



Guidance Note on Feed Controls in the Transmissible Spongiform Encephalopathies Regulations

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Contents

Introduction	3
Advice note 1 – The TSE-related feed ban – what it is and to which animals it applies.....	3
Summary of TSE feed restrictions.....	5
Advice Note 2: Production of compound feed intended to be used for feeding non-ruminant farmed animals and aquaculture animals; or, in the case of milk replacer containing fishmeal, young unweaned ruminant animals	6
A - Definitions.....	6
B - Authorisation requirements.....	7
C - Production requirements at all establishments	8
D - Specific conditions for establishments producing compound feed for non-ruminants containing fishmeal, dicalcium and tricalcium phosphate of animal origin or blood products of non-ruminant origin.....	9
E - Specific conditions applicable to blood products	10
F - Specific conditions applicable to processed animal protein of non-ruminant origin in feed for aquaculture animals	11
G - Specific conditions applicable to the use of milk replacers containing fishmeal in feed for young unweaned ruminants	13

H - Changing the use of authorised premises, mixer vehicles, production lines or equipment, to or from ruminant feed production.....	14
I - Cleansing and inspection protocol applicable to structures and equipment used for the production of farmed animal feeds containing restricted proteins	15
Advice Note 3: Transport of derived products and processed animal proteins	16
Advice Note 4: Storage of derived products and processed animal proteins	17
Physically Separate – what does this mean?	17
Clean-down for change of use	18
Bulk storage of fishmeal with other ingredients intended for the same end-products.....	18
Advice Note 5: On-farm storage (and storage at zoos and safari parks) and use of derived products and processed animal proteins and compound feeds containing them.....	19
Zoos and Safari Parks.....	21
Advice Note 6: Manufacture of feedingstuffs for animals not kept, fattened or bred for the production of food (e.g. pet food); and record-keeping/labelling of reject pet food or feed ingredients which may contain processed animal protein and feeds containing such ingredients	21
Petfood manufacture	21
Storage of petfood.....	22
Record-keeping requirements for supplying, transporting or receiving reject petfood containing animal protein	22
Labelling or accompanying documentation requirement for ingredients originating from premises where processed animal proteins (except fishmeal) are used; and for feedingstuff products containing such ingredients.....	23
Registrations, Authorisations and Permissions	23

Introduction

1. This guidance note is intended to provide guidance to industry on the requirements of the Transmissible Spongiform Encephalopathies (TSE)-related feed ban as it affects the manufacture, storage, transport and use of animal feedingstuffs; and for those with enforcement responsibilities for the feed ban in Great Britain. Enforcement authorities may wish to use this guidance to co-ordinate policy at a local level. **It is not an authoritative document on the law. Only the Courts can give authoritative and binding views on how the law is to be interpreted.**

2. The guidance note is based on the provisions in the following legislation:

- Transmissible Spongiform Encephalopathies (England) Regulations 2018
- Transmissible Spongiform Encephalopathies (Wales) Regulations 2018
- Transmissible Spongiform Encephalopathies (Scotland) Regulations 2010.

3. Further guidance relating to the use of animal by-products in farm animal feed can be found at <https://www.gov.uk/government/collections/guidance-for-the-animal-by-product-industry#feeding-animals-abps> and on feed hygiene and safety at [Food Standards Agency](#).

Advice note 1 – The TSE-related feed ban – what it is and to which animals it applies

1. The feed ban applies to all:

- **Ruminant animals** – animals which chew the cud, such as cattle, goats, sheep, camels, llamas, giraffes, bison, buffalos, deer, wildebeest and antelope.
- **Farmed animals** - animals¹ that are kept, fattened or bred by humans and used for the production of food, wool, fur, feathers, hides and skins or any other product obtained from animals or for other farming purposes; and any equidae, such as horses and donkeys.

2. **The TSE feed ban applies to all ruminant animals, all non-ruminant farmed animals and to all pigs, poultry or horses**, including those kept as pets, companion,

¹ **Animal** means any invertebrate or vertebrate animal

performance or commercial animals. It does not apply to domestic pet rabbits or pet or ornamental fish.

3. Under the TSE-related feed ban:

- both ruminant and non-ruminant farmed animals, must not be fed the following prohibited derived products, either directly or in feedingstuffs:
- processed animal protein² (with specific exemptions);
- collagen & gelatine from ruminants e.g. beef gelatine (including in surplus food).
- ruminants must not be fed any animal protein - or any feedingstuff which contains animal protein - except the following permitted proteins (also permitted for non-ruminant feed), when sourced and processed in accordance with the Animal By-Product (ABP) Regulations:
 - *milk, milk-based products and colostrum;
 - eggs & egg products;
 - collagen & gelatine derived from non-ruminants;
 - hydrolysed proteins³ derived from parts of non-ruminants or from ruminant hides and skins;
 - fishmeal is permitted only for use in milk replacer powder for feeding to unweaned ruminants⁴ in liquid form but it must not be fed to weaned ruminants.

4. The following derived products may be used for feeding to non-ruminant* farmed animals only:

- fishmeal;
- blood products from non-ruminants;

² **Processed animal protein** means animal protein derived entirely from [Category 3](#) material, which has been treated in accordance with the Animal By-Products Regulations (including blood meal and fishmeal) so as to render it suitable for direct use as feed material or for any other use in feedingstuffs, including petfood, or for use in organic fertilisers or soil improvers; however, it does not include blood products, milk, milk-based products, milk-derived products, colostrum, colostrum products, centrifuge or separator sludge, gelatine, hydrolysed proteins and dicalcium phosphate, eggs and egg-products, including eggshells, tricalcium phosphate and collagen.

