

Advisory Committee on Animal Feedingstuffs

Annual Report 2018



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ANNUAL REPORT 2018

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Foreword

I am delighted to present the 2018 Annual Report of the Advisory Committee on Animal Feedingstuffs (ACAF) covering the period 1 January to 31 December 2018. I hope that you find this report and the information it contains useful in understanding more about the work of the Committee.

Once again, the Committee has had a particularly busy year in 2018, offering expert advice to the Food Standards Agency (FSA) and UK Agriculture Ministers on many diverse and challenging issues with potential impacts on the feed and food chain. Our primary aim is to ensure the safety of animal feed and ultimately the effects that feed may have on both the food and feed chain and on public health.

A major topic that Members considered was optimum ways to communicate with the feed industry to emphasise the importance of compliance with maximum permitted levels set for key micro-nutrients in feedstuffs. At the October 2017 meeting, Members agreed that a Working Group would be convened and report on the outcomes of its work regularly. The Working Group Chairman has provided reports and updates on the activities that have included developing a matrix on species against particular supplements and additives. The work was supplemented by the preparation of an extensive literature search and review to help identify the way forward. Work on this topic continues and I look forward to receiving the Working Group's final report and recommendations.

Another topic considered by the Committee during 2018 related to issues surrounding raw pet food. Following a presentation by Dr Mark Bond (ACAF Secretariat) on matters concerning raw pet food, including the number of FSA incident notifications and legislative requirements, Members agreed that a document be prepared by ACAF in liaison with the Advisory Committee on Microbiological Safety of Food (ACMSF) highlighting the risks of raw pet food. This included sourcing, production, transport, storage, handling and use and how any risks can be mitigated. The document was discussed at the Committee's

June meeting during which, Members raised several points for improvement. Work on developing the document continues and I look forward to viewing the final guidance when completed.

ACAF received several expert presentations throughout 2018. These were particularly helpful in assisting the Committee to provide balanced evidence-based advice whilst broadening Members' technical understanding on a number of key topical issues. Matters of note included:

- algae as animal feed;
- update on formaldehyde;
- update on the EU proposal on medicated feed; and
- the Animal Feed Official Control Delivery strategy.

I am extremely grateful to the many guest speakers who agreed to present to the Committee. These presentations were extremely informative and helped the Committee broaden its evidence-based knowledge in areas of uncertainty. This facilitated discussion and allowed the Committee to provide properly informed and practical advice to the feed and farming communities, related industries, the FSA, and relevant UK Ministers.

I would like to give my particular thanks for the support, dedication and time the Members and the Assessors have given to the work of ACAF. I was particularly sorry to lose the valuable input provided by Edwin Snow and Michelle Beer. Both Members provided excellent inputs during their time on the Committee and I wish them both well in the future.

Finally, I would like to acknowledge the particular hard work of the ACAF Secretariat whose timely assistance and outstanding support is invaluable for the effective operation of the Committee.

A handwritten signature in black ink, appearing to read 'I Brown', with a long horizontal line extending from the end of the signature.

Dr Ian Brown – OBE BSc (Agric) FRCP FFOM DDAM

Chairman of ACAF

About the Committee

1. The Advisory Committee on Animal Feedingstuffs (ACAF) was set up in 1999 to advise on the safety and use of animal feeds and feeding practices, with particular emphasis on protecting human health and with reference to new technical developments and new feed materials and products.
2. The decision to set up the Committee was made in the light of concern about the integrity of animal feeds, particularly over the implications of Bovine Spongiform Encephalopathy (BSE) and the use of genetically modified (GM) feed ingredients. The decision was announced in the White Paper, "The Food Standards Agency: A Force for Change", published in January 1998 and it implemented the principal recommendation of the report of the Expert Group on Animal Feedingstuffs, published in July 1992.
3. The Committee's primary purpose is to advise on the safety and use of animal feed in relation to human health. However, it also covers animal health aspects and a wide range of contemporary issues including advice on the UK negotiating line on new European Union proposals, animal feed ingredients including genetically modified organisms (GMOs) and labelling and information for purchasers of animal feed.
4. ACAF is a UK-wide advisory committee and is made up of independent experts who are appointed by UK Ministers and the Chairman of the Food Standards Agency (FSA). Members are appointed for their individual expertise and experience and are not representative of any organisation.

Terms of Reference

5. ACAF advises the Food Standards Agency, the Secretary of State for Environment, Food and Rural Affairs, Ministers of the Scottish Government and of the Welsh Government and the Minister for Agriculture and Rural Development in Northern Ireland on the safety and use of animal feeds and feeding practices, with particular emphasis on protecting human health and with reference to new technical developments. In carrying out its functions, the Committee liaises with other relevant advisory committees as appropriate.

How to Contact the Committee

6. ACAF welcomes your views and suggestions on all aspects of its work.
Please address your comments and any requests for information to:

The ACAF Secretariat
Food Standards Agency
6th Floor
Clive House
70 Petty France
LONDON
SW1H 9EX

Tel: 020 7276 8468

e-mail: acaf@food.gov.uk

If you would like to receive ACAF documents regularly, please email the secretariat at acaf@food.gov.uk.

The Committee's Work in 2018

7. The Committee meets three times a year, with one meeting being out of London and combined with a fact-finding visit to a feed-related premises to help inform Committee Members about the industry. This year, the out of London meeting was held at the Abode Hotel, Chester in June.
8. During 2018 the Committee met on 15 February, and 28 June to consider and provide advice on a number of issues including those highlighted below. As a result of priority work being carried out by the Food Standards Agency, the ACAF Chairman agreed to the cancellation of the October 2018 meeting.
9. Additionally, the Committee received several presentations from internal and external experts to help facilitate their consideration of animal feed issues and seek its views and recommendations. The presentations were useful in providing opportunities to shape the Committee's agenda and possible outcomes.

February 2018 Meeting

Use of algae as animal feed

10. Dr Gerry Dillon (Alltech) provided Members with a case study and research update undertaken by Alltech on the use of algae as animal feed. The Committee were informed of the research results which indicate that the benefits of the use of algae as an animal feedingstuff were increased production efficiency, product quality and health benefits for human and animal populations. Dr Dillon advised that some Alltech algae products as animal feed were available in many parts of the world, such as the EU and Canada, and that others were going through an approval process in the USA before being marketed. Members found the presentation of considerable interest and requested further information on developments when available.

Feed Additives

11. The Committee has discussed on several occasions optimum ways to communicate with the feed industry to emphasise the importance of compliance with maximum permitted levels set for trace elements in feedstuffs. At the October 2017 meeting, Members agreed that a Working Group would be convened and report on the outcome of the inaugural meeting at the Committee's main meeting in February 2018. The

Chairman of the Working Group on feed additives and over-supplementation reported that an inaugural meeting had been held in December 2017 where the group agreed its name and terms of reference. Additionally, after looking at the evidence on the issue, the size and compliance at farm level, the Group agreed that it did not wish to duplicate work already being carried out. It agreed to produce a matrix on the species against particular supplements and additives that should be considered as part of the Group's work. Other areas discussed by the Group was identification of knowledge-gaps, the role of local authorities, and methods of communication. The Working Group Chairman agreed to provide a full presentation at the Committee's June 2018 meeting.

Update on formaldehyde

12. Dr Mark Bond provided the Committee with background and the current status of formaldehyde as a feed additive. A denial of the authorisation of formaldehyde as a feed additive was voted on at the December 2017 Standing Committee meeting where a qualified majority vote in favour was achieved. Regulation (EU) 2018/183 was published in the Official Journal of the European Union on 8 February 2018 and came into force twenty days after its publication. Members commented that formaldehyde has been used as a decontaminant and that other alternatives are less effective or carry more risks for the user. It was pointed out that formaldehyde can still be used as biocidal products but not as a feed additive and that the Regulation provides a transition period for the existing use of formaldehyde as a preservative, but not for the proposed use as a hygiene condition enhancer. Members agreed that safety of workers was important, however focus on reducing microbiological hazards on farms was needed.

Raw pet food

13. The raw pet food sector is a rapidly growing industry in the UK and internationally. Following a presentation by Dr Mark Bond on the issues related to raw pet food, including the number of incidents and legislative requirements, Members were invited to express their views. Additionally, the Advisory Committee on the Microbiological Safety of Food (ACMSF) identified raw pet food as an emerging risk. Members agreed that a document be prepared by ACAF in liaison with the ACMSF highlighting the risks of raw pet food, in terms of sourcing, production, transport, storage, handling and use and how these can be mitigated.

Update on FSA preparations for the UK's exit from the European Union

14. Referring to a paper presented to the FSA Board in September 2017¹, on the preparations being carried out by the FSA for leaving the EU, Mr Carles Orri outlined key issues that the Agency was considering in relation to risk assessment, which the Committee had an interest. Following his oral update, the Committee raised a number of points on the future relationship between the UK and EFSA, the potential for enhancing the role of the Committee in terms of carrying out risk assessment and to ensure that any risk assessment carried out by the UK was compatible to those carried out by EFSA where appropriate. The Committee also acknowledged that its role had yet to be decided but further resources and expertise may be required in order to enable the Committee to continue to provide a high level of expert advice.

June 2018 Meeting - Out of London

15. As part of its commitment to accessibility, each year the Committee holds one of its meetings outside London. The Committee is also keen to continue to make relevant industry visits to enable it to see at first-hand the issues it considers. The Committee's June 2018 meeting was held at the Abode Hotel, Chester.

Visit to University of Liverpool – Dairy Unit

16. The Committee visited the University of Liverpool's Dairy Unit, near Neston. As part of the visit the Committee paid particular attention to the issues faced by the farm, including the feed used, research and working with industry.
17. The visit provided an invaluable insight into the work of the farm. The Committee was extremely grateful for the time taken by the hosts to outline the processes and business undertaken by the dairy unit. On behalf of the Committee the ACAF Secretariat wishes to thank Professor Smith (ACAF Member), John Cameron (farm manager) and staff for hosting the visit and for their time during the visit.

¹ <https://acaf.food.gov.uk/sites/default/files/acafpreparationsforeuexit1804.pdf>



Figure 1: ACAF Members, Assessors and Secretariat

Follow-up on visit

18. On 27 June Members of the Committee visited the University of Liverpool's Dairy Unit. The visit enabled Members to see at first-hand the issues the Committee considers. Professor Smith (ACAF Member) provided a short presentation on the history and issues faced by the farm, including the feed used, research and working with industry. Members were appreciative of the chance to visit the farm and found the experience interesting and informative. Members did raise some points during the discussion on the work of the farm, feeding regimes and interactions with industry.

Update on the EU proposal on medicated feed

19. On 10 September 2014, the European Commission opened negotiations on the revision of the proposals on veterinary medicines and medicated feed. An official from the Veterinary Medicines Directorate provided the

Committee with an update on the latest position of the EU proposal on medicated feed and touched upon the veterinary medicines proposal (VMP). Members were grateful for the update and answers provided by the Official in response to their questions.

Animal Feed Official Control Delivery Strategy

20. An official from the Food Standards Agency (FSA) provided details on the recently launched FSA's animal feed official control delivery strategy. The official explained the principles behind the strategy and its aims. Following the presentation Members acknowledged the difficult task ahead of the Agency in view of resources and funding. The Committee agreed to assist in making the strategy a success wherever it could.

