.1.2. A FA é uma das doenças mais graves dos animais. Propaga-se rapidamente, atacando todos os fissípedes, e tem um impacto considerável em termos económicos, devido aos seus efeitos directos sobre a produção animal, por um lado, e, por outro lado, aos efeitos que a sua presença produz sobre o comércio de animais, produtos de origem animal e certos produtos agrícolas.

4.2. Historial

4.2.1. A produção animal europeia foi pela primeira vez seriamente afectada pela FA nos anos 30, sendo os tipos envolvidos os O, A e C tal como hoje os conhecemos. Após a segunda guerra mundial registou-se um período calmo no que diz respeito à ocorrência de FA, devido provavelmente a restrições ao movimento de animais e à reconstituição dos efectivos nacionais. No início dos anos 50 registou-se um acréscimo de focos com consequências graves, o que deu origem a uma maior organização do OIE e da FAO a nível continental para lutar contra a doença. O aparecimento da vacina de Frenkel conduziu a uma rápida expansão da produção de vacina e à correspondente cobertura. Além disso, a maioria dos países adoptou uma política de abate, embora alguns utilizassem a vacinação generalizada em redor dos focos como medida complementar. Durante esse período, a maioria dos países europeus adoptou uma política de vacinação obrigatória pelo menos em relação aos bovinos.

4.2.2. Fora da Europa continental, os países escandinavos, o Reino Unido e a Irlanda mantiveram-se relativamente indemnes. Em Espanha, manifestaram-se regularmente focos graves até 1980. O Próximo Oriente, nomeadamente a Turquia, constituía uma enorme ameaça para a Europa Ocidental.
Essa ameaça mantém-se actualmente, mas uma estratégia de vacinação de uma zona tampão na Trácia revelou-se extremamente válida. A FA ocorre em Africa, onde se conhece três tipos de vírus especificamente africanos. Alguns países asiáticos são afectados por um tipo

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estabelecido nesse continente.
Com excepção da América do Sul, onde a maioria dos países está infectada com tipos de vírus que são quase clássicos europeus, o resto do mundo está indemne e não pratica a vacinação. Nesta categoria contam-se grandes áreas, como a América Central e a América do Norte, a Austrália, a Nova Zelândia, o Japão, a Coreia e outros territórios do Extremo Oriente.

Estas situações encontram-se resumidas nos Quadros 2 e 3 do Anexo 1.

4.2.3. As grandes epidemias que ocorreram na Europa durante os anos 60 e no início dos anos 70 extinguiram-se quase por completo devido à condução de campanhas de vacinação em massa e à restrição da importação de carne e outros produtos de origem animal na Comunidade. Desde 1980, só em Itália (1984-87) e em Portugal (1980-84) se registaram epizootias graves.

4.2.4. O Quadro 1 do Anexo 1 apresenta os focos registados nos Estados-membros. O foco é definido como a manifestação da doença numa exploração (OIE). Pode observar-se que ao longo dos últimos vinte anos houve um declínio acentuado do número de focos no conjunto da Comunidade. Na maioria dos Estados-membros, a presença da doença foi diminuta ou nula ao longo dos últimos cinco anos, com excepção de Itália que registou uma série de epidemias no Norte do país.

4.2.5. O Quadro 2 do Anexo 1 resume a situação relativa à FA nos países vizinhos, enquanto a situação nos países terceiros que têm relações comerciais com a Comunidade é apresentada no Quadro 3 do Anexo 1. O Quadro 4 do Anexo 1 apresenta uma análise resumida dos planos de vacinação nos Estados-membros.

4.3. <u>As alternativas</u>

4.3.1. Os métodos de luta contra a FA são diferentes nos vários Estados-membros, mas todos eles aplicam uma das seguintes políticas alternativas:

a) UMA POLÍTICA DE VACINAÇÃO, que consiste na vacinação anual sistemática de todo o efectivo. Em caso de manifestação de um foco de doença, é aplicada a eliminação precoce total ou parcial para além da vacinação e de outras medidas de luta.

b) UMA POLÍTICA DE NÃO VACINAÇÃO, que consiste na proibição geral da vacinação contra a FA. Em caso de manifestação de um foco de doença, é aplicada a

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eliminação precoce total para além de outras medidas de luta. Em circunstâncias excepcionais, poderá ser necessário lançar uma campanha de vacinação em anel.

4.3.2. Ambas as políticas são apoiadas por um controlo das importações, por uma vigilância regular dos efectivos de risco, pelo provimento de capacidades laboratoriais de diagnóstico e, em caso de presença da doença, por um controlo dos movimentos dos animais.

4.3.3. Actualmente, os Estados-membros que aplicam uma política de não vacinação podem aplicar restrições ao comércio de animais provenientes dos seus parceiros comunitários que praticam a vacinação. Essa forma de actuação é justificada essencialmente com base em que os animais vacinados podem ser portadores de vírus após exposição ao contágio, embora se mantenham clinicamente normais. É muito diminuto o risco associado aos animais vacinados se a ausência de vírus selvagem for prolongada. É no entanto impossível garantir que o vírus não está presente num efectivo vacinado, uma vez que o vírus pode entrar e não ser detectado. Existe por conseguinte o risco de o vírus poder ser introduzido em zonas anteriormente não afectadas, através dos movimentos de animais vacinados. Essa possibilidade de disseminação do vírus é inaceitável dada a gravidade da doença.

Em segundo lugar, a presença de animais vacinados num país é considerada por muitos países terceiros, por exemplo os Estados Unidos e os aderentes da sua "Lista Branca" como equivalente à presença da doença, com consequências óbvias e graves para o comércio.

4.3.4. Após a conclusão do mercado interno em Janeiro de 1993, prevê-se que os animais e os produtos de origem animal possam circular livremente em toda a Comunidade. Isso só será possível se todos os Estados-membros adoptarem uma política comum em relação à febre aftosa. Actualmente, três Estados-membros aplicam uma política de não vacinação (Dinamarca, Irlanda e Reino Unido), enquanto os outros nove praticam a vacinação. O Quadro 4 do Anexo 1 apresenta um resumo dos planos de vacinação.

4.3.5. Para a definição de uma política comunitária de luta contra a FA, a opção coloca-se entre as duas políticas existentes descritas no nº 4.3.1., ou seja, VACINAÇÃO e NÃO VACINAÇÃO.

As considerações que influenciam essa opção são:

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a) A incidência da FA na Comunidade nos últimos vinte anos (Quadro 1 do Anexo 1);

b) O risco de ocorrência de FA na Comunidade após 1992, para ambas as políticas alternativas. Relatório do subgrupo do Comité Veterinário Científico (Anexo 2) (1);

c) As consequências económicas das duas políticas alternativas, isto é, os custos que originam para os sectores público e privado (Anexo 3);

d) Os efeitos sobre o comércio interno e externo comunitário de animais, produtos de origem animal e outros bens (Anexo 4);

e) As medidas necessárias para a prevenção de focos primários e secundários após 1992 e durante um período transitório. Relatório do subgrupo do Comité Veterinário Científico (Anexo 5) (1);

f) As alterações que se poderia prever, para cada política, em termos de utilização de recursos como:

i) veterinários actualmente a exercer funções no âmbito de programas de vacinação (Anexo 6),

ii) laboratórios que se dedicam actualmente ao diagnóstico da FA, à produção de vacina e à investigação (Anexo 7).

4.4. <u>O risco de ocorrência de febre aftosa após 1992</u>

4.4.1 O risco de ocorrência de FA após 1992, para cada uma das políticas, foi avaliado por um subgrupo do Comité Veterinário Científico. Partindo do princípio de que após 1992 não haverá restrições ao movimento de animais, esse risco foi estimado numa base comunitária e não nacional. As conclusões do subgrupo são apresentadas num relatório incluído no Anexo 2.

4.4.2. O grupo examinou os registos de focos de FA em todos os Estados-membros nos últimos 11 anos (1977-87) e identificou 34 focos primários.
Entre estes, 8 deveram-se provavelmente a uma fonte

(1) Pode referir-se que alguns aspectos, como por exemplo o papel do animal vacinado enquanto portador potencial, foram difíceis de resolver. No entanto, o texto apresentado mereceu o acordo unânime do subgrupo e foi adoptado pelo Comité Veterinário Científico em 1 de Fevereiro de 1989.

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exterior à Comunidade, associada sobretudo à importação de carne (ver Quadro 3 do Anexo 2). O subgrupo considerou que outros 13 focos estavam possivelmente associados à fuga de vírus dos laboratórios ou à produção e utilização de vacinas não devidamente inactivadas. Desconhece-se a origem dos 13 focos primários restantes.

4.4.3. Com base nos dados disponíveis referentes aos últimos 11 anos, o subgrupo estabeleceu previsões para o período 1993-2003 no caso de ser adoptada uma política de vacinação ou, em alternativa, uma política de não vacinação. Em primeiro lugar foi considerado o risco de focos primários.

4.4.4. O subgrupo considerou que o risco de entrada da infecção na Comunidade durante o período 1993-2003 não será superior nem inferior ao verificado nos últimos 11 anos, tendo previsto um máximo de 13 focos primários, excluindo os associados à fuga de vírus e à utilização de vacina não devidamente inactivada (nº 12 do Anexo 2).

4.4.5. O subgrupo concluiu que o vírus selvagem de FA não é endémico no efectivo bovino e ovino comunitário. Assim, o risco de eclosão de focos primários com origem na Comunidade irá depender do grau de manipulação de vírus vivo de FA nos laboratórios e da utilização de vacina não devidamente inactivada.

4.4.6. Se se prosseguir a vacinação contra a FA, não forem desenvolvidas as técnicas de inactivação de vacina e o vírus continuar a ser manipulado em laboratórios sem respeito das condições de segurança máxima, o risco actual manter-se-á . Nestas circunstâncias, o grupo previu que se irão manifestar 13 focos adicionais durante o período de onze anos em causa. No entanto, esse risco poderia ser reduzido através do recurso a métodos mais desenvolvidos de produção de vacina. Se se pusesse termo à vacinação e os laboratórios funcionassem em condições de segurança máxima, o risco seria muito reduzido, tendo o grupo previsto que nesse caso não se manifestaria qualquer foco adicional.

4.4.7. Em seguida, o subgrupo considerou o risco de focos secundários decorrentes dos primários. Durante os onze anos do período 1977-87, muitos focos primários não deram origem a uma ampla propagação da doença, independentemente do facto de ocorrerem em países que aplicavam uma política de vacinação ou de não vacinação. Apesar disso, verificou-se uma ampla propagação durante o período em análise, mas o grupo considerou

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que o grau de propagação dependia do rigor das medidas de luta aplicadas, mais do que da política de vacinação. Isto verifica-se especialmente quando há um efectivo suíno de grande dimensão. O subgrupo concluiu que a variação do grau de propagação é demasiado grande para permitir prever uma diferença no número de focos secundários por foco primário entre as duas políticas.

4.5 As consequências económicas associadas às políticas alternativas

4.5.1. Quando a febre aftosa se manifesta na Comunidade, é eliminada com a máxima rapidez possível (Directiva 85/511/CEE) de forma a impedir o desenvolvimento dos efeitos prejudiciais da própria doença. Por conseguinte, os custos associados à manifestação de um foco de doença são os decorrentes das medidas de luta (que incluem os custos de eliminação precoce e/ou vacinação sistemática) e da perda de produção e comércio. No Anexo 3 é apresentado um resumo dos custos comunicados pelos Estados-membros.

4.5.2. Os custos foram estimados utilizando um modelo económico desenvolvido pela Comissão Europeia da FAO para a luta contra a FA. A estimativa incidiu sobre os custos decorrentes para a Comunidade da vacinação regular do efectivo bovino e da eliminação precoce aquando da detecção de um foco de doença. Todos os outros custos, como os associados à vigilância e ao provimento de meios de diagnóstico, são comuns a ambas as políticas, pelo que não foram considerados.
Os custos das medidas de luta dependem em larga medida do número de focos de doença. A análise económica tem em conta a probabilidade de ocorrência da doença na Comunidade para as duas políticas alternativas. A análise económica é apresentada no Anexo 3, sendo fornecido um resumo no nº 4.8.

4.5.3. Para efectuação da análise segundo o modelo da FAO, é necessário ter em consideração os efeitos de uma política de vacinação ou de não vacinação sobre o comércio interno e de exportação. A Comissão reuniu esses elementos e elaborou um relatório que é apresentado no Anexo 4.

4.6. O custo da vacinação

4.6.1. Oito Estados-membros (Bélgica, França, República Federal da Alemanha, Itália, Luxemburgo, Países Baixos, Portugal e Espanha) praticam a vacinação de rotina de todo o efectivo bovino. Além dos bovinos, alguns vacinam também suínos, ovinos e caprinos. O Quadro 1 do

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Anexo 3 apresenta um resumo dos custos de uma única vacinação anual dos bovinos nos efectivos nacionais, conforme calculados pelos referidos Estados-membros.

4.6.2. Os quatro Estados-membros restantes (Dinamarca, Grécia (1), Irlanda e Reino Unido) não utilizam a vacinação na luta contra a FA. Estes Estados-membros fizeram um cálculo dos custos que teriam de suportar se lhes fosse exigida a vacinação, sendo as suas conclusões apresentadas igualmente no Quadro 1 do Anexo 3.

4.6.3. O custo público directo de um programa de vacinação a nível comunitário, pressupondo uma vacinação única anual do efectivo bovino em todos os Estados-membros, é estimado em cerca de 133 milhões de ecus/ano, a valores de 1987. Este custo inclui a aquisição, armazenagem e aplicação da vacina, e as despesas administrativas de ordem geral; não inclui o custo de eventuais efeitos secundários prejudiciais atribuíveis à utilização da vacina.

4.6.4. Deve referir-se que a vacinação praticada na Comunidade confere uma protecção apenas contra as estirpes europeias A, O e C de vírus de FA. Esta vacinação não protege os animais contra as estirpes exóticas presentes noutras partes do mundo.

4.6.5. Da observação do quadro referente aos planos de vacinação (Quadro 4 do Anexo 1) pode concluir-se que a imunização cobre bastante menos de 100%, uma vez que os suínos, os ovinos e os caprinos raramente são vacinados. Além disso, as unidades de vitelos para engorda e os lotes de alimentos para animais são muitas vezes excluídos; também os vitelos com idade inferior a 3-4 meses por altura da vacinação anual podem ficar sem vacinação até ao ano seguinte.

4.7. O custo de um foco de FA

4.7.1. O Office International des Epizooties, Paris (OIE) define o foco como a manifestação da doença numa exploração. As epidemias de FA são combatidas exploração a exploração, pelo que é difícil calcular o custo de um foco. Foi pedido aos Estados-membros que calculassem o custo médio de um foco de FA, que deveria incluir os custos de abate, eliminação de carcaças, desinfecção, limpeza e medidas associadas, o valor dos animais abatidos, a perda de produção na exploração devido ao atraso na reposição do efectivo e os custos

(1) Com excepção da zona tampão na Trácia.

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administrativos ocasionados pelo foco. Para determinação dos custos, parte-se do princípio de que todos os animais sensíveis da exploração são abatidos.

4.7.2. Uma epidemia de FA de grandes proporções pode originar, para o país ou região em que ocorre, custos que não podem ser repartidos pelos focos individuais. Neles se poderia incluir o encerramento de matadouros ou mercados, mas as análises dos efeitos económicos da FA efectuadas anteriormente não conseguiram quantificar esses custos.

4.7.3. Os Estados-membros com experiência recente na luta contra focos de doença basearam as suas estimativas, em larga medida, nos custos reais registados. Os Estados-membros sem experiência recente na luta contra a FA calcularam custos presumíveis. No Quadro 2 do Anexo 3 é apresentado um resumo desses custos.

