

**DRAFT MINUTES OF THE FORTY FIRST MEETING OF ACAF HELD
ON 5 MARCH 2008**

Present:

Chairman Dr Chitra Bharucha

Members Mr Tim Brigstocke
 Dr Dozie Azubike
 Dr Bruce Cottrill
 Dr Gil Domingue
 Professor Nigel Halford
 Mrs Heather Headley
 Ms Diane McCrea
 Mr Richard Scales
 Dr Nigel Shepperson
 Mr Marcus Themans

Secretariat Mr Keith Millar (Secretary) – Food Standards Agency
 Miss Mandy Jumnoodoo – Food Standards Agency

Assessors Mr Tim Foster – Food Standards Agency
 Mr Stewart Herd - Food Standards Agency, Scotland
 Mr Stephen Wyllie - Defra
 Dr Glenn Kennedy – Agri-Food & Biosciences Institute, Northern
 Ireland

Officials Ms Janis McDonald – Veterinary Medicines Directorate
 Dr Andrew Wadge – Food Standards Agency (Part)
 Mr Tim Franck – Food Standards Agency
 Dr Ray Smith – Food Standards Agency
 Mr Gerard Smyth – Food Standards Agency, Northern Ireland

Speakers: Professor Johnathan Napier – Rothamsted Research
 Mr Ron Cheesman – 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.
2. Apologies for absence were received from Professor Andrew Chesson, Dr Paul Brantom, and also Jayne Griffiths FSA Wales assessor.
3. The Chairman stated that she had completed two terms and this meeting would be her last. She commented that she had enjoyed her time on the Committee and also thanked the other outgoing members (Professor Chesson and Dr Shepperson) for their services to the Committee.

4. The ACAF Secretary provided an update on the recruitment exercise for a new ACAF chairman and three new members. Interviews for the vacant posts had taken place and subject to Ministerial approval candidates had been identified for the posts of Chairman, and members for feed industry, animal nutrition and veterinary science. An appointments submission will be sent forward shortly to the Chairman of the FSA and relevant UK Ministers for approval. The aim is for all 4 appointments to be made by June 2008. The ACAF Secretary agreed to keep members informed of developments.

Action: Secretariat

5. The Chairman congratulated Tim Brigstocke on being awarded an MBE in the New Year's Honours List for services to the dairy industry.

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 Fortieth Meeting (MIN/07/4)

7. The minutes of the previous meeting were adopted subject to the following amendment:
 - Page 3, para 14 remove 'r' from the word 'shear' (i.e. shea nut)

Agenda Item 3 – Lipgene Project – The Production of long chain polyunsaturated fatty acids in transgenic plants

8. The Chairman introduced this item noting that the Secretariat had seen an article on this research project and had subsequently contacted Professor Napier who had kindly agreed to provide the Committee with a presentation.
9. Professor Napier started his presentation by explaining that fish oils were important in the human diet because omega 3 long chain polyunsaturates, found in fish oils, are utilised by the brain and eyes. Professor Napier noted that the fatty acids found in fish oils are not exactly the same as those in vegetable oils. He went on to explain that a moderate daily intake of fish oils can help avert progression of type 2 diabetes and cardiac vascular disease. Consumption of fish oils may also play roles in moderating arthritic conditions and may possibly play roles in cognition and mood.
10. "Fish oils" are rich in omega 3 long chain polyunsaturated fatty acids (LCPUFA), which are made by the microalgae that are then consumed by fish. Plant oils do not contain LCPUFAs. Although essential fatty acids

are the precursor for LCPUFAs animals can only convert them at a low rate. Professor Napier then provided examples that showed leafy green vegetables and vegetable oils although high in essential fatty acids had no detectable LCPUFAs. He also demonstrated how flax omega 3 was not the same as omega 3 found in microalgae, the former being an eighteen carbon fatty acid containing only 3 double bonds. Professor Napier then showed how LCPUFAs progressed through the food chain. He provided the example of “Columbus eggs”, which are marketed as being enriched with omega 3 LCPUFA. The chickens that lay the eggs in question are fed partly on microalgae.