Feed Additives and Over-supplementation

21. The Committee has discussed on several occasions optimum ways to communicate with the feed industry to emphasise the importance of compliance with maximum permitted levels set for trace elements in feedstuffs. At the October 2017 meeting, Members agreed that a Working Group would be convened and report on the outcomes of its work on a regular basis.
22. The Chairman of the Working Group reported that work on developing a matrix on the species against particular supplements and additives was in the process of construction. Additionally, the Group agreed that it did not wish to duplicate work already being carried out, but was undertaking a literature review to assist on clearly identifying the way forward. One area the Committee raised for the Group's consideration was how to disseminate any recommendations made by the group. The Working Group Chairman confirmed that the Group would meet in September 2018 and agreed to provide a further update at a future ACAF meeting. Members were grateful for the update and made several suggestions to assist the on-going work.

Raw pet food

23. The raw pet food sector is a rapidly growing industry in the EU and UK. Following a presentation by an Official from the Animal and Plant Health

Agency on the issues related to raw pet food, and a draft guide prepared on the recommendation of the Committee at its February 2018 meeting, Members were invited to express their views. Members raised concerns on the issues and provided comments on how the guide could be improved.



Figure 2: The ACAF Chairman and Secretary at the June 2018 meeting

October 2018 Meeting

24. As a result of priority work being undertaken by the Food Standards Agency, the ACAF Chairman agreed that the October 2018 was cancelled.

Genetically Modified (GM) issues related to animal feeds

Approval of GM lines

25. During 2018, the Committee's Secretary provided updates on progress in relation to the authorisation of certain GM crops that had been evaluated by EFSA under EU Regulation 1829/2003 on GM Food and Feed. A full list of GM approved materials is maintained on the European Commission's website:

http://ec.europa.eu/food/dyna/gm_register/index_en.cfm

EU Developments

26. In addition to those already mentioned, the Committee received reports on a wide range of EU policy and legislation issues throughout 2018. Relevant papers are listed in Annex II. Notable issues are referred to in paragraphs 27-30 below:

Formaldehyde

27. At the Committee's February 2018 meeting, Members were informed that the denial of authorisation of formaldehyde as a feed additive received a qualified majority in favour at the December 2017 Standing Committee meeting. The denial of authorisation concerns the use of formaldehyde as a preservative in skimmed milk for piglets and for the proposed authorisation as a 'hygiene condition enhancer' to decontaminate *Salmonella* in feed.

Trace elements

28. It was confirmed at the Committee's February 2018 meeting that the proposal on the reauthorisation of iron compounds was voted in favour at the November 2017 Standing Committee. The changes in the iron content in feed for bovines and poultry was reduced from 750 to 450 mg/kg and for pets reduced from 1250 to 600 mg/kg. In addition, a footnote was inserted into the Regulation Annex to exclude inert forms of iron from calculations from total iron content, such as for iron (II) carbonate for young animals. The Committee was also informed that within the Regulation, the reauthorisation of ferric oxide was denied following a negative EFSA Opinion, that was based on genotoxic potential.
29. It was noted at both the Committee's February and June meetings that little discussion had taken place at Standing Committee meetings on copper compounds. However, at the Committee's June meeting, Members were informed that a draft Regulation was presented for vote at the April 2018, Standing Committee meeting. The maximum permitted limits previously proposed remained in place and the Regulation was voted in favour, at 150/ 100/ 25mg/kg feed for piglets at 0-4/ 4-8/ +8 weeks post-weaning respectively. This stepwise reduction has largely been viewed as acceptable for the pig sector.

Vitamin B2

At its June 2018 meeting, Members were advised that in March 2018, competent authorities were notified by the European Commission of an authorised vitamin B2 product on the market which was found to contain viable GM cells and genetic material, including for antimicrobial resistant

traits. Discussions on this non-compliance were held at the Standing Committee meeting for Genetically Modified Food and Feed held on 23 April 2018 and then tabled for vote on the denial of authorisation of this single source of vitamin B2 at the Standing Committee (Animal Nutrition Section) held between the 24 and 25 April 2018. In this meeting, for Animal Nutrition, the European Commission outlined the situation and short transition dates were applied due to the safety concerns of this product on the market; being one month for the feed additive and three months for finished feedstuffs. It was acknowledged that this situation could create market pressures with the production company supplying a significant market-share of vitamin B2. Member States voiced some concern over the short transition periods with requests to extend market withdrawal timelines, although the European Commission remained firm on this matter. Whilst the vote was deferred at the April 2018 meeting in order to finalise legal obligations, the denial of authorisation was ultimately voted in favour at the June 2018 Standing Committee (Animal Nutrition section) and published in the Official Journal of the European Union on 20 September 2018. Transition periods were set for:

- the vitamin B2 additive until 10 November 2018,
- premixtures until 10 January 2019,
- feed materials or compound feed for food-producing animals until 10 April 2019; and
- feed materials or compound feed for non-food-producing animals until 10 July 2019.

Amendments to Regulation (EC) No 429/2008

30. EC Regulation 429/2008 sets out the general approach that must be taken, and the principles that must be adopted on the preparation of feed additive authorisation applications. At the February 2018 meeting Members were advised that at the December 2017 Standing Committee, the Commission proposed revisions to the Regulation. The key factor in the proposed amendments was to maintain alignment with recently published EFSA guidelines. The revisions were proposed to provide greater flexibility in the provision of trial data with the use of literature-based studies including existing or new laboratory-based models to substitute undertaking bespoke and costly feed trials. The proposal will also consider extrapolating data to other animal species; including the use of lower economic value species (e.g. data for sheep extrapolated to dairy cattle).

31. Members were updated at the Committee's June meeting that no further discussions on revising the Regulation had taken place since the February 2018 Committee meeting.

Feed Hygiene

32. At the Committee's February meeting, Members were informed of discussions held at the November and December 2017 Standing Committee on the guidance for the implementation of the feed hygiene legislation with continued focus on the requirement for businesses to be registered as feed businesses. The detailed work on the guidance was being taken forward by a working group of Standing Committee Member.
33. Members were informed at the Committee's June 2018 meeting that discussions continued on the Feed Hygiene Guidance document at the February and April meetings, with continued concerns raised over the interplay between animal feed and animal by-products regulations and on operator registration requirements. Following numerous Member State requests, a working group took place on 30 May 2018 to resolve these concerns.

Guidelines for the feed use of food no longer intended for human consumption – formerly, the Guidance on the use of former foods as animal feed

34. At the February 2018 Standing Committee meeting, the Commission finalised this document with a number of notable amendments. Firstly, the document title was changed (as above) so as to be more meaningful to laypeople. Secondly, emphasis was made on the proposed derogation on feed registration requirements for certain food operators which may be controlled at national level. Finally, within the Annex, clarification was made on the use of food waste recovery products; where the Commission viewed that unsafe food can be processed into safe feed. The Commission also acknowledged that the Waste Framework Directive (WFD) is currently under revision, and that this Guide will be revised accordingly in light of future WFD outcomes. The Guideline was published as a Commission Notice on 16 April 2018.

Forward Work Programme and Horizon Scanning

35. The Committee was unable to consider its Forward Work Programme and other items suggested for horizon scanning during 2018, due to a combination of the cancellation of the October meeting and the FSA's consideration of how the UK's exit from the EU will affect its needs for independent expert advice provided by Scientific Advisory Committees.
36. A copy of the Committee's existing Forward work plan can be found at Annex III.

Food Standards Agency – Governance of Science

37. The Committee has always been actively involved in helping to develop good practice guidelines for scientific advisory committees (SACs) that advise the Food Standards Agency. This helps to strengthen systems and processes used for science governance within the Food Standards Agency for purposes of transparency.
38. The Food Standards Agency has based its policy decisions on scientific evidence. The network of independent scientific advisory committees that provide external scientific expertise and advice are fundamental to the Food Standards Agency's work and reputation. The Dean Review² showed that there was overwhelming support for the Food Standards Agency's policy of basing decisions on scientific evidence, and that this policy should be maintained and developed further. In response, the Food Standards Agency made proposals for strengthening systems and processes used for science governance and making them more transparent, the development of the good practice guidelines being one of them.
39. The Guidelines were revised and updated in July 2012, as set out in Annex IV listing the basic principles which are followed by scientific advisory committees such as ACAF when assembling and using scientific advice.

Framework for iteration and dialogue between FSA and the SACs

40. In July 2012 the Food Standards Agency published a framework for iteration and dialogue between FSA and the SACs. The framework set out in Annex V lists the objectives and boundaries for iteration and dialogue between the FSA and the SACs. It aims to ensure that this dialogue is effective, transparent, and respects the different roles and responsibilities of risk assessment and risk management. The SACs provide independent expert advice on risk assessment and other scientific issues that inform risk management decisions. FSA is responsible for policy and decision making.

² An independent review of the Food Standards Agency conducted by The Rt Hon Baroness Dean of Thornton-le-Fylde in 2005.

Membership

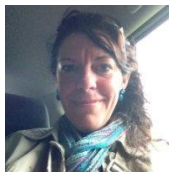
Meet the Members

41. ACAF currently consists of a Chairman and 13 members from wide-ranging backgrounds including consumer affairs, farming, the feed industry and science. Members are appointed in accordance with the Nolan Principles and guidance issued by the Office of the Commissioner for Public Appointments (OCPA), which aim to ensure fairness and transparency in appointments to public bodies. ACAF members and their main areas of expertise are listed below.



Dr Brown (Chairman) is a medically qualified registered specialist and consultant in occupational medicine and toxicology. He is also a graduate in agricultural biochemistry and nutrition and has a wide range of knowledge and experience within occupational health, toxicology, agriculture, food safety and the food chain.

Dr Brown was formally the Director and Head of Department of the Occupational Health Service at the University of Oxford and is presently an honorary consultant physician and research fellow in occupational medicine at Oxford University Hospitals and Public Health England. He was formally Chairman of the Pesticide Residues Committee, a member of the Advisory Committee on Toxic Substances of the Health and Safety Commission and a member of the Food Standards Agency's General Advisory Committee on Science. His current duties now include a clinical regulatory responsibility as an Appraiser and Responsible Officer of trained doctors.



Miss Michelle Beer (animal feed law enforcement) **who left on 6 April 2018** is a Senior Trading Standards Officer for Cornwall Council's Quality Standards and Animal Health Team ensuring enforcement of animal feedingstuff legislation from "gate to plate", including trying to write a simple HACCP template for farmers around their processes for animal feed.

Before working for Cornwall Council, Miss Beer worked as an Assistant Scientific Officer for the Ministry of Agriculture Fishery and Foods in a veterinary investigation centre. In 1997 she started a career in Trading Standards, working for Northumberland County Council as an Animal

Health Inspector, moving to Gloucestershire County Council before joining Cornwall Council in 2003.

Miss Beer gained a professional qualification – Diploma in Consumer Affairs, including the Food & Agriculture papers. In 2015, she retook the professional qualifications in Food and Agriculture and now holds the Diploma in Consumer Affairs and Trading Standards, including the Agriculture paper. Miss Beer sits on the South West of England Regional co-ordination of Trading Standards (SWERCOTS) regional Animal Health & Welfare group and represented that group on the National Animal Health & Welfare Panel (NAHWP). Since 2015, Miss Beer has been Vice-Chair of the National Panel. She has acted as an expert for the European Commission's Food and Veterinary Office on the welfare of animals during transport.



Ms Angela Booth (feed manufacturer) is a Director of Feed safety for AB Agri a leading British supplier of pig and poultry compound feed and co-products.