4.7.4. Para efeitos da análise económica que se segue, considerou-se um valor de 158 000 ecus como o custo médio de um foco, situando-se as estimativas mais baixa e mais alta a 31 914 ecus e 600 000 ecus respectivamente.

4.8. A análise económica

4.8.1. As estimativas dos custos de vacinação e de focos de FA foram utilizadas para efectuação de uma análise económica das políticas de vacinação e de não vacinação durante um período de 10 anos. A análise fornece uma série de estimativas, dadas as variações que se verificam no custo e número de focos, que foram reunidas em três situações: um caso central (ou mais provável), um caso pior e um caso melhor. A análise completa é apresentada no Anexo 3.

4.8.2. O resultado mais provável é o previsto para o "caso central" na análise. Baseia-se no custo de um foco médio, e o número de focos primários e secundários considerado é o previsto pelo Comité Veterinário Científico.

Em caso de aplicação de uma política de não vacinação, o custo total para a Comunidade (valor actual líquido para um período de 10 anos, a uma taxa de actualização de 5%) é estimado em 35 milhões de ecus.

Em caso de aplicação de uma política de vacinação, o custo total para a Comunidade (valor actual líquido para um período de 10 anos, a uma taxa de actualização de 5%) é estimado em 1.134 milhões de ecus.

4.8.3. Deve referir-se que actualmente a Comunidade põe à disposição dos Estados-membros fundos para a erradicação da FA, na base de um reembolso de 50% do custo de abate e destruição e 100% dos custos de vacinação de

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emergência. No que diz respeito aos tipos europeus clássicos de FA, essa assistência limita-se aos 20 primeiros focos surgidos nos primeiros 30 dias de uma epizootia.

4.8.4. Deve igualmente referir-se que, se for adoptada uma política de não vacinação, deixará de existir o custo de vacinação dos bovinos antes da exportação. Cerca de 2 milhões de animais são comercializados anualmente entre os Estados-membros que praticam a vacinação. Se um milhão é submetido a uma vacinação antes da exportação (os vitelos com menos de 4 meses e alguns animais para abate podem ser isentos), a 3 ecus por animal (vacina e vacinação), seria possível poupar 3 milhões de ecus.

4.9. Os efeitos das políticas alternativas sobre o comércio de animais e produtos de origem animal

A análise económica descrita em 4.8. não tem em conta os efeitos das políticas alternativas sobre o comércio de animais e produtos de origem animal no interior da Comunidade e com países terceiros. O relatório da Comissão sobre o comércio é apresentado no Anexo 4, sendo estas as principais conclusões:

(a) A adopção de qualquer uma das políticas teria poucos efeitos sobre o comércio intracomunitário de animais vivos e produtos de origem animal;

(b) A adopção de uma política de não vacinação implicaria que os animais vacinados não poderiam ser importados sem que fossem tomadas medidas de protecção adicionais, mas não afectaria as importações de carne fresca e produtos à base de carne desde que fossem mantidos os processos habituais (maturação, desossagem);

(c) É evidente que uma política de vacinação a nível comunitário iria afectar seriamente as exportações para muitos países terceiros. Por outro lado, será fundamental promover discussões técnicas com os serviços veterinários dos parceiros comerciais, a fim de os convencer da eficácia das medidas de regionalização adoptadas no caso de manifestação de um foco de doença numa situação de não vacinação.

4.10. Os efeitos da cessação da vacinação contra a FA sobre o emprego de veterinários

Tanto quanto é possível determinar, a cessação da vacinação contra a FA teria um efito limitado sobre a distribuição de veterinários. As autoridades portuguesas e espanholas prevêem uma reafectação de veterinários para outros trabalhos. A França prevê que haja problemas em manter a presença de veterinários em zonas agrícolas remotas, pondo assim em perigo a rede de vigilância veterinária (ver

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Anexo 6).
Uma política de não vacinação exige que seja desenvolvido um sistema de vigilância da doença muito bem coordenado, sob a direcção de um serviço veterinário estatal controlado de forma centralizada, capaz de dar uma resposta rápida e eficaz em situações de emergência. Os veterinários que exerceram até agora funções no âmbito de campanhas de vacinação poderiam ser utilizados para esse fim e para o reforço geral dos serviços veterinários necessários à realização do mercado único.

4.11. O efeito de uma alteração da política adoptada contra a FA sobre os laboratórios

Actualmente, mais de 30 laboratórios na Europa fazem manipulações de vírus de FA. Quinze desses laboratórios são unidades de produção de vacina e os restantes têm o vírus para fins de diagnóstico ou investigação.

Se fosse adoptada uma política de vacinação em toda a Comunidade, as necessidades acrescidas de vacina poderiam ser satisfeitas através do aumento da produção comunitária. Se fosse adoptada uma política de não vacinação, a vacina apenas seria necessária para a manutenção de uma reserva estratégica comunitária e para dar continuidade à exportação para países terceiros. Nos casos em que as unidades de produção de vacina são actualmente propriedade do Estado, parte das economias resultantes do encerramento dessas unidades poderia ser utilizada para formação de pessoal no diagnóstico da FA e para o desenvolvimento de técnicas de diagnóstico mais aperfeiçoadas.

Seja qual for a política de luta futura, irá haver necessidade de prosseguir na investigação da FA. É provável que o número de laboratórios da Comunidade envolvidos neste trabalho seja reduzido. Aqueles que continuarem terão que manter uma segurança rigorosa, a fim de evitar a fuga de vírus de FA (ver Anexo 7).

5. CONCLUSÕES

5.1. Para que seja possível atingir os objectivos do mercado interno, é essencial que se defina uma posição comunitária comum face à FA.

5.2. As políticas aplicadas actualmente pelos Estados-membros, isto é, vacinação ou não vacinação, foram objecto de uma revisão e de um estudo aprofundados, especialmente no que se refere aos aspectos económicos.

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5.3. Foi considerada a possibilidade de comércio livre de espécies sensíveis entre partes da Comunidade que aplicam políticas diferentes; essa hipótese foi no entanto rejeitada devido ao risco de introdução do vírus de FA em zonas anteriormente afectadas. Esse risco é inaceitável tendo em conta um dos objectivos do Acto Único Europeu, nomeadamente a harmonização tendente a atingir um nível sanitário elevado. Impõe-se, por conseguinte, uma opçao clara entre a política de vacinação e a de não vacinação para o conjunto da Comunidade.

5.4. De acordo com os estudos efectuados, é nítido que uma política de não vacinação irá custar consideravelmente menos do que uma política de vacinação em toda a Comunidade. Uma vez que foram previstos mais focos para a hipótese de aplicação de uma política de vacinação do que para a de uma política de não vacinação, conclui-se que a adopção de uma política de não vacinação seria mais segura para o conjunto da Comunidade, dado o inerente risco de manipulação de vírus de FA.

5.5. Em caso de aplicação de uma política de não vacinação, será necessário reforçar medidas destinadas a impedir a introdução da infecção na Comunidade e a eliminar de forma eficaz qualquer foco que possa manifestar-se.

5.6. Os estudos efectuados relativamente aos aspectos comerciais demonstram que o comércio intracomunitário e as importações de países terceiros serão afectados de forma marginal por uma mudança em relação às políticas actualmente aplicadas. Se é verdade que determinadas importações provenientes de países terceiros onde é praticada a vacinação poderiam ver-se ameaçadas na hipótese de aplicação de uma política de não vacinação, seria porém possível coordenar com o país em questão uma cessação mútua da vacinação. Numa situação de vacinação a nível comunitário, irão de certeza terminar as exportações para muitos países terceiros. Por outro lado, numa situação de não vacinação, a Comunidade, enquanto goza da possibilidade de exportar para muitos mais países do que anteriormente, pode também ser encarada por alguns países como uma só entidade em termos de estado sanitário. Nesse caso, a manifestação de um foco de FA poderia influenciar a aceitabilidade das exportações de toda a Comunidade, a menos que as medidas de luta e erradicação numa base regional sejam aceites internacionalmente.

5.7. Quanto aos recursos humanos, é provável que a maioria dos veterinários, tanto os funcionários do Estado como os do sector privado que exercem actualmente funções no âmbito de campanhas de vacinação, possa ser reafectada para serviços estatais que tenham por objectivo o fornecimento de um serviço capaz de dar resposta às solicitações adicionais de uma política de não vacinação e para outras actividades, como a luta contra a doença de Aujeszky e a infecção da Brucella melitensis.

5.8. Em caso de mudança para uma política de não vacinação, os laboratórios existentes terão que se adaptar a uma situação em que a produção de vacina é consideravelmente reduzida. Nesse caso, será necessário dar especial relevo à formação de pessoal, de campo e de laboratório, no diagnóstico da FA e ao desenvolvimento de técnicas de diagnóstico mais aperfeiçoadas.

5.9. A Comissão está absolutamente convicta de que, para atingir os objectivos do mercado interno, a Comunidade terá que optar entre uma política de não vacinação e uma política de vacinação. De acordo com a informação contida no presente relatório, pode concluir-se que uma política de vacinação é claramente mais segura e mais barata, ao mesmo tempo que satisfaz o duplo objectivo de garantir um nível sanitário elevado e a livre circulação de mercadorias no mercado único, pelo que se recomenda vivamente aos Estados-membros. Serão apresentadas ao Conselho propostas adequadas com vista à alteração da legislação actualmente em vigor.

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ANNEXES

DU RAPPORT

DE LA COMMISSION AU CONSEIL CONCERNANT UNE ETUDE
EFFECTUEE PAR LA COMMISSION SUR LES POLITIQUES ACTUELLES
DES ETATS MEMBRES DANS LE DOMAINE DE LA LUTTE CONTRE LA FIEVRE APHTEUSE

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(PLOI/321-3)

ANNEXE 1

TABLEAU 1

FIEVRE APHTEUSE DANS LES ETATS MEMBRES (1968-1988)

PAYS	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
BELGIQUE	1	3	2	2	0	0	62	21	1	0	0	0	0	0	0	0	0	0	0	0	0
DANEMARK	5	8	2	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
FRANCE	40	36	2	8	2	1	89	2	0	0	1	21	0	14	0	0	0	0	0	0	0
RFA	68	12	8	9	22	9	14	13	5	2	3	0	3	0	1	0	3	0	0	2	4
GRECE	0	111	26	27	330	397	14	1	1	3	0	0	0	6	0	0	2	0	0	0	0
IRLANDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ITALIE	22	135	147	15	9	13	5	31	61	18	43	4	1	3	0	0	44	129	150	167	7
LUXEMBOURG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PAYS-BAS	0	0	0	21	7	0	3	2	0	1	0	0	0	0	0	1	5	0	0	0	0
ROYAUME-UNI	187	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
ESPAGNE	562	522	473	510	371	453	244	90	29	26	0	7	4	18	1	8	0	0	1	0	0
PORTUGAL	923	160	103	1058	0	0	0	0	0	0	0	0	690	308	0	164	22	0	0	0	0
TOTAL	1808	987	763	1650	741	873	432	160	87	50	47	32	698	350	24	174	76	129	151	169	11

Source : 1968-1983 : OIE
A partir de 1984 : ADNS

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ANNEXE 1

TABLEAU 2

Fièvre aphteuse dans les pays voisins (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
Norvège	I	(1952)
Suède	I	(1966)
Finlande	I	(1959)
RDA	V	(1982)
Pologne	I	(1971)
Tchéchoslovaquie	V	(1975)
Autriche	I	(1981)
Suisse	V	(1980)
Yougoslavie	I	(1978)
Albanie	I	(1960)
Bulgarie	I (1)	(1973)
URSS	V	O_1,A22
Hongrie	V	(1972)
Turquie	V	O_1, A 22
Tunisie	V	(1982)
Algérie	V	(1978)
Maroc	V	(1983)

Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

(1) = vaccination dans la zone tampon contiguë à la Turquie

* Source = annuaire de l'OAA

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ANNEXE 1

TABLEAU 3

Fièvre aphteuse dans les pays tiers ayant des relations commerciales avec la Communauté (situation en 1987*)

	Politique de vaccination	Virus isolés en 1987 (dernière apparition)
USA	I	(1929)
Canada	I	(1952)
Japon	I	(1908)
Corée (République)	I	(1934)
Chine	V	-
Australie	I	(1971)
Nouvelle Zélande	I	0000
Brésil	V	O_1A_1C
Argentine	V	O_1A_1C
Uruguay	V	O_1A_1C
Paraguay	V	O
Chili	I	O
Colombie	V	O_1A
Botswana	V	(1980)
Zimbabwe	V	SAT 2 (1989)
Namibie	V	(1980)
Afrique du Sud	V	(1985)
Swaziland	V	(1988)

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Note :

V = vaccination de routine

I = vaccination interdite (sauf avant l'exportation)

0000 = jamais enregistré

* Source = annuaire de l'OAA

ANNEXE 1

TABLEAU 4

VI.BII.2 TABLEAU SYNOPTIQUE DES PROGRAMMES DE VACCINATION DANS LES ETATS MEMBRES EN 1987

MEMBER STATE	FREQUENCY	PRODUCTION AND CHECKING OF VACCINES	PROTECTIVE RATING	CROSS IMMUNITY CONTROLS	ANIMAL CATEGORIES VACCINATED	SUPERVISION OF DISTRIBUTION OF VACCINES	VIRUS TYPES USED	COMPOSITION OF VACCINES
Belgium	Annual 1Dec-31March	INRV IHE	EP	As necessary	Cattle >3 months Calf fattening units excluded	Provincial distribution under official control to authorised vet.	O1 A5 C1	Trivalent Frenkel culture Formaldehyde inactivation
Germany	Annual	Commercial(3) also imports officially approved	EP	Cattle tests Serological tests	Cattle >4months	Official control of distribution to vets responsible for vaccination	O1 A5 C1	Trivalent Cell culture Aziridine inactivation
Greece	Annual March	Supplied by FAO/OIE/EEC Tripartite Committee	EP	N/A	15,000 cattle 50,000 sheep and goats in Evros Buffer zone	Official veterinary control and application	O1 A22 ASIA1 (1987)	Trivalent
Spain	Annual, with twice yearly revaccination of breeding pigs	Al.Hydroxide Oil adjuvant Commercial Official appro.	EP	As necessary	Cattle, pigs, sheep and goats >3mths (Sheep & goats optional unless leaving area of origin for fairs, grazing etc)	Provincial distribution under official control	O1 A5 C1	Trivalent Cell culture Various inactivants
France	Annual 1 Oct-30 April	Mainly French LNPB	EP	As necessary	Cattle >4mths exc. Finistere & Overseas Dept Sheep and goats >3mths at Spanish border	Direct distribution to veterinarians Control of storage	O1 A5 C1	Frenkel culture Ethyleneimine inactivation
Luxemburg	Annual 1Dec-31Jan	Imported	EP		Cattle >4months	Central Veterinary Department to veterinarians	O1 A5 C1	Trivalent
Netherlands	Annual 1Dec-1March	CDI Official checking	EP 10FD50	Not carried out	Cattle >4months except veal calves and beef cattle under special circumstances	CDI to veterinarians	O1 A10 C1	Trivalent Frenkel culture
Portugal	Annual Spring	Imported from Spain and France LNI checking	EP		Cattle >3months Sheep and goats optional Grazing pigs > 2mths	Regional distribution to veterinarians	O1 A5 C1	Trivalent Oil adjuvant for pigs
Italy	In 1987 twice: 28 Feb- 1 May 1 Oct- 30 Nov	3 National Inst. Checking by C.N. Inst. Rome	EP 7FD50		Cattle & buffalo >3mths Sheep & goats >3mths and if moved for grazing Pigs in 8 provinces in Po valley with monovalent A5, breeding sows repeat 3mths later	Official distribution from 3 institutes	O1 A5 C1	Trivalent Formaldehyde inactivation Oil adjuvant for pig vaccine

Note du traducteur : en accord avec le demandeur, ce tableau n'a pas été traduit

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ANNEXE 2

RISQUE D'APPARITION DE LA FIEVRE APHTEUSE (FA)
DANS LA COMMUNAUTE EUROPEENNE A LA SUITE DE L'ACHEVEMENT
DU MARCHE INTERIEUR
- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. Le groupe a été chargé d'émettre un avis sur les risques de foyers de fièvre aphteuse dans la Communauté après 1992, en cas d'adoption (a) d'une politique de vaccination* ou (b) d'une politique de non-vaccination*, à l'avenir, dans l'ensemble de la Communauté.