11. Professor Napier referred to the plethora of evidence that showed that fish oils can help human health and nutrition. However, fish oils are currently an unsustainable resource as natural fish stocks are in major decline. The high demand for fish oil, notably by aquaculture, is also causing concern. He noted that there was an urgent need for a sustainable source of fish oils. Transgenic plants engineered to contain fish oils might be used to provide an alternative source of LCPUFAs for human health and nutrition. Currently, the best natural sources of LCPUFAs are from marine microalgae in the form of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). However, it is economically very costly to produce ‘fish oils’ via culture or fermentation of the microalgae themselves, and upscaling of these processes is difficult.
12. Professor Napier then provided a brief overview of the technology involved in producing “designer oilseeds”. This included the study of marine algae to identify the genes that produce LCPUFAs and then transferring them into a host plant. His team has taken 3-4 years to produce transgenic plants that can produce “marine” fatty acids such as EPA. However, further work is needed to obtain transgenic plants which directly mimic the fatty acid composition of fish oils.
13. Professor Napier acknowledged that LCPUFAs are important for human health but the difficulty lay in how transgenic derived LCPUFAs might be delivered into the human food chain. There are three possible routes: direct ingestion; indirect delivery via enrichment of animal feeds (terrestrial); and indirect delivery via enrichment of animal feeds (marine, i.e. aquaculture). Work on the terrestrial route is being carried at the University of Reading by a team lead by Professor Ian Givens. Work at Rothamsted (which is not part of the Lipgene Project) is currently looking at the marine route in conjunction with academic and industrial collaborators. Professor Napier noted that the direct ingestion route was subject to considerable legislation above and beyond those required for approval of GM-derived material for animal feedstuff and therefore was a much less likely scenario, at least in Europe at the present time.
14. In conclusion, Professor Napier noted that it was feasible to produce LCPUFAs in transgenic plants, and further refinements will enhance the process. The process should provide a safe, sustainable and

environmentally benign source of these important fatty acids for either human or animal nutrition. In particular, the aquaculture industry is urgently seeking a cheaper, cleaner source of fish oils.

Discussion

15. The Chairman thanked Professor Napier for his interesting presentation. She then invited Members of the Committee to ask questions. One Member asked when it was likely that the aquaculture industry would see the fruits of the research. Professor Napier noted that work in Germany and the USA was primarily focusing on human nutrition. However, work was now considering better ways of getting more from relevant products, and he thought it would take approximately 5 years. Professor Napier also did not think there would be any problems regarding the nutritional quality of by-products that might be used in feed.
16. It was noted by one Member of the Committee that the direct ingestion route was more politically sensitive than the indirect routes. Professor Napier confirmed that where opportunities existed, industrial partners would cultivate crops in Europe. He also noted that Chile has the world's leading aquaculture industry and was already using GM materials in fish feed manufacture. In addition, algae had a great potential as a biofuel source. However, lots of inputs are required to separate algae from water. Professor Napier acknowledged that there was not a single example of a natural higher plant source of omega3-LCPUFAs, highlighting the rationale for taking the GM route.
17. The Defra assessor asked, as the aim of the project was to enhance the human nutritional status and therefore human health benefits rather than animal health, why the LCPUFAs could not be added directly into food rather than indirectly via feedstuffs. Professor Napier said that work at Reading University was looking at this area, working on formulations for human foodstuffs bearing in mind legislation and testing requirements. In response to a Member's question on whether there were any issues about avoiding products because of allergic reactions or whether there would be any differences in the nutritional quality of by-products, Professor Napier said he was not aware of any such issues.
18. In summing up, the Chairman said that the presentation had been most interesting and useful. The Committee thought that follow-up work could form part of the proposed joint SACN workshop, and also agreed that the Secretariat should invite Professor Givens to give a presentation at a future ACAF meeting.