She has worked in the UK animal feed industry for over 30 years. She has a BSc in Animal Nutrition from Edinburgh University. Her current role includes responsibility for nutrition, quality assurance, feed safety and legislation. Ms Booth also has responsibility for feed safety across the whole of AB Agri, which comprises a diverse range of animal nutrition businesses selling compound feed, co-products, premix, feed materials and feed additives to more than 40 countries.



Mr Geoffrey Brown (feed materials) since graduating with a first-class Honours degree in the Physiology and Biochemistry of Farm Animals has worked continuously in the animal feed pre-mixture industry in a variety of positions until 2007 when he moved into full time regulatory management. He has worked closely with a number of UK trade associations and their European counterparts. Mr Brown is a Member of the Legal Affairs and Scientific Committee and chairs the Pre-mixture and Mineral Feeds Committee of the Agricultural Industries Confederation. Since his retirement from full-time employment in June 2014, Mr Brown has taken up an appointment as the General Secretary of the British Association of Feed Supplement and Additive Manufacturers (BAFSAM). He has worked extensively in various Working Groups and Task Forces of FEFANA, the European Association of Speciality Feed Ingredients and their Mixtures, of which BAFSAM is the British Isles partner organisation. Mr Brown is a past president of the Society of Feed

Technologists, was a long-standing member of the management committee and continues to be a member. He is also a Member of the British Society of Animal Science.

Ann Davison (consumer) is an expert in customer insight, consumer engagement and clear communication. She began her career at Which? and has worked in consumer affairs for most of her career, running consumer organisations and networks such as Foodaware: the Consumers' Food Group. She won the UK Woman of Europe 2000 Award.



Ann has served as a consumer representative on a number of government committees – Defra's Expert Panel on Air Quality Standards, the Adult Learning Committee of the Learning and Skills Council and currently Defra's Expert Committee on Pesticide Residues in Food - she chairs the Communications Subcommittee. For nearly six years, Ann was Defra's consumer adviser and ran its Consumer Representatives Group.

Ann co-founded the Fairtrade Foundation and chaired its Certification Committee for eleven years. She is also a member of the National Consumers Federation and serves on the Management Committee of the National Council of Women.



Professor Stephen Forsythe (microbiology) is a recently retired Professor of Microbiology at Nottingham Trent University and is currently an independent food safety advisor. His main research area is primarily on foodborne infections. He has been an invited participant and speaker at three FAO/WHO risk assessments on the microbiological safety of powdered infant formula. Professor Forsythe has also been a member of the European Food Standards

Authority: Additives and Food Contacts Materials Panel, and an ad hoc member on the Qualified Presumption of Safety and BIOHAZ Panels.



Peter Francis (farmer) is a mixed arable and livestock farmer and a former dairy producer based in West Wales. He has held many positions within the National Farmers Union, including the county Chairman, dairy committee delegate, rural affairs delegate and is currently the Carmarthenshire

delegate on the England and Wales Council. Mr Francis sits on the Welsh Assembly Government Appeals Panel for the Single Farm Payment.



Professor Ian Givens (animal nutrition) is a nutritional scientist and Professor of Food Chain Nutrition and Director of the Food Production and Quality Research Division at the University of Reading, School of Agriculture, Policy and Development. He is also leader of the Lipids in the Food Chain research theme within the University's Centre for Food Security.

Within the University he has responsibilities for managing a large research division the work of which focuses on foods produced by animals. His research focuses on the impact of animal derived foods on chronic disease in humans and the potential for their composition to be improved together with aspects of environmental nutrition. He is a Member of the Scientific Advisory Committee to the British Nutrition Foundation and a member of the External Advisory Committee of the University College Dublin Institute of Food and Health. He is also currently Deputy Chairman of ACAF.



Professor Wendy Harwood (novel biotechnology) has over 25 years' experience in crop biotechnology, specifically the genetic modification of crop plants. She has a first class degree in Biology and a PhD in plant transformation. Professor Harwood is currently responsible for the Crop Transformation Group at the John Innes Centre, Norwich.

Her group focuses on the development of improved genetic modification technology for cereals and Brassica species, gene-editing in crops, the safety assessment of GM crops and the development of crops with improved drought tolerance. She has experience of running GM field trials and her group is responsible for the Biotechnology Resources for Arable Crop Transformation (BRACCT) platform that provides transformation resources to research groups world-wide.

Professor Harwood is an honorary lecturer at the University of East Anglia, contributing to undergraduate and post-graduate teaching. She is active in public engagement activities including contributions for television, radio as well as demonstrations, presentations and lectures for a range of interest groups including schools and farmers' organisations. Professor Harwood is an active member of a European Farmer Scientist Network and sits on John Innes Centre Committees including the Biological Safety Committee.



Mrs Christine McAlinden (toxicology) is Associate Director with toXcel International Ltd and is a toxicologist with 20 years' experience; She provides scientific and regulatory advice to the chemical, biotech and pharmaceutical industries. She has a BSc (Honours) in Applied Biology from Nottingham Trent University and obtained certification as a Diplomate American Board of Toxicology. Mrs McAlinden has been on the UK and European Register of Toxicologists since 2001. Between 2003 and 2008, she served on the Education Sub-committee of the British Toxicology Society. She was a member of the panel for the UK Register of Toxicologists between 2009 and 2014.



Dr David Peers (animal nutrition) has over 40 years' experience of providing farm livestock nutrition consultancy work to farmers, corporate and government bodies. Since graduating from the University College of Wales, Bangor with a BSc in Biochemistry and Soil Science and a PhD he was employed by the Edinburgh School of Agriculture where he carried out research and development work publishing scientific papers on livestock nutrition and forage production. This was followed by an appointment as a nutrition chemist with the National Agricultural Advisory Service and was subsequently appointed senior nutrition consultant with ADAS after its privatisation. Since retirement from full time work he now provides nutrition consultancy for RSK-ADAS working with farmers and government bodies. He is a registered nutritionist within the Association for Nutrition.



Dr Timothy Riley (lay person) is the Chairman of a biotechnology company and a Non-Executive Director of a health testing company. He also is Executive Chair to Wellstate a health policy and healthcare advisory company.

He has a first-class honours degree in Applied Biology and a PhD from Kings' College Cambridge. Following research fellowships in molecular biology at Cambridge and London he moved to the Medical Research Council to administer HIV/AIDS research funding.

Dr Riley joined the Department of Health in 1991 and became a Senior Civil Servant in 1994. Dr Riley held a number of high-level roles including

the Head of NHS Public Health Policy and Head of Health Outcomes and Effectiveness. In 2000, Dr Riley moved to the NHS as a Health Authority Executive Director, before being appointed as Chief Executive to a Primary Care Trust. He led three NHS Trusts as Chief Executive over an 11-year period before retiring from the NHS in 2011.

Dr. Riley is a Board member of the National Institute for Health Research, Health Services Research Board and a Member of the NHS Futures Forum, which was launched by the Prime Minister.

In addition to his Non-Executive Director roles and health and wellbeing business interests, Dr Riley has resumed more direct management of the beef and lamb livestock farm which he has owned for over 20 years.'



Professor Robert Smith (veterinary science) has been a veterinary surgeon for 25 years, and currently carries out clinical work on dairy, beef, and sheep farms as part of the veterinary practice run by the University of Liverpool. He also has research and knowledge exchange roles within the University of Liverpool School of Veterinary science working with a range of partners in the food supply chain. Professor Smith has a degree in biochemistry and a PhD in neuro-endocrinology in addition to his veterinary graduate and post-graduate qualifications. He is an author of over 65 peer-reviewed scientific papers and has contributed written material to a range of publications. Professor Smith is involved in on-farm monitoring of cattle health and nutrition, interpretation of forage analysis and animal response to nutrition. He has been a tutor on courses for veterinary surgeons, farmers and animal feed companies. As lead academic of the Tesco Dairy Centre of Excellence, Professor Smith works regularly with dairy farmers across the UK who supply Tesco with liquid milk, the two largest milk processors and the largest retailer. He runs on-farm studies and training workshops guided by industry requirements. The Group has also contributed to a Knowledge Transfer Partnership on ad lib versus restricted feeding of milk replacer to calves. The animals are being monitored into lactation to see if there is an ongoing benefit of early animal nutrition on health and production.



Mr Edwin Snow (feed industry) **who left the Committee on 6 March 2018** was for seventeen years employed as the Technical Manager – Milling Division at Noble Foods.

From the 1st April 2011 he became an independent consultant advising feed and related businesses on quality assurance, hygiene and feed legislation.

He is a Member of the Agriculture Industries Confederation's Legal Affairs and Scientific Committee and current Chairman of the Feed Material Assurance Scheme (FEMAS) Working Group.

He is also a Member of the Royal Society of Chemistry and advises the British Egg Industry Council on all matters relating to feedingstuffs.

Current Terms of Office of ACAF Members

42. To ensure continuity, re-appointments to ACAF (usually for periods of three years) are staggered so that only a proportion of the membership falls vacant each year. The terms of office of ACAF members are as follows:

Until 31 December 2017
Michelle Beer* (Animal Feed Law Enforcement)

Until 30 June 2018
Mr Edwin Snow (Feed Industry)

Until 31 August 2019
Ms Angela Booth (Feed Manufacturer)

Until 30 September 2019
Mr Geoffrey Brown (Feed Materials)
Professor Robert Smith (Veterinary Science)

Until 30 November 2019
Dr David Peers (Animal Nutrition)
Mrs Christine McAlinden (Toxicology)

Until 31 December 2019
Dr Ian Brown (Chairman)
Professor Ian Givens (Animal Nutrition)

Professor Stephen Forsythe (Microbiology)
Dr Wendy Harwood (Novel Biotechnology)
Dr Timothy Riley (Lay person)
Ms Ann Davison (Consumer)
Mr Peter Francis (Farmer)

***first term**

Re-Appointments 2018

43. The triennial review of scientific advisory committees for which the FSA is lead sponsor (carried out between September and November 2015) concluded that the functions of Advisory Committee on Novel Food and Processes (ACNFP) and ACAF should merge after a consultative process that should be completed by December 2017. However, following the UK's decision to leave the EU, the FSA is now reviewing how future needs for scientific advice in these areas might be delivered post-EU Exit. This is part of wider cross-Government consideration of these issues and is being coordinated by the FSA.

44. Seven Members had their terms of appointment extended as follows:

- Dr Ian Brown (Chair) -8 May 2018 to 31 December 2019
- Professor Ian Givens (Animal Nutrition) -1 June 2018 to 31 December 2019
- Ms Ann Davison (Consumer Representative) – 31 August 2018 to 31 December 2019
- Dr Tim Riley (Lay person) – December 2017-31 December 2019
- Professor Wendy Harwood (Novel Biotechnology) – December 2017 to 31 December 2019)
- Professor Stephen Forsythe (Microbiology) – December 2017 to 31 December 2019
- Mr Peter Francis (Farmer) – 31 August 2018 to 31 December 2019.

End of appointments 2018

45. The Committee said goodbye to Miss Michelle Beer (Animal Feed Law Enforcement), and Mr Edwin Snow (Feed Industry). The Committee, the Food Standards Agency and the devolved countries were extremely grateful for these Members' commitment and input to the work of ACAF and wished them every success in the future.

ACAF Secretariat

46. The Committee's secretariat is staffed by officials from the Food Standards Agency's Animal Feed, TSEs and Animal By-Products Branch led by Keith Millar.