2. Pour son estimation du risque, le groupe s'est basé sur les faits établis par les études épidémiologiques et de laboratoire relatives aux foyers de FA qui se sont manifestés au cours des onze dernières années (1977-1987). Pour chaque épizootie, il a commencé par identifier les foyers primaires, afin de cerner au mieux la source d'infection.

En deuxième lieu, il a analysé la propagation de l'infection (nombre de foyers SECONDAIRES) à partir de ces foyers, en vue de déterminer - dans la mesure du possible et tout en tenant compte de la multiplicité des facteurs qui influencent le taux de propagation, l'impact de la vaccination et d'autres moyens de lutte sur la propagation de la maladie.

Le choix de cette période de onze ans s'explique par le fait qu'elle marque à la fois le début et la fin de l'apparition des épizooties concernées.

FOYERS PRIMAIRES

3. Au cours de la période 1977-1987***, on a dénombré 34 (trente-quatre) foyers primaires de FA dans onze Etats membres.

---

* Politique de vaccination : vaccination annuelle systématique de tous les bovins. En cas d'apparition de la maladie, abattage sanitaire (total ou partiel) en plus de la vaccination et des autres mesures de lutte contre la maladie.

** Politique de non-vaccination : interdiction totale des vaccinations contre la FA. En cas d'apparition de la maladie, abattage total en plus des autres mesures de lutte. La vaccination en anneau peut s'avérer nécessaire.

*** Le groupe ne dispose pas de données détaillées en ce qui concerne les foyers apparus en Espagne (il ne sait pas s'il s'agissait de foyers primaires ou de foyers secondaires).

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INFECTIONS D'ORIGINE EXTRACOMMUNAUTAIRE

4. Le groupe a identifié huit (8) foyers primaires au cours de la période de 1977 à 1987, foyers dont l'origine se situait très probablement à l'extérieur de la Communauté(1). La plupart de ces foyers semblent être liés à des entrées de viande dans la Communauté. D'autres foyers - et cela vaut notamment pour un foyer au Danemark - ont probablement été provoqués par des agents pathogènes venus de l'extérieur et transmis par voie aérienne.

   Depuis 1978, les risques liés à l'importation de viandes ont changé, la réglementation communautaire n'autorisant plus en effet l'importation de viande avec os(2).

INFECTIONS D'ORIGINE INTRACOMMUNAUTAIRE

5. A l'analyse des données fournies par tous les Etats membres, il ne semble pas qu'il existe une source endémique de FA dans les cheptels communautaires. On a néanmoins enregistré environ treize (13) foyers primaires qu'il est impossible d'attribuer avec certitude à des sources extracommunautaires. Il est difficile de formuler un jugement précis, sur l'origine de ces foyers, mais il se peut que tous soient liés, d'une manière ou d'une autre, soit à des fuites dues à des manipulations en laboratoire soit à l'utilisation de vaccins mal inactivés.

INFECTIONS D'ORIGINE INCONNUE

6. Il reste treize (13) foyers primaires dont l'origine est tout à fait inconnue.

FOYERS SECONDAIRES

7. Le tableau 1 révèle qu'on a recensé au total 1.923 foyers de FA dans les douze Etats membres au cours de la période 1977-1987. En l'absence des données concernant les foyers primaires et secondaires en Espagne, on a enregistré, dans les onze autres Etats membres, 1.858 foyers au total, dont trente-quatre (34) sont considérés comme des foyers primaires (voir paragraphes 3 à 6). Il reste donc 1.824 foyers secondaires. Le nombre de foyers primaires et secondaires dans chaque Etat membre figure au tableau 2.

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(1) Voir annexe 2, tableau 3

(2) La réglementation communautaire relative au désossage s'applique uniquement à certaines régions à haut risque, telles que l'Amérique du Sud et l'Afrique.

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8. Le taux de propagation de la maladie (l'ampleur de l'épizootie provoquée par un foyer primaire) est très variable. Dans certains cas, les foyers primaires ne donnent pas naissance à d'autres foyers, alors que dans d'autres cas, le nombre de foyers secondaires est élevé (153 par exemple en Italie lors de l'épizootie A_5 de 1984 à 1985, voire même plus au Portugal au début des années quatre-vingt).

9. Le taux de propagation (rapport entre le foyer primaire et les foyers secondaires) mentionné au tableau 2 (moyennes) se répartit en trois catégories :

   (a) les foyers qui n'ont pratiquement donné lieu à aucune propagation (moins de trois foyers secondaires par foyer primaire);

   (b) les épizooties à propagation limitée (moins de 25 foyers secondaires par foyer primaire);

   (c) les épizooties à très large propagation (plus de 25 foyers secondaires).

   En examinant les différences ci-dessus, il convient de tenir compte de plusieurs facteurs, c'est-à-dire non seulement du choix d'une politique de vaccination ou de non-vaccination, mais aussi des différences entre les pays en ce qui concerne l'infrastructure agricole, la gestion des exploitations agricoles, l'importance du cheptel, les conditions géographiques, le service vétérinaire, etc. Des différences au niveau de la virulence et de la transmissibilité des souches sauvages de virus peuvent également être à l'origine des importantes variations enregistrées.

10. Lorsque l'on a utilisé la vaccination pour protéger les bovins, les foyers secondaires se sont essentiellement déclarés (mais pas intégralement) dans des cheptels porcins non vaccinés. Les excréments de porcs infectés renferment un nombre considérable de virus qui perpétuent les épizooties (par exemple l'épizootie de type C en Italie de 1985 à 1986).

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En l'absence de vaccinations, (dans quatre Etats membres*), sept foyers primaires ont donné naissance à 28 foyers secondaires. Deux des foyers primaires se sont déclarés au Danemark, pays à forte densité de peuplement porcin.

PREVISIONS POUR LA PERIODE 1993-2003
(dans les Etats membres actuels)

11. Quelle que soit la politique de lutte contre la maladie au sein de la Communauté (vaccination ou non-vaccination), le risque d'infection venant de l'extérieur subsiste, si les risques liés aux importations de viande (même en grandes quantités) semblent avoir diminué depuis le durcissement du régime d'importation, le risque d'introduction d'une infection dans la Communauté subsiste toutefois, notamment en cas d'importation de grandes quantités d'animaux. Le risque inhérent à l'importation officielle d'animaux peut être réduit par la réglementation communautaire, mais s'il s'agit de risques liés à une importation illégale ou à une infection transmise par voie aérienne, la Communauté n'est pas en mesure de les maîtriser directement.

12. La meilleure estimation que le groupe puisse formuler est que le risque d'introduction d'une infection dans la Communauté au cours des années 1993 à 2003 n'est plus grave ni moins grave qu'au cours des onze dernières années, c'est-à-dire qu'il faut s'attendre à l'apparition de huit (8) foyers primaires d'origine extracommunautaire.
Si l'on y ajoute la fraction des 13 foyers dont l'origine était tout à fait inconnue (voir paragraphe 6) le risque passe ainsi à douze-treize (12-13) foyers environ. Ce chiffre constitue peut-être une surestimation par rapport au risque prévisible, en ce sens que les restrictions à l'importation de viandes, instaurées en 1978, semblent être une mesure préventive efficace contre l'introduction de la maladie.

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* Le Danemark, l'Irlande et le Royaume-Uni ne pratiquent pas la vaccination. La Grèce ne pratique pas la vaccination non plus, sauf dans une zone tampon dans le département d'Evros.

13. L'adoption d'une politique de non-vaccination ou de vaccination au sein de la Communauté peut également modifier les chiffres, en ce sens que la vaccination peut avoir empêché l'apparition de certains foyers primaires au cours de la période 1977-1987. S'il est impossible d'évaluer le nombre de foyers évités de la sorte, les données constatées dans les zones de la Communauté où le vaccin n'est pas utilisé donnent toutefois à penser que ce nombre est faible. Il convient encore de préciser que les zones de la Communauté où la vaccination n'est pas pratiquée bénéficient non seulement d'un isolement géographique (îles, péninsules) et de contrôles rigoureux à l'importation, mais aussi de la protection assurée par les vaccinations régulières dans les pays voisins.

14. Dans certains Etats membres, il faut s'attendre à des risques particuliers liés au trafic transfrontalier, y compris les importations illégales facilitées par les longues frontières de la Communauté. En tout état de cause, si la Communauté opte pour une politique de non-vaccination, le groupe recommande qu'aucun animal sensible ne soit importé dans la Communauté s'il n'a pas fait l'objet de mesures de protection rigoureuses (voir ci-après).

RISQUE D'INFECTION INTRACOMMUNAUTAIRE

15. Si la vaccination n'est pas pratiquée à l'avenir dans la Communauté et si aucune source de fièvre aphteuse n'y est constatée, il y a peu de chances que des foyers primaires autres que les foyers d'origine extracommunautaire (paragraphe 12) plus une partie des 13 foyers primaires d'origine inconnue (paragraphe 6) se déclarent, pour autant que les laboratoires qui manipulent le virus de la FA soient gérés dans des conditions de haute sécurité.

16. En cas de vaccination prophylactique à l'avenir au sein de la Communauté, quelques foyers imputables à la production ou à l'administration des vaccins risquent par contre de s'ajouter aux foyers mentionnés au paragraphe 15. Si les faits observés au cours de la période 1977-87 se reproduisent au cours des années 1993-2003, on peut raisonnablement prévoir l'apparition de 13 foyers primaires dus à la manipulation de virus aphteux ou à l'utilisation de vaccins mal inactivés. Il est toutefois vraisemblable que les techniques d'inactivation du vaccin vont s'améliorer et que les fuites dues aux manipulations en laboratoire vont diminuer. A d'autres égards, une vaccination prophylactique pourra vraisemblablement prévenir l'apparition de certains foyers, quelle que soit leur origine.

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RISQUE DE PROPAGATION AU SEIN DE LA COMMUNAUTE

17. Les données figurant au tableau 2 et aux paragraphes 7 à 10 donnent à penser qu'il n'est pas possible d'établir une différence de taux de propagation de l'infection entre les pays où il est fait usage de la vaccination et ceux où la lutte contre la maladie repose exclusivement sur l'abattage sanitaire et d'autres mesures de lutte appropriées. En fonction des informations dont il dispose, le groupe estime que les fluctuations sont trop importantes pour permettre de tirer des conclusions précises quant au taux de propagation en cas d'adoption par la Communauté d'une politique de non-vaccination ou de vaccination. A cet égard, les conditions géographiques, l'infrastructure agricole et les contrôles vétérinaires dans les différents pays doivent être considérés comme des facteurs d'une importance capitale.

Le groupe est particulièrement conscient du risque de propagation secondaire dans les zones à forte densité animale. Si la vaccination est abandonnée, le risque augmentera pour les bovins mais ne changera pas sensiblement pour les porcins qui ne sont généralement pas vaccinés. En cas d'apparition d'un foyer, l'ampleur et la durée de l'épizootie peuvent être réduites grâce à l'application des méthodes décrites ci-après et, si nécessaire, grâce à la vaccination en anneau.

18. Il est toutefois évident que le taux de propagation de l'infection à partir d'un foyer primaire dépend non seulement de la virulence et de la transmissibilité des souches sauvages mais aussi, et dans une large mesure, de la qualité des moyens de lutte mis en oeuvre. Si on se limite à l'abattage sanitaire pour lutter contre une épizootie et si cet abattage est correctement et rapidement appliqué (et accompagné d'un contrôle strict de la circulation des animaux, etc.), l'infection pourra être limitée à un nombre restreint de foyers secondaires. En outre, l'expérience acquise au cours de la période 1977-1987 nous apprend qu'abstraction faite de l'application ou de la non-application de la vaccination prophylactique, l'infection peut très rapidement se propager (dans le cheptel porcin notamment) si les mesures de lutte (abattage sanitaire, restrictions de circulation, etc.) ne sont pas strictement appliquées.

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ANNEXE 2

TABLEAU 1

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES
1977 - 1987

Pays	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Total
Belgique	–	–	–	–	–	–	–	–	–	–	–	–
Danemark	–	–	–	–	–	22	1	–	–	–	–	23
Allemagne	7*	3	–	2	–	1	–	9**	–	–	6***	28
Grèce	3	–	–	–	5	–	–	2	–	–	–	10
Espagne	26	–	7	4	18	1	8	–	–	1	–	65
France	–	1	21	–	18	–	–	–	–	–	–	40
Irlande	–	–	–	–	–	–	–	–	–	–	–	–
Italie	18	43	6	1	3	–	–	45	131	150	167	564
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–
Pays-Bas	1	–	–	–	–	–	4	2	–	–	–	7
Portugal	–	–	–	690	308	–	164	22	–	–	–	1184
Royaume-Uni	–	–	–	–	2	–	–	–	–	–	–	2
TOTAL												1923

* 1976/77
** y compris six cas sérologiques constatés a posteriori
*** 1987/88

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ANNEXE 2

TABLEAU 2

FOYERS DE FIEVRE APHTEUSE DANS LES ETATS MEMBRES

1977 - 1987

TAUX DE PROPAGATION

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE NON-VACCINATION

	Foyers primaires	Foyers secondaires	Rapport
Danemark	2	21	1:21/1:0
Grèce	3	7	1:2.3
Irlande	-	-	-
Royaume-Uni	2	0	1:0

ETATS MEMBRES PRATIQUANT UNE POLITIQUE DE VACCINATION

Belgique	-	-	-
Allemagne	8	20	1:2.5
Espagne	chiffre non connu	Chiffre non connu	Chiffre non connu
France	2	38	1:19
Italie	13	551	1:42 (1:0 - 1:153)
Luxembourg	-	-	-
Pays-Bas	2	5	1:2.5
Portugal	2	1182	1:591
TOTAL	34	1824	

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ANNEXE 2

TABLEAU 3

HUIT FOYERS PRIMAIRES DE FIEVRE APHTEUSE
très probablement d'origine extracommunautaire

1976/77	Grèce	Type A	- ressemble aux types d'Amérique du Sud - eaux grasses
1976/77	RFA	Type A	- Aix la Chapelle (ressemble au A24) eaux grasses
1977	Italie	Type A	- ressemble aux types d'Amérique du Sud virus isolé provenant de l'importation de produits de viande/de moëlle
1978	Italie	Type O	- probablement lié à des importations de viandes
1979	Italie	Type A	- ressemble aux types d'Amérique du Sud
1982	Danemark	Type O	- probablement introduit d'Europe de l'Est par voie aérienne
1982	Allemagne	Type O_1	- lié au type O_1 d'Autriche en 1981
1984	Gréce	ASIA-1	- probablement introduit par voie aérienne

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ANNEXE 3

I. ANALYSE ECONOMIQUE

1.1. En nous basant sur les estimations de coûts des vaccinations et des foyers (voir tableau 1 et 2) et sur le nombre de foyers prévu par le Comité Scientifique Vétérinaire (voir annexe 2), nous avons procédé à une analyse économique qui montre les résultats possibles d'une politique de vaccination ou de non-vaccination. Ces résultats ont été obtenus à partir de trois scénarios : un scénario neutre (le plus probable), un scénario pessimiste et un scénario optimiste.

1.2. L'analyse couvre une période de 10 ans (1993-2002) qui nous semble être une période raisonnable pour l'élaboration d'une politique.