Action: Secretariat

Agenda Item 4 – Biofuels – Position Paper

19. The Chairman reminded members that throughout 2007 the Committee had received a number of presentations on biofuels and the potential impact of the production of biofuels on animal feeds. At the December 2007 meeting the Committee had agreed that a position paper should be drawn up summarising information obtained and setting out the Committee's views.
20. One Member of the Committee said that it was possible that materials destined for biofuel production could be diverted for animal feed use. This could be of concern as such materials may not have been subject to safety controls and standards prior to their diversion for feed use. However, it was noted that this type of practice was not restricted to the biofuel sector; crops and materials designated for other purposes could also be subject to changes in use. Any crop or material diverted for feed use would be subject to animal feed legislation, including safety controls and checks by local authorities. The Defra assessor said that some co-products from the production of biofuels might be classified as waste. In this case controls applied by the Environment Agency would be relevant. The FSA assessor said that the Animal Feed Law Enforcement Liaison Group could be asked to consider whether there were any gaps in the controls on materials from the biofuel chain.

Action: Secretariat

21. In relation to paragraph 6 of the draft biofuels paper it was agreed that it might be misleading to include a figure for the potential savings that were offered by the use of biofuels. The estimated figure was therefore removed.
22. The text of the conclusion section was agreed subject to an amendment to paragraph 18 to make clear that it was important for the feed industry to have continued access to good affordable quality feed materials.
23. It was agreed that a glossary of terms should be drafted and appended to the position paper. Members of the Committee agreed to provide the Secretariat with terms they wanted included in the glossary.

Action: Committee/Secretariat

24. The Committee agreed that the paper should be an evolving document, which would be reviewed by the Committee on a periodic basis as new developments occurred. The Committee was content for the finalised paper to be placed on to the ACAF website.

Action: Secretariat

Agenda Item 5 – ACAF Review of Feed Law Enforcement

25. The Chairman reminded members that ACAF's review of Feed Law Enforcement was published in 2005. In response, the Food Standards Agency (FSA) had produced an Action Plan. Since the initial production of

the Action Plan the FSA had been working with relevant stakeholders to implement it. The Chairman invited Mr Ron Cheesman of the FSA's Animal Feed Unit to present an update paper on this issue.

26. Mr Cheesman confirmed that the Action Plan was published in October 2006 and contained 22 actions aimed at addressing the recommendations set out in ACAF's Review of Feed Law Enforcement. Most of the actions had been completed with only five currently outstanding. The Action Plan had been divided into three broad categories: changes to processes / procedures and improved co-ordination of enforcement co-ordination; adoption of risk-based enforcement; and the introduction of codes of practice for feed law enforcement.
27. Mr Cheesman emphasised that the completion of the Action Plan was work which involved all those agencies involved in feed law enforcement. Much of the Action Plan had been progressed through the Animal Feed Law Enforcement Liaison Group (AFLELG), chaired by the ACAF Secretary and for which the FSA provides the Secretariat. Membership of the Group comprised all agencies involved in feed law enforcement: Defra (Animal Health), the Veterinary Medicines Directorate (VMD), the Animal Medicines Inspectorate (AMI), Local Authority Coordinators of Regulatory Services (LACORS), Department of Agriculture and Rural Development Northern Ireland (DARDNI), Her Majesty's Revenue and Customs and the Association of Port Health Authorities (APHA).
28. In addition to developing greater co-operation between enforcement agencies, Mr Cheesman reported that the FSA had been encouraging the sharing of information between assurance scheme auditors and official control bodies. He noted that LACORS had been instrumental in developing an MoU between itself and Assured Farm Standards that had resulted in enforcement officers having access to the Scheme's database. A similar agreement was expected to be finalised shortly between LACORS and the Agricultural Industries Confederation (AIC).
29. Mr Cheesman referred to the ACAF recommendation that a central database of feed businesses, including all relevant information held by assured schemes, should be available to all enforcement agencies. Mr Franck commented that the FSA had looked closely at the proposal and held discussions with LACORS and enforcement authorities but the initial set up and maintenance of the system would be disproportionate compared with the benefits. However, local authorities had been requested to make lists of feed businesses available to the public. The FSA was continuing to develop and roll out to local authorities its UK Food Surveillance System, which is hoped will hold information on all food and feed samples taken in the UK by local authorities. This work is ongoing and will be completed by the end of 2008. Mr Cheesman pointed out that access was available to everyone who had contributed, i.e. local authorities throughout the UK. In addition, the FSA will have access and be able to identify trends. Mr Cheesman also said that