From left to right –Mark Bond, Mandy Jumnoodoo and Keith Millar (ACAF Secretary).

The Committee's Commitment to Openness

47. ACAF is committed to a policy of openness and engagement with stakeholders. Copies of agendas, papers, advice, reports and minutes of meetings can be found on the Committee's website at:

<http://acaf.food.gov.uk>

48. Paper copies of these documents can be obtained by contacting the ACAF Secretariat at the address shown at paragraph 6.

49. The nature of the expertise and experience required for ACAF membership means that some members have links with the feed industry, farming and other relevant sectors. Details of members' interests can be found in the Register of Members' Interests at Annex VII. These details are regularly updated in the on-line version of the Register on the website. ACAF members are required to declare all relevant interests in writing when they are appointed and are reminded to update as necessary at the beginning of each meeting. Members are also required to declare any direct commercial interests, or those of close family members, in matters under discussion at each meeting. This declaration is recorded in the minutes of meetings, which are freely available to members of the public.
50. The Committee held all of its meetings in 2018 in open session, one of which was in Chester. These meetings were attended by observers from a range of stakeholders. Observers were not allowed to contribute to discussions' but were able to ask questions at the end of the meeting. ACAF is committed to continue to hold open meetings.

Annex I

Working Group on feed additives and over-supplementation

Third meeting of the ACAF Working group on feed additives and over-supplementation held at 10.30 am on 17 October 2018 in Room 604 Clive House

Attendees:

Tim Riley – Chair - ACAF Member

Geoff Brown – ACAF Member

Secretariat:

Mark Bond – Food Standards Agency

Julie Benson – Food Standards Agency

Mandy Jumnoodoo – Food Standards Agency

Via Teleconference:

Peter Francis – ACAF Member

David Peers – ACAF Member

Helen Atkinson – Food Standards Agency

Nina Dorian – Veterinary Medicines Directorate

Annie Green - Veterinary Medicines Directorate

Apologies:

Rob Smith – ACAF Member

Minutes of the Second meeting

1. The minutes were agreed.

Actions from previous meetings

2. The following actions from the inaugural and second meeting were still outstanding:
 - A mapping exercise to help identify the stakeholders involved including the marketing response in making decisions in buying minerals should also be carried out – this action has yet to commence.
 - It was agreed that by June/July 2018 there will be sufficient data to identify the issues surrounding feed additives and over-supplementation, so that by early autumn draft documents can be prepared to highlight these and describe the actions that can be adopted to mitigate the issues – this action has yet to be discussed.
3. All other actions had been completed.

Discussion on the Matrix

4. During the discussion of the current matrix it was agreed that an additional column should be added entitled drenches and wormers. This is because these products contain trace elements which may not be considered in assessments either by vets, nutritional advisers or by farmers. During discussions, the group agreed on how each of the individual areas in the new column on drenches/wormers should be populated.
5. The group decided that no further work was required on species.
6. Although the group considered whether there was a better way for presenting the data to avoid any misinterpretations, no suitable suggestions were provided. The Group agreed to consider further.

Action: All

Scope of work

7. It was agreed following discussion that the scope of work did not need to be extended.

Discussion of Papers – including Literature review update

8. As agreed at the second meeting, prior to the meeting, Geoff Brown had circulated a paper entitled '**Summary comments regarding water supplementation of monogastric farm animals**'. He provided a summary of the paper, saying that virtually all broiler stocks are expected

to receive water supplementation at some point in their lives. Mr Brown, acknowledged that when initially exploring the subject, the feedback from industry indicated that supplementation levels were not high. Additionally, although there has been advances in genetics there have been no changes in the levels in supplementation. Most feed additive products are not authorised in drinking water; however, the legislation allows for blending of products into a 'complementary feed' that can then be added to water. This could lead to issues. Also, there is a difference in interpretation between what is a liquid feed and feed additive administration via water. In terms of frequency of use, evidence shows this was not long term in the life cycle of broilers. There were no perceivable welfare issues on the available evidence and therefore by default there would not be a risk to humans. The key issue however, is the difference between liquid feed and supplemented drinking water.

9. Discussion then focussed on papers circulated by David Peers (i) produced by DairyCo/AHDB and (ii) scientific paper published by Harper Adams in 2014 which indicated that the issue of over-supplementation was not restricted to monogastric animals. Discussion then focussed on responsibilities and measures to control the risk of over-supplementation. Nina Dorian (VMD) read out the following statement issued by the VMD in 2016 on the responsibilities and measures in place to avoid/control the risk of over-supplementation.

"We looked at some Summary of Product Characteristics (SPCs) and the indications/contraindications are quite clear as are all the instructions in the SPC and labels. It is the vet's responsibility, as they are prescribing, to ensure that over-supplementing does not take place. There is also a certain amount of collective responsibility between the vet/nutritionist and the farmer. Also to note, some VMPs containing trace elements are authorised for a specific condition e.g. to treat endoparasites rather than correcting trace element deficiency, but state they should only be used in areas where deficiency is likely where the mineral acts as a nutritional supplement."³

10. The group considered how to make farmers and other users aware of the hidden information that would allow them to be aware of the sources of

³ Following the meeting, a Member of the Working Group suggested that in some cases the trace elements do not form part of the licensed product, so there is uncertainty as to how the prescribing vets /suitably qualified persons account for these and whether these nutrients are considered in the overall calculation of levels fed in the complete diet.

products being given to animals that could together result in over-supplementation. It was suggested that this information could be included in the label. However, VMD confirmed that the statement could not be amended because the SPC provides the details of the requirements.

11. The Group therefore concluded the following:

- There is a perceived position in the industry that more supplementation is required in some situations, especially where genetic progress has resulted in far better feed conversion efficiencies. Supplementation is provided not because of poor nutrition or other factors but where it is seen to be beneficial.
- Any messages issued by the group should refer to the fact that over-supplementation can lead to contravention of MPLs.
- Drenches do present significant concerns in terms of regulatory compliance – there is inadequate information of the additional levels that are being administered – this should be made available.

12. It was recognised that there would be huge resistance from industry to include further information on labels due to costs and space. Therefore, it was not recommended that further label information should be required – however, a statement stating that this product contains trace elements and advice should sought from your nutritional adviser.

13. The Harper Adams paper published in 2014, outlined findings on the mineral supplementation of dairy herds in the North of England. It was acknowledged that the conclusions included that in winter, most dairy herds are fed in excess of EU requirements or recommended guidelines. This was not considered cost effective.

14. It was noted that ACAF had produced a paper on copper over-supplementation which had resulted in some improved practices, however, it was unclear how the message could be re-enforced. It was noted that over-supplementation of copper and selenium were the most common issues. The best approach to raise awareness would be through media routes and via the Agriculture and Horticulture Development Board (AHDB). Finally, it was acknowledged that the MPL for copper had recently been reduced for cattle, but, it may be too early to see how this change to the MPL will affect any trends in compliance.

Literature study

15. Mark Bond introduced the paper noting that the objective was to identify and understand non-compliance in trace elements in a number of species at a global level. Dr Bond explained that the paper was structured to provide a short over-arching introduction and is then intended to focus on individual minerals with a short description of mineral deficiencies and a more detailed review of over-supplementation, including literature case studies. The paper currently focussed on iodine before progressing other minerals as a guide to the structure from the literature review. In terms of the motivators and behaviours it was noted there was very limited information to date. Further work was required to ensure more focus on the specific areas of motivators and behaviours. Dr Bond advised that the trends of over-supplementation identified from the literature review had not been cross referenced against the working groups matrix.

16. The Chairman thanked Dr Bond for a very informative paper which could be used as part of the final outputs of the group. He then invited comments from the group. Dr Peers asked whether in terms of the deficiencies mentioned in the paper, whether this strayed from the groups terms of reference. Dr Bond agreed with this observation but added that by highlighting the deficiencies this may help to explain reasons for over-supplementation based on relative frequencies of occurrence. However, further work was required on the paper, the scope of which had not been properly defined. It was therefore agreed that deficiencies had to be acknowledged as these were important motivators for over-supplementation. It was also acknowledged that there was a need to ensure that messages on over-supplementation were communicated.

17. Several ideas on the development of the paper were put forward and accepted. These included:

- as a reference guide for local authority enforcers;
- as an internal/FSA document with a shortened synthesis report that will be published by the ACAF-WG;
- addition of case studies;
- further work on drenches and boluses;
- incident data; and
- further information to be obtained on the usual method of supplying extra copper in the teart area of Somerset.

Action: Secretariat/David Peers

18. In terms of developing the synthesis paper, the following was agreed:

- Inclusion of economic factors;
- In order to support the discussion on behaviours which contribute to the issue of over-supplementation, it was agreed that Helen Atkinson would explore the best route to engage with the FSA's Social Science Committee;
- In terms of data for the paper it was agreed that this should only relate to the UK unless any international data was relevant or made reference to the UK;
- It was agreed that operator and vet views should also be sought to obtain tacit views from Practitioners. This could be solicited through workshops run by the AHDB and the British Cattle Veterinary Association (BCVA) conference⁴. Rob Smith to advise when the next BCVA conference is to be held so that appropriate material could be prepared; and
- VMD confirmed that they will need to consult with colleagues on the points raised⁵.

Action: Secretariat

Time frames and delivery dates

19. It was agreed that the revised literature paper would be prepared by January 2019 with the synthesis paper being prepared for April 2019.

⁴ The next BCVA conference is scheduled to take place between 17 and 18 October 2019.

⁵ Following the meeting the VMD confirmed that 'Any product containing minerals or trace elements being authorised for a particular veterinary indication will need a full dossier which includes all aspects of the dossier – quality, safety and efficacy. The efficacy part would be made up of pharmacodynamics, pharmacokinetics, target species tolerance, dose justification and clinical studies. This is the same for any product being authorised as a veterinary medicinal product. The Committee for Medicinal Products for Veterinary Use (CVMP) – (the European medicines Agency's committee responsible for veterinary medicines) fixed combination guideline states - 'For fixed combination of vitamins, oligoelements and minerals, it may be difficult to establish the interest of each active substance. Therefore, such combinations are accepted as being effective and safe if the indications claimed are restricted to deficiency diseases where treatment by a fixed combination is justified and the maximum doses do not exceed internationally and scientifically accepted limits'

There are anthelmintics that contain cobalt and selenium. These were authorised 30 years ago. The Summary of Product Characteristics (SPCs) state whether these minerals are included as nutritional supplements at a higher level so an associated nutritional indication is made or whether the minerals are included as excipients at lower levels and so the product does not include an associated indication. All of these respective products contain warnings regarding safe use of the products and to take care when other nutritional supplements may be co-administered. '

Action: Secretariat

Date of next meeting

20. The next meeting would be arranged for early February 2019.

ACAF Secretariat

April 2019

Annex II
Papers Considered by ACAF in 2018

NO. OF PAPER	NAME OF PAPER	MEETING NUMBER	DATE OF MEETING
ACAF/18/01	Use of Algae as animal feed.	75th	15 February 2018
ACAF/18/02	Update on Formaldehyde.	75th	15 February 2018
ACAF/18/03	Raw pet food.	75th	15 February 2018
ACAF/18/04	Update on FSA preparations for the UK's Exit from the European Union.	75th	15 February 2018
ACAF/18/05	EU Developments.	75th	15 February 2018
ACAF/18/06	Update on the work of other Advisory Committees.	75th	15 February 2018
ACAF/18/07		76th	28 June 2018
ACAF/18/08	Feed Additives	76th	28 June 2018
ACAF/18/09	Raw Pet Food	76th	28 June 2018
ACAF/18/10	Feeder Mice	76th	28 June 2018
ACAF/18/11	EU Developments	76th	28 June 2018
ACAF/18/12	Update on the work of other Advisory Committees	76th	28 June 2018

Annex III

ACAF Forward Work Programme

Introduction

The Committee is committed to taking a proactive approach to ensure developments in animal feed and feed safety are identified and prioritised as appropriate. Therefore this is a living document which can be amended to take account of changing priorities as new issues arise or the urgency of existing priorities change due to impacts on feed safety.