³ **Hydrolysed proteins** means polypeptides, peptides and amino acids, and mixtures thereof, obtained by the hydrolysis of animal by-products in accordance with the Animal By-Products Regulations. Hydrolysed protein derived from ruminants must have a molecular weight below 10,000 Dalton.

- dicalcium phosphate and tricalcium phosphate of animal origin. (Mineral-derived versions are permitted for all livestock and are the most commonly used – feed labels not specifying ‘animal origin’ can be taken to be of mineral origin);
- processed animal protein (PAP) derived from non-ruminants (including insect PAP) may be used for feeding aquaculture animals. Aquaculture animals means any ‘aquatic animal’ at all its life stages, including eggs and sperm/gametes, reared in a farm or mollusc farming area, including any aquatic animal from the wild intended for a farm or mollusc farming area. ‘Aquatic animal’ means:
 - fish belonging to the superclass *Agnatha* and to the classes *Chondrichthyes* and *Osteichthyes*;
 - mollusc belonging to the Phylum *Mollusca*;
 - crustacean belonging to the Subphylum *Crustacea*.

‘Derived product’ means products obtained from one or more treatments, transformations or steps of processing of animal by-products (ABPs).

5. ABP legislation applies additional controls preventing unprocessed ABPs being used for animal feed purposes, with certain exceptions, including milk/milk products under national controls and foodstuffs no longer intended for human consumption, such as surplus bakery and confectionary products, when not containing or in contact with meat or fish products. For further information see:

<http://www.defra.gov.uk/APHA-en/disease-control/abp/food-feed-businesses/disposal-treat-use-milk-products/>.

<http://www.defra.gov.uk/APHA-en/disease-control/abp/food-feed-businesses/using-derived-products-animal-origin-farm-animal-feed/>.

6. There are TSE restrictions on the feeding to ruminants with milk and milk products derived from goat herds or sheep flocks, in which classical scrapie has been confirmed.

Summary of TSE feed restrictions

Feed product	Ruminants	Non-ruminant farmed animal
Permitted animal proteins Milk, milk-based products and colostrum; eggs & egg products; Collagen & gelatine from non-ruminants;	Permitted – subject to required sourcing and processing standards under Animal By-Products Regulations	Permitted – subject to required sourcing and processing standards under Animal By-Products Regulations

hydrolysed proteins derived from non-ruminants or from ruminant hides and skins.		
<p>Processed animal protein of ruminant origin (includes mammalian meat and bonemeal, meat meal, bone meal, hoof meal, horn meal, greaves, poultry meal, poultry offal meal, feather meal)</p> <p>Collagen & gelatine from ruminants</p>	Banned	Banned (Unprocessed animal by-products are also banned from feeding to farmed animals under Animal By-Product Regulations)
<p>Fishmeal; Blood products from non-ruminants; Dicalcium phosphate and tricalcium phosphate of animal origin only – mineral origin can be used.</p> <p>Processed animal protein of non-ruminant origin (including insect PAP) for aquaculture animals (such as farmed fish) only</p>	<p>Banned</p> <p>Except that fishmeal is permitted for use in milk replacer powder for unweaned ruminants, subject to authorisation to produce milk replacer powder containing fishmeal for unweaned ruminants and registration to feed such milk replacer in liquid form to unweaned ruminants.</p>	Permitted – subject to authorisation to make feed with these products or registration/authorisation to use it in complete feed on farms where ruminants (& other non-ruminant animals (including insect PAP) in the case of processed animal protein for aquaculture animals) are present.

Advice Note 2: Production of compound feed intended to be used for feeding non-ruminant farmed animals and aquaculture animals; or, in the case of milk replacer containing fishmeal, young unweaned ruminant animals

A - Definitions

'*Processed animal protein*' means: animal protein derived entirely from Category 3 material, which has been treated in accordance with the Animal By-Products Regulations (including blood meal and fishmeal) so as to render it suitable for direct use as feed material or for any other use in feedingstuffs, including petfood or for use in organic fertilisers or soil improvers. However, it does not include blood products, milk, milk-based products, milk-derived products, colostrum, colostrum products, centrifuge or separator

sludge, gelatine, hydrolysed proteins and dicalcium phosphate, eggs and egg-products, including eggshells, tricalcium phosphate and collagen.

'*Derived product*' means: products obtained from one or more treatments, transformations or steps of processing of animal by-products (ABPs). This is used in this guidance for blood products and dicalcium and tricalcium phosphate of animal origin.

'*Compound feed*' means: a mixture of at least two feed materials, whether or not containing feed additives, for oral animal-feeding in the form of complete or complementary feed.

'*Complete feed*' means: compound feed which, by reason of its composition, is sufficient for a daily ration.

'*Aquaculture animals*' means: any aquatic animal at all its life stages, including eggs and sperm/gametes, reared in a farm or mollusc farming area, including any aquatic animal from the wild intended for a farm or mollusc farming area.

'*Aquatic animal*' means:

- (i) fish belonging to the superclass *Agnatha* and to the classes *Chondrichthyes* and *Osteichthyes*;
- (ii) mollusc belonging to the Phylum *Mollusca*;
- (iii) crustacean belonging to the Subphylum *Crustacea*.