in the future there was a possibility of extending the database to other enforcement agencies.

30. Mr Cheesman stated that commencing with the 2008/2009 financial year the FSA would be providing local authorities in England with £1.4 million p.a. to enforce the new feed hygiene requirements. Separate arrangements would be made by devolved administrations with regards to funding. Discussions with the Department for Communities and Local Government and the Local Government Association confirmed it was not possible to directly fund local authority feed law enforcement work. Mr Franck added that the funding was via the revenue support grant. A member stated that the funds do not necessarily filter through to those local authority departments responsible for feed law enforcement.
31. Mr Cheesman noted that the auditing of local authorities in accordance with the Feed Law Enforcement Code of Practice (Great Britain) had already begun as part of the FSA's general audits of local authorities. A specific programme of audits looking at feed law enforcement was scheduled to begin shortly.
32. Janis McDonald confirmed that the AMI is to be audited at the end of March 2008 and that risk based inspections were expected to be finalised in October 2009.
33. One Member of the Committee, noting that £1.4 million was being made available to local authorities, queried whether there was a mechanism to track how the money was being used. The FSA assessor suggested that local authorities were subject to audits and if they did not carry out their enforcement responsibilities the FSA could remind them of their duties and, if necessary, publicise any failings.
34. The Chairman requested an oral report from the ACAF Secretary on the ongoing Food and Veterinary Office (FVO) mission to the UK. The ACAF Secretary informed the Committee that the FVO was in London on a general mission examining control systems in place to enforce food and feed law. The ACAF Secretary had provided a presentation to the FVO team, which included the ACAF reports on Feed Law Enforcement and the Review on On-Farm Feeding Practices. Following the presentation the Chairman of the FVO mission had confirmed that he and his team were satisfied with the systems currently in place in the UK.
35. The Defra assessor had an editorial point under recommendation 3 in relation to SVS and SEERAD. These organisations were now referred to as Animal Health and the Scottish Government.

Agenda Item 6 – GM Issues

36. In the absence of the Chairman of the GM sub-group, the ACAF Secretary informed the Committee that since the ACAF meeting in December 2007, no matters had been referred to the sub-group for comment.
37. The ACAF Secretary, reporting on other GM issues, said that he had attended a meeting of the Standing Committee on the Food Chain and Animal Health (GM Section) on 12 February 2008. In the meeting there were inconclusive votes on the authorisation of two GM lines (GM Soya A2704-12 and cotton LL25). Therefore, the issues would be passed to the Council of Ministers for consideration.
38. The ACAF Secretary also said that emergency measures had been put in place by the European Commission regarding imports of rice products from China, to ensure that such products do not contain unauthorised genetically modified rice (Bt 63). In response to a question from a Member of the Committee the ACAF Secretary confirmed that the GM variety in question was not approved in China and was not grown there commercially. In addition, FSA lawyers were currently drafting an emergency Statutory Instrument (SI) that would be completed very shortly.
39. The ACAF Secretary also drew the Committee's attention to another document entitled 'Who Benefits From GM Crops (the rise in pesticide use)?' by Friends of the Earth.
40. Finally, the ACAF Secretary noted there had been a number of concerns reported in the EU and UK press relating to potential feed shortages. This was attributable to poor harvests and increase demand for livestock products in China and India. The slow EU GM approval process was also being blamed for the supply shortages created.