2. HYPOTHESES

2.1. Coût des vaccinations

Le coût d'un programme de vaccination communautaire à raison d'une seule vaccination annuelle pratiquée sur l'ensemble du bétail concerné est évalué à 133 millions d'écus par an (tableau 1).

2.2. Coût des foyers

Le coût d'un foyer varie considérablement d'un Etat membre à l'autre (tableau 2). Ces variations sont essentiellement dues à la taille des troupeaux et à la valeur du cheptel abattu. Les valeurs données au tableau 2 constituent une moyenne pour chaque Etat membre, car même à l'intérieur d'un Etat membre la taille du troupeau varie considérablement selon qu'il s'agit de petites exploitations ou de grandes unités d'élevage intensif.

Le coût le moins élevé par foyer nous a été fourni par les autorités portugaises. Dans ce pays, les exploitations de moins de 5 hectares représentent 86 % de l'ensemble des exploitations et le coût mentionné par foyer concerne une exploitation élevant seulement 4 bovins et 5 porcs. Ce chiffre n'est pas représentatif de la Communauté dans son ensemble et, dans notre analyse économique, nous avons donc retenu comme estimation "inférieure" la deuxième estimation de coût en commençant par le bas (Grèce 32.000 écus).

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Le coût le plus élevé par foyer nous est fourni par les autorités espagnoles (470.000 ecus) et se base sur les coûts enregistrés lors de l'épidémie de 1983. Le nombre moyen de bovins dans les exploitations touchées est de 1535. Toutefois, en analysant les données nationales transmises, on s'aperçoit que les autorités italiennes ont estimé à 600.000 écus le coût d'un abattage total dans de très grands élevages intensifs de porcs. Dès lors, afin d'accorder la pondération voulue aux risques liés à l'apparition de la maladie dans de grandes unités d'élevage intensif, ce chiffre représente l'estimation "élevée" de notre analyse.

Abstraction faite du Portugal en raison du caractère atypique de la structure de son cheptel, le coût moyen transmis par les Etats membres est de 158.000 écus, chiffre que nous avons retenu comme estimation "moyenne" de l'analyse.

2.3. Nombre de foyers

Le nombre de foyers retenu pour la construciton des scénarios neutre, pessimiste et optimiste provient des estimations fournies par le Comié Scientifique Vétérinaire (annexe 2);

Le Comité a estimé que, dans le cadre d'une politique de non-vaccination, le nombre probable de foyers primaires sur une période de 10 ans est de 13. Ce chiffre risque d'être une surestimation du risque prévisible, en ce sens que les restrictions à l'importation de viandes introduites en 1978 semblent avoir constitué une protection efficace contre l'entrée de la maladie.

Si le Comité a estimé que, dans le cas d'une politique de vaccination, 13 autres foyers primaires liés à la manipulation du virus ou à l'emploi de vaccins inactivés de manière inadéquate, viendraient s'ajouter aux 13 foyers primaires susmentionnés, il pense toutefois que l'amélioration des techniques devrait permettre de réduire ces risques. Pour l'analyse économique, nous avons donc ramené à 7 l'estimation du nombre de foyers liée aux laboratoires ou aux vaccins sur une période de 10 ans. Ainsi, en y ajoutant les 13 foyers d'origine étrangère, nous arrivons à un total de 20 foyers primaires sur une durée de 10 ans dans le cadre d'une politique de vaccination.

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D'après les données analysées par le Comité, il n'est pas possible de détecter une différence dans le taux de propagation de l'infection entre les pays qui pratiquent la vaccination et les pays qui se limitent à l'abattage sanitaire et autres mesures appropriées de lutte contre la maladie. Pour la présente analyse économique, nous avons dès lors utilisé la même estimation pour les deux politiques.

Le rapport du Comité fournit des données détaillées en ce qui concerne le rapport entre le foyer primaire et les foyers secondaires. Les taux de propagation mentionnés sont relativement homogènes dans l'ensemble de la Communauté exception faite du Portugal. Le rapport donné pour ce pays (1:591) concerne la situation au Portugal avant l'application des mesures communautaires de lutte contre la maladie. En faisant abstraction du Portugal, le rapport moyen entre les foyers primaires et les foyers secondaires au cours des dix dernières années est de 1 à 20, rapport que nous avons retenu comme estimation moyenne ou la plus probable. Il se peut que ce rapport exagère le taux de propagation : en effet, dans certaines épidémies importantes, plus de foyers risquent d'être des foyers primaires plutôt que secondaires, (par exemple dans le cas de la multiplication des foyers due à des vaccins mal inactivés).

Le taux de propagation le plus faible est de 1:0, c'est-à-dire qu'il n'y a pas de foyer au-delà du foyer primaire. Cette hypothèse s'est vérifiée plusieurs fois au cours des dix dernières années dans le cadre des deux politiques (vaccination et non-vaccination).

Le taux de propagation le plus élevé - estimation la plus pessimiste - est de 1:150. Il s'agit là du taux le plus élevé enregistré lors des épizooties qui ont récemment touché les zones d'élevage intensif du nord de l'Italie.

3. SCENARIOS

3.1. Nous présentons ci-après trois résultats possibles en fonction des différentes hypothèses de départ quant au nombre et au coût des foyers visés aux paragraphes 2.2. et 2.3. ci-dessus. Il s'agit en l'occurrence :

- d'un scénario neutre (le plus probable);
- d'un scénario optimiste;
- d'un scénario pessimiste.

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3.2. Scénario neutre

Ce scénario, qui nous donne le résultat le plus probable, est basé sur le coût d'un foyer moyen (158.000 écus) (cf. 2.2. ci-dessus) et du nombre le plus probable de foyers secondaires (20) par foyer primaire (2.3. ci-dessus).

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
20 foyers secondaires par foyer primaire

Total = 13 + (13 x 20) = 273

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût total = 273 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 35 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
20 foyers secondaires par foyer primaire

Total = 20 + (20 x 20) = 420

Coût prévu par foyer (valeurs : 1987)
= 158.000 écus par foyer

Coût des foyers = 420 x 158.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 1.080 millions d'écus.

Coût total = 54 millions d'écus + 1.080 millions d'écus = 1.134 millions d'écus.

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3.3. Scénario optimiste

Il s'agit ici du scénario le plus optimiste dans lequel tous les foyers touchent de très petites exploitations et ne donnent lieu à aucun foyer secondaire. S'il n'est pas rare qu'il n'y ait pas de foyers secondaires, il est improbable par contre que tous les foyers touchent les plus petits troupeaux.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :

13 foyers primaires

0 foyer secondaire

Total = 13 + (13 x 0) = 13

Coût prévu par foyer (valeurs : 1987) = 32.000 écus (cf. paragraphe 2.2.).

Coût total = 13 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 337.000 écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :

20 foyers primaires

0 foyer secondaire

Total = 20 + (20 x 0) = 20

Coût prévu par foyer = 32.000 écus

Coût des foyers = 20 x 32.000 écus. Valeur actuelle déduction faite d'un placement pendant 10 ans (à 5 %) = 519.000 écus.

Valeur actuelle de la vaccination déduction faite d'un placement pendant 10 ans (à 5 %) = 1.808 millions d'écus.

Coût total = 519.000 écus + 1.080 millions d'écus = 1.080,5 millions d'écus.

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3.4. Scénario pessimiste

Ce scénario pessimiste part du principe que chaque foyer primaire donnera lieu à 150 foyers secondaires et que les foyers se déclareront tous dans les troupeaux les plus importants (coût : 600.000 écus par foyer).

Une telle conjugaison de facteurs ne représente qu'une possibilité hautement improbable. Au cours des onze dernières années, il n'est arrivé qu'une fois (en Italie) qu'un foyer primaire ait donné lieu à 150 foyers secondaires. De plus, même dans les zones d'élevage intensif, un pourcentage seulement des exploitations sont de très grandes exploitations.

A. Politique de non-vaccination

Nombre prévu de foyers (sur 10 ans) :
13 foyers primaires
150 foyers secondaires par foyer primaire

Total = 13 + (13 x 150) = 1.963

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût total = 1.963 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 955 millions d'écus.

B. Politique de vaccination

Nombre prévu de foyers (sur 10 ans) :
20 foyers primaires
150 foyers secondaires par foyer primaire

Total = 20 + (20 x 150) = 3.020

Coût prévu par foyer (valeurs : 1987) = 600.000 écus

Coût des foyers = 3.020 x 600.000 écus. Valeur actuelle déduction faite d'un placement pendant dix ans (à 5 %) = 1.470 millions d'écus.

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Valeur actuelle de la vaccination déduction faite d'un placement pendant dix ans (à 5 %) = 1.080 millions d'écus.

Coût total = 1.470 millions d'écus + 1.080 millions d'écus = 2.550 millions d'écus.

4. SYNTHESE

	Valeur actuelle sur 10 ans (en millions d'écus)		
	Scénario neutre	Scénario optimiste	Scénario pessimiste
A. Politique de non-vaccination (foyers uniquement)	35	0,3	995
B. Politique de vaccination (foyers et vaccination)	1134	1080,5	2550

L'analyse montre que, dans l'hypothèse la plus probable sur les dix prochaines années, une politique de vaccination serait sensiblement plus coûteuse qu'une politique de non-vaccination. Même dans le pire des cas (hautement improbable) où tous les foyers se déclareraient dans les unités d'élevage les plus importantes avec un taux élevé de propagation de l'infection, la politique de non-vaccination reste la moins onéreuse.

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ANNEXE 3

TABLEAU 1

COUT D'UN PROGRAMME DE VACCINATION CONTRE
LA FIEVRE APHTEUSE AU SEIN DE LA COMMUNAUTE EUROPEENNE

(coûts annuels aux prix de 1987)

	Bovins vaccinés en milliers de têtes)	Coût par tête		Coût national	
		Monnaie nationale	Ecus	Monnaie nationale (en millions)	Ecus (en millions)
Belgique	2 232	54 BFR	1,25	121,0	2,8
Danemark*	2 250	17,90 DKR	2,25	40,3	5,1
Allemagne	14 560	3,14 DM	1,18	38,6	18,6
Grèce*	761	122 DRA	0,74	92,5	0,6
Espagne	5 200	207 PTA	1,50	1076,4	7,6
France	21 052	10,93 FF	1,42	230,1	33,2
Irlande*	6 647	1,50 IRL	1,94	10,0	12,9
Italie	11 000	15,00 LIT	1,87	22 678,0	15,2
Luxembourg	209	24 LFR	0,55	7,3	0,2
Pays-Bas	3 800	5,77 HFL	2,48	22,0	9,4
Portugal	1 200	177 ESC	1,00	212,4	1,3
Royaume-Uni*	11 152	1,77 UKL	2,66	18,6	26,4
				TOTAL (chiffe arrondi)	133,0

REMARQUES

(i) Les coûts sont donnés pour la vaccination de l'ensemble des bovins concernés une fois par an (sauf pour la France et le Luxembourg où seuls les chiffres de l'ensemble des bovins étaient disponibles).

(ii) Les coûts sont soit les coûts effectifs dans le cas des Etats membres qui vaccinent actuellement leur cheptel national soit les coûts estimés dans le cas des Etats membres qui ne pratiquent pas la vaccination (suivis d'un *).

(iii) Les coûts comprennent le vaccin, la vaccination et les frais administratifs mais ne comprennent pas les coûts des effets secondaires éventuels.

(iv) La Grèce ne vaccine les bovins que dans le nome d'Evros; la France ne vaccine pas dans le Finistère.

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ANNEXE 3

TABLEAU 2

COUT ESTIMATIF D'UN SEUL FOYER DE FIEVRE APHTEUSE

(données fournies par les Etats membres aux prix de 1987)

Ces coûts comprennent : les indemnités;
les opérations de nettoyage, de désinfection et autres mesures connexes;
les pertes de production dans l'exploitation;
les frais administratifs généraux.

Ils ne comprennent pas : la vaccination en anneau.

Coût par foyer (cf. remarques)

	Monnaie nationale	Ecus
Belgique	2 203 055 BFR	50 650
Danemark	1 210 000 DKR	150 239
Allemagne	100 000 DM	48 309
Grèce	5 281 911 DRA	31 914
Espagne	64 574 000 PTA	469 731
France	2 000 000 FF	284 000
Irlande	164 500 IRL	212 258
Italie	420 000 000 LIT	270 000
Luxembourg	2 360 000 LFR	54 402
Pays-Bas	146 000 HFL	62 300
Portugal	957 113 ESC	5 630
Royaume-Uni	70 000 UKL	104 979

REMARQUES

(1) Par foyer, on entend l'apparition de la maladie dans une exploitation agricole (définition de l'OIE pour l'Europe).

(2) Les estimations sont basées, dans la mesure du possible, sur les coûts effectifs enregistrés lors des foyers récents; en l'absence de foyers récents, les coûts sont des coûts estimés pour un troupeau à risques de taille moyenne.

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ANNEXE 4

STRUCTURE DES ECHANGES COMMUNAUTAIRES
DE CHEPTELS ET DE CERTAINS PRODUITS ANIMAUX

1. Introduction

1.1. Espèces sensibles à la fièvre aphteuse

En examinant la structure des échanges, on constate que les espèces sensibles à la fièvre aphteuse les plus concernées par les échanges sont les bovins, les porcins, les ovins et les caprins.

1.2. Règles régissant actuellement les échanges

En temps normal, les Etats membres qui pratiquent la vaccination contre la fièvre aphteuse peuvent exporter de la viande fraîche et des produits de viande des espèces susmentionnées vers les Etats membres ne pratiquant pas la vaccination.

En cas d'apparition d'un foyer de fièvre aphteuse dans quelque Etat membre que ce soit, des zones d'interdiction autour du foyer sont fixées par la directive 85/511/CEE (mesures générales de lutte contre la maladie) et par la directive 64/432/CEE (échanges intracommunautaires) aux termes desquelles les échanges d'animaux, de viandes fraîches et de produits de viande qui n'ont pas subi un traitement thermique à 70° C au moins sont interdits.

Dans le cas des bovins et des porcins vivants, la législation communautaire prévoit des restrictions aux échanges entre les Etats qui pratiquent la vaccination et ceux qui ne la pratiquent pas. Ces règles, fixées à l'article 4 bis de la directive 64/432/CEE, sont une des raisons pour lesquelles nous avons entrepris la présente étude. Au 1er janvier 1989, les réglementations nationales en ce qui concerne les ovins et les caprins étaient toujours en vigueur.

L'article 4 bis de ladite directive autorise les Etats membres, qui sont indemnes de fièvre aphteuse d'au moins deux ans et qui ne pratiquent pas la vaccination, à demander l'isolement et/ou la mise en quarantaine en plus de certains tests, afin de s'assurer que les animaux concernés n'ont pas été vaccinés et ne sont pas porteurs du virus de la fièvre aphteuse.

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En termes d'échanges intracommunautaires, les dispositions relatives aux animaux vivants revêtent une importance primordiale dans les projections des avantages et des inconvénients de l'adoption d'une politique de vaccination générale ou d'une politique de non-vaccination.

2. Echanges intracommunautaires(1)

2.1. Bovins

2.1.1. Veaux (jusqu'à 250 kg)

En 1987, les échanges intracommunautaires de veaux se sont chiffrés à 2 millions d'unités environ. Les principaux pays exportateurs et importateurs ont été :

1. la France (838.000) vers l'Italie (689.000), les Pays-Bas (65.000) et l'Allemagne (64.000);

2. le Royaume-Uni (376.000) vers la France (221.000), les Pays-Bas (133.000) et l'Italie (6.000);

3. les Pays-Bas (332.000) vers l'Allemagne (102.000), l'UEBL (99.000) et la France (88.000).

Commentaires

Que l'on pratique une politique de non-vaccination ou de vaccination générale, les échanges de veaux ne risquent pas de se modifier sensiblement. Le Royaume-Uni semble disposer d'un surplus exportable, tandis que les exportations à destination du Danemark et de l'Irlande n'ont des chances de se développer que si le nombre de vaches diminue sensiblement dans ces pays.

