DRAFT

ADVISORY COMMITTEE ON ANIMAL FEEDINGSTUFFS

41st Meeting of ACAF on 5 March 2008

Discussion Paper

ACAF POSITION PAPER ON BIOFUELS

Action: Members are invited to discuss and agree the text of the attached document.

February 2008

ACAF POSITION PAPER ON BIOFUELS

Purpose

1. This paper has been drawn up following the Committee's consideration of the impact of biofuel production on the safety, composition and availability of animal feed.

Background

2. Throughout 2007 the Committee investigated the potential impact on animal feed from increased production of biofuels. As part of its investigations, the Committee received a number of presentations from the feed industry and other relevant organisations.

3. At its December 2007 meeting the Committee agreed that a position paper setting out current knowledge of the issue should be prepared. The paper should cover various issues relevant to animal feeds, including potential safety issues, implications for animal nutrition, and the impact of biofuels on the availability/quality of feed crops and co-products.

4. At the request of the Committee, the Secretariat has prepared the attached paper which summarises the relevant information presented to the Committee, and sets out the Committee's conclusions which will be subject to future review in the light of developments in this sector.

Action

5. The Committee is invited to discuss and agree the text of the attached document.

ACAF Secretariat
February 2008

ACAF POSITION PAPER ON BIOFUELS

Introduction

1. As part of its work programme for 2006-2007 the Committee examined the impact of biofuel production on the safety, composition and availability of animal feed. In particular, it reviewed the types of co-products derived from the production of biofuels that have, or may have, a use in animal feeding. This took into account the possible use of new types of co-products from the biofuel industry. The Committee also examined the implications for the use of crops for biofuel production on the continued supply of materials for use as animal feed.

2. During the course of its review the Committee received a number of presentations from the feed industry and other organisations. This paper summarises the relevant information presented to the Committee and sets out the Committee's conclusions, which will be subject to future review in the light of developments in this sector.

Biofuel Legislation, Targets and Use

3. European Parliament and Council Directive 2003/30/EC of 8 May 2003 on the promotion of the use of biofuels and other renewable fuels for transport (the Biofuels Directive) established targets for the use of biofuels and other renewable sources of fuel as a means of reducing the transport sector's contribution to the emissions thought to be causing climate change. In the UK, the targets are incorporated in the Renewable Transport Fuels Obligation (RTFO), which requires UK fuel suppliers to ensure that, by 31 December 2008, 2.5% of the petrol and diesel sold on garage forecourts is from a renewable source, rising to 3.75% by 31 December 2009 and 5% by 31 December 2010.

4. The UK also has a legally binding target for the reduction of greenhouse gas emissions under the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