

**MINUTES OF THE FORTIETH MEETING OF ACAF HELD ON 4
DECEMBER 2007**

Present:

Chairman	Dr Chitra Bharucha
Members	Dr Paul Brantom Mr Tim Brigstocke Professor Andrew Chesson Dr Bruce Cottrill Dr Gil Domingue Professor Nigel Halford Mrs Heather Headley Mr Richard Scales Mr Marcus Themans
Secretariat	Mr Keith Millar (Secretary) – Food Standards Agency Miss Mandy Jumnoodo – Food Standards Agency Mr Raj Pal – Food Standards Agency
Assessors	Mr Tim Franck – Food Standards Agency Mr Stewart Herd - Food Standards Agency, Scotland
Officials	Dr Nick Renn – Veterinary Medicines Directorate Dr Ray Smith – Food Standards Agency

1. The Chairman welcomed delegates to the ACAF open meeting and reminded them that there would be an opportunity to ask questions at the close of the meeting. The Chairman also welcomed Mandy Jumnoodo who had recently replaced Andrew Watton on the Secretariat.
2. Apologies for absence were received from Dr Nigel Shepperson, Dr Dozie Azubike, Diane McCrea, Tim Foster, Dr Glenn Kennedy and Vicki Reilly.
3. The Chairman stated that the March 2008 meeting would be her last. Advertisements for a new ACAF chairman and four members had been placed in the national and scientific press and the closing date for applications was 21 December 2007. The Chairman encouraged members to inform their respective contacts of the vacancies.
4. The Chairman informed the Committee that following the sad news of the death of former Committee member Dr Paul Foxcroft, the Secretary on behalf of the Chairman, Members and the Secretariat had sent Dr Foxcroft's family a card of condolence.
5. The Chairman noted that papers including a Soil Association report on GM feed and two papers from EFSA on GM feed and GM plants were available for information on the side table.

Agenda Item 1 – Declaration of Members’ Interests

6. Members of the Committee were asked to declare any relevant changes to their entries in the Register of Members’ Interests or any interest in items on the agenda. There were none.

Agenda Item 2 – Draft Minutes of the Thirty-Ninth Meeting (MIN/07/3)

7. The minutes of the previous meeting were adopted subject to the following amendments:
 - Page 4 Para 16 – third bullet – add ‘other than those related to biofuels’
 - Page 4 Para 17 – first sentence to be amended by the Secretariat
 - Page 4 Para 19 – add ‘to’ after ‘Secretariat’; and
 - Page 5 Para 24 – last sentence ‘to be revised to read ‘The VPC was particularly swayed by being better informed about the rigorous process involved in obtaining feed additive approval. The regulation under veterinary medicine legislation would permit veterinarians to prescribe the products possibly more widely than currently used.’

Agenda Item 3 – Using Biofuels as Feeds for Livestock

8. The Chairman said that at the request of the Committee, the Secretariat had arranged for three presentations on biofuel production and its impact on animal feed.

Biofuels and renewable energy – need for a balanced approach (ACAF/07/23)

9. This presentation was given by Tony Bell (Agricultural Industries Confederation). Mr Bell noted that there has been an increase in the demand for biofuels due to a perceived need to both reduce carbon dioxide emissions from other fuels (petrol, diesel) and find an alternative use for EU cereal surpluses. However, there was a need to study the impacts of biofuel products, including the extent to which they are claimed to reduce carbon emissions, their potential impact on world food and feed supplies, and their impact on the EU livestock industry.
10. Under the Renewable Transport Fuels Obligation (RTFO), which incorporates the targets for the use of biofuels laid down in Directive 2003/30/EC, UK fuel suppliers are required to ensure that, by 31 December 2008, 2.5% of the petrol and diesel sold on garage forecourts is from a renewable source, rising to 3.75% by 31 December 2009 and 5% by 31 December 2010.
11. Although biofuels are perceived as carbon-neutral, most generally offer a carbon saving of around 50% compared to fossil fuels, and sometimes less, e.g., 3 tonnes of wheat is required to produce 1 tonne of bioethanol. 29

million tonnes of grain would be required to produce the 10.8 million litres of ethanol required to meet the RTFO, although there is insufficient land available in the UK to achieve this. Mr Bell pointed out that there has been a significant increase in the use of rapeseed oil in the EU, including use for biofuels, and that the EU has become the largest importer of vegetable oils in the world, overtaking China and India. Palm oil is the major imported vegetable oil.