2.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les échanges intracommunautaires de gros bovins se sont chiffrés à 1,15 million d'unités. Les principaux pays exportateurs et importateurs ont été :

1. la France (795.000) vers l'Italie (709.000), l'Allemagne (34.000) et l'UEBL (21.000);

(1) Source : données Nimexe citées dans Eurostat (année 1987). Les chiffres sont arrondis au millier près.

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2. l'Irlande (152.000) vers le Royaume-Uni (151.000) et le Portugal (1.000);
3. l'Allemagne (117.000) vers les Pays-Bas (64.000), l'Italie (37.000) et l'UEBL (11.000).

Commentaires

Quelle que soit la politique adoptée (non-vaccination ou vaccination généralisée), il est improbable que la structure des échanges se modifie, étant donné que le Danemark, l'Irlande et le Royaume-Uni sont autosuffisants, l'Irlande étant un exportateur important. Néanmoins, les échanges de bovins de boucherie à destination du Danemark et du Royaume-Uni pourraient se développer du fait de leur proximité d'Etats tels que l'Allemagne, la France et les Pays-Bas.

2.1.3. Bovins reproducteurs de race pure

En 1987, les échanges intracommunautaires de cette catégorie se sont élevés à 38.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (22.000) vers l'Espagne (13.000), le Portugal (5.000) et l'Italie (2.000);
2. le Royaume-uni (6.000) vers le Portugal (3.000) et l'Irlande (3.000);
3. la France (5.000) vers l'Espagne (1.000), le Portugal (1.000) et l'Italie (1.000).

N.B. : En 1987, les exportations à destination de l'Espagne et du Portugal ont bénéficié de restitutions à l'exportation.

Commentaires

Quelle que soit la solution adoptée, il est peu probable que la structure de ces échanges se modifie, étant donné que la demande de ce type de bovins est limitée et que la valeur unitaire est élevée. Du fait de cette forte valeur unitaire, les frais d'analyse et de mise en quarantaine du système actuel peuvent être facilement absorbés. En cas de passage à une politique uniforme, ces frais disparaîtraient et on pourrait normalement s'attendre à une légère augmentation des échanges (qui risque toutefois de ne pas se produire en raison du développement des échanges de semences et d'embryons).

2.2. Porcs

Les échanges de porcs sont actuellement influencés par la présence ou l'absence de quatre maladies virales, à savoir la fièvre aphteuse (F.A.), la peste porcine classique (PPC), la peste porcine africaine (PPA) et la maladie vésiculeuse du porc (MVP). Les Etats membres officiellement indemnes de PPC peuvent interdire l'entrée sur leur territoire de porcs et de viande porcines en provenance d'Etats n'ayant pas le même statut.

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En ce qui concerne la PPA, les exportations en provenance de l'Espagne (en partie depuis le 14 mai 1989), du Portugal et de la Sardaigne sont interdites sauf pour certains produits traités thermiquement. La réglementation relative à la MVP autorise les Etats membres ne pratiquant pas la vaccination contre la fièvre aphteuse et indemnes de fièvre aphteuse depuis deux ans d'exiger un test sérologique négatif de MVP avant d'autoriser l'entrée de porcs d'élevage et de rente sur leur territoire.

2.2.1. Porcs de rente (jusqu'à 50 kg) (porcelets sevrés)

En 1987, les échanges intracommunautaires de porcs de cette catégorie se sont chiffrés au total à 2,5 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. l'Allemagne (1.371.000) vers l'UEBL (744.000), l'Espagne (332.000) et la France (275.000);
2. la France (423.000) vers l'Espagne (225.000), l'UEBL (145.000) et l'Italie (52.000);
3. les Pays-Bas (681.000) vers l'Italie (308.000), l'Espagne (184.000) et l'UEBL (128.000).

2.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les échanges se sont chiffrés au total à 4,233 millions d'unités. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (2.990.000) vers l'Allemagne (924.000), l'Italie (724.000) et la France (710.000);
2. l'UEBL (958.000) vers la France (558.000) et l'Italie (326.000);
3. la France (111.000) vers l'Italie (70.000) et l'UEBL (25.000).

2.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les échanges intracommunautaires ont porté au total sur 337.000 truies de cette catégorie. Les principaux pays exportateurs et importateurs ont été :

1. les Pays-Bas (307.000) vers l'UEBL (196.000) et l'Allemagne (110.000);
2. la France (23.000) vers l'UEBL (22.000).

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2.2.4. Porcs reproducteurs de race pure

En 1987, les échanges ont porté sur quelque 19.000 porcs reproducteurs de race pure. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (9.000) vers l'Espagne (5.000), l'Irlande (1.000) et l'Allemagne (1.000);
2. les Pays-Bas (3.000) vers l'Espagne (1.000) et l'UEBL (1.000);
3. la France (2.000) vers l'Espagne (2.000).

Commentaires sur les échanges porcins

Comme nous l'avons signalé précédemment, outre la fièvre aphteuse, trois autres maladies peuvent influencer les échanges procins. Il est dès lors difficile de prévoir une modification des courants commerciaux dans un avenir proche. En raison de l'autosuffisance actuelle, il est toutefois improbable que les échanges à destination du Danemark, de l'Irlande et du Royaume-Uni se développent considérablement.

2.3. Ovins et caprins

Au 1er janvier 1989, il n'existait aucune réglementation communautaire en la matière et c'est donc la réglementation nationale qui s'applique. En-dehors de la fièvre aphteuse, la brucellose ovine et caprine (Brucella melitensis) semble être une maladie qui constitue un frein aux échanges des pays méridionaux vers les pays septentrionnaux.

2.3.1. Ovins et caprins autres que de race pure

En 1987, les échanges intracommunautaires ont porté au total sur 1,77 million d'ovins et de caprins de ce type. Les principaux pays exportateurs et importateurs ont été :

1. la France (457.000) vers l'Italie (272.000) et l'Espagne (183.000);
2. le Royaume-Uni (392.000) vers la France (295.000) et l'Irlande (85.000);
3. les Pays-Bas (336.000) vers la France (198.000) et l'UEBL (134.000);
4. l'Allemagne (298.000) vers l'UEBL (128.000) et l'Italie (88.000).

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2.3.2. Ovins et caprins reproducteurs de race pure

En 1987, les échanges d'ovins et de caprins reproducteurs de race pure se sont chiffrés à 17.000 unités. Les principaux pays exportateurs et importateurs ont été :

1. le Royaume-Uni (7.400) vers l'Irlande (5.000) et la France (2.400);
2. le Portugal (4.500) vers l'Espagne (2.500) et le Royaume-uni (1.000)
3. l'Espagne (2.000) vers la France (1.000) et le Royaume-Uni (700).

Commentaires

Les échanges semblent s'opérer essentiellement du nord vers le sud (probablement en raison de la brucellose). La tendance actuelle semble devoir se poursuivre. Il ne semble pas y avoir une ouverture des échanges vers le Danemark, l'Irlande ou le Royaume-Uni en raison de l'auto-suffisance et de l'écart des prix.

3. Echanges en provenance des pays tiers

Echanges de viandes fraîches et de produits à base de viande

Il s'agit ici des échanges à destination de la Communauté en provenance de 50 pays tiers environ. S'il est improbable, en cas de passage à une politique de non-vaccination, que la Communauté demande que la viande en provenance de pays tiers provienne d'animaux non vaccinés, deux zones à problèmes sont toutefois prévisibles. Premièrement, les pays d'Amérique latine (Argentine, Brésil, Paraguay et Uruguay) où la fièvre aphteuse prend des proportions d'épizootie, luttent partiellement contre la fièvre aphteuse par la vaccination. La viande destinée à la Communauté en provenance de ces pays est préparée dans des conditions fort strictes (maturation et désossage). Il se peut qu'un renforcement du contrôle soit jugé nécessaire notamment pour les abats. La seconde zone à problèmes est constituée par l'Afrique du sud, l'Afrique australe (y compris la Namibie), le Swaziland, le Botswana et le Zimbabwe. Nous constatons en effet que la législation actuelle (1) exige que les animaux n'aient pas été vaccinés pendant les 12 mois qui précèdent l'abattage et soient indemnes de la fièvre aphteuse depuis 12 mois également. Actuellement, les décisions zoosanitaires concernant ces pays ne sont toutefois pas applicables à tous les Etats membres et des décisions applicables à tous les Etats membres seront nécessaires dans un proche avenir.

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(1) Directive 72/462/CEE articles 14 et 15.

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Dans l'ensemble, les exportations vers la Communauté de viandes et de produits à base de viande ne devraient dès lors pas souffrir d'un changement de politique communautaire en matière de vaccination.

Echanges d'animaux vivants :

Les importations de bovins et de porcins peuvent provenir de 21 pays et les échanges d'ovins et de caprins sont régis par la réglementation nationale. Les bovins entrant dans les Etats membres qui pratiquent la vaccination doivent être vaccinés avant leur entrée sur le territoire.

3.1. Bovins

3.1.1. Veaux (jusqau'à 250 kg)

En 1987, 272.000 veaux ont été importés dans la Communauté. Les principaux pays tiers exportateurs et Etats membres importateurs ont été :

1. la Pologne (219.000) vers l'Italie (149.000) et l'Allemagne (61.000);
2. la Tchécoslovaquie (27.000) vers l'Italie (18.000) et l'Allemagne (9.000).

3.1.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, 350.000 bovins de cette catégorie ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. la Yougoslavie (170.000) vers l'Italie (111.000) et la Grèce (59.000);
2. la Pologne (80.000) vers l'Italie (75.000) et la Grèce (4.000);
3. l'Autriche (56.000) vers l'Italie (38.000) et l'Allemagne (16.000).

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3.1.3. Bovins reproducteurs de race pure

En 1987, 44.000 bovins reproducteurs de race pure ont été importés dans la Communauté. Les principaux pays exportateurs et Etats membres importateurs ont été :

1. l'Autriche (23.000) vers l'Italie (18.000) et l'Espagne (4.000);
2. la Suisse (15.000) vers l'Italie (14.000).

Commentaires

Comme il ressort des chiffres mentionnés ci-dessus, les importations de bovins sont essentiellement destinées à l'Italie et proviennent en grande partie de pays tiers qui ne vaccinent pas de façon systématique à l'heure actuelle, exception faite de la Tchécoslovaquie et de la Grèce. Dans l'éventualité où ni l'un ni l'autre de ces pays n'abandonne la vaccination, il en résultera une légère pénurie de veaux (27.000) et d'animaux reproducteurs (15.000), ce qui posera quelques problèmes de recherche de nouveaux fournisseurs.

Le passage à une politique de vaccination générale n'entraînera, semble-t-il que peu de changements au niveau des importations au Danemark, en Irlande ou au Royaume-Uni. Au contraire, dans le cas d'une politique de non-vaccination, les animaux vaccinés ne seront plus acceptés et les approvisionnements de jeunes bovins maigres en provenance de certains pays d'Europe de l'Est (RDA, Tchécoslovaquie) et de la Suisse cesseront si ces pays ne veulent pas abandonner la vaccination. Par contre, des pays tels que la Pologne et la Yougoslavie qui ne pratiquent pas la vaccination systématique ne devront plus pratiquer la vaccination avant l'exportation.

3.2. Porcins

3.2.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, 13.566 porcelets sevrés ont été importés dans la Communauté principalement à destination de :
l'Italie (12.245) en provenance de la Tchécoslovaquie (11.601).

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3.2.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)
En 1987, 37.935 porcs de ce type ont au total été importés essentiellement en :

Belgique/Luxembourg (37.500) en provenance de la RDA (37.425)
Espagne (241) en provenance de la Suisse (241).

3.2.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)
Sept unités seulement de cette catégorie ont été importées en 1987.

3.2.4. Porcs reproducteurs de race pure
En 1987, 428 porcs de ce type ont été importés essentiellement :

aux Pays-Bas (122) en provenance du Canada (122);
en Grèce (89) en provenance de Suède (40) et d'Autriche (34);
en Allemagne (67) en provenance d'Hongrie (30) et d'Autriche (22).

Commentaires sur les importations de porcs

Par rapport aux échanges intracommunautaires (7 millions en 1987), les importations en provenance des pays tiers (52.000 porcs) sont insignifiantes. Un changement de politique ne devrait avoir aucun effet dans ce secteur.

3.3. Ovins et caprins

3.3. . Ovins et caprins autres que de race pure
En 1987, 2.043.000 têtes ont été importées principalement :

1. en Italie (1.492.000) en provenance d'Hongrie (865.000), de Pologne (278.000) et de Bulgarie (266.000);
2. en Allemagne (286.000) en provenance de Pologne (201.000) et d'Hongrie (85.000);
3. en France (163.000) en provenance de Pologne (94.000) et d'Hongrie (69.000);
4. en Grèce (89.000) en provenance d'Hongrie (50.000) et de Bulgarie (35.000).

(3)

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3.3.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.102 animaux de cette catégorie ont été importés essentiellement :

1. au Royaume-Uni en provenance de Nouvelle-Zélande (3.222), d'Australie (294) et du Canada (197);
2. en France (728) en provenance du Canada (343), d'Australie (222) et d'Algérie (117);
3. en Italie (195) en provenance d'Autriche (102) et de Suisse (92).

Commentaires

Les principaux fournisseurs d'ovins et de caprins ne pratiquent pas de vaccination systématique contre la fièvre aphteuse. Les courants commerciaux actuels devraient dès lors se maintenir. Le volume global des importations est limité par des accords.

4. Echanges à destination des pays tiers

Règles applicables aux échanges

Les règles zoosanitaires régissant les exportations d'animaux (et de produits animaux) sensibles à la fièvre aphteuse ne sont pas uniformes, du fait que les pays tiers importateurs adoptent des positions différentes vis-à-vis de la fièvre aphteuse et définissent leurs propres règles d'importation. On peut toutefois constater que la plupart des pays tiers indemnes de fièvre aphteuse et ne pratiquant pas la vaccination n'accepteront pas facilement des animaux et produits animaux provenant de pays pratiquant la vaccination. Le premier exemple à cet égard nous est donné par les Etats-Unis qui dressent une liste officielle (souvent appelée "liste blanche") des pays qu'ils considèrent indemnes de fièvre aphteuse. Il en résulte un effet "d'entraînement" lorsque les pays figurant sur la liste veulent adopter une réglementation aussi stricte, voire plus stricte que la réglementation américaine pour des raisons assez obscures. Nous aborderons ce problème par la suite.

4.5. Viandes et produits à base de viande

Les viandes et produits à base de viande traités thermiquement à 70° C au moins respecteront la plupart des réglementations vétérinaires en ce qui concerne la survie du virus de la fièvre aphteuse. Les statistiques qui suivent concernent les viandes et produits à base de viande qui ne sont pas traités thermiquement.

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4.1.1. Viandes de l'espèce bovine fraîches, réfrigérées ou congelées

En 1987, 692.791 tonnes de viandes de cette catégorie ont été exportées essentiellement par :

1. la France (215.897) vers l'URSS (39.400), l'Iran (37.156), l'Egypte (19.682), le Brésil (14.008), l'Arabie Saoudite (12.034), l'Angola (11.021) et l'Irak (10.478);
2. l'Irlande (159.560) vers l'Egypte (43.904), l'Iran (23.105), l'Irak (18.549), la Yougoslavie (14.014) et l'Afrique du Sud (13.122);
3. l'Allemagne (119.637) vers l'Egypte (46.188), la Yougoslavie (22.361) et l'Iran (13.102);
4. l'Italie (60.510) vers le Brésil (16.711), le Pérou (9.625), l'Arabie Saoudite (9.564) et la Lybie (8.119);
5. les Pays-Bas (54.389) vers le Zaïre (10.753), la Yougoslavie (10.305) et l'Egypte (6.504).

