

## **ADVISORY COMMITTEE ON ANIMAL FEEDINGSTUFFS**

### **Eighth Meeting of ACAF 28 February - Agenda Item 3**

#### **THE USE OF FISH MEAL IN ANIMAL FEEDS**

**Action required:** the Committee is invited to note the information provided and discuss the following areas:

- (a) The benefits and disadvantages of feeding fish meal to cattle, sheep, pigs, poultry and farmed fish;
- (b) Justification for any prohibitions or other controls on feeding fish meal to the various species. In other words, what are the risks to human or animal health? Are EC BSE-related measures on fish meal justified for control reasons?
- (c) Any further information the members require; and
- (d) How to provide a definitive ACAF view by 2 May.

## **THE USE OF FISH MEAL IN ANIMAL FEEDS**

### **Purpose**

1. The Food Standards Agency has asked the Committee for information and advice on the nutritional and other benefits of including fish meal and oil in animal feed set, with the cost of any controls, against any human and animal health risks.
2. The request arises primarily from the need to consider whether fish meal should continue to be banned from feed for ruminant animals beyond the period of the European Community's temporary ban on processed animal protein. ACAF's views will also be relevant to negotiating any proposals by the European Commission following the recent opinion of its Scientific Committee on Animal Nutrition (SCAN) on dioxin contamination of feedingstuffs.
3. This paper is intended to provide background information on the use of fish meal in feed and on the BSE-related measures. It also introduces various comments received from interested organisations. The Committee is invited to discuss the issues and consider what further information it might need to reach conclusions at its next meeting.
4. The SCAN report is covered by a separate paper (ACAF/01/12).

### **Usage in Livestock Diets**

5. Fish meal is produced either as a by-product of fish processing for human consumption or directly from fish species deemed unsuitable for human consumption (such as sand eels, blue whiting and sprats). Around 6.5 million tonnes of fish meal and 1.2 million tonnes of fish oil are produced annually worldwide.
6. In 1999, 163,000 tonnes of fish meal were used in GB production of compound feeds providing around 1.6% of ingredients used. Relatively little is sold for direct use on farm.

### Ruminant Animals

7. It is argued that ruminant animals are herbivores and do not naturally consume animal or fish material. Nevertheless, prior to the introduction of the temporary EU-wide ban, there was some usage of fish meal in ruminant diets:
  - (i) Dairy cows: Included in some compounds for dairy cows (probably less than 20%) at levels up to 5%. Its use is generally restricted to high yielding dairy cows and/or cows in early lactation. It is a good source of undegradable protein with a good balance of amino acids for milk production which are required for higher yields.
  - (ii) Beef: Hardly used at all in beef rations, with the exception of compound feeds for calves, which require a source of high quality protein to achieve satisfactory rates of growth in the period immediately after weaning.
  - (iii) Sheep: Generally only used for pregnant ewes. These animals have difficulty in consuming sufficient feed to meet requirements in late pregnancy – particularly when they are carrying twins or triplets – and it is essential to provide a high quality diet to meet the requirements for the developing foetuses. Research has shown that the inclusion of fish meal can result in heavier lambs at birth, therefore its use has welfare benefits to ewes and lambs.

### Pigs and Poultry

8. In order to achieve economic rates of growth or egg production, it is necessary to feed high quality diets with high concentrations of essential nutrients. Fish meal is often the preferred source of protein because of the balance of essential amino acids.

### Farmed Fish

9. Fish meal and oil are major components of feed for farmed fish, particularly carnivorous species. Fish feed companies have sought to replace fish meal and oil with cheaper alternatives. This has only been partially successful due to the impact on the health status of the fish, nutritional constraints and taste factors for the ultimate consumer.

10. The primary limiting factors on fish meal in feed are price, availability and the possibility of “fishing” taint in meat, milk and eggs if there is excess fish meal. There are also new controls.