12. The demand for biofuels is already having a major effect on the raw material markets. It was noted that prices have more than doubled in the last year, as a result of poor weather and reduced harvests. However, in the last year a 50% increase in the wheat price did not have the usual effect of prompting an increase in the acreage sown to cereals, due to the demand and the high prices of rapeseed and US maize grown for biofuel production.
13. There are a number of valuable co-products produced from biofuels which are used in animal feed. These include rapemeal, the production of which has substantially increased recently: all of this production has been absorbed by the feed industry. Rapemeal production is replacing production of soya bean meal and other proteins traditionally used in animal feed. Another valuable co-product is distillers' dried grains with solubles (DDGS) derived from maize used to produce bioethanol. However, the slow approval for use in the EU of new varieties of GM maize means that imports of DDGS have collapsed, thereby increasing the demand for wheat for ethanol production.
14. Because of the demand for renewable energy, potential animal feed materials are being sent for direct incineration for power generation. In the UK, over 750,000 tonnes of feed materials were burnt last year, including palm kernel, sunflower meal, wheat feed, shear meal and rape cake. If this situation continues, alternative sources of protein for feed use will need to be found (e.g. increased imports of soyabean meal). It was noted that changes in renewable obligations certificates (ROCs) have been proposed for 2010 which would mean a reduction in the burning of palm kernel. This would result in a significant increase in burning of rapemeal and distillers' grains.
15. Mr Bell considered that the assumptions made by the European Commission in February 2007 about the markets for feed and biofuel needed to be reviewed. The Commission had envisaged the livestock sector experiencing higher cereal prices but significantly lower protein feed prices, but the latter had not materialised.
16. Several calculations have been made in estimating the environmental benefits of biofuels. However, recent reports suggest that biodiesel produces more greenhouse gases than the burning of mineral oil, and that co-firing of protein raw materials captures only half the energy generated (with the rest vented to the atmosphere). The incineration of valuable proteins will result in the production of nitrogen oxide compounds which are 300 times more polluting than carbon dioxide and produce more greenhouse gases than burning coal. Increases in population, standards of living, demand for food

and biofuel demand mean that the major issue is the shortage of acreage for growing crops rather than crop surpluses.

17. In conclusion, Mr Bell said that the EU needs to develop a balanced approach to biofuels and renewable fuels, which should include a re-assessment of the impact on the environment and on the livestock industry. With respect to renewable fuels, there is a need to burn truly renewable fuels and waste products rather than valuable protein raw materials, especially as the EU is only 22% self-sufficient in proteins.

How will the biofuels market impact the animal feed sector? A view from the plant breeding and seed sector (ACAF/07/24)

18. Colin Merritt (Monsanto) gave this presentation. He said that the key questions were:

- will the use of crops for biofuel products compromise the availability of feed materials?
- will biofuels reduce the acreage of land available for feed production?
- will biofuels drive up the prices of animal feed?
- will biofuels drive plant breeding in ways which will be detrimental to animal feeding?

19. There are a number of uncertainties in respect of forecasts for the growth in biofuel production. These include the setting of biofuel production targets, biofuel taxation regimes, standards and specifications for biofuels, the development of new biofuel technology (e.g. the development of second generation biofuels), and the speed with which the agricultural industry responds to the new market situation.

20. The target of 5.75% set out in Directive 2003/30/EC for the proportion of road fuels sold in 2010 to be of biofuel origin is not expected to be reached for various reasons. Although potential sources of biodiesel include soya bean and palm kernel, there are restrictions on their suitability for this purpose and only 4% of global palm oil production is used for biofuel. Production economics means that the use of crops for biofuels is limited.

21. Second generation biofuels (such as wood, miscanthus, the stalks of cereal crops, and various sources of lignocellulose) may first enter the market in combination with first generation biofuels. It is expected that from 2010-2015 second generation biofuels will have a positive impact on the quantities of crops available for feed use. Other forecasts indicate that even taking into account an increase in the production of bioethanol, in 2012 significant quantities of wheat, barley, maize and sugar beet will remain available for feed, food and other uses.

22. Recent commodity price changes have been driven by poor harvests and by a large rise in demand in China and other Far Eastern countries. In the longer term Central and Eastern Europe have the potential to become significant sources of feed crops for the EU.
23. In conclusion, Mr Merritt considered, although there were short-term market adaptation factors, current biofuel production targets were unlikely to significantly impact on feed markets or prices. Harvest and trade issues will be the key factors. Crop quality improvements (oil quantity, high starch content) will benefit both biofuels and food/feed products and are unlikely to lead to biofuel specific commodities.
24. A Member of the Committee asked whether plants might be developed that produce seeds with a lower nitrogen content. If so, the fuel industry would benefit, but there would be few benefits for animal feed. Mr Merritt said that there was on-going research in this area. Crops with improved nitrogen utilisation will enhance yields and improve carbon footprints.