B - Authorisation requirements

1. All establishments carrying out the following manufacturing activities require registration and authorisation by APHA:

- compound feed intended to be used for feeding non-ruminant farm animals and which contain fishmeal, blood products from non-ruminants and dicalcium phosphate and tricalcium phosphate of animal origin
- milk replacer powders containing fishmeal intended for the liquid feeding of unweaned young ruminant animals
- compound feed for aquaculture animals containing processed animal proteins of non-ruminant origin (including insect PAP).

2. Authorisation is dependent on satisfactory inspection at all sites. This includes ensuring satisfactory physical separation is in place, where it is applicable, during all stages of manufacture, transport, storage and packaging.

3. Fishmeal, blood products of non-ruminant origin, dicalcium phosphate and tricalcium phosphate of animal origin and processed animal proteins of non-ruminant origin (including insect PAP) for aquaculture animals, used in feed manufacture, must have been processed in an animal by-product (ABP) plant approved to process ABP under the ABP

Regulations. They must be accompanied by commercial documentation or health certification and records need to be kept as required by the ABP Regulations. More information can be found at:

<http://www.defra.gov.uk/APHA-en/disease-control/abp/food-feed-businesses/using-derived-products-animal-origin-farm-animal-feed/>.

4. Mineral-derived dicalcium and tricalcium phosphate are permitted for all livestock feed use (labels not actually specifying 'animal origin' can be considered to mean the product is of mineral origin).

5. Authorisation requirements apply to feed mills, home compounders and mobile mixer businesses. It covers both businesses which are dedicated to only manufacturing feed for particular intended species and businesses where feed is also manufactured for non-intended species on the same site.

6. In addition, authorisation is required for home compounders using pre-mixes of fishmeal, dicalcium and tricalcium phosphate and blood products of non-ruminant origin with other feed materials to manufacture compound feeds.

7. Feed businesses should apply for registration and authorisation by forwarding BSE50 form to APHA (see link to form and contact details in section 7). An inspection visit by APHA will follow application.

C - Production requirements at all establishments

8. Where physical separation is required during all stages of manufacturing, from reception to dispatch, such separation must be sufficient to remove all risk of cross-contamination of ruminant feed. This separation will include:

- either separate buildings, floor to ceiling partitions between operations & separate entranceways or separate, completely enclosed, production lines within the same building. Manufacturing or handling processes should not take place in the same airspace, in order to prevent air-borne dust
- separate equipment, utensils and protective clothing are to be used
- the use of common loading points, feed lines, augers, mixers etc. on a 'time separation' and/or 'flushing' basis, is **not** acceptable, as the standard specified in EU legislation is that the facilities used for each purpose should be physically separate
- mobile mixer unit vehicles must be specifically authorised for production of a compound feed containing a derived product or processed animal protein. Full clean-down (using a documented protocol) is required before the vehicle can be used to produce feed for a species for which it is not authorised. At each farm visited, the mobile mixer preparing feed - e.g. fishmeal in pig feed - must, in areas where farm animals for which such feed is not intended are present, ensure those animals do not have access to the area at any time. Appropriate biosecurity protocols should be adopted for vehicles moving from farm to farm
- see separate advice notes on requirements for physical separation during transport and storage

- for home compounders, access by animals not allowed to consume derived products or processed animal proteins - or compound feeds containing them - must be prevented, eg ruminants must not be allowed access to poultry feed containing fishmeal.

9. Records detailing the purchase and use of derived products and processed animal proteins - and the sale of compound feed containing these products - must be kept for a period of 5 years.

10. In all situations where a compound feed, ABP or processed or derived product is required to be sampled and tested by a business operator, the material must be regularly sampled according to HACCP principles and tested for unauthorised components of animal origin, using Microscopy Analysis Testing (MAT) and/or PCR testing at a laboratory, which is UKAS accredited (or equivalent) to use MAT & PCR analysis, using methods set out in Regulation (EC) No.51/2013. Sampling and test costs are at the expense of the business. APHA is to be informed immediately of all positive test results.

11. There are documentary and labelling requirements for packaging of fishmeal and compound feed, which must be clearly marked.

D - Specific conditions for establishments producing compound feed for non-ruminants containing fishmeal, dicalcium and tricalcium phosphate of animal origin or blood products of non-ruminant origin

12. Production, storage, transport and packaging of compound feed for non-ruminants involving fishmeal, dicalcium and tricalcium phosphate of animal origin and blood products of non-ruminant origin must take place in facilities physically separate from facilities where ruminant feed is produced.

13. Packaging and accompanying documentation for fishmeal and for feedingstuffs for non-ruminants containing fishmeal for sale/supply must be clearly marked:

“CONTAINS FISHMEAL – MUST NOT BE FED TO RUMINANTS”

A practical solution for:

- bags of feed for non ruminant animals, which sometimes contain fishmeal; or
- bags of feed for non-ruminant animals, which do contain fishmeal but where labels cannot be applied to the bag for technical reasons

is to mark all such feed bags clearly with the statement:

“FEED WHICH CONTAINS FISHMEAL - MUST NOT BE FED TO RUMINANTS”

This statement should be clearly readable, even after the bag has been opened. The statement should stand alone from other information in order to be clearly seen and be separate from any statutory declarations required under EU feed legislation and

other text. Ideally the words of the statement should occupy a minimum box size of 25cm by 3cm and the print and background colour should be such that the warning is at least as clear as all other information given on the bag.

When fishmeal is incorporated into a compound feed, the feed label carrying the statutory declarations, including the list of feed ingredients, must also contain the statement “CONTAINS FISHMEAL – MUST NOT BE FED TO RUMINANTS” as appropriate.

