COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMISSION WORKING DOCUMENT

With regard to the state of play on the prohibitions to feed animal protein to farmed animals to prevent transmissible spongiform encephalopathies
1. **SUMMARY**

Council Decision 2000/766/EC of 4 December 2000 concerning certain protection measures with regard to transmissible spongiform encephalopathies (TSE) and the feeding of animal protein\(^1\) lays down the extended feed ban as a transitional measure for the implementation of Regulation (EC) No 999/2001 of the European Parliament and of the Council of 22 May 2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies\(^2\) (the TSE Regulation).

The Council and the European Parliament have recently adopted a proposal to extend the TSE transitional measures until 30 June 2005, due to certain delays in the bovine spongiform encephalopathy (BSE) categorisation of countries.

However, to clarify the legal situation as regards this ban, and because it is appropriate to maintain an extended feed ban regardless of the future BSE status of the Member States, a proposal to introduce the current measures into Annex IV of the TSE Regulation received a favourable opinion at the Standing Committee on the Food Chain and Animal Health of 17 June 2003 and is now in the process of adoption. It will apply from 1 September 2003.

When appropriate, the specific provisions relating to the feed ban will be reconsidered, in particular regarding the use of fishmeal, in the light of new scientific developments, the availability of reliable tests, improved control measures in the Member States and, where appropriate, the outcome of a risk assessment.

2. **LEGAL BACKGROUND**

2.1. **Current transitional measures**

Council Decision 2000/766/EC of 4 December 2000 concerning certain protection measures with regard to transmissible spongiform encephalopathies and the feeding of animal protein (the extended feed ban) last amended by Commission Decision 2002/248/EC\(^3\), has been included in the list of transitional measures adopted for the implementation of the TSE Regulation and listed in Annex XI to that Regulation, by effect of Commission Regulation (EC) No 1326/2001; therefore, it is in force as a transitional measure until 30 June 2003 at the latest unless the transitional measures in general are prolonged before this date. The Decision prohibits the feeding of processed animal proteins to farmed animals, which are kept, fattened or bred for the production of food. The following uses of specific animal proteins are derogated from the ban in accordance with strict control measures:

- fishmeal for the feeding of animals other than ruminants
- gelatine of non-ruminants for coating additives

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2.2. Conditions for revising the current feed ban

The current feed ban remains in force as a transitional measure pending the application of the provisions on animal feeding in Article 7 and in Annex IV of the TSE Regulation.

Commission Regulation (EC) No 1326/2001, as amended by Commission Regulation (EC) No 270/2002, laying down transitional measures to permit the changeover to the provisions in the TSE Regulation provides (article 1.2) that the provisions in Article 7 should not come into force:

- before the determination of the BSE status of the Member States and
- before the Community provisions on animal feeding relevant to transmissible spongiform encephalopathies (TSEs) are effectively enforced.

Additionally, it was considered that the current feed ban should not be revised before the coming into force of Regulation (EC) No 1774/2002 of the European Parliament and of the Council laying down health rules concerning animal by-products not intended for human consumption (the Animal By-products Regulation), and before appropriate validated analytical tools become available to differentiate ruminant protein from other animal protein in feed.

2.3. Provisions on animal feeding in the TSE Regulation

Article 7 of the TSE Regulation only prohibits the use of mammalian protein in the feeding of ruminants. The prohibitions in Article 7 can, however, be extended to other proteins and animals by laying down additional provisions in Annex IV. Article 7 also foresees the possibility of laying down detailed rules for the implementation of the prohibition, in particular rules on the prevention of cross-contamination and on the methods of sampling and analysis required to check compliance.

2.4. Other relevant legislation

The Animal By-products Regulation lays down strict rules for the collection, transport, storage, handling, processing and use or disposal of animal by-products, including for use in the feeding of farmed animals. The Regulation includes a fairly general prohibition concerning the feeding of a species with processed animal protein derived from the same species (prohibition of intra-species recycling or cannibalism). Some proteins such as milk, hydrolysed proteins, dicalcium phosphate and blood products are exempted from this prohibition since they are natural forms of intra-species consumption or since they are considered as safe by scientific opinions.

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The Animal By-products Regulation is a general legal framework which does not prejudice more specific rules aiming at the eradication and control of certain diseases such as the feed ban. Nevertheless, the Regulation establishes a new control framework which makes it possible to reconsider certain aspects of the feed ban. The Regulation applies from 1 May 2003.