### **BSE-related Feed Ban**

11. Towards the end of 2000, a recent increase in reported BSE cases in France, and the first cases in Spain and Germany, indicated that EC measures banning the inclusion of mammalian protein in ruminant feed had not gone far enough. On 4 December the Council of Agriculture Ministers adopted Council Decision 2000/766 which prohibited from 1 January 2001 the use, trade, import and export of processed animal protein for the feeding of farmed animals kept, fattened or bred for the production of food. Processed animal protein was defined as including fish meal (besides meat and bone meal and other materials). The ban would be temporary, until 30 June 2001, but subject to review.
12. Among the exceptions to this prohibition was the feeding of fish meal to animals other than ruminants. Detailed rules were adopted on 29 December as set out in Commission Decision 2001/9. This permitted compound feeds for ruminant animals to be produced on the same premises as non-ruminant feed containing fish meal provided that, amongst other things, the storage, transport, manufacturing and packaging facilities for compound feeds for ruminants were “completely separate”.
13. The Agriculture Departments in the UK have consulted interested parties on their proposed implementation of the two Decisions. The consultation period and Parliamentary process have delayed this implementation. The Minister of Agriculture, Fisheries and Food had already asked the Food Standards Agency in December whether public health considerations would dictate against such a measured implementation. Sir John Krebs responded that there was no immediate risk on public health grounds arising from the use in feed of processed animal proteins, other than meat and bone meal (MBM). Mammalian MBM had already been banned from all farm animal feed back in 1996.
14. The consultation process revealed widespread opposition to the inclusion of fish meal in the processed animal protein ban, citing the important use in sheep feeds in particular and the potential impact of the “complete separation” rule on fish meal in pig and poultry feeds. Feed mills producing feed for several species would be adversely affected. The ban on the inclusion of fish meal in ruminant feed was not considered by

respondents to be justified on scientific grounds. The EC Decision had been based on the risk of contamination of fish meal with MBM and the possibility that fish meal might shield the presence of MBM in feed. However, consultees pointed out that the ban on MBM in the UK in 1996 had been effectively enforced without recourse to banning fish meal.

15. At the time of writing (21 February), MAFF and the other Agriculture Departments had yet to make the implementing Regulations following their consultation process.

### **ACAF Consultation**

16. By 21 February, a letter from the Secretariat to interested parties of 9 February had elicited responses from the following organisations:

British Association of Feed Supplement and Additive Manufacturers  
(BAFSAM)

International Fish Oil and Meal Manufacturers Association (IFOMA)

Meat and Livestock Commission (MLC)

Northern Ireland Poultry Federation (NIPF)

National Sheep Association (NSA)

RSPCA

UK Register of Organic Food Standards (UKROFS).

The United Kingdom Agriculture Supply Trade Association (UKASTA) also authorised the Secretariat to send ACAF members its submission to MAFF dated 2 February 2001. This and the other responses are enclosed, but the following bulky documents will be available for members to pick up on 28 February:

Health Benefits from Feeding Fish Oil and Fish Meal -

The Role of Long Chain Omega-3 Polyunsaturated Fatty Acids in Animal Feeding. Produced by IFOMA

The Role of Fish Oil in Feeds for Farmed Fish by Ian Pike, International Association of Fish Meal Manufacturers

Fishmeal for Pigs, Poultry, Sheep and Dairy Cows – four leaflets produced by the Fishmeal Information Network

Removal of Fish Meal from Sheep Diets – A Review by ADAS

17. It should be noted that the responses received to date may not be representative of all shades of opinion, as very little time was available for early responses. Other contributions will be summarised by the Secretariat and sent to members before the Ninth ACAF meeting on 2 May.

Action

18. Taking account also of ACAF/01/12 on dioxins, the Committee is invited to note the information provided and discuss the following areas:
- (e) The benefits and disadvantages of feeding fish meal to cattle, sheep, pigs, poultry and farmed fish;
  - (f) Justification for any prohibitions or other controls on feeding fish meal to the various species. In other words, what are the risks to human or animal health? Are EC BSE-related measures justified for control reasons?
  - (g) Any further information the members require; and
  - (h) How to provide a definitive ACAF view by 2 May.
18. Information on the cost of BSE-related controls may be available from the Regulatory Impact Assessments produced alongside the implementing Regulations. This will be provided later.

**ACAF Secretariat  
Food Standards Agency  
February 2001**