14. The label and accompanying documentation for feedingstuffs for non-ruminant animals containing dicalcium and tricalcium phosphate of animal origin, or blood products of non-ruminant origin, which are packaged for sale/supply, must clearly state:

“CONTAINS DICALCIUM/ TRICALCIUM PHOSPHATE OF ANIMAL ORIGIN (OR BLOOD PRODUCTS) – SHALL NOT BE FED TO RUMINANTS”.

This statement should be **clearly readable**, even after the bag has been opened. The statement should stand alone from other information in order to be clearly seen and be separate from any statutory declarations required under EU feed legislation and other text. Ideally, the words of the statement should occupy a minimum box size of 25 cm by 3 cm and the print and background colour should be such that the warning is at least as clear as all other information provided on the bag.

E - Specific conditions applicable to blood products

15. Non-ruminant blood for use in blood products must be derived from abattoirs which:

- are registered with APHA and only slaughter non-ruminant animals; or
- slaughter ruminant animals as well as non-ruminants and are authorised by APHA, following an inspection ensuring the following measures are effective in preventing cross-contamination:
 - slaughter lines for ruminants are physically separate from those for non-ruminants
 - non-ruminant blood is collected, stored and transported in collection and storage systems, which are physically separate from ruminant blood collection systems
 - there is sampling and analysis of blood of non-ruminant origin, to identify the presence of ruminant protein and therefore a possible failure in separation (see paragraph 10 above for further details).

16. The non-ruminant blood must be collected in vehicles dedicated to the collection of non-ruminant blood or, following the transport of ruminant blood, vehicles are cleaned according to a documented procedure authorised by APHA. Records of cleaning must be kept for at least 2 years.

17. The non-ruminant blood can originate from processing plants which have, either, been approved under the ABP Regulations and are dedicated to processing of non-ruminant blood only; or are from plants processing ruminant blood on-site as well, which have been authorised by APHA, following an inspection confirming the effectiveness of controls

preventing cross-contamination of non-ruminant blood with ruminant blood, by ensuring that:

- i) the processing of ruminant blood is carried out in a closed system, which is physically separate from the processing of non-ruminant blood.
- ii) blood from ruminants is kept in storage and transport facilities that are physically separate from those used for non-ruminant blood.
- iii) blood from non-ruminant animals is kept in facilities during storage and packing that are physically separate from those used for ruminant blood.
- iv) a regular sampling and analysis programme to detect proteins of ruminant origin in blood products of non-ruminant origin, based on HACCP principles, is agreed with the APHA (see paragraph 10 above for further details).

F - Specific conditions applicable to processed animal protein of non-ruminant origin in feed for aquaculture animals

18. Processed animal proteins derived from non-ruminants (including insect PAP) are allowed for use in feed for aquaculture animals.

19. Processed animal protein derived from non-ruminant animals (including insect PAP) can only be used in feed for aquaculture animals, providing that systems are in place to ensure adequate separation from animal by-products and processed animal protein of ruminant origin, throughout the entire handling chain, from slaughter, through transport, storage and processing, at premises registered or authorised by the Food Standards Agency (FSA)/Food Standards Scotland (FSS) or APHA, under the TSE Regulations for this purpose:

Supplying abattoirs and cutting plants

- Abattoirs and cutting plants slaughtering or handling only non-ruminant animals/carcases - need to be registered with the FSA/FSS;
- Abattoirs or cutting plants, which are also slaughtering or handling ruminant animals/carcases, need to be authorised by the FSA/FSS to ensure:
 - i. physically separate slaughter lines are present.
 - ii. collection, storage, packing and transport facilities for non-ruminant Animal By-Products (ABPs) are kept entirely physically separate from ruminant ABPs.
 - iii. a regular sampling and analysis programme to sample, analyse and detect proteins of ruminant origin in non-ruminant ABPs, based on HACCP principles, is agreed with the FSA/FSS (see paragraph 10 above for further details).

Transport

Category 3 ABPs of non-ruminant origin, intended for processing into material for feed to aquaculture animals, are to be transported in vehicles that are dedicated to this purpose. Vehicles which have carried Category 3 ABP of ruminant origin, or higher categories of ABP can only be used, following full clean-down, using a documented procedure that has been given authorisation by the FSA/FSS. Records of vehicle clean-downs must be kept for at least 2 years.

Processing plants

Processed animal protein for aquaculture feed can originate from processing plants which have, either, been approved under the ABP Regulations and are dedicated to only processing non-ruminant only ABPs; or, are from plants processing ruminant ABP as well, which have been authorised by APHA, following an inspection confirming the effectiveness of controls preventing cross-contamination of non-ruminant material with ruminant material, by ensuring that:

- i. the processing of ruminant ABP is carried out in a closed system, which is physically separate from the processing of non-ruminant ABP.
- ii. ABP from ruminants is kept in storage and transport facilities that are physically separate from those used for ABP from non-ruminants.
- iii. PAP from non-ruminant animals is kept in facilities during storage and packing that are physically separate from those used for PAP from ruminant animals.
- iv. A regular sampling and analysis programme to detect proteins of ruminant origin in processed animal proteins of non-ruminant origin, based on HACCP principles, is agreed with the APHA (see paragraph 10 above for further details).

20. The processed animal protein purchased for use in compound feed must be accompanied by a commercial document or health certificate and any packaging must be clearly marked with the following words: “processed animal protein derived from non-ruminants – shall not be used for the production of feed for farmed animals except aquaculture animals and fur animals”.