3. **Scientific Basis of the Feed Ban**

3.1. **Ruminant Protein**

Epidemiological studies, rendering studies and the effect of feed bans in all countries with BSE very clearly support nowadays the hypothesis that the recycling of inadequately heat-treated ruminant proteins into feed for ruminants has been the main source of the BSE epidemic. Some proteins derived from ruminants such as dicalcium phosphate, and gelatine and hydrolysed proteins derived from hides, have been considered safe in various opinions of the Scientific Steering Committee (SSC), provided that they are properly sourced and processed. These proteins are subject to derogations under strict conditions in the current extended feed ban.

3.2. **Non-ruminant Protein**

Proteins derived from non-ruminants have not been implicated in BSE cases, and there is no scientific evidence pointing at the involvement of non-ruminant protein in BSE transmission. It has however proved necessary to ban the use of non-ruminant in feed for control reasons. In particular, analytical methods to differentiate ruminant from non-ruminant proteins in feed are not available. Therefore, if non-ruminant proteins are being used in feed, it is not possible to detect the presence of potentially infected ruminant proteins.

In its opinion on intra-species recycling, adopted on 17 September 1999, the risk arising from recycling animal by-products as feed with regard to propagating TSE in non-ruminants was addressed. The opinion indicated that the theoretical risk of newly emerging feed-borne animal TSEs might be reduced if intra-species recycling is prevented.

The Animal By-products Regulation (EC) No 1774/2002 prohibition on intra-species recycling (article 22.1) therefore includes non-ruminant proteins and further includes additional conditions to prevent the transmission of TSEs by feed, such as the obligation to recycle only by-products derived from animals fit for human consumption, and to treat mammalian processed animal proteins at 133°/20'/3bar.

4. **Result of the Controls in the Member States.**

4.1. **Reports from Member States**

The Member States have forwarded reports on the control of the implementation of the feed ban in 2001 and 2002 to the Commission. The reports are summarised in the attached Annex and indicate a considerable progressive reduction of non-compliant samples. The number of non-compliant samples has become very limited in 2002. In addition, the amounts of prohibited proteins were below 0.5% in all samples of
feedingstuffs intended for farmed animals. In most cases non-compliant samples are not the result of fraud, but due to other circumstances such as:

- cross-contamination of ruminant feed with fishmeal intended for other species,
- presence of rodents or birds in feed materials,
- doubtful results considered as positive for reasons of precaution,
- cross-contamination of feed materials in transport after transport of processed animal protein (PAP) intended for petfood by the same vehicle,
- rendered fat possibly containing traces of bones.

The chance that the infringements detected in 2002 caused a risk to animal health is very remote since other measures such as the removal and destruction of specified risk materials are applied.

4.2. **Inspections by the Commissions’ Food and Veterinary Office (FVO)**

The FVO has carried out missions to all Member States in 2001 and 2002 to examine implementation of the provisions designed to prevent TSEs. The FVO has indicated a number of deficiencies, in particular with regard to the controls of the correct implementation of the feed ban. The most important deficiencies in 2002 concern the targeting of control programmes, the channelling of fishmeal and the follow-up action in case of positive results of laboratory tests.

The Commission has in the meantime confirmed and clarified some of these requirements in the “Commission Recommendation on the co-ordinated inspection programme in the field of animal nutrition for the year 2003”7.

5. **Species-Specific Detection of Animal Protein in Feed**

Validated tests to exclude the presence of ruminant proteins in feed are essential in the control of the feed ban.

Microscopy as laid down in Council Directive 98/88/EC is currently the only official test for the detection of animal protein in feed. The test is cumbersome, requires specialised personnel, and the differentiation of proteins derived from different species is difficult and in some cases even impossible.

Existing methods based on the detection of species specific DNA (e.g. PCR) or proteins (e.g. immunoassays) can not be used since all mammalian proteins have to be processed at 133°/20'/3bar before use in feed. The processing denatures the DNA and other proteins and it is no longer possible to demonstrate from what species the DNA or proteins were derived.

The differentiation of ruminant proteins from other animal proteins in feed is a key control tool needed before a significant relaxation of the feed ban can be further

7 OJ L 34, 11.2.2003, p. 20.
considered. Species-specific methods are expected to become available in the short to medium term. To this end and in addition to private research, the Commission has taken a number of initiatives:

- The Commission is co-financing the STRATFEED research project developing strategies and methods to detect and quantify mammalian tissues in feedingstuffs. The project started in 2001 and will be finalised by June 2004.