High Priority issues. ACAF to consider proactively based on emerging and current issues with high and/or immediate impact on feed safety and short term policy issues and strategic objectives for FSA and agricultural departments. Considerations include short term uncertainty risks, media interests and consumer perception.

Topic	Progress	Expected Output
Feed additives – potential for over-supplementation	Committee Member Geoff Brown provided the Committee with a presentation on feed additives at its October 2016 meeting. The presentation noted the issues of potential over-supplementation of animals, through multiple feed sources (e.g. forage, compound feed, boluses and drenches etc.). In addition, the presentation highlighted concern at the scale of non-compliance of products, such as those which exceed MPLs even when used on their own, or products with inadequate labelling, with some	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy

	<p>internet sales adding to the challenge of compliance. The Committee agreed that this was an important issue and that it could develop several work strands to help mitigate any potential risks.</p> <p>Since the October 2016 meeting the Committee has discussed on several occasions optimum ways to communicate with the feed industry to emphasise the importance of compliance with maximum permitted levels set for certain feed additives in feedstuffs. The Committee considered a scoping paper and agreed that a working group would be convened before the next full committee meeting in February 2018. The Working Group met in December 2017 where it undertook a further scoping exercise to assess the size and potential length of the task and also agree its terms of reference and whether membership should be extended to external organisations and individuals.</p> <p>At the ACAF's February 2018 meeting, the Working Group chairman provided an oral report on the outcomes of the inaugural meeting and agreed to provide a further</p>	
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	update at the Committee's June 2018 meeting on the outcome of the second working group meeting to be held in April 2018.	
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Medium Priority issues - ACAF to respond to developments and consider regularly. This will be based on emerging and current issues with potential increasing impact on feed safety along with medium term policy issues and strategic objectives for FSA and agricultural departments. Considerations for determining medium priority include medium term uncertainty of risks, media interests and consumer perception.

Feed additives – legislative changes impacting micronutrient status	<p>There is some concern that changes in feed legislation leading to the manufacture of animal feed with lower levels of certain trace elements might lead to inadequate nutrient supply to humans.</p> <p>In 2016, reductions in maximum limits for zinc were introduced for some animal species. In 2017, levels for manganese were retained and reductions set for iron MPLs for specific species.</p> <p>Standing Committee discussions on maximum limits are underway for copper.</p>	To provide recommendations and advice on potential impacts on feed safety as appropriate.
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Feed Safety – Potential Gaps	<p>In June 2011, the Committee was asked to consider potential safety gaps in the feed sector. It agreed to consider in further detail the following:</p> <ul style="list-style-type: none"> • identification of feed businesses; • awareness/competence of feed business operators (FeBOs); and • imports. <p>The Committee explored the three areas during 2012 and 2013 including presentations from industry organisations (e.g. the Agricultural Industries Confederation and the British Society of Animal Science on work they are doing on the awareness and competence of FeBOs). At its May 2013 meeting the Committee considered the conclusions it had reached during its exploration of potential safety gaps in the feed sector. These were published on 10 December 2013. http://acaf.food.gov.uk/papers/reviewgaps</p>	To identify potential gaps in feed safety and provide recommendations to address the gaps identified.
Safety and practical use of food waste	Yet to be considered in general terms.	To provide comments to help to inform the FSA position on such initiatives.

	<p>The Committee is already aware of work being done in respect of the presence of adventitious packaging material in feed produced from surplus food.</p> <p>The European Commission published its Circular Economy Package in December 2015. At its June 2016 meeting Alexander Döring the Secretary General for the European Feed Manufacturers' Federation (FEFAC) provided the Committee with FEFAC's views on the recent EU Commission Communication on the Circular Economy and its potential impact on and implications for feed safety management along the feed supply chain. The Committee empathised with the issues raised during the presentation.</p>	
Alignment of National and EU Feed legislation	<p>The Government has set a clear aim to reduce the overall burden of regulation. To this end and under the auspices of the Red Tape Challenge, the national animal feed regulations will be simplified by consolidating the four main pieces of legislation into two. The following came into force on 6 April 2015:</p>	<p>To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy</p>

	<p>(i) Animal Feed (Composition, Marketing and Use) (England) Regulations 2015 (SI 2015 No. 255) http://www.legislation.gov.uk/uksi/2015/255/contents/made; and</p> <p>(ii) Animal Feed (Hygiene, Sampling, etc. and Enforcement) (England) Regulations 2015 (SI 2015 No. 454) http://www.legislation.gov.uk/uksi/2015/454/contents/made</p> <p>However a further amendment is required on (i) which is expected to be finalised in 2018.</p>	
Forge closer links with other Advisory Committees and tackle issues of common interest.	<p>ACAF will continue to take opportunities to develop links with other SACs in respect of cross-cutting issues.</p> <p>ACAF Members and the Secretariat continued to work with the Advisory Committee on Microbiological Safety of Food (antimicrobial issues) and the Advisory Committee on Novel Food and Processes (GM Feed).</p>	To identify opportunities for working with other SACs to ensure potential feed safety issues in discussions by other SACs are identified and addressed appropriately.

<p>Microbiological issues – including antimicrobial resistance</p> <ul style="list-style-type: none"> • Salmonella • AMR 	<p>In light of comments by some Member States that the European Commission should consider a harmonised EU Salmonella strategy, ACAF Members may be asked for their views should the exercise go forward.</p> <p>On antimicrobial resistance the Committee initiated discussions in 2012 where it agreed the topic was complex. A presentation was provided by NOAH after which the Committee agreed although it has a peripheral interest in the subject, it was an important area and wished to be kept informed of developments.</p> <p>A Member of the Committee is currently a Member of an Advisory Committee on Microbiological Safety of Food Working Group on antimicrobial resistance.</p>	<p>To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy.</p> <p>Additionally, to be aware of updates and discussions affecting feed safety. To provide recommendations and comments on feed safety issues as necessary.</p>
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Biostimulants	<p>A Committee Member has suggested that ACAF should explore this issue further. Plant biostimulants contain substance(s) and/or micro-organisms whose function when applied to plants or the rhizosphere is to stimulate natural processes to enhance/benefit nutrient uptake, nutrient efficiency, tolerance to abiotic stress, and crop quality.</p> <p>At ACAF's October 2017 meeting in order for the Committee to decide if further work on the subject should be taken forward, two ACAF Members provided a presentation on the subject. During the presentation, a potential animal feed issue was identified but could not be quantified or confirmed. Following the presentation, the Committee agreed that further information was required before it could confirm that work was required by ACAF on this subject.</p>	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy
Training	Members have identified that there is a lack of any formal training available, other than a specific short HACCP course, for individuals in the animal feed sector who have feed/food safety roles. The Committee intends to carry out a formal review on this	To identify and address potential opportunities for training and provide recommendations as necessary.

	area with a view to providing recommendations.	
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Periodical update - items for the Committee to be aware of which includes those which may impact on feed safety. The following considerations for determining periodical updates will include long term uncertainty of risks, media interests and consumer perception.

Food/feed security: a) climate change and the impact on feed production; b) animal production including feeding systems and the effect on the environment; and c) global demand for animal derived foods and prices for primary production.	In October 2014 Members received a presentation from the Chairman of the AIC's Sustainability Committee. The Committee agreed to revisit the area of sustainability at a future meeting.	To identify and address potential feed safety issues arising due to food/feed security considerations and provide recommendations as necessary.
GM issues including future developments in biotechnology (e.g. use of second generation GMOs) and possible links	The Committee receives regular update reports from the Secretary on EU developments; these include future developments in biotechnology. The issue of asynchronous approvals of GM varieties and its future impact on the security of feed supply	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy.

with GM nutritional work.	has been brought to the attention of the Committee and is being monitored by the Secretariat.	
Feed Incidents and related issues.	In June 2012 the Committee received a presentation from the Department of Agriculture and Rural Development on Feed Incident Management in Northern Ireland from an enforcement perspective. It outlined the level of preparedness in Northern Ireland for the handling of feed related incidents, including contingency planning, and risk assessment activities. The Committee was encouraged by the arrangements in place.	To maintain safety of consumers by ensuring that systems in place to deal with incidents are robust and mitigate risks within a timely response.
Updates on BSE and TSE developments.	<p>An update on TSE and Meat and Bone meal (MBM) issues was provided by an official from Defra at the Committee's December 2008 and June 2011 meetings.</p> <p>At its June and September 2011 meetings, Members agreed to receive updates and monitor developments in respect of the European Commission's draft proposal to establish new criteria for feeding non-ruminant processed animal protein (PAP - excluding fishmeal) to non-ruminants of a different species.</p> <p>The Committee also received a presentation from another official from Defra on an update of EU</p>	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy.

	<p>Animal By-Product controls at its meetings in December 2009 and September 2011.</p> <p>Members were provided with an oral update at the September 2012 meeting.</p> <p>Members agreed that this item should remain on its work plan and be periodically reviewed.</p>	
Refuse Derived Fuel Market	<p>The Grain and Feed Trade Association (GAFTA) had previously raised concerns about the potential contamination risk of handling and storage of domestic waste material at ports, awaiting export and intended for use in energy generation. This issue has been considered by the Committee on a number of occasions and it agreed recommendations at its June 2017 meeting. An industry code of practice drawn up by the RDF Industry Group (for which ACAF had provided input) was published on 16 October 2017 and included advice on good practice when RDF is stored at ports which also store animal feed or food. The Committee's recommendations, on raising awareness amongst enforcement bodies and encourage better liaison between local authorities and the Environment Agency in relation to RDF were also being progressed.</p>	To provide recommendations and advice on potential impacts on feed safety as appropriate.
The feeding of farm livestock to improve the quality of human	<p>The Committee first considered this issue in 2004-2005.</p>	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy.

<p>food (milk, meat, eggs, fish). Examples include:</p> <ul style="list-style-type: none"> - enhancing the selenium content of livestock produce; - enriching foods with polyunsaturated fatty acids (PUFAs) including long chain n-3 PUFA; - developing foods with reduced concentrations of saturated fatty acids; 	<p>At its September 2012 meeting, Members were informed of developments on iodine and vitamin D. A Member of the Committee agreed to provide details of these developments to Members, which was circulated on 11 October 2012.</p> <p>This area will be revisited when significant developments occur.</p>	
<p>Proposed revision of the ACAF Review of</p>	<p>A subgroup of the Committee was tasked to revise the Committee's Review of On-Farm Feeding</p>	<p>Providing periodical updates when significant changes occur to ensure that the document remains relevant.</p>

On-Farm Feeding Practices.	<p>Practices which was published in September 2003 and report back to the full Committee. During 2014 and 2015 the sub-group worked on revising the document feeding back to the main Committee at regular intervals. Additionally, the sub-group liaised with colleagues in Defra, VMD, the FSA and industry to ensure that the revision took account of developments.</p> <p>The final review document was uploaded on to the ACAF website in May 2016. The Committee agreed that the document should be reviewed periodically.</p>	
Nano-technology	<p>A House of Lords Select Committee paper on nano-technology was published in January 2010. The paper contained little information on feed issues. At its September 2012 meeting, Members agreed to the removal of this issue from its forward work plan. However, Members have noted that this issue is much discussed in the food sector and that ACAF should fully understand the potential pros and cons of this technology. This is particularly relevant as the definition of nano-particles as applied to food use has been very contentious.</p> <p>Yet to be discussed.</p>	To be aware of updates and discussions affecting feed safety. To provide recommendations and comments on feed safety issues as necessary.