21. Compound feed containing processed animal protein of non-ruminant origin may only be manufactured for aquaculture animals in establishments, authorised under the TSE Regulations for this purpose, following on-site inspection. This may include feedmills, mobile mixers or at home compounders.

22. Specific authorisation for the production of complete feed from compound feed containing processed animal protein of non-ruminant origin is not required for home compounders that comply with the following conditions:

- i. they are registered with APHA
- ii. they keep only aquaculture animals
- iii. they produce feed for aquaculture animals for use only in the same holding, and
- iv. the compound feed containing processed animal protein of non-ruminant origin used in the production contains less than 50% of total protein.

23. Processed animal protein of non-ruminant origin - and compound feed containing

processed animal protein of non-ruminant origin - for aquaculture animals, must be kept, at all establishments, entirely physically separate from feed destined for ruminant and other non-ruminant animals, during all stages of manufacture, storage, transport, packaging and use on farm.

24. Physical separation applies to all stages of the manufacturing process from reception through to dispatch. Such separation must be sufficient to remove all risk of cross-contamination of feed other than for aquaculture use.

25. Feed businesses will need to collect and test samples of compound feed destined for farm animals other than aquaculture animals, which have been manufactured in the same establishment (see paragraph 10 above for further details).

26. Compound feeds containing processed animal protein of non-ruminant origin need not be accompanied by a commercial document or health certificate, if placed on the market packaged and labelled in accordance with Feed Regulations. However, if the feed is not marketed as above, any accompanying commercial documentation/health certification required and any packaging shall be clearly marked with the following words: “*contains processed animal protein derived from non-ruminants – shall not be fed to farmed animals except aquaculture and fur animals*”. In the case of bulk feed, it is also advised that this wording should be applied to the bill of sale.

G - Specific conditions applicable to the use of milk replacers containing fishmeal in feed for young unweaned ruminants

27. The production of milk replacers containing fishmeal may be authorised if these milk replacers are only destined for use in young unweaned ruminants in liquid form.

28. Establishments may be authorised following an inspection by APHA providing they:

- only produce compound feed for non-ruminant animals; or
- if compound feed for ruminants is also produced, systems are in place to ensure:
 - i) physical separation of production and storage of compound feed for ruminants from production of milk replacer using fishmeal;
 - ii) regular sampling of compound feed destined for ruminants takes place, to identify the presence of fishmeal and therefore a possible failure in separation (see paragraph 10 above for further details).

29. Accompanying documentation and any packaging must be clearly labelled:
“*contains fishmeal - shall not be fed to ruminants, except unweaned ruminants*”

H - Changing the use of authorised premises, mixer vehicles, production lines or equipment, to or from ruminant feed production

30. It is a condition of authorisation that APHA is notified, **at least four weeks in advance**, of any long-term or permanent changes of the use of manufacturing premises, mixer vehicles, or equipment, which have been used to make feed containing derived or processed animal proteins. Such changes must be authorised by an official inspector, who will supervise the clean-down in accordance with the principles of the '*Cleansing and Inspection Protocol*' below.

31. This means an application must be made to APHA if it is intended to switch (i.e. re-dedicate) a production line, mixer vehicle or equipment (e.g. from pig or poultry feed containing fishmeal, to ruminant feed production). An APHA inspector will then carry out an inspection of the clean-down process. An authorisation must be issued before ruminant feed production (or other non-ruminant feed production, in the case of a line being re-dedicated from aquaculture containing processed animal proteins) can commence on a production line, on-farm mixer or mobile mixer.

32. **N.B.** Alternative methods of changing production line equipment, other than the standard protocol set out here, may be proposed to APHA. Such proposals will be considered on a case-by-case basis. These may allow for a continuation of non-ruminant feed production during the clean-down period. Proposed alternative methods will need a clean-down protocol to an agreed standard, based on an initial risk assessment. The clean-down will be audited by APHA, followed by an agreed period of continued production of the original feed, without the inclusion of the derived protein or processed animal protein - e.g. continuing with pig and poultry feed without fishmeal inclusion during the agreed period. It will involve both private and 'official' samples being taken for laboratory testing, before final authorisation, in order for ruminant feed production (or other non-ruminant feed production, in the case of a line being re-dedicated from aquaculture containing processed animal proteins) to commence.

Information required

33. The following information should be provided to APHA, **at least four weeks in advance** of any planned changes, along with the **proposed clean-down date**:

In the case of feed mills:

- the number of production lines on-site
- the existing and proposed use of each production line (i.e. type of feed – ruminant, non-ruminant or both; and, for non-ruminant lines, whether derived proteins or processed animal proteins have been or will be in use).

In the case of on-farm mixers:

- the number of mixers on farm

- the existing and proposed use of each mixer (i.e. type of feed – ruminant, non-ruminant or both; and, for non-ruminant mixers, whether derived proteins or processed animal proteins have been or will be in use).

In the case of mobile mixers:

- details of the vehicle being re-dedicated
- the existing and proposed use of the vehicle.