Agenda Item 7 – Matters arising from the minutes of 4 December 2007

Carry over of allergens

41. As regards possible research on potential carry-over of allergens from animal feed (e.g. peanuts) into derived animal products, the Chairman noted that Members had received an update on this issue and that a further update would be provided later in the year.

Action: Secretariat

Feed Hygiene Regulation - Financial guarantees

42. The Commission had published its report on financial guarantees in the feed sector in August 2007. This had indicated that such guarantees were not immediately available but were technically feasible. At the December 2007 meeting the ACAF Secretary had informed the Committee that members of the FSA's Animal Feed Unit had met representatives of the Association of British Insurers (ABI) to discuss the Commission's report. ABI had subsequently drawn-up a position paper which had been distributed to the

Committee. This indicated that the Commission's report was fundamentally flawed and contained many technical inaccuracies. The Secretariat agreed to re – circulate the paper to members.

Action: Secretariat

Forward work plan

43. The Chairman reminded Members that, at the 11 September 2007 meeting, they had requested an information paper on the EC review of Feed Additives under EC Regulation 1831/2005. Following this request ACAF information paper 08/05 had been produced and circulated prior to the meeting.

Agenda Item 8 - Any Other Business

General Advisory Committee on Science (GACS)

44. The Chairman noted that she would be attending the inaugural meeting of the General Advisory Committee on Science (GACS) in the following week. She invited Dr Andrew Wadge, FSA's Chief Scientist to provide more details on this Committee.
45. Dr Wadge said that the FSA had set up this overarching committee to provide independent challenge and advice on how the FSA obtains and uses scientific evidence and expertise. The Committee is chaired by Professor Colin Blakemore and its members comprise the chairs of the nine scientific advisory committees that advise the Agency (including ACAF and the new Social Sciences Research Committee), four additional independent expert members and two lay members. The inaugural meeting would be held on 11 March 2008, when the Committee would discuss its role, its future work programme, horizon scanning, and the work of the scientific committees advising the Agency.

[Note: further information about the GACS is available on its web pages at: <http://www.food.gov.uk/science/ouradvisors/gacs/>]

46. Dr Wadge, noting that this was the last meeting for the current ACAF Chairman, wished to thank her personally for her excellent work as Chairman. He said that the FSA was wholly dependent on advisory committees to help formulate its policy and commended Dr Bharucha for leading ACAF so well over the last six years.

Dates of future meetings

47. Mandy Jumnoodoo outlined details for the next out-of-town meeting to be held on 3 June 2008. She said that some of the arrangements were still being formalised. However, she confirmed that visits and the meeting would take place on 2 and 3 June at the Hilton Hotel, Belfast. Once the itinerary had been finalised she would update Members.

48. Diane McCrea tendered her apologies as she had another meeting scheduled for these dates.

EC Developments

49. The ACAF Secretary advised members that on 4 March 2008 the Commission had published its proposal for an European Parliament and Council Regulation on the Marketing and Use of Feeds. The provisions include requirements for the labelling of feed materials and compound feeds. It would be important to obtain the views of the Committee on this proposal and it was the intention to place this subject on the agenda of the June 2008 meeting, when the FSA assessor would present a paper.

**ACAF Secretariat
April 2008**

Question and Answer Session**Pete Riley (GM Freeze)**

Mr Riley asked if it was the intention to make public details on the food sampling database. Mr Cheesman confirmed that there were no plans at the moment to make the raw information available. However, summaries will be made public in due course.

Mr Riley also commented that under the discussion on potential feed shortages there had been no mention of biofuels. The Chairman pointed out that this matter was discussed earlier in the meeting before Mr Riley arrived.