- In parallel, the Commission has financed a ring trial co-ordinated by the Commissions’ Joint Research Centre, Institute for Reference Materials and Measurements (IRMM-JRC). About 50 laboratories participated in this trial. The results of the trial indicate that the detection of 0.5% of mammalian proteins in feed was satisfactory, but 50% of the labs failed to detect a contamination of 0.1% mammalian proteins in feed containing fishmeal with the present detection method (microscopy). Additionally, it became clear that alternative methods to differentiate avian or porcine proteins from ruminant proteins need further validation before they can be used in the control of the feed ban. To improve the performance of the control laboratories, specific training will be provided in September 2003. A ring trial to validate a modified version of the microscopic test and alternative methods is envisaged at the end of 2003.

6. ADVANTAGES OF THE CURRENT EXTENDED FEED BAN

The current feed ban gives a high level of public health protection and is aimed at eliminating the exposure of new animals to the BSE agent through feed, thus eradicating BSE over time.

Previous bans, where only ruminant or mammalian meat-and-bone meal was banned in the feed of ruminants have not been effective. The main reasons why previous bans have failed were either cross-contamination of ruminant feed in feed mills or during storage and transport, or cross-feeding of ruminants with feed intended for other species. By extending the prohibition to all farmed species it is possible to exclude cross-feeding at farm level and it is also much easier to prevent cross-contamination in feed mills and during storage and transport.

Another problem with previous feed bans was that the presence of potentially contaminated ruminant proteins could not be effectively controlled if non-ruminant proteins could legally be used in feed, due to the absence of specific analytical methods. The current feed ban can be effectively controlled by microscopy since differentiation of the origin of the protein (ruminant or other) is not necessary.

Finally, the provisions of the current feed ban are simple and easy to explain not only to the industry, but also to the general public and the consumers, which may help to increase the confidence in the safety of beef.

7. DISADVANTAGES OF THE CURRENT EXTENDED FEED BAN

Animal by-products derived from animals fit for human consumption are currently disposed of mainly in a non-economic way such as direct incineration or landfills. It is estimated that each year, from a total of 16.1 million tonnes animal by-products
collected in the Member States, 14.3 million tonnes are derived from animals fit for human consumption. The total cost for the disposal of by-products varies in Member States between €100 and €300 per tonne. Stocks of processed animal proteins continue to increase in some Member States. In total 3,640,000 tonnes of meat-and-bone meal should be disposed of each year while the incineration capacity in the EU in 2001 was about 2,500,000 tonnes. Data collected from the Member States in 2002 indicate important investments into (co-)incineration capacity, but a very limited increase in alternative ways of disposal such as bio-gas production.

The feed ban increases the production costs of meat (increased animal feeding costs and extra costs for the disposal of by-products) and therefore undermines the competitiveness of meat produced in the Community compared to third countries.

8. **Recent Developments**

The absence of validated tests to differentiate between ruminant and non-ruminant proteins makes it appropriate to maintain the basis for the current feed ban. In addition, it has not yet been possible to verify the proper implementation of the Animal By-products Regulation as it only applies from 1 May 2003.

Therefore, the Commission has proposed to introduce the current provisions into Annex IV of the TSE Regulation whereby the legal situation also becomes clearer. The proposal received a favourable opinion of the Standing Committee on the Food Chain and Animal Health on 17 June 2003 and is now in the process of adoption. It was not necessary to wait for categorisation of countries according to their BSE status as it seemed appropriate to maintain a Community-wide prohibition on the use of animal protein in animal feeding regardless of the future BSE status of individual Member States.

At the same time, certain minor amendments to the existing rules are being introduced, such as:

- an alignment with the provisions in the Animal By-products Regulation (cross references where relevant, channelling of fishmeal);
- a derogation to allow, in the feeding of non-ruminants:
  - the use of hydrolysed proteins derived from all non-ruminant tissues and
  - the use of tricalcium phosphate derived from non-ruminants;
- a derogation to allow the use of bloodmeal and blood products from non-ruminants in the feeding of fish

The provisions can be reconsidered in the light of new scientific evidence, of the availability of reliable tests and of improved control measures in the Member States. In particular with regard to fishmeal, it is expected that the continuing efforts of the Commission to support the improvement of methods to differentiate fishmeal from mammalian proteins may result in a reconsideration of the fishmeal ban within 6 to 12 months.
ANNEX

Evolution of infringements on the provisions in the extended feed ban based on information provided to the Commission on 1 May 2003.

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<th>Percentage of breaches on the feed ban in the Member States</th>
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<td>1° quarter 2001</td>
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<td>Rum Feed</td>
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<td>non-Rum feed</td>
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<td>Raw Mat</td>
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