In all cases:

- if changing from production of feed containing derived proteins or processed animal proteins, to ruminant feed production (or other non-ruminant feed production, in the case of a line being re-dedicated from aquaculture containing processed animal proteins), the applicant will be contacted by APHA to arrange an inspection of the clean-down process. Authorisation to commence ruminant feed production (or other non-ruminant feed production, in the case of a line being re-dedicated from aquaculture containing processed animal proteins) will be issued subject to satisfactory completion of all the stages set out below in the Cleansing and inspection protocol
- following an application to change a production line from ruminant feed manufacture to manufacture of feed containing, for example, fishmeal (or other non-ruminant feed, to feed for aquaculture animals containing processed animal protein), which will not normally require inspection, a confirmation of altered authorisation will be issued, by letter, from the authorising office.

I - Cleansing and inspection protocol applicable to structures and equipment used for the production of farmed animal feeds containing restricted proteins

34. All derived proteins or processed animal proteins must be removed off-site, either to physically separated areas or placed in sealed packaging, before final cleansing commences.

35. All production and storage areas which have been used for these derived proteins or processed animal proteins or products containing them (or which may have been contaminated by adjacent areas so used) must be cleansed of material and dust from the overhead steelwork downwards, in such a way that a clean hand run over a surface does not pick up any dust. Wet, dry or vacuum methods of cleansing may be used, provided that any material and dust dislodged is subsequently completely removed and that surfaces are dry when presented for inspection. Dry or vacuum methods tend to be preferred in feed businesses to reduce the risk of damp moist conditions encouraging the growth of bacteria, such as *Salmonella*.

36. The outer and inner surfaces of all machinery and equipment used for derived proteins and processed animal proteins - or products containing them - must then be cleansed to the standard above. Where access to inner surfaces is restricted, equipment must be

dismantled for cleansing. Pelleting presses must be fully dismantled and the die holes cleared of residual product and presented empty for inspection. Equipment must not be re-assembled until it has been inspected by APHA.

37. All derived proteins and processed animal proteins - or products containing them - which have been removed during cleansing should be placed in sealed containers at the point of cleansing and surfaces which may have been re-contaminated during the cleansing process should then be re-cleansed.

38. All work-wear and protective clothing used in the production of feed containing derived proteins or processed animal proteins should be laundered or cleansed.

39. Flushing, on its own, is ineffective as a means of cleansing and all equipment must be cleansed as above, regardless of any flushing which may have taken place.

40. The entire cleansing and re-dedication process for production line/s or mixer or mixer vehicles must be inspected by APHA. Five official samples will be taken by the APHA inspector from the first batch of ruminant compound feed produced (or other non-ruminant compound feed produced, in the case of a line being re-dedicated from aquaculture containing processed animal proteins) on the re-dedicated production line/s or equipment and submitted for analysis. Test results are normally available within one working day of receipt.

41. Use of the cleansed and re-dedicated production line/s or equipment or mixer vehicle for ruminant (or non-ruminant) feed production may resume only when an authorisation has been issued by the inspector.

Advice Note 3: Transport of derived products and processed animal proteins

1. The following derived products and processed animal proteins (in the case of fishmeal), intended for feeding non-ruminant farmed animals, can only be transported in bulk, in vehicles or containers which are not used for the transport of ruminant feed:

- Fishmeal
- Dicalcium phosphate and tricalcium phosphate of animal origin
- Blood products from non-ruminant animals
- Compound feed containing the feed materials above
- Milk replacers containing fishmeal.

The term 'bulk' in this guidance means not enclosed or wrapped in packaging.

2. Bulk processed animal proteins of non-ruminant origin and bulk compound feed containing it, intended for use in aquaculture animals, can only be transported in vehicles

or containers which are not used for the transport of feed intended for ruminants and non-ruminant animals, other than aquaculture animals.

3. Following haulage of the feeds highlighted above and before subsequent use for ruminant feed, in the case of paragraph 1 above or feed other than aquaculture feed in paragraph 2 above, a business operator must clean the vehicle. However, to do this, a documented procedure is required, which has been authorised by APHA. The documented procedure will include details of cleaning procedures to be adopted at all clean-downs, in order to avoid cross-contamination of feed intended for other animals through transport. This will necessitate the removal of dust and feed material caked to vehicle sides and will include the topsheet, tailgate and any ledges, where feed material may remain. Dry cleaning, involving brushing and vacuuming procedures, may be preferable to procedures involving 'wetting' or soaking. 'Wetting' the vehicle will subsequently require thorough drying, before feed should be transported.

4. Registration is required to transport bulk processed animal protein, bulk fishmeal, bulk blood products of non-ruminant origin and bulk dicalcium/ tricalcium phosphate of animal origin. This can be obtained by forwarding a completed form BSE50 to APHA (see link to form and contact details in section 7).

Advice Note 4: Storage of derived products and processed animal proteins

Physically Separate – what does this mean?

1. The following derived products and processed animal protein (in the case of fishmeal) - and compound feed containing them - intended for feeding to non-ruminant farm animals, must be stored in facilities which are physically separate from ruminant feed materials and compound ruminant feed:

- Fishmeal
- Blood products from non-ruminant animals
- Dicalcium phosphate and tricalcium phosphate of animal origin.

2. Processed animal protein of non-ruminant origin, intended for feeding aquaculture animals - and compound feed containing it - must be stored with complete physical separation from feed materials and compound feeds intended for other farm animal species.