Biofuels developments - implications for the feed industry

25. Tim Wilson (Associated British Agriculture) gave this presentation. He began by noting that conflicting messages had been sent to food and feed producers relating to biofuels, the legislation behind them and obligations to be met in 2010/11. The UK biofuels industry is not fully established and is monitoring developments in the USA and the rest of Europe. The feed industry is well regulated and the fuel and chemical industries that produce biofuels will need to comply with relevant EC feed legislation.
26. The Renewable Transport Fuel Obligation (RTFO) 2007 encourages transport fuel suppliers to source only the best biofuels. There will be regulated controls on biofuel sustainability by or before 2011, with a link between greenhouse gas savings and rewards. The RTFO is estimated to deliver savings of 700-800,000 tonnes of carbon from biofuels by 2010/11 (representing a saving of 50-60% against mineral fuels). Carbon saving options include a choice of heat and power solutions, the minimisation of nitrogen dioxide emissions from the soil, and co-product credits. Renewable Obligations (ROs) will drive and support the growth of renewable generation, and apply to wind, hydroelectricity and other technologies. A key RO target is to direct home-grown energy crops into dedicated combustion plants, the majority involving the burning of biomass. If grown in the UK, crops for biofuel use will be grown on already cultivated land and will therefore compete with conventional crops.
27. Agriculture is under various environmental pressures; these include the measurement of greenhouse gas emissions, the designation of Nitrate Vulnerable Zones (NVZs), and the requirements imposed by the Entry Level Stewardship (ELS) schemes and the Waste Framework Directive. NVZs and ELS scheme in particular push farmers towards higher concentrate

feeding, which among other things mean that 65% of the cereal crop produced in the EU is used for animal feed.

Discussion

28. Some Members of the Committee were concerned that co-products with value as feed ingredients were used in co-firing, i.e. direct incineration for power generation. Some of the terminology used in the biofuel industry was confusing and a glossary of terms would be helpful. Concern was also voiced on the impact of biofuels on the global market in relation to the availability of cereal crops for feed. In addition, Members raised concerns that the targets set under the ROC also reduced the availability of crops for feed use. A Member of the Committee said that it would be useful to know what the potential for feed use was of co-products from second generation biofuels. However, the Committee did not consider that there were currently any major concerns about the safety and supply of feed.
29. In summing up, the Chairman said that the presentations had been very informative and thought-provoking. The subject of biofuels was complex and had generated a great deal of public debate. The Committee agreed that a position paper setting out current knowledge of the issue should be prepared. The paper should cover various issues relevant to animal feeds, including potential safety issues, implications for animal nutrition, and the impact of biofuels on the availability/quality of feed crops and co-products.
30. As this area is subject to rapid development, the paper would need to indicate that the position should be kept under review to reflect the new information which became available. The views of Defra, the government department which has the lead on biofuels policy, and other interests would need to be reflected.
31. It was agreed that a draft position paper should be prepared for discussion at the March 2008 meeting.

Action: Secretariat

Agenda Item 4 – GM Issues

32. The Chairman of the GM sub-group informed the Committee that since the ACAF meeting in September 2007, the sub-group had not been called upon to take any action.
33. The ACAF Secretary, reporting on other GM issues, said that four GM lines (sugar beet H7-1, NK603XMon810, DAS1507XNK603 and DAS59122 maize) had received EC authorisation. He pointed out that the EU feed sector had flagged up that it was experiencing supply difficulties arising from the asynchronous authorisation of new GM varieties, whereby approvals in the EU took longer to achieve than elsewhere in the world.

Agenda Item 5 – Matters arising from the minutes of 11 September 2007Carry over of allergens

34. With regard to possible research on potential carry-over of allergens from animal feed (e.g. peanuts) into derived animal products, the Secretariat agreed to provide an update on progress following discussion with the appropriate Agency official.

Action: Secretariat

Feed Hygiene Regulation - Financial guarantees

35. At the Committee's meeting on 11 September 2007, the ACAF Secretary reported that the Commission had published a report on financial guarantees in the feed sector. A Member of the Committee pointed out that the report had concluded that financial guarantees were technically feasible but this was contradictory to the advice given by insurance providers. The FSA assessor advised the Committee that Member State experts had not seen the report prior to its publication. The report acknowledged that financial guarantees were not immediately available and the Commission proposed that the issue should be the subject of a broader public debate likely to last up to two years. Exploration of other approaches such as bank guarantees and pooling systems required investigation. It was likely that the Feed Hygiene Working Group (chaired by the European Commission) would consider how this issue could be taken forward at its next meeting.