<p>Feed issues relating to organic production.</p>	<p>The Committee received an update on UK negotiations on organic farming in December 2011. It agreed that this was an important issue and requested it be kept informed of developments.</p> <p>At its October 2014 meeting the Committee received a presentation from a Defra official on proposals on organic products and labelling of organic products. Members agreed to provide comments to Defra on the Commission proposals.</p>	<p>To be aware of developments in relation to organic production providing as necessary recommendations to take account of potential feed safety issues.</p>
<p>Biofuels:</p> <ul style="list-style-type: none"> • possible impact on the availability and cost of widely used selected feeds; and • the safety and use of feed co-products from the production of biofuels. 	<p>The Committee has considered this subject area in depth and its position paper was published on 30 April 2008.</p> <p>At its March and June 2010 meetings the Committee received update presentations on biofuels and agreed that its position paper should be revised and adapted to take account of quantifiable data and new developments.</p> <p>The Committee updated its position paper on biofuels at its September 2011 meeting and agreed to publish a revised document, which is available at: http://acaf.food.gov.uk/papers/biofuels</p>	<p>To be aware of developments in relation to biofuels production providing as necessary recommendations to take account of potential feed safety issues.</p>

EU developments – including providing advice on UK negotiating lines.	The Committee receives EU development updates at every meeting and provides input to the UK delegation on a range of issues.	To note developments, including industry and public opinion, and to provide considered and substantiated guidance to help shape FSA policy.
Work of the European Food Safety Authority (EFSA), including opinions on additives and contaminants relating to animal feed.	The Secretariat will continue to draw relevant EFSA Opinions and documents to the attention of ACAF for discussion.	To note updates and maintain links with EFSA, providing comments as necessary.
Conclusions of ACAF on the feeding of fish meal to farmed animals	<p>In 2001, the Committee was asked by the Food Standards Agency for information and advice on the nutritional and other benefits of including fish meal and oil in animal feed (with the cost of any controls), set against any human and animal health risks. The Committee was made aware of the urgency of the matter: by this time it was expected that decisions would be imminent on whether the European Community should extend or amend its temporary ban on feeding processed animal protein, which includes fish meal in feed for ruminant animals, beyond 30 June 2001.</p> <p>The Committee discussed the subject at its meeting on 28 February 2001 and concluded its discussion on 2 May 2001. The Committee's conclusions were published on the ACAF website on 15 May 2001.</p>	To provide recommendations and advice on potential impacts on feed safety as appropriate.

	<p>Presentations on fishmeal and fish oil were provided at the Committee's October 2016 and February 2017 meetings.</p>	
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Annex IV

Good Practice Guidelines For The Independent Scientific Advisory Committees

PREAMBLE

The Government Chief Scientific Adviser's *Guidelines on the Use of Scientific and Engineering Advice in Policy Making*⁶ set out the basic principles which government departments should follow in assembling and using scientific advice. The key elements are to:

- **identify early** the issues which need scientific and engineering advice and where **public engagement** is appropriate;
- draw on a **wide range of expert advice** sources, particularly when there is uncertainty;
- adopt an **open and transparent approach** to the scientific advisory process and publish the evidence and analysis as soon as possible;
- **explain publicly the reasons for policy decisions**, particularly when the decision appears to be inconsistent with scientific advice; and
- **work collectively** to ensure a joined-up approach throughout government to integrating scientific and engineering evidence and advice into policy making.

The *Code of Practice for Scientific Advisory Committees*⁷ and the Principles of Scientific Advice to Government⁸ provide more detailed guidance on the operation of scientific advisory committees (SACs) and their relationship with their sponsor Departments.

The Food Standards Agency's Board adopted a **Science Checklist** in 2006 (updated in 2012) that makes explicit the points to be considered in the preparation of policy papers and proposals dealing with science-based issues, including those which draw on advice from the SACs.

These **Good Practice Guidelines** were drawn up in 2006 by the Chairs of the independent SACs that advise the FSA based on, and complementing, the Science Checklist. They were updated in 2012 in consultation with the General Advisory Committee on Science (GACS).

⁶ <http://www.bis.gov.uk/assets/bispartners/goscience/docs/g/10-669-gcsa-guidelines-scientific-engineering-advice-policy-making.pdf>

⁷ <http://www.bis.gov.uk/assets/BISPartners/GoScience/Docs/C/11-1382-code-of-practice-scientific-advisory-committees.pdf>

⁸ <http://www.bis.gov.uk/go-science/principles-of-scientific-advice-to-government>

The Guidelines apply to the SACs that advise the FSA and for which the FSA is sole or lead sponsor Department:

- Advisory Committee on Animal Feedingstuffs
- Advisory Committee on Microbiological Safety of Foods
- Advisory Committee on Novel Foods and Processes
- Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment⁹
- Committee on Mutagenicity of Chemicals in Food, Consumer Products and the Environment¹⁰
- Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment¹¹
- Social Science Research Committee
- General Advisory Committee on Science

For the SACs with a shared sponsorship the Guidelines apply formally to their advice to the FSA; they may opt to follow them also in advising other sponsor Departments.

All these committees share important characteristics. They:

- are independent;
- work in an open and transparent way; and
- are concerned with risk assessment and/or science governance, not with decisions about risk management.

The Guidelines relate primarily to the risk assessment process since this is the main purpose of most of the SACs. However, the SACs may, where appropriate, comment on risks associated with different risk management options, highlight any wider issues raised by their assessment that they feel should be considered (distinguishing clearly between issues on which the SAC has an expert capability and remit, and any other issues), or any evidence gaps and/or needs for research or analysis.

In addition, GACS and SSRC may advise the FSA on aspects of the governance of risk management, or on research that relates to risk management.

Twenty-nine principles of good practice have been developed. However, the different committees have different duties and discharge those duties in different ways. Therefore, not all of the principles set out below will be applicable to all of the committees, all of the time.

The SACs have agreed to review their application of the principles annually and report this in their Annual Reports. Compliance with the Guidelines will also be covered in the annual self-assessments by Members and annual feedback meetings between each SAC Chair and the FSA Chief Scientist.

⁹ Joint FSA/HPA Secretariat, HPA lead

¹⁰ Joint FSA/HPA Secretariat, HPA lead

¹¹ Joint FSA/HPA, FSA lead

PRINCIPLES

Defining the problem and the approach

1. The FSA will ensure that issues it asks a SAC to address are clearly defined and take account of stakeholder expectations in discussion with the SAC Secretariat and where necessary the SAC Chair. The SAC Chair will refer back to the FSA if discussion suggests that further iteration and discussion of the task is necessary. Where a SAC proposes to initiate a piece of work the SAC Chair and Secretariat will discuss this with FSA to ensure the definition and rationale for the work and its expected use by the FSA are clear.

Seeking input

2. The Secretariat will ensure that stakeholders are consulted at appropriate points in the SAC's considerations. It will consider with the FSA whether and how stakeholder views need to be taken into account in helping to identify the issue and frame the question for the committee.
3. Wherever possible, SAC discussions should be held in public.
4. The scope of literature searches made on behalf of the SAC will be clearly set out.
5. Steps will be taken to ensure that all available and relevant scientific evidence is rigorously considered by the committee, including consulting external/additional scientific experts who may know of relevant unpublished or pre-publication data.
6. Data from stakeholders will be considered and weighted according to quality by the SAC.
7. Consideration by the Secretariat and the Chair (and where appropriate the whole SAC) will be given to whether expertise in other disciplines will be needed.
8. Consideration will be given by the Secretariat or by the SAC, in discussion with the FSA, as to whether other SACs need to be consulted.

Validation

9. Study design, methods of measurement and the way that analysis of data has been carried out will be assessed by the SAC.
10. Data will be assessed by the committee in accordance with the relevant principles of good practice, e.g. qualitative social science data will be assessed with reference to guidance from the Government's Chief Social Researcher¹².

¹² Quality in Qualitative Evaluation: A Framework for assessing research evidence; The Magenta book
<https://www.gov.uk/government/publications/the-magenta-book>

11. Formal statistical analyses will be included wherever appropriate. To support this, each SAC will have access to advice on quantitative analysis and modelling as needed.
12. When considering what evidence needs to be collected for assessment, the following points will be considered:
 - the potential for the need for different data for different parts of the UK or the relevance to the UK situation for any data originating outside the UK; and
 - whether stakeholders can provide unpublished data.
13. The list of references will make it clear which references have been subject to external peer review, and which have been peer reviewed through evaluation by the Committee, and if relevant, any that have not been peer reviewed.

Uncertainty

14. When reporting outcomes, SACs will make explicit the level and type of uncertainty (both limitations on the quality of the available data and lack of knowledge) associated with their advice.
15. Any assumptions made by the SAC will be clearly spelled out, and, in reviews, previous assumptions will be challenged.
16. Data gaps will be identified and their impact on uncertainty assessed by the SAC.
17. An indication will be given by the SAC about whether the evidence base is changing or static, and if appropriate, how developments in the evidence base might affect key assumptions and conclusions.

Drawing conclusions

18. The SAC will be broad-minded, acknowledging where conflicting views exist and considering whether alternative interpretations fit the same evidence.
19. Where both risks and benefits have been considered, the committee will address each with the same rigour, as far as possible; it will make clear the degree of rigour and uncertainty, and any important constraints, in reporting its conclusions.
20. SAC decisions will include an explanation of where differences of opinion have arisen during discussions, specifically where there are unresolved issues, and why conclusions have been reached. If it is not possible to reach a consensus, a minority report may be appended to the main report, setting out the differences in interpretation and conclusions, and the reasons for these, and the names of those supporting the minority report.
21. The SAC's interpretation of results, recommended actions or advice will be consistent with the quantitative and/or qualitative evidence and the degree of uncertainty associated with it.

22. SACs will make recommendations about general issues that may have relevance for other committees.

Communicating SACs' conclusions

23. Conclusions will be expressed by the SAC in clear, simple terms and use the minimum caveats consistent with accuracy.
24. It will be made clear by the SAC where assessments have been based on the work of other bodies and where the SAC has started afresh, and there will be a clear statement of how the current conclusions compare with previous assessments.
25. The conclusions will be supported by a statement about their robustness and the extent to which judgement has had to be used.
26. As standard practice, the SAC secretariat will publish a full set of references (including the data used as the basis for risk assessment and other SAC opinions) at as early a stage as possible to support openness and transparency of decision-making. Where this is not possible, reasons will be clearly set out, explained and a commitment made to future publication wherever possible.
27. The amount of material withheld by the SAC or FSA as being confidential will be kept to a minimum. Where it is not possible to release material, the reasons will be clearly set out, explained and a commitment made to future publication wherever possible.
28. Where proposals or papers being considered by the FSA Board rest on scientific evidence produced by a SAC, the Chair of the SAC (or a nominated expert member) will be invited to the table at the Open Board meetings at which the paper is discussed. To maintain appropriate separation of risk assessment and risk management processes, the role of the Chairs will be limited to providing an independent view and assurance on how their committee's advice has been reflected in the relevant policy proposals, and to answer Board Members' questions on the science. The Chairs may also, where appropriate, be invited to provide factual briefing to Board members about particular issues within their committees' remits, in advance of discussion at open Board meetings.
29. The SAC will seek (and FSA will provide) timely feedback on actions taken (or not taken) in response to the SAC's advice, and the rationale for these.