3. The term 'bulk' in this guidance means not enclosed or wrapped in packaging.

4. What does "*in facilities which are physically separate*" mean?

A. For bulk feed materials, this means:

- an enclosed silo or storage bin
- the use of separate buildings on a single site, provided that movement around the site does not create a risk of cross-contamination
- shared buildings will be permissible only where the storage space for derived proteins, processed animal proteins or compound feed containing them has

separate access from the exterior and is divided from other access and storage areas by floor-to-ceiling partitions. These partitions must be capable of preventing dust movement and contamination of feeds through appropriate use of ventilation systems. There are further requirements for dedicated handling equipment and containers; and for dedicated protective clothing for staff, to be worn in each dedicated area of the store

- the same shared building space may be used for compound feeds containing the same derived product or processed animal protein and for co-ingredients, which are all destined for the same market e.g. a store holding ingredients that are all destined for the fish feed sector (see further requirements below).

B. For small sealed packages or tote bags, this means:

- packages should be stored in batches (usually on pallets) at least 6 feet (1.83metres) away from other feeds
- open or damaged packages of farmed animal feed should not be accepted for storage
- during storage, any damaged packs of feed or spilt material must be cleared as soon as possible and disposed of/ re-worked / used in an appropriate manner.

Clean-down for change of use

5. If a store of bulk derived product, bulk processed animal protein - or compound feed containing them - is to be used for feed materials or feeds for which the derived product or processed animal protein is not intended (e.g. fishmeal stores intending to store feed material for ruminant use), a full store clean-down will be required. The clean-down will need to be thorough and remove all potentially contaminating material and dust from overhead steelwork, floors, ledges and walls.

6. APHA is to be contacted prior to commencement of the clean-down operation, so they can audit the procedure.

Bulk storage of fishmeal with other ingredients intended for the same end-products

7. This section of guidance is particularly directed at the fish feed sector but could equally apply to similar storage arrangements for other feed industry sectors.

8. Stores of bulk fishmeal can also be used to store the following, without physical separation:

- a. compound feeds containing fishmeal
- b. co-ingredients, all destined for the same farmed fish feed products containing fishmeal.

9. The following principles apply to storing co-ingredients for fish feed:

- the storage facility is to be exclusively dedicated to the ingredients intended for the same end product/s (i.e. not shared with unrelated materials), with all the principles for dedication above to be applied i.e. to keep the agreed set of co-ingredients physically separate from other storage facilities and handling equipment used for unrelated materials
- there is an undertaking that once the ingredients enter these dedicated storage facilities, they are not subsequently eligible to be placed individually on the market for other purposes. This is intended to prevent problems such as selling-on surplus cereal ingredients from the store, which are potentially contaminated with fishmeal, for ruminant feed production (where fishmeal is prohibited)
- all the ingredients go directly from the storage facility to specified manufacturing premises, which need to be clearly identified to the APHA inspector.

10. The store operator is to agree the above conditions in writing with an APHA inspector and the APHA inspector is to issue written confirmation that they are content with the arrangements.

Advice Note 5: On-farm storage (and storage at zoos and safari parks) and use of derived products and processed animal proteins and compound feeds containing them

1. The following derived products and processed animal proteins cannot be used or stored on farms, without authorisation to manufacture a compound feed for non-ruminants or aquaculture animals, as applicable:

- Fishmeal – can be used by home compounders to produce feed for non-ruminant animals, such as pigs and poultry
- Blood products from non-ruminants - can be used by home compounders to produce feed for non-ruminant animals
- Dicalcium phosphate and tricalcium phosphate of animal origin* – feed for non-ruminant animals
- Processed animal proteins of non-ruminant origin can be used by home compounders for aquaculture feed, such as for farmed fish.

*Mineral-derived versions are permitted for all livestock and are most commonly used in farmed animal feed – if feed labels do not actually specify the product is of 'animal origin', the ingredient can be taken to be mineral-derived).

2. Use of purchased compound feeds containing the above derived products or processed animal proteins on farms keeping only farm animal species for which the feed is intended, can take place without authorisation or registration. This would include purchased compound feed containing fishmeal used on pig or poultry farms, where no ruminants are kept.

3. Use of purchased compound feeds containing the above derived products or processed animal proteins on farms keeping farm animals for which the feed is not intended can take place following authorisation. Authorisation is based on an inspection visit by an APHA inspector, to ensure adequate separation is present from feed or animal access for farm animals not intended to receive feed containing the derived protein or processed animal protein. This would, for instance, include farms where compound feed containing fishmeal is purchased for game birds, poultry or pigs, where ruminants, such as cattle and sheep, are also kept.

NB - businesses previously registered and permitted to do this are considered as automatically authorised.

4. Milk replacer containing fishmeal can be used for feeding young unweaned ruminants in liquid form. Farms using milk replacer containing fishmeal for young ruminants are to be registered with APHA and must ensure that measures are in place to prevent other ruminants on-farm from accessing the milk replacer or it being included in other feed for ruminants.

5. Authorisation begins with registration, by completing and forwarding form BSE50 to APHA (see link to form and contact details in section 7).

6. Farmers who keep ruminant animals on-farm must ensure that routine working procedures prevent the exposure of ruminants to derived products or processed animal proteins and compound feed containing them (except for unweaned ruminants having access to milk replacer containing fishmeal in liquid form) and farm staff have been instructed on these procedures. Farmers using compound feed containing non-ruminant processed animal protein for aquaculture animals must ensure that, in addition to ruminant animals, other non-ruminant animals do not gain access.

7. Recommended procedures for storage include the secure packaging of both types of feed or adequate physical separation of loose bulk feeds and open packages containing material prohibited from ruminant and non-ruminant feeds. Care should be taken where feeding of animals takes place to ensure no risk of inadvertent exposure.