36. The ACAF Secretary reported that the FSA's Animal Feed Unit (AFU) had recently met with representatives of the insurance industry. During this meeting the industry representatives had stressed that the Commission's report was fundamentally flawed and contained many technical inaccuracies. It was agreed that the industry representatives would provide AFU with a written report setting out their views. The ACAF Secretary confirmed that once the AFU had received the report from the industry, it would be made available to the Committee.

Action: Secretariat

Glycerol

37. A Member of the Committee asked whether there had been any developments concerning glycerol derived from biodiesel manufacture for use in animal feed. Ray Smith confirmed that the level of contamination of glycerol had been discussed at the September 2007 SCoFCAH meeting. There was no maximum permitted level (MPL) laid down in EC legislation for methanol in glycerol, although two Member States had recommended a maximum level of 0.5% methanol. At the suggestion of the UK, the Commission was now seeking advice from EFSA, but the levels would be reviewed in advance of EFSA's decision. It was suggested that, in the interim, industry should use the maximum level referred to above. A risk assessment had been undertaken by the Agency but had concluded that any

methanol contamination would represent a risk to animal welfare but not a significant risk to human health.

SACN

38. The ACAF Secretary reported that a firm date had yet to be set for the proposed workshop on the manipulation of feed to enhance the nutritional value of food for human consumption. The Secretariat would continue to press the SACN Secretariat for a date.

Agenda Item 6 - Any Other Business

Dates of future meetings

39. The Chairman stated that the next meeting would be held on 5 March 2008.

Information papers

40. The Chairman noted that the following information paper had been tabled at the meeting:

- Fishmeal – the current position

**ACAF Secretariat
December 2007**

Question and Answer Session**Judith Nelson (Agricultural Industries Confederation (AIC))**

Ms Nelson thanked the Secretariat for organising the meeting and the interesting review of the complex issues associated with biofuel production and its implications for the animal feed industry.

Ms Nelson stated that AIC support the Government's policies on climate change and associated issues. However, at a time when the feed industry has seen very significant increases in the price of feed materials coinciding with the issues surrounding asynchronous GM authorisation, AIC would be grateful if ACAF could help promote the need for an appropriate strategic policy approach by the relevant government departments on how much feed material biomass should enter the co-firing/power sector.

David Ralph (Integrator Feed Group (IFG))

Mr Ralph thanked the Committee for an excellent meeting. He commented that much of the discussion on co-products from biofuel production centred on the fact that these will have an enhanced protein content. In general, he said the industry was awash with protein products and with the dwindling numbers of ruminant animals and the demise of a meaningful pig industry, it seemed over optimistic that these sectors will absorb the extra "proteinaceous" raw materials from biofuel production. He thought there was a real prospect that these co-products would have to be used in co-fired systems to prevent the build-up of surplus "mountains" and maintain stability in the market place.

The main meat now consumed in the UK is poultry meat. As a sector of the feed industry, the IFG is already using as much rapeseed derived raw material as possible, and it seems most unlikely that UK produced dried distillers (white) grains from bioethanol will have any place in intensive broiler diets.

Mr Ralph stated that the main driver for the growth and meat production of a broiler chicken is the energy content of the diet. The poultry industry is therefore competing with the biofuel industry for the raw materials' energy content. The feed industry requires an affordable energy source; glycerol seems to be the best hope in this regard, provided that it is produced in such a way that it is nutritionally suitable for use in intensively reared broiler diets and meats, as yet unspecified, quality parameters.

Mr Ralph pointed out that a source of biodiesel not discussed at the Committee's meeting was that from the reclamation of used cooking oils and recovered vegetable oils. These are no longer permitted feed ingredients and are therefore largely considered as being "waste" products. Their conversion to biodiesel requires a series of chemical reactions, but the resultant co-product glycerol is, under Integrated Pollution Prevention Control (IPPC) Regulations still classified as

a “waste” product and has to be disposed of, as such. It cannot be put back into the feed industry despite the degree of chemical processing and change that has taken place. It was Mr Ralph’s understanding that a legal challenge to this classification as “waste product” was currently being considered.

Richard Scales (ACAF Member) commented that reclaimed cooking fats and oils were deemed waste because of the possibility that products of animal origin could have been cooked in these materials. There would also be issues relating to traceability and testing if these products were not deemed waste.

The FSA assessor commented that Defra and the Spongiform Encephalopathy Advisory Committee would also have an interest in this issue as a result of possible BSE implications. Defra also took the lead on the Waste Framework Directive.

It was agreed that the questions raised would be recorded and brought to the attention of the relevant Defra officials. The Secretary also urged that the Defra assessor should attend future ACAF meetings in order to be able to answer questions of this nature.