Annex V

Framework for iteration and dialogue between FSA and the SACs

The objectives and boundaries for iteration and dialogue between FSA and SACs are:

At the start of a task, to:

- ensure that SACs are aware of the context of requests put to them by the FSA (including whether the SAC advice will feed directly into a Board decision or update an assessment that underpinned a previous decision)
- where the SAC is initiating a task itself, to ensure that FSA and the SAC are clear on the rationale and the expected use of the outcome by FSA
- to ensure that the question to be considered by the SAC(s) is clear and appropriate (in turn helping to ensure that outputs of SACs will be useful for the FSA)
- to ensure that the approach proposed is appropriate and proportionate to the issue and the intended use of the SAC's advice
- to ensure that SACs are not asked, and do not attempt, to address issues that are not part of their remit, for example decisions on risk management
- to help FSA to identify at the outset the factors it will need to consider in weighing up options for risk management, and to select appropriate means to address these: issues for risk assessment by the appropriate risk assessors (if more than one is relevant, the respective tasks can be planned in a co-ordinated way); other factors to be addressed through other processes, and as far as possible by other types of evidence-based analysis.

At handover of a SAC opinion to FSA:

- for SACs to give indications of the certainty of scientific evidence and to address any variation in that evidence and the basis of 'unorthodox' opinion among experts (so that risk managers are aware of the confidence attached to the SACs' assessments and advice)
- for SACs to help to identify and assess risks associated with different risk management options (if not identified at the start, for example if options arise or develop after the original task for risk assessment is defined, or if new or unintended consequences of different risk management options emerge)
- for the SAC to highlight any wider issues raised by their assessment that they feel should be considered (distinguishing clearly between issues on which the SAC has an expert capability and remit, and any other issues)
- for SACs to highlight any evidence gaps, minority scientific opinions and/or needs for research or analysis and give an indication of their priority; to help to develop detailed research requirements; and to contribute to interpretation and evaluation of research results

- to help ensure that the risk assessment is understood by the risk managers, and used accurately in weighing and communicating risk management decisions

In feedback and review, to:

- to ensure SACs are informed in a timely manner on how their advice and recommendations (including on risk assessment or research needs) have been acted on, or not, and the reasons behind this, and that SACs can comment on this, especially when the action deviates from any explicit advice provided by SACs
- to provide feedback for both sides to help to improve procedures and practices

Annex VI

Register of Members' Interests

MEMBER	COMPANY/ ORGANISATION	NATURE OF INTEREST	COMPANY/ ORGANISATION	NATURE OF INTEREST
Ms Angela Booth	AB Agri	Director of Feed Safety	Agricultural Industries Confederation Feed Executive Committee	Chair
		Partner	FEFAC Council	Member
	20ha grass farm		Agricultural Industries Confederation Board	Member
			Agricultural Industries Confederation Feed Assurance Group	Member
			FERA Scientific Advisory Group	Member
			Newcastle University Faculty of Agriculture Industrial Advisory Board	Member
			Pig Health and Welfare committee food safety subgroup	Member
			GMP + Feed Certification scheme Steering group	Member
			Bishop Burton College	Member
Mr Geoff Brown	GB Micronutrition Services - consultancy to premix and feed sector	Self-employed	DSM Nutritional Products (UK) Ltd	Consultancy

Dr I Brown	British Association of Feed Supplement and Additive Manufacturers (BAFSAM)	Secretary General	Regulatory Affairs	Internal auditor
	BAFSAM - Regulatory and Technical Committee	Chair		
	Agricultural Industries Confederation - Legal Affairs and Scientific Committee	Member		
	Agricultural Industries Confederation - Premix and Mineral Feed Committee	Chairman		
	Society of Feed Technologists	Member		
	British Society of Animal Science	Member		
	Pesticide Residues Committee	Chairman	None	None
	Advisory Committee on Toxic Substances of the Health & Safety Commission	Member		
	Independent Scientific Group of Responsible Use of Medicines in Agriculture	Member		
	General Advisory Committee on Science	Ex officio Member		

Ms Ann Davison	National Consumer Federation	Member	None	None
	National Council of Women	Member		
	Consumer and Public Interest Strategic Advisory Committee of BSI	Member		
Professor S J Forsythe	School of Science and Technology, Nottingham Trent University	Retired	None	None
	Mead Johnson	expert witness		
	3M: webinars and seminar presentations on microbiological safety of powdered infant formula	Presenter		
	Solus: seminar on current detection, methods for pathogens in powdered formula	Presenter		
	University of Lincoln	External Examiner		
	Centre for Food Safety, Stellenbosch, South Africa	External advisor		
	Society for Applied Microbiology (SfAM)	Executive committee member & Trustee		
	American Society for Microbiology	Ordinary Member		
	International Association for	Ordinary Member		

	Food Protection (IAFP)			
Mr P Francis	National Farmers Union	County Delegate and Member of Management Board	None	None
	Welsh Assembly Government - Appeals Panel for agriculture	Member		
	Young Farmers Club	Club Leader		
Professor D I Givens	University of Reading	Employee	European Commission	Research funder
	European Food Safety Authority Working Group	Ad hoc expert	Various Companies	Research funders
	British Nutrition Foundation Scientific Advisory Committee	Member	Dairy Council;	Consultant
	University College Dublin Institute of Food and Health, Scientific Advisory Panel	Member	Universities of Copenhagen and Wageningen;	co-operating on Global Dairy Platform funded meta-analysis on dairy products and cardiometabolic disease
	Estonian Biocompetance Centre of Healthy Dairy Products Scientific Panel	Expert assessor		
	Nutrition Society	Member		
	British Society of Animal Science	Member		
	Society of Biology	Member		
	Aberystwyth University (IBERS) Science	Member		

	and Impact Advisory Board			
	International Chair on Cardiometabolic risk	Member of panel on dietary lipids		
	European Healthy Lifestyle Alliance	Member of panel on obesity		
	International Expert Movement to improve Dietary Fat Quality	Member		
Dr Wendy Harwood	John Innes Centre	Employee	Genetics Society	Member
	Arable Farm/Essex	Partner	Association of Applied Biologists	Member
	Arable Farm/Essex	Joint Owner	Eucarpia	Member
			Plantcell reports	Editor
			New Breeding Techniques (NBT) Platform	John Innes Centre representative
			Various companies	research funders
				Consultancy on food/feed additives. Registration of pesticides with EPA
Mrs C McAlinden	Toxcel International Ltd	Employee	Chemical Industry	
	British Toxicology Society	Member		
	UK Register of Toxicologist	Member (ex Panel Member)		
	Society of Toxicologist	Member		
	Society of Cosmetic Scientists	Member		

Dr D G Peers	ADAS UK Ltd	Various consultancy contracts	None	
	Various Farm Businesses	Nutrition Consultancy		
Dr Timothy Riley	Stoney Royd Farm Commercial Beef and Lamb Production	Owner/Farmer	Wellstate Ltd	Director (now renumeralated) and Shareholder
			Wellstate HTA Ltd	Director and Shareholder
			Better 2 Know Ltd	Director (renumerated)
			Arcis: Altos Group Ltd	Director (Chairman) (renumerated)
			National Institute for Health Research (NIHR)	Member of Grant Giving Board (Health Services Research)
			Board of the UK Beef Shorthorn Society	Coopted Member
Dr Robert Smith	University of Liverpool	Employee	Tesco PLC ForFarmers PLC Zinpro IceRobotics	Consultancy via University of Liverpool
	United Utilities	Employer of spouse		
Mr E Snow	Edwin Snow Quality Solutions Limited	Director		
	Tate & Lyle	Shareholder		
	British Egg Industry Council - feed related matters	Consultant		

Annex VII

Abbreviations

ACAF	Advisory Committee on Animal Feedingstuffs
ACMSF	Advisory Committee on the Microbiological Safety of Food
ACNFP	Advisory Committee on Novel Foods and Processes
AHDB	Agriculture and Horticulture Development Board
AIC	Agricultural Industries Confederation
AIDS	Acquired Immunodeficiency Syndrome
BAFSAM	British Association of Feed Supplement and Additive Manufacturers
BCVA	British Cattle Veterinary Association
BIOHAZ	EFSA Panel on Biological Hazards
BRACT	Biotechnology Resources for Arable Crop Transformation
BSc	Bachelor of Science
BSI	British Standards Institution
BSE	Bovine Spongiform Encephalopathy
CVMP	Committee for Medicinal Products for Veterinary Use - the European Medicines Agency's committee responsible for veterinary medicines)
Defra	Department for Environment, Food and Rural Affairs
EC	European Community
EFSA	European Food Safety Authority
EU	European Union
FAO	Food and Agriculture Organisation
FeBO	Feed Business Operator
FEFAC	European Feed Manufacturers' Federation
FEFANA	EU Association of Specialty Feed Ingredients and their Mixtures
FEMAS	Feed Materials Assurance Scheme
FERA	Food and Environment Research Agency
FSA	Food Standards Agency
GACS	General Advisory Committee on Science
GAFTA	Grain and Feed Trade Association
GM	Genetically modified
GMO	Genetically modified organism
HACCP	Hazard Analysis Critical Control Point
HIV	Human immunodeficiency virus
IBERS	Institute of Biological, Environmental and Rural Sciences
MBM	Meat and Bone Meal
MPL	Maximum Permitted Level
NAHWP	National Animal Health & Welfare Panel
NBT	New Breeding Technique
NHS	National Health Service
NOAH	National Office of Animal Health

OCPA	Office of the Commissioner for Public Appointments
PAP	Processed animal protein
PhD	Doctor of Philosophy
PUFAs	Polyunsaturated fatty acids
RDF	Refuse Derived Fuel
SAC	Scientific Advisory Committee
SPC	Summary of Product Characteristics
SSRC	Social Science Research Committee
SWERCOTS	South West of England Regional co-ordination of Trading Standards
TSE	Transmissible Spongiform Encephalopathy
UK	United Kingdom
VMD	Veterinary Medicines Directorate
WFD	Waste Framework Directive
WG	Working Group
WHO	World Health Organization

Annex VIII

Code of Practice for Members of the Advisory Committee on Animal Feedingstuffs

Public service values

1. Members of the Advisory Committee on Animal Feedingstuffs must at all times:

- observe the highest standards of **impartiality**, **integrity** and **objectivity** in relation to the advice they provide and the management of this Committee;
- be **accountable** through Ministers, to Parliament and the public for its activities and the standard of advice it provides; and
- in accordance with the Government policy on **openness**, comply fully with the Code of Practice on Access to Government Information.

2. The Ministers of the sponsoring departments (the Food Standards Agency, DEFRA, Department of Agriculture and Rural Development for Northern Ireland, Scottish Executive and National Assembly for Wales) are answerable to their respective Parliaments for the policies and performance of this Committee, including the policy framework within which it operates.

Standards in Public Life

3. All Committee members must:

- follow the Seven Principles of Public Life set out by the Committee on Standards in Public Life (see Appendix I);
- comply with this code, and ensure they understand their duties, rights and responsibilities, and that they are familiar with the function and role of the Advisory Committee on Animal Feedingstuffs and any relevant statements of Government policy. New Committee members should consider the need for relevant training;
- not misuse the information gained in the course of their public service for personal gain or political purpose, nor seek to use the opportunity of public service to their private interests or those of connected persons, firms' businesses or other organisations;
- not misuse the influence gained in the course of their public service for personal gain, political purpose or promoting personal views; and

- not hold any paid or high-profile unpaid posts in a political party, and not engage in specific political activities on matters directly affecting the work of this Committee. When engaging in other political activities, Committee members should be conscious of their public role and exercise proper discretion. These restrictions do not apply to local Councillors.

Conditions of appointment and termination of appointment

4. Committee appointments can be terminated early by either party, by giving 3 months' notice, in writing.
5. Should the Committee be disbanded before the end of the period of appointment, appointments will terminate on dissolution.
6. In the event that a member is found guilty of grave misconduct their appointment will be terminated immediately
7. Appointments are held subject to compliance with the Public Standards Committee Seven Principles of Public Life.
8. Members are expected to attend meetings regularly. The appointment may be terminated, without notice, if attendance becomes so erratic as to interfere with the good running of the Committee.

Role of Committee members

9. Members of the Advisory Committee on Animal Feedingstuffs have collective responsibility for the operation of the Committee. They must:
 - engage fully in collective consideration of the issues, taking account of all relevant factors, including any guidance issued by the sponsor departments or the responsible Ministers;
 - ensure that the Code of Practice on Access to Government Information is adhered to;
 - agree an Annual Report and, where appropriate, provide suitable opportunities to open up the work of the Committee to public scrutiny;
 - not divulge any information that is provided to the Committee in confidence;
 - respond appropriately to complaints, if necessary with reference to the sponsor departments; and

- ensure that the Committee does not exceed its powers or functions.

10. Communication between the Committee and Ministers will generally be through the Chair, except where the Committee has agreed that an individual member should act on its behalf. Nevertheless, any Committee member has the right of access to Ministers on any matter, which he or she believes raises important issues relating to his or her duties as a Committee member. In such cases the agreement of the rest of the Committee should normally be sought.

11. Individual members can normally be removed from office by Ministers if they fail to perform the duties required of them in line with the standards expected in public office.

Role of the Chair

12. The Chair has particular responsibility for providing effective leadership on the issues above. In addition, the Chair is responsible for:

- ensuring that the Committee meets at appropriate intervals, and that the minutes of meetings and any reports to Ministers accurately record the decisions taken and, where appropriate, the views of individual members;
- representing the views of the Committee to the general public; and
- ensuring that new Committee members are briefed on appointment (and their training needs considered), and providing an assessment of their performance, on request, when members are considered for re-appointment to the Committee or for appointment to the Committee of some other public body.

Departmental Representatives

13. Meetings of the ACAF and its Groups are attended by Departmental Representatives. The Representatives are currently nominated by, and are drawn from, those with relevant policy interests and responsibilities in the Food Standards Agency, the Department for Environment, Food and Rural Affairs and devolved agricultural departments. Representatives are not members of the ACAF and do not participate in Committee business in the manner of members. The role of the Representatives includes sharing with the secretariat the responsibility of ensuring that information is not unnecessarily withheld from the Committee. Representatives should make the Committee aware of the existence of any information that has been withheld from the Committee on the basis that it is exempt from disclosure under Freedom of Information legislation unless that legislation provides a basis for not doing so. Representatives keep their parent Departments informed about the Committee's work, and act as a conduit for the exchange of information. They can advise the Committee on relevant policy

developments and the implications of ACAF proposals. They; can assist ACAF through the provision of information; and they can be updated by the Committee on matters of mutual interest. Representatives are charged with ensuring that their parent Departments are promptly informed of any matters which may require a response from Government.

Handling conflicts of interests

14. The purpose of these provisions is to avoid any danger of Committee members being influenced, or appearing to be influenced, by their private interests in the exercise of their public duties. All Committee members should therefore declare any personal or business interests which may, or may be *perceived* (by a reasonable member of the public) to influence their judgement. Members' interests will be recorded in a register of interests which should be kept up to date and open to the public. A guide to the types of interest which should be declared and how to declare them is at Appendix II.

Declaration of interests to the Secretariat

15. Members of the Committee should inform the Secretariat in writing of their current personal and non-personal interests, when they are appointed, including the principal position(s) held. Only the name of the company and the nature of the interest is required, the amount of any salary etc. need not be disclosed. Members are asked to inform the Secretariat of any change in their personal interests at the time the change occurs. Members will also be invited to complete an annual declaration of interests' form. Where members are uncertain as to whether an interest should be declared they should seek guidance from the Secretariat. If members have interests that are not specified in Appendix II, but which they believe could be regarded as influencing their advice, they should declare them. However, neither the members nor the Secretariat are under any obligation to seek out links of which they might *reasonably* not be aware. For example, not being aware of all the interests of family members or not being aware of links between one company and another. Failure to declare interests could lead to dismissal from the committee.

Declaration of interests and participation at meetings

16. Committee members are required to declare any direct commercial interests, or those of close family members, in matters under discussion at each meeting. Having fully explained the nature of their interests, the Chair may, having consulted with other members present, decide whether and to what extent the member should participate in the discussion and determination of the issue. If it is decided that the member should leave the meeting, the Chair may first allow them to make a statement on the item under discussion. Where members are

uncertain as to whether an interest should be declared they should seek guidance from the Chair.

Personal liability of Committee members

17. Legal proceedings by a third party against individual Committee members of advisory bodies are very exceptional. A Committee member may be personally liable if:

- he or she makes a fraudulent or negligent statement which results in a loss to a third party;
- he or she commits a breach of confidence under common law or a criminal offence under insider dealing legislation, by misusing information gained through their position.

However, the Government has indicated that individual members who have acted honestly and in good faith will not have to meet out of their own personal resources any personal civil liability which is incurred in the execution or purported execution of their Committee functions, save where the person has acted recklessly.

Openness and Confidentiality

18. The Government is committed to increasing the openness and transparency with which advisory committees and other public bodies operate. To further this aim, the agendas of ACAF meetings will be made available to the public and will be publicised by means of news releases. A news release will be issued after each meeting and minutes will also be available to the public. As a general rule, individual papers for information or discussion at meetings will also be available to the public on request. An annual report will also be published, summarising the Committee's activities and advice over the year.

19. However there will be some exceptions to this general principle of openness, for example:

- where individual papers contain commercially sensitive information such as product formulations/specifications, methods of manufacture, company evaluations and safety assessments, the general principle of the common law duty of confidentiality will apply, except in cases where the information was provided under legislation which deals specifically with disclosure and non-disclosure. Papers, which are deemed to be confidential, will be marked "For members' use only by the Secretariat and their contents should not be disclosed outside of the Committee.

- draft papers or reports which are due to be published at a later date but are not yet in the public domain should not be disclosed outside of the Committee.

20. Questions or approaches from the media should normally be directed to either the Chair who will act as official ACAF spokesman or the Food Standards Agency press office. Although members are encouraged to promote the role of the Committee in general terms, if asked for views on subjects that have been or are being considered by ACAF, members should always give the line agreed by the Committee.

Appendix I

THE SEVEN PRINCIPLES OF PUBLIC LIFE

Selflessness

Holders of public office should take decisions solely in terms of the public interest. They should not do so in order to gain financial or other material benefits for themselves, their family, or their friends.

Integrity

Holders of public office should not place themselves under any financial or other obligation to outside individuals or organisations that might influence them in the performance of their official duties.

Objectivity

In carrying out public business, including making public appointments, awarding contracts, or recommending individuals for rewards and benefits, holders of public office should make choices on merit.

Accountability

Holders of public office are accountable for their decisions and actions to the public and must submit themselves to whatever scrutiny is appropriate to their office.

Openness

Holders of public office should be as open as possible about all the decisions and actions they take. They should give reasons for their decisions and restrict information only when the wider public interest clearly demands.

Honesty

Holders of public office have a duty to declare any private interests relating to their public duties and to take steps to resolve any conflicts arising in a way that protects the public interests.

Leadership

Holders of public office should promote and support these principles by leadership and example.

Appendix II

TYPES OF INTEREST AND THEIR NOTIFICATION

The following is intended as a guide to the kinds of interest that should be declared and indicates how they should be declared.

1. Personal interests - involve the member personally e.g.

<i>Type of interest</i>		<i>Notification</i>
Consultancies:	any consultancy, directorship, position in or work for the industry, or other relevant bodies, which attracts regular or occasional payments in cash or kind.	To be notified to the Secretariat in writing on appointment to the Committee and at the time of any change to these interests. To be confirmed annually on the declaration of interests' form.
Fee-paid work:	any work commissioned by industry or other relevant bodies for which the member is paid in cash or kind.	As above.
Shareholdings:	any shareholding or other beneficial interest in shares of industry. This does not include shareholdings through unit trusts.	As above.
Membership affiliation:	or to clubs or organisations with interests relevant to the work of the Committee.	As above.

Definition of "industry"

For the purposes of the Advisory Committee on Animal Feedingstuffs, "industry" means:

- companies, partnerships or individuals who are involved in the production, manufacture, packaging, advertising, supply, sale or use of animal feedingstuffs. This definition includes those involved in the supply of animal feed raw materials and any other substance incorporated or otherwise used in the production of feedingstuffs. It also includes the users of animal feedingstuffs such as farmers;
- trade associations representing companies involved in such products;
- companies, partnerships or individuals who are directly concerned with research, development or marketing of an animal feedingstuff which is being considered by the Committee.

Definition of “other relevant bodies”

Organisations (not included in the definition of “industry”) with interests relevant to the work of the Committee. This could include charitable organisations and lobby groups.

2. Non-personal interests - involves payment which benefits a department for which a member is responsible, but is not received by the member personally
e.g.

<i>Type of interest</i>		<i>Notification</i>	
		<i>£1000 or more from a particular company in the previous twelve months</i>	<i>less than £1000 from a particular company in the previous twelve months</i>
Fellowships:	the holding of a fellowship endowed by industry and other relevant bodies.	To be notified to the Secretariat in writing on appointment to the Committee. Any changes over the year should be declared on the annual declaration form and does not need to be notified at the time of change.	Does not need to be notified.
Support by industry and other relevant bodies*: e.g.	<ul style="list-style-type: none"> • a grant from a company for the running of a unit or department for which the member is responsible. • the grant of a fellowship or other payment to sponsor a post or member of staff in the unit for which the member is responsible. • the commissioning of research or other work by, or advice from, staff who work in a unit for 	As above	As above

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	which the member is responsible.		
Trusteeships** :	any investment in industry held by a charity for which the member is a trustee.	As above	As above

* Members are under no obligation to seek out knowledge of work done for, or on behalf of, industry and other relevant bodies by departments/units for which they are responsible, if they would not normally expect to be informed. Where members are responsible for organisations which receive funds from a very large number of companies in the industry and from other relevant bodies, they can agree with the Secretariat a summary of non-personal interests rather than draw up a detailed portfolio.

** Where a member is a trustee of a charity with investments in the industry, they can agree with the Secretariat a general declaration to cover this interest rather than draw up a detailed portfolio.