Les tonnages exportés par d'autres Etats membres à destination de différents pays ont été les suivants :
Danemark (38.076), Royaume-Uni (37.341), Belgique (5.928), Espagne (1.297), Grèce (136) et Portugal (22).

4.1.2. Préparations à base de viandes bovines crues, abats et mélanges

En 1987, 10.006 tonnes environ de ces préparations ont été exportées essentiellement par :

1. le Danemark (7.884) vers l'Arabie Saoudite (2.432), la Bulgarie (1.252), les Emirats Arabes Unis (779) et le Barheïn (722);
2. l'Italie (1.528) vers l'Arabie Saoudite (1.084) et la Jordanie (239).

4.1.3. Abats d'animaux de l'espèce bovine

En 1987, environ 12.048 tonnes d'abats ont été exportées essentiellement par :

1. la France (3.295) vers la Côte d'Ivoire (1.018), la Guadeloupe (465), la Martinique (403), le Gabon (340) et Israël (299);
2. l'Irlande (2.550) vers le Japon (1.529), Israël (346), l'Egypte (295) et l'Ile de Trinité et Tobago (154);
3. l'Allemagne (2.199) vers l'Autriche (1.111), l'Egypte (185) et la Côte d'Ivoire (185);
4. les Pays-Bas (2.152) vers Israël (683), le Zaïre (251) et la Yougoslavie (163).

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4.1.4. Graisse de boeuf non fondue destinée à l'alimentation

En 1987, 27.179 tonnes de produits de cette catégorie ont été exportées essentiellement par :

1. l'Allemagne (15.782) vers l'Iran (6.369), Cuba (2.076), le Nigéria (1.813) et le Burundi (1.511);
2. le Danemark (7.300) vers le Rwanda (1.869), le Kenya (1.681) et la Tanzanie (1.500).

4.1.5. Estomacs, intestins, vessies d'animaux (ensemble des animaux destinés à la consommation humaine)

En 1987, 22.868 tonnes ont été exportées principalement par :

1. l'Allemagne (8.698) vers les USA (2.573), l'Autriche (1.211) et le Brésil (1.006);
2. le Danemark (3.676) vers les USA (1.788), la Norvège (493), la Finlande (386) et la RDA (167);
3. les Pays-Bas (2.910) vers les USA (675), le Brésil (433), la Yougoslavie (247), la Suisse (246) et la Finlande (239);
4. la France (2.582) vers l'Afrique du Sud (612), la Hongrie (334), la Suède (172), Taïwan (152), le Maroc (160) et la Pologne (144).

4.2. Viande de porc

4.2.1. Carcasses et demi-carcasses fraîches, réfrigérées ou congelées

En 1987, 2.720 tonnes de viande de porc de cette catégorie ont été exportées vers les pays tiers. Les principaux pays exportateurs ont été :

1. l'Espagne (1.572) vers les Iles Canaries (1475) et Andorre (74);
2. la France (455) vers les Iles Canaries (142), les Seychelles (85) et la Réunion (66);
3. la Belgique (311) vers les Iles Canaries (287).

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4.2.2. Viande de porc en morceaux

En 1987, 197.921 tonnes ont été exportées essentiellement par :

1. le Danemark (164.272) vers le Japon (94.519), les USA (54.158) et le Canada (9.768);
2. la France (9.512) vers la Réunion (4.415) et la Martinique (1.093);
3. la Belgique (6.537) vers la Tchécoslovaquie (4.026) et les Antilles Néerlandaises (676).

4.2.3. Viande de porc salée ou en saumure, séchée ou fumée

En 1987, 9.637 tonnes de cette catégorie (principalement du bacon) ont été exportées essentiellement par :

1. l'Espagne (3.007) vers les Iles Canaries (2.379) et Andorre (315);
2. le Danemark (3.000) vers la Suède (1.155), les USA (613), le Groenland (196) et Singapour (194);
3. la France (1.409) vers la Guadeloupe (483), la Martinique (213) et la Réunion (213).

4.2.4. Graisse de porc (et graisse de volaille) fraîche, réfrigérée et congelée

En 1987, 2.085 tonnes ont été exportées essentiellement par :

1. le Danemark (1.488) vers la Norvège (907) et Chypre (177);
2. la France (242) vers la Réunion (176).

4.2.5. Saucisses, boudins et autres

En 1987, 65.425 tonnes ont été exportées essentiellement par :

1. l'Espagne (28.414) vers les Iles Canaries (23.811), Andorre (454) et le Liban (263);
2. le Danemark (16.742) vers les USA (4.027), les Iles Canaries (3.505), Singapour (1.073) et l'Arabie Saoudite (1.006);
3. la France (6.910) vers la Réunion (1.279), la Guadeloupe (1.278) et la Martinique (1.170);
4. l'Italie (4.666) vers la Suisse (2.605) et le Liban (463).

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4.2.6. Abats de porcs

En 1987, 35.725 tonnes d'abats de porc ont été exportées essentiellement par :

1. le Danemark (14.674) vers la Suède (7.572), le Japon (3.354) et le Libéria (1.229);
2. les Pays-Bas (8.481) vers la Suède (2.243), la Côte d'Ivoire (2.167) et le Cameroun (960);
3. l'Allemagne (4.440) vers la Suède (3.970) et la Suisse (243).

4.3. Viande des animaux des espèces ovine ou caprine, fraîche, réfrigérée ou congelée

Une seule classification à des fins statistiques.

4.3.1. Toutes viandes ovines et caprines

En 1987, 5.169 tonnes au total ont été exportées essentiellement par :

1. le Royaume-Uni (2.475) vers la Suisse (2.172);
2. l'Italie (906) vers la Lybie (906);
3. la France (678) vers la Suisse (312) et la Réunion (71).

Commentaires sur les exportations d'abats et de viandes fraîches

Etant donné que les stocks d'intervention diminuent, les exportations de viande bovine vers les pays tels que l'URSS et le Brésil risquent de diminuer. Si l'on opte pour une politique de vaccination générale, les exportations d'abats de bovins de l'Irlande vers le Japon et d'autres pays, qui représentaient un total de 2.550 tonnes en 1987, seront perdues.

Par ailleurs, le Danemark perdrait ses exportations de porc en morceaux, de viandes de porc partiellement traitées, de graisse de porc, d'abats, de saucisses, de boudins et autres, d'un total de 200.000 tonnes en 1987, essentiellement à destination des pays figurant sur la "liste blanche". Ces exportations sont toutefois marginales par rapport à l'ensemble des échanges et nous pensons qu'il est possible de trouver des débouchés pour cette production au sein de la Communauté.

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4.4 Bovins

4.4.1. Veaux (jusqu'à 250 kg)

En 1987, 3.309 veaux ont été exportés par la Communuaté. Le principal pays exportateur a été :

la France (3.299) vers la Suisse (3.031) et Andorre (206).

4.4.2. Gros bovins d'engraissement, de rente et de boucherie

En 1987, les exportations ont porté sur un total de 77.527 unités. Les principaux pays exportateurs ont été :

1. l'Irlande (64.950) vers la Lybie (30.149), l'Egypte (29.577) et Malte (4.200);
2. la France (7.807) vers la Tunisie (1.684), l'Arabie Saoudite (1.504) et l'Algérie (677);
3. l'Allemagne (2.324) vers l'Arabie Saoudite (2.119);
4. l'Espagne (2.298) vers Andorre (2.260).

4.4.3. Bovins reproducteurs de race pure

En 1987, les exportations ont porté sur un total de 87.119 unités. Les principaux pays exportateurs ont été :

1. l'Allemagne (43.837) vers la Turquie (5.357), l'URSS (4.893), le Maroc (4.958), la Lybie (3.910), le Koweit (3.661), la Syrie (2.267), l'Irak (2.164), l'Iran (2.024), la Jordanie (2.157) et l'Arabie Saoudite (1.026);
2. la France (21.390) vers l'Algérie (18.367), le Maroc (1.406) et les Iles Canaries (1.045);
3. les Pays-Bas (16.647) vers l'Algérie (5.950), l'Iran (5.129), l'Egypte (3.316) et la Jordanie (836);
4. le Danemark (4.307) vers l'Egypte (2.490), l'URSS (1.372) et les Emirats Arabes Unis (365).

4.5. Porcs

Comme nous l'avons signalé précédemment, des maladies autres que la fièvre aphteuse peuvent limiter les échanges.

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4.5.1. Porcs de rente (jusqu'à 50 kg) porcelets sevrés

En 1987, les exportations ont porté sur un total de 2.633 unités. Les principaux pays exportateurs ont été :

1. les Pays-Bas (1.188) vers les Philippines (579) et les Iles Faroe (516);
2. la Belgique (1.067) vers les Philippines (1.052).

4.5.2. Porcs de 50 kg ou plus (essentiellement porcs de boucherie)

En 1987, les exportations se sont chiffrées à 4.390 porcs au total. Le principal pays exportateur a été :

la France (3.502) vers les Iles Canaries (1.891) et la Suisse (1.000).

4.5.3. Truies adultes (autres que de race pure) (essentiellement truies de boucherie)

En 1987, les exportations se sont chiffrées au total à 86 unités (Pays-Bas vers RDA).

4.5.4. Porcs reproducteurs de race pure

En 1987, les exportations se sont chiffrées au total à 3.444 unités. Les principaux pays exportateurs ont été :

1. le Royaume-Uni (2.224) vers la Thaïlande (681), le Japon (537), les Philippines (176), le Nigéria (178), le Kenya (169) et la Corée du Sud (111);
2. le Danemark (338) vers la Thaïlande (159) et la Corée du Sud (101);
3. la France (285) vers les Iles Canaries (194) et les Seychelles (40).

4.6. Ovins et caprins

4.6.1. Ovins et caprins autres que de race pure

En 1987, 54.576 animaux de ce type ont été exportés essentiellement par :

1. l'Espagne (30.481) vers Andorre (20.405) et Ceuta (10.076);
2. la Grèce (21.900) vers la Turquie (21.900).

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4.6.2. Ovins et caprins reproducteurs de race pure

En 1987, 5.940 animaux de ce type ont été exportés. Les principaux pays exportateurs ont été :

1. la France (4.672) vers l'Algérie (3.886), la Chine (233) et la Colombie (130);
2. l'Allemagne (723) vers la Pologne (413) et l'Autriche (216).

Commentaires sur les exportations d'animaux vivants

Les exportations de bovins de rente/de boucherie et d'élevage sont importantes. Les pays destinataires pratiquent la vaccination systématique. Le fait que certains Etats membres, comme le Danemark et l'Irlande, ne pratiquent pas la vaccination ne semble pas avoir d'influence sur les exportations.

Les exportations de porcs ne sont pas importantes, sauf peut-être en ce qui concerne les reproducteurs de race pure où le Royaume-Uni et le Danemark détiennent des positions avantageuses essentiellement dans les échanges à destination de l'Extrême-Orient. Comme nous l'avons mentionné précédemment, des maladies telles que la peste porcine classique et la peste porcine africaine peuvent compliquer la structure des exportations.

Les exportations d'ovins et de caprins ne sont pas importantes face aux échanges intracommunautaires (2 millions de têtes).

4.7. Résumé et conclusions

4.7.1. Echanges intracommunautaires

(a) Viande et produits à base de viande

Quelle que soit la politique adoptée (vaccination générale ou non-vaccination contre la fièvre aphteuse), il ne devrait y avoir aucun obstacle aux échanges.

(b) Bovins

Quelle que soit la formule choisie, les échanges de veaux devraient rester stables. Il existe une possibilité d'échanges de jeunes bovins maigres (de rente) et de bovins de boucherie vers le Danemark et le Royaume-Uni. Il est peu probable que les échanges de bovins reproducteurs de race pure se modifient sensiblement.

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(c) Porcs

Les échanges sont également influencés par d'autres maladies que la fièvre aphteuse. Qu'il s'agisse d'une politique de vaccination générale ou de non-vaccination, il est difficile de prévoir des changements appréciables sur le plan de la structure des échanges.

(d) Ovins et caprins

Les échanges actuels semblent être toujours fortement influencés par les dispositions applicables en matière de brucellose (Brucella melitensis).

4.7.2. Echanges en provenance des pays tiers

(a) Viande et produits de viande

On prévoit peu de changements sauf peut-être un renforcement des contrôles à l'importation des abats en provenance de pays infectés de fièvre aphteuse. Des décisions uniformes doivent être prises vis-à-vis des pays d'Amérique du Sud et d'Afrique Australe. Il faut tenir compte du principe de "non-interférence" appliqué par les Pays-Bas et d'autres pays figurant sur la "liste blanche", aux termes duquel les établissements préparant de la viande et des produits à base de viande à destination de ces pays ne peuvent recevoir et traiter de la viande en provenance de pays ne figurant pas sur la "liste blanche".

(b) Bovins

Dans le cas d'une politique de non-vaccination, une légère baisse des échanges de veaux (27.000) et d'animaux d'élevage (15.000) se fera sentir si la Tchécoslovaquie et la Suisse n'abandonnent pas la vaccination. La Pologne et la Yougoslavie ne seront, par contre, plus obligées de pratiquer la vaccination avant l'exportation.

(c) Porcs

Les importations, qui se sont chiffrées à 52.000 têtes en 1987, sont insignifiantes par rapport à l'ensemble des échanges intracommunautaires (7,0 millions de porcs), notamment si l'on tient compte du degré d'auto-suffisance global du secteur porcin dans la Communauté.

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(d) Ovins et caprins

Les principaux fournisseurs de la Communauté ne pratiquent pas la vaccination systématique. Quelle que soit la politique adoptée, la structure actuelle des échanges devrait normalement se maintenir.

4.7.3. Echanges à destination des pays tiers

(a) Viande et produits à base de viande

Il faut envisager plusieurs cas. Premièrement, les échanges actuels sont régis par de nombreux facteurs, tels que les quotas (par ex. U.S.A. et Canada), les restitutions à l'exportation (accordées par la CEE), les liens commerciaux établis (par ex. le Danemark vers les pays scandinaves) et enfin les règles zoosanitaires (par ex. les pays figurant sur la "liste blanche").

Deuxièmement, une politique de vaccination généralisée pourrait rétrécir les marchés d'exportation (du moins en ce qui concerne la viande fraîche) du Danemark, de l'Irlande et du Royaume-Uni dans une moindre mesure, qui exportent vers les pays figurant sur la "liste blanche" tels que les U.S.A., le Canada et le Japon. Ces échanges servent de tampon aux variations conjoncturelles de production dans la Communauté.

Troisièmement, le passage à une politique de non-vaccination pourrait élargir l'accès de la Communauté dans son ensemble aux pays de la "liste blanche". Cet élargissement pourrait, toutefois, être limité par des restrictions de nature économique. Dans ce cas, les Etats membres qui exportent actuellement d'importants volumes de viande risquent de devoir partager un marché déterminé avec des Etats membres remplissant depuis peu les conditions de pénétration de ce marché.

Un quatrième cas, sans doute hypothétique, doit être envisagé, à savoir le cas dans lequel la Communauté, en tant qu'"entité", est indemne de fièvre aphteuse. La vaccination étant supprimée, la Communauté serait internationalement reconnue indemne de fièvre aphteuse. La Communauté perdrait-elle son statut en cas d'apparition d'un foyer de fièvre aphteuse ? La réponse dépend de l'efficacité de la régionalisation et des mesures de surveillance de la maladie.

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Le principe de la régionalisation est un principe que la Communauté applique en cas d'apparition d'un foyer de fièvre aphteuse ou d'une autre maladie épizootique en vue d'assurer sa propre protection. Les mesures comprennent l'abattage sanitaire dans l'exploitation infectée, la création de zones de protection et de surveillance, l'interdiction de circulation des animaux et d'autres mesures fixées par la directive 85/511/CEE.