8. "Physical separation" is not defined in the legislation but it is essential that physical separation must be sufficient to prevent any reasonable possibility of cross-contamination between feed materials and compound feeds intended for different species, where derived products and processed animal proteins are included in compound feed for non-ruminant animals or aquaculture animals. For bulk bays, this effectively means in separate buildings or in separate areas within the same building, with floor to ceiling partitions between and separate entranceways. Different dedicated - or effectively cleaned - equipment, utensils and clothing must be used to handle feed within different storage areas, to prevent cross-contamination via this route.

9. If the same building space is used to store opened packaged feeds or storage bins, the separation must be at least an aisle of approximately 1.2 metres wide, between feed materials and compound feeds intended for different species, where derived products and

processed animal proteins are included in compound feed for non-ruminant animals or aquaculture animals. Separate utensils should be used for each product.

10. Pet food containing animal protein, intended for pets or working animals on the farm, should **not** be kept in the same store on-farm as any livestock feed products, and the feeding of pets or working dogs must be restricted to an area where farmed animals do not have access, at any time.

Zoos and Safari Parks

11. Zoos and safari parks are premises, where animals covered by the TSE Feed Ban Regulations are frequently kept.

12. Feed for ruminants or farm animal species must be kept stored entirely separately from food for other zoo animal species, which contains or is contaminated with processed animal proteins. If packages remain unopened in the store, then storage of feed for ruminants and farm animal species is to be in clearly separate areas of the store from packages of food for zoo animals, which contain or may contain processed animal proteins, with protocols in place to deal appropriately with damaged packages and spillages. If packages of feed are opened in the store, or bulk feed is kept, then entirely separate storage facilities are required for feed for ruminant animals and farm animal species from packages or bulk food for other zoo animal species, which contain, or may contain processed animal proteins.

Advice Note 6: Manufacture of feedingstuffs for animals not kept, fattened or bred for the production of food (e.g. pet food); and record-keeping/labelling of reject pet food or feed ingredients which may contain processed animal protein and feeds containing such ingredients

Petfood manufacture

1. Petfood containing processed animal protein can only be produced in establishments producing feed for farm animals, providing that:

- this activity is carried out in an entirely separate building or in an entirely separate area within a building, with floor to ceiling partitions and separate entranceways;

- ventilation systems must prevent the movement of dust from the petfood manufacturing area to the farm animal feed manufacturing area;
- entirely different equipment, machinery and utensils must be used for the production of petfood from that used for the production of farm animal feed;
- staff must wear overclothing and footwear dedicated for use in the respective areas of the establishment; and
- washing and cleaning facilities and protocols must prevent processed animal protein being moved into the farm animal feed manufacturing area.

NB. The manufacture of petfood is an activity that must be approved under the ABP Regulations.

2. Manufacture of a petfood product containing fishmeal (blood products and dicalcium or tricalcium phosphate of animal origin) could occur in the same production area as manufacture of a compound feed containing fishmeal (blood products and dicalcium or tricalcium phosphate of animal origin) destined for non-ruminant animals; and manufacture of a petfood product containing processed animal protein of non-ruminant origin could take place in the same production area as compound feed containing processed animal protein of non-ruminant origin destined for aquaculture animals.

Storage of petfood

3. Where applicable, there must be adequate physical separation between the storage of feed materials and compound feed destined for **petfood** use and that intended for use in **farm animal feed** production, to prevent cross-contamination.

4. The same principles of physical separation during storage outlined in Advice Note 4 apply.

Record-keeping requirements for supplying, transporting or receiving reject petfood containing animal protein

5. Anyone who supplies, transports or receives any petfood rejected at the point of manufacture and no longer intended for petfood must record the following and keep the record for 2 years:

- name of the manufacturer; date of supply and receipt; premises of origin and destination; quantity of petfood; and, nature of the animal protein contained in the petfood.

The consignor must ensure that the reject petfood is either labelled with the above information or is accompanied by documentation that contains that information.

Labelling or accompanying documentation requirement for ingredients originating from premises where processed animal proteins (except fishmeal) are used; and for feedingstuff products containing such ingredients

6. Anyone who supplies:

- a **feed ingredient** originating from a manufacturing premises using processed animal protein (except fishmeal); or
- a **feedingstuff** (except feed specifically identified and marketed for petfood use) **which contains such an ingredient**

must indicate that the ingredient was produced on (or that the feedingstuff contains ingredients which were produced on) premises where processed animal protein (except fishmeal) is used in a manufacturing process. This must be done either by labelling the packaging or via documentation accompanying the ingredient or feedingstuff.

7. This requirement for labelling/accompanying documentation applies equally to every subsequent recipient who re-packages for further consignment (i.e. which would require re-labelling) or further consigns the product in bulk (i.e. which would require accompanying documentation).

The labelling/ accompanying documentation requirement means that subsequent purchasers will be fully aware of the origin of the product and be able to consider its suitability for use as farmed animal feed (see Advice Note 1).

This requirement does not apply if fishmeal is the only processed animal protein in use on the premises, as fishmeal is eligible in non-ruminant farmed animal feed. However, this does not affect the requirement to label products that include fishmeal as an ingredient.

Registrations, Authorisations and Permissions

Contact details for registrations, authorisations and permissions to use restricted proteins in England, Scotland and Wales.

APHA One Health Customer Service Centre,
Animal and Plant Health Agency,
County Hall,
Spetchley Road,
Worcester,
WR5 2NP
Telephone 03000 200 301

Email CSCOneHealthAFC@apha.gov.uk



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