L'expérience acquise jusqu'à présent nous amène à penser que certains pays tiers accepteront difficilement ce principe à moins d'être convaincus que les contrôles empêchent effectivement la propagation du virus vers le restant de la Communauté, ce qui leur permettrait de continuer à accepter le produit.

D'autre part, il est établi que lors de l'apparition de la fièvre aphteuse au Royaume-uni (Isle of Wight en 1981), l'Irlande du Nord a conservé son statut de zone indemne. Dès lors, il faut admettre que l'existence d'une barrière physique a joué dans ce cas.

Par ailleurs, la Communauté a accepté ce principe de la régionalisation non seulement pour elle-même, mais aussi pour les pays tiers tels que la Bulgarie, l'Amérique du Sud, l'Afrique du Sud et dernièrement le Canada, pays dans lequel la vallée de l'Okanagan est touchée par la fièvre catarrhale du mouton et est allée jusqu'à admette la régionalisation aux Etats-Unis pour cette dernière maladie.

(b) Animaux vivants

Les principes énoncés pour la viande et les produits à base de viande s'appliquent aussi dans une large mesure aux animaux vivants.

En cas de vaccination générale, de nombreux marchés d'exportation seront perdus dans le secteur des reproducteurs de race pure. Il convient toutefois de signaler que certains pays figurant sur la "liste blanche" accepteront les animaux non vaccinés provenant de pays pratiquant la vaccination, à condition toutefois de pratiquer une mise en quarantaine sévère et coûteuse.

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En cas de non-vaccination, tous les Etats membres seraient en mesure d'exporter librement vers l'ensemble des pays tiers dans la limite toutefois d'éventuelles restrictions d'autre nature.

4.7.4. Lignes d'action proposées

Etant donné que nous ne savons pas quelles seront les réactions de nos partenaires commerciaux des pays tiers face au statut de zone indemne acquis par la Communauté, il serait raisonnable d'organiser des discussions informelles au niveau (vétérinaire) technique afin : (a) de les informer des intentions de la Communauté et (b) de sonder leur attitude face à la régionalisation. Nous savons que plusieurs pays tiers importants sont intéressés par le principe de la régionalisation, car ils aimeraient connaître quelle serait l'attitude adoptée par la Communauté à leur égard s'ils étaient un jour infectés.

Nous suggérons d'adopter cette ligne de conduite sans tarder.

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ANNEXE V

MESURES DE PREVENTION DE LA FIEVRE APHTEUSE APRES 1992

- RAPPORT D'UN SOUS-GROUPE DU COMITE SCIENTIFIQUE VETERINAIRE

1. PREVENTION DES FOYERS PRIMAIRES APRES 1992

En cas d'adoption par la Communauté d'une politique de vaccination généralisée, les mesures de prévention et de lutte contre la FA sont largement couvertes par la directive 85/511/CEE du Conseil.

En cas d'adoption par la Communauté d'une politique de non-vaccination en matière de lutte contre la FA, il est indispensable d'envisager les FACTEURS DE RISQUES/MESURES DE PROTECTION ci-après, afin d'empêcher ou de réduire l'apparition de foyers primaires :

2. IMPORTATIONS D'ANIMAUX

Bien qu'aucune importation d'animaux vivants n'ait provoqué récemment de foyers primaires dans la Communauté, toute importation de bétail comporte un risque en soi. Aussi, le groupe recommande-t-il :

(a) de limiter les importations aux animaux non vaccinés (exempts d'anticorps), les animaux importés devant être mis en quarantaine et soumis à des tests ("probang test" et test sérologique), sauf s'ils sont originaires d'un pays indemne de FA qui applique des méthodes de lutte équivalentes à celles appliquées par la Communauté;

(b) de prendre des précautions particulières, afin d'empêcher le mélange du bétail en estivage aux confins de la Communauté.

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3. PROPAGATION PAR VOIE AERIENNE DE LA MALADIE A PARTIR DE PAYS VOISINS

Il a été indirectement prouvé que l'infection a franchi la frontière orientale de la Communauté grâce à un virus en suspension dans l'air. Ce type de virus reste viable dans un milieu froid et humide et constitue, de ce fait, une menace plus importante pour l'Europe septentrionale. Les risques que comporte une infection transmise par voie aérienne peuvent être réduits grâce aux mesures ci-après :

(a) en mettant en place un système de surveillance international permettant d'obtenir des renseignements sur les foyers de maladie dans les pays voisins (par exemple par l'intermédiaire de l'OIE, de la CCE ou de communications bilatérales). Le groupe recommande de renforcer ces systèmes d'information;

(b) en se servant des informations météorologiques pour procéder à des estimations sur la façon dont les virus sont susceptibles de se déplacer et de se propager. De telles estimations ont été effectuées au Royaume-Uni et en France et devraient être introduites ailleurs. Les logiciels correspondants sont disponibles dans le commerce;

(c) en apportant si nécessaire le concours de la Communauté aux programmes de vaccination dans les pays voisins et en évaluant l'efficacité de ces programmes grâce à des enquêtes sérologiques régulières;

(d) en collaborant avec les pays voisins pour les seconder dans l'éradication de la FA;

(e) en informant les exploitants agricoles de la Communauté et les vétérinaires de terrain sur l'importance d'une surveillance rigoureuse et de comptes rendus rapides.

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4. CIRCULATION DES PERSONNES A DES FINS COMMERCIALES OU TOURISTIQUES

Les personnes franchissant les frontières de la Communauté peuvent transporter des objets contaminés par le virus de la fièvre aphteuse. Les touristes, qui vont camper à la campagne à l'extérieur de la Communauté, constituent un risque, car ils peuvent transporter le virus sur leurs vêtements et objets personnels. Le groupe recommande que :

(a) la Communauté s'efforce d'informer les personnes franchissant régulièrement ses frontières sur le risque de transmission du virus par les denrées alimentaires, etc., en posant des panneaux très visibles aux douanes et dans les aéroports et en interdisant aux touristes de rapporter de la viande ou d'autres produits animaux;

(b) les touristes soient sensibilisés au danger qu'il y a à jeter de la viande et d'autres produits animaux à la campagne.

5. CIRCULATION DES VEHICULES

Les véhicules franchissant les frontières de la Communauté risquent de transporter le virus dans la terre ou la poussière adhérant à l'extérieur du véhicule, aux vêtements ou à d'autres objets à l'intérieur du véhicule. Le groupe recommande que la Communauté envisage la possibilité de mettre en place des installations de lavage d'urgence aux frontières lorsque la maladie a été signalée dans un pays voisin.

6. IMPORTATION DE VIANDE ET D'AUTRES PRODUITS ANIMAUX

La viande et certains produits animaux (lait, peaux, laines, abats, biomatériaux, y compris les vaccins et poduits pharmaceutiques utilisés à des fins vétérinaires et les aliments de bétail) présentent un risque d'infection; on s'accorde toutefois à reconnaître que ces produits peuvent être importés dans des conditions particulières.

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De même l'introduction de matériel biologique (à des fins scientifiques par exemple) en provenance de l'étranger présente des risques.

Le groupe recommande que la réglementation communautaire régissant l'importation de ces produits soit réexaminée. Il convient d'interdire l'importation de viande et d'autres produits animaux par des particuliers(1).

7. IMPORTATION DE SEMENCES ET D'EMBRYONS

L'importation de semences et d'embryons présente un risque. A cet égard, il convient de rappeler les règles déjà arrêtées par le Conseil en ce qui concerne l'importation de semences. Des règles analogues concernant l'importation d'embryons sont actuellement à l'étude.

8. STOCKAGE ET MANIPULATION DU VIRUS DE LA FIEVRE APHTEUSE DANS LES LABORATOIRES ET LES ETABLISSEMENTS DE FABRICATION DU VACCIN AU SEIN DE LA COMMUNAUTE

Même si la Communauté applique une politique de non-vaccination, on s'accorde à reconnaître qu'il sera toujours nécessaire de disposer d'installations pour le diagnostic de la FA, de procéder à des recherches sur la FA et de fabriquer des vaccins à la fois pour les banques de vaccins d'urgence et pour l'exportation. Conscient du fait que les laboratoires de recherche et les établissements de fabrication des vaccins, ont, dans un passé récent, donné lieu à un certain nombre de foyers de FA au sein de la Communauté, le groupe recommande :

(a) que le nombre de laboratoires et d'établissements de fabrication de vaccins détenant des virus aphteux soit strictement contrôlé;

(b) que les laboratoires et les établissements de fabrication de vaccins se conforment aux normes minimales recommandées par l'OAA pour les laboratoires effectuant des travaux sur le virus aphteux in vitro et in vivo - rapport de la 26ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, 23-26 avril 1985.

(1) Il convient de prêter particulièrement attention au "port franc" et aux problèmes de contrôle et d'élimination des "eaux grasses d'origine internationale".

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(c) que tous les services détenant des virus aphteux soient contrôlés, à intervalles réguliers, par une équipe d'inspecteurs de la Communauté;

(d) que l'innocuité et l'activité des vaccins antiaphteux utilisés en cas d'urgence soient contrôlées. Il est fait référence à cet égard au rôle de l'institut communautaire pour la coordination des vaccinations contre la fièvre aphteuse.

9. UTILISATION DE VACCINS ANTIAPHTEUX

Il peut arriver que des partenaires commerciaux demandent que le bétail en provenance de la Communauté soit vacciné avant son exportation. Pour répondre à ce besoin, le groupe demande :

(a) que la vaccination soit pratiquée au lieu de destination, dans un centre de mise en quarantaine aux fins d'exportation agréé par la Communauté ou sur le véhicule au moment du départ;

(b) que des précautions particulières soient prises, afin d'empêcher le retour des animaux vaccinés dans la Communauté.

En cas d'apparition d'un foyer, il peut être nécessaire de procéder à une vaccination d'urgence dans une zone territoriale déterminée. Etant donné qu'une telle vaccination d'urgence serait pratiquée sur du cheptel non immunisé, il est recommandé de procéder à deux vaccinations à trois à quatre semaines d'intervalle(1).

10. PREVENTION DES FOYERS SECONDAIRES APRES 1992

En cas de non-vaccination, les mesures nécessaires à prendre pour limiter le nombre de foyers secondaires sont précisées en principe dans la directive 85/511/CEE du Conseil, et plus particulièrement à l'article 5, paragraphe a.

(1) Le recours à la vaccination d'urgence n'est prévu que dans des circonstances exceptionnelles lorsqu'une épizootie risque de se propager. Cette décision devrait être prise au niveau communautaire et permettre d'identifier les animaux vaccinés.

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Quant aux enquêtes épidémiologiques, il convient de se référer aux principes énoncés par l'OAA : "méthodes de recherche de l'origine de l'infection en ce qui concerne les foyers de fièvre aphteuse FA)". (REF. : Rapport de la 27ème réunion de la Commission européenne de lutte contre la fièvre aphteuse, Rome, 21-24 avril 1987, pp 111-120).

L'application des mesures à prendre serait facilitée par la mise en place d'équipes de travail qualifiées au niveau local ou régional. Ces équipes seraient chargées des tâches ci-après :

(a) abattage et destruction des animaux (il convient de prêter une attention toute particulière aux problèmes pratiques liés à la destruction d'un grand nombre d'animaux en un espace de temps réduit);

(b) nettoyage et désinfection des locaux infectés;

(c) évacuation des déchets;

(d) création et maintien d'un service de désinfection des exploitations agricoles et des environs;

(e) points de contrôle;

(f) mise en place de panneaux avertisseurs;

(g) désinfection de tous les véhicules importants qui sortent ou entrent dans la zone infectée;

(g) interdiction des entrées ou sorties d'agents non autorisés.

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En outre, il convient de constituer des équipes épidémiologiques qui apporteraient leur concours aux autorités locales ou régionales. Ces équipes se composeraient de vétérinaires virologues, d'agents techniques du laboratoire national de la FA ainsi que de météorologues connaissant le fonctionnement des systèmes informatiques permettant d'analyser et de prévoir la propagation de la FA par voie aérienne. En cas d'apparition d'un foyer, l'équipe épidémiologique se rendrait immédiatement dans les locaux infectés et serait chargée :

(a) de déterminer sur place l'étendue et le type de la maladie;

(b) de déterminer la source d'infection;

(c) d'évaluer les probabilités de foyers secondaires;

(d) d'informer le vétérinaire chargé de la lutte contre la maladie sur les risques de contamination d'autres locaux.

L'équipe devrait être dotée de véhicules spécialisés et de radiotéléphones.

Il est probable que les foyers de FA deviennent de plus en plus rares au sein de la Communauté et des programmes de formation continue devraient être mis en place, afin d'entretenir les compétences techniques en matière à la fois de diagnostic de la fièvre aphteuse et de lutte contre cette maladie. Ces programmes de formation pourraient être supervisés par un petit groupe d'experts en fièvre aphteuse au niveau communautaire. En cas d'apparition d'un foyer, les autorités nationales devraient pouvoir faire appel aux services de ce groupe.

11. RISQUES ET PREVENTION AU COURS DE LA PERIODE TRANSITOIRE

En cas de passage à une politique de non-vaccination, la proportion d'animaux vaccinés diminuera au cours de la période transitoire alors que celle ces animaux sensibles augmentera.

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Après l'abandon de la vaccination, de plus en plus d'animaux sensibles seront en contact avec les derniers animaux vaccinés et serviront ainsi de révélateur. Si environ un an après l'abandon de la vaccination aucun foyer ne s'est déclaré, le risque de la présence du virus au sein du cheptel bovin peut être considéré comme négligeable.

Pendant un an à compter de l'introduction de la politique de non-vaccination, les Etats membres n'ayant pas pratiqué la vaccination jusqu'alors, devraient continuer à effectuer des tests sérologiques et des "probang test" sur les animaux vivants avant l'importation en provenance des Etats membres ayant préalablement pratiqué la vaccination, afin d'exclure les animaux séropositifs ou porteurs du virus.

Ces tests ne sont pas nécessaires pour la circulation des animaux entre les Etats membres ayant préalablement pratiqué la vaccination. Les règles qui régissent l'exemption de fièvre aphteuse d'une exploitation agricole ou d'une zone devraient toutefois être maintenues en ce qui concerne la circulation des animaux entre tous les Etats membres. Il va de soi que la vaccination obligatoire avant la mise en circulation ne serait plus applicable.

La proposition d'une période transitoire d'un an s'appuie sur les arguments suivants :

(a) au cours de la dernière décennie, la durée de vie des bovins s'est de plus en plus raccourcie, faisant ainsi rapidement diminuer le pourcentage d'animaux revaccinés facilement identifiables;

(b) les anticorps maternels transmis aux jeunes animaux disparaissent complètement au bout d'un an;

(c) la plupart des animaux vaccinés une seule fois et destinés à l'engraissement seront éliminés du marché à la fin de l'année qui suit la dernière campagne de vaccination.

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ANNEXE 6

EFFETS PREVISIBLES D'UNE INTERRUPTION DE LA VACCINATION CONTRE LA FIEVRE APHTEUSE SUR L'EMPLOI DES VETERINAIRES

La situation risque de varier considérablement d'un pays à l'autre en fonction de la densité du cheptel et de l'existence ou non d'un système de subvention destinées à maintenir un minimum d'activités vétérinaires.

La situation est compliquée par le fait que dans certains Etats membres (BE) la vaccination est pratiquée par des vétérinaires privés, dans d'autres par les services de l'Etat (LUX, PO) et dans d'autres par les deux à la fois (DE, ES, FR, IT, NL).

Les Etats membres ont envoyé leurs observations. 4 seulement (BE, DE, FR, NL) prévoient des pertes d'emploi essentiellement dans le secteur privé, où selon les estimations, 10 % environ des honoraires proviennent actuellement de la vaccination. Dans ces Etats membres, on estime que sur les 22.280 vétérinaires pratiquant actuellement la vaccination, 1.480 emplois seront perdus.

Les autres Etats membres estiment que le personnel (des services publics essentiellement) pourra être réaffecté à d'autres projets d'éradication. Seule la France a laissé entendre que les pertes d'emplois pourraient compromettre la surveillance de la maladie et toucher environ 250 vétérinaires dans les régions fort reculées.

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ANNEXE 7

EFFETS PREVISIBLES D'UN CHANGEMENT DE POLITIQUE SUR LES LABORATOIRES MANIPULANT LE VIRUS DE LA FIEVRE APHTEUSE

1. LEGISLATION COMMUNAUTAIRE EXISTANTE

1.1. Diagnostic et vaccins

La directive 85/511/CEE établissant des mesures communautaires de lutte contre la fièvre aphteuse, entrée en vigueur le 1er janvier 1987, demandait à la Commission de proposer au Conseil :

- un laboratoire de référence pour l'identification du virus de la fièvre aphteuse et
- un institut de coordination des vaccins aphteux,

en précisant leurs attributions respectives.

Des propositions ont été soumises au Conseil en avril 1988 et les décisions devraient intervenir sous peu. Dans chaque proposition, un article a été prévu à cet effet, à savoir :

1. le laboratoire de référence communautaire/l'institut de coordination communautaire travaillera dans des conditions de sécurité sanitaire, agréées, telles qu'elles sont contenues dans les "normes minimales applicables aux laboratoires manipulant le virus de la fièvre aphteuse in vitro et in vivo" - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985;

2. le laboratoire de référence communautaire/institut de coordination communautaire formulera et recommandera les mesures de sécurité sanitaire à adopter par les laboratoires nationaux lors du diagnostic de la fièvre aphteuse conformément aux normes mentionnées au paragraphe 1.

Les laboratoires nationaux qui ont déjà été désignés par les Etats membres et qui figurent dans l'annexe de la directive seront coordonnés par le laboratoire de référence communautaire et l'institut de coordination, dans le domaine de la sécurité sanitaire notamment.

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2. SITUATION ACTUELLE

2.1. A l'heure actuelle, plus de 30 laboratoires manipulent le virus de la fièvre aphteuse en Europe à des fins de diagnostic et de recherche d'une part, et de fabrication de vaccins d'autre part.

En cas d'adoption d'une politique de non-vaccination, une attention toute particulière doit être accordée :

- aux fonctions des laboratoires s'occupant de fièvre aphteuse;
- aux systèmes de sécurité appliqués par lesdits laboratoires;
- au nombre desdits laboratoires.

2.2. Fonctions des laboratoires s'occupant de fièvre aphteuse

2.2.1. Diagnostic de la fièvre aphteuse.

L'établissement d'un diagnostic rapide en laboratoire est essentiel pour permettre l'éradication de la fièvre aphteuse, surtout lors de l'apparition des premiers foyers. Cette remarque vaut quelle que soit la politique adoptée. Toutefois, en cas de non-vaccination, il est d'autant plus nécessaire d'agir vite et les éléments suspects de foyers primaires éventuels doivent toujours être envoyés sans tarder au laboratoire de diagnostic pour une analyse immédiate.

Compte tenu du risque de propagation rapide de la fièvre aphteuse, il est important que les agriculteurs et les vétérinaires de terrain soient pleinement conscients de l'importance que revêtent une vigilance stricte et une notification immédiate. Les membres de l'équipe de terrain des services vétérinaires de l'Etat devraient avoir la possibilité d'observer des cas cliniques de fièvre aphteuse au Laboratoire de Référence (ou laboratoire national) dans le cadre de leur formation.

Les laboratoires de diagnostic devraient disposer d'un matériel et d'un personnel leur permettant de pratiquer des tests à haute sensibilité de façon à pouvoir établir rapidement un premier diagnostic et identifier plus facilement l'origine de l'infection. En outre, le laboratoire établissant le diagnostic devrait envoyer le plus rapidement possible un échantillon des virus (de préférence le matériel d'analyse recueilli sur le terrain) du premier foyer au Laboratoire de Référence à des fins de confirmation et de caractérisation complète.

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Les laboratoires de diagnostic devraient être équipés (en matériel et en personnel) pour procéder à des tests sérologiques à grande échelle indispensables lors des analyses épizootiologiques liées à l'apparition de foyers.

Les laboratoires de diagnostic auront une autre fonction importante à remplir, à savoir procéder à des tests de contrôle lors de l'importation d'animaux vivants en provenance de pays tiers qui n'appliquent pas des mesures de lutte contre la fièvre aphteuse équivalentes à celles appliquées par la Communauté.

2.2.2. Etablissement de fabrication de vaccins

Il existe 15 établissements qui fabriquent des vaccins au sein de la Communauté. Parmi ces établissements, huit appartiennent à l'Etat et sept sont des sociétés commerciales appartenant à cinq firmes (voir tableau 1). La capacité de production de ces établissements varie très fort de même que leur niveau de sécurité. Les établissements de l'Etat sont fort proches des laboratoires ou instituts de recherche et de diagnostic de la fièvre aphteuse (souvent, ils utilisent les mêmes installations).

Capacité de production

Pour couvrir les besoins liés aux programmes de vaccination actuels dans huit Etats membres de la Communauté (à l'exclusion du Royaume-Uni, de l'Irlande, du Danemark et de la Grèce), 77,3 millions de doses vaccinales sont produites chaque année par les quinze établissements. 37 % environ des vaccins sont produits dans les établissements de l'Etat (29 millions de doses).

Ce chiffre tient compte des données suivantes :

- pour l'instant, l'Italie a un gros programme de vaccination pour les bovins et les porcins;
- l'Espagne vaccine le cheptel bovin deux fois par an et a également un programme de vaccination pour les porcins et les ovins.

A ce chiffre de 77,3 millions de doses, il convient d'ajouter un nombre indéterminé de doses nécessaires pour :

- la fabrication de vaccins destinés à l'exportation vers les pays tiers, essentiellement par les sociétés commerciales (EG-Merieux-France : 5,8 millions de doses). Les établissements de l'Etat peuvent également exporter une certaine quantité de vaccins, mais généralement au coup par coup;
- la fabrication de vaccins dans certains Etats membres pour la constitution de stocks d'urgence.

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En étant prudents, on peut estimer à 85/90 millions de doses la fabrication annuelle totale de vaccins au sein de la Communauté. Il est impossible de donner une estimation quelconque des capacités de production maximales.

Si les huit Etats membres poursuivent le même programme de vaccination pour les bovins et vaccinent 85 % de leur cheptel bovin une fois par an, il est nécessaire de produire au minimum plus ou moins 50 millions de doses de vaccin trivalent.

La Communauté n'importe pas de vaccin aphteux sauf une petite quantité de vaccins destinés à la zone tampon dans le nome d'Evros (Grèce).

Politique de vaccination générale

Si l'on opte pour la vaccination générale, un programme de vaccination devra être introduit dans les quatre Etats membres restants, à savoir le Royaume-Uni, l'Irlande, le Danemark et la Grèce. Ces quatre pays totalisent ± 20,5 millions de bovins.

Si l'on vaccine 85 % de ce cheptel bovin, il faudra 17 millions de doses vaccinales en plus. Ces vaccins supplémentaires peuvent être fabriqués de trois façons différentes, à savoir :

(a) chacun des quatre pays peut accroître ses installations existantes pour couvrir ses propres besoins (exception faite de l'Irlande qui ne dispose pas d'installations);
(b) les établissements qui existent à l'extérieur des quatre pays mais à l'intérieur de la Communauté peuvent augmenter leur production;
(c) la Communauté peut importer des vaccins de l'étranger.

En ce qui concerne le point (a), on peut raisonnablement s'attendre à une augmentation de la production de vaccins dans les installations dont disposent le Danemark, le Royaume-Uni et la Grèce. La construction d'unités de production en Irlande n'est pas une solution très plausible, à moins qu'elle ne soit nécessaire pour des raisons politiques. Il serait toutefois sans doute beaucoup moins onéreux que les quatre pays achètent leurs vaccins aux autres Etats membres.

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En ce qui concerne le point (b), augmenter la fabrication de vaccins dans les établissements actuels de la Communauté pour fournir les 17 millions de doses supplémentaires ne devrait poser aucun problème (voir paragraphe ci-dessus sur les capacités de production).

En ce qui concerne le point (c), l'importation de vaccins dans la Communauté semble hautement improbable pour les raisons suivantes :
- de telles importations ne sont pas nécessaires;
- l'importation de vaccins dans la Communauté pourrait accroître le risque d'introduction du virus aphteux.

Politique de non-vaccination

L'adoption d'une politique de non-vaccination signifierait automatiquement l'abandon de toute vaccination préventive contre la fièvre aphteuse dans toute la Communauté. La vaccination ne serait plus nécessaire que pour les campagnes de vaccination d'urgence dans certaines zones autour des foyers lorsque l'abattage sanitaire ne permet pas une éradication rapide de la maladie ou si la maladie se propage. Des stocks stratégiques de vaccins (une banque communautaire des vaccins) seront nécessaires. L'estimation du nombre de doses vaccinales nécessaires à cet effet doit encore être faite.
Il est clair toutefois qu'une politique de non-vaccination diminuera sensiblement le nombre de vaccins nécessaires au sein de la Communauté.

Les sociétés commerciales de fabrication de vaccins qui exportent vers les pays tiers une grande quantité de leur production par rapport à la production totale de vaccins aphteux devraient pouvoir continuer leurs activités en étant soumises à de stricts contrôles de sécurité.
D'autres fermeront leurs installations de fabrication de vaccins aphteux ou réorienteront leurs activités.

Il sera par ailleurs nécessaire de tenir compte des recommandations de l'OIE en ce qui concerne le trafic international de produits pathologiques et de produits biologiques contenant le virus aphteux.

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Quant au sort des établissements de l'Etat, qui produisent en grande partie uniquement pour couvrir les besoins de leur propre pays, ils dépendent d'un certain nombre de facteurs, à savoir :

a. le maintien des capacités de diagnostic;
b. la recherche dans le domaine de l'épidémiologie et de la lutte contre la fièvre aphteuse;
c. la fabrication et le stockage - ainsi que la recherche qui y est associée - d'une certaine quantité de vaccins pour la constitution des réserves de la banque communautaire des vaccins;
d. les possibilités de fabrication de vaccins destinés à l'exportation vers les pays tiers.

Si un Etat membre décide de fermer toutes ses unités de production, une partie des économies réalisées de la sorte pourrait être utilisée pour mettre au point des techniques modernes de diagnostic et pour former le personnel.

2.2.3. Travaux de recherche sur la fièvre aphteuse

Quelle que soit la politique adoptée à l'avenir (vaccination ou non-vaccination), il sera nécessaire d'effectuer des travaux de recherche sur la fièvre aphteuse. Parmi les sujets d'actualité, il convient de citer :

- la mise au point et la normalisation de systèmes de tests sensibles;
- l'emploi d'anticorps monoclonaux pour la caractérisation des souches sauvages, des souches vaccinales et des souches d'épreuve;
- la biologie moléculaire du virus aphteux;
- les problèmes liés au stockage de l'antigène viral de la fièvre aphteuse dans les banques;
- de nouvelles sources d'information pour évaluer l'activité du vaccin;
- la sécurité des produits animaux;
- la mise au point de nouveaux vaccins (ex. délétion génétique, sous-unité et peptide).

Les systèmes de tests sensibles ELISA et les méthodes de biotechnologie et de biologie moléculaire, par exemple en vue de l'identification et de la caractérisation rapides et précises des souches virales de la fièvre aphteuse, constituent autant d'exemples des applications pratiques des travaux de recherche de ces dernières années qui offrent d'énormes perspectives. Il est dès lors probable que le "sous-typage" classique des isolats viraux sera remplacé par des caractérisations plus précises, combinant différents paramètres, tels que la détermination de la séquence des nucléotides et/ou les réactions avec une gamme appropriée d'anticorps monoclonaux en plus des relations antigéniques classifiques (valeurs "r").

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Ce type de caractérisation sera très utile à la fois pour identifier l'origine de l'infection et pour sélectionner les vaccins appropriés.

Les travaux de recherche dans ces domaines progressent dans plusieurs laboratoires européens s'occupant de fièvre aphteuse et devraient être encouragés. A l'avenir, ces activités de recherche pourraient être coordonnées par le laboratoire de référence communautaire/institut de coordination communautaire.

2.3. Systèmes de sécurité appliqués par les laboratoires s'occupant de la fièvre aphteuse

Compte tenu des fuites de virus dues aux manipulation en laboratoire, il est impératif que tous les laboratoires travaillant sur le virus aphteux travaillent, quel que soit le type de travaux qu'ils effectuent, selon les normes de sécurité sanitaire reconnues, telles qu'elles sont contenues dans les : "Normes minimales applicables aux laboratoires travaillant sur le virus aphteux in vitro et in vivo - rapport de la 26ème session de la Commission européenne de lutte contre la fièvre aphteuse, OAA, Rome, avril 1985.

Il serait peut-être souhaitable de désigner un groupe d'experts communautaires chargé de contrôler le respect de ces normes de sécurité.

2.4. Nombre de laboratoires s'occupant de la fièvre aphteuse

En raison du risque de fuites de virus dues aux manipulations en laboratoire, il convient de limiter le plus possible le nombre de laboratoires, surtout si l'on opte pour une politique de non-vaccination. Il est évident qu'il faut toutefois en conserver quelques-uns.

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Compte tenu de l'importance d'un diagnostic rapide en cas d'urgence, quelle que soit la localisation du cheptel d'origine, le matériel suspect devrait pouvoir atteindre le laboratoire de diagnostic dans les heures qui suivent son prélèvement ou au moins le même jour. En tenant compte de la nécessité des travaux de recherche sur la fièvre aphteuse et de la qualité des travaux de recherche effectués à l'heure actuelle dans plusieurs des principaux laboratoires nationaux, un compromis raisonnable serait de conserver à l'avenir un seul laboratore national par pays.

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TABLEAU 1

Etat membre	Usines de production		Besoins annuels de vaccins pour les campagnes de vaccination (1986)	Commentaires
	de l'Etat	commercial.		
Belgique	1 Uccle	-	2.3 mill. AOC (triv.)	
Danemark	1 Lindholm	-	0.45 mill. A) O) 0.15 mill. C) chacun	Comme réserve
Allemagne	-	3 Cooper Behring-werke Bayer	)) 13 mill. AOC (triv))	Egalement importation de vaccins de de l'institut Merieux France
Grèce	1 Athènes	-	0.12 mill) A-0.038 mill.) O-0.034 mill.) C-0.043 mill.	Comme réserve. De plus, 60.000 doses sont importées de l'institut Merieux-Téhéran pour servir dans la zone tampon
France	-	1 Merieux	19.0 mill. AOC (triv)	9 mill. de doses également exportées vers la CEE et les pays tiers
Irlande	-	-	-	-
Italie	3 Brescia Padua Perugia	-	18.5 mill. AOC (triv)	Periode 15/3/87 au 3/7/88. Grosse campagne de vaccination, vaccination des bovins et porc.
Luxembourg	-	-	0.2 mill. AOC (triv)	Vaccins provenant de différentes firmes au sein de CEE
Pays-Bas	1 Lelystad	-	3.9 mill. AOC (triv)	-
Portugal	-	-	1.1 mill. AOC (triv)	Vaccins importés d'Espagne et France
Espagne	1 Madrid	2 Cooper Sabrino	10.0 mill. AOC (triv) 9.0 mill. AOC (triv)	Vaccins utilisés pour les bovins et porcins (chiffres de 1987) capacité maximale des 3 laboratoires:102 millions de vaccins (mono)
Royaume-Uni	-	Cooper	-	Fabrication destinée à la banque de vaccins du Roy.Uni
TOTAL	8	7	77.3 millions	0.6 mill. comme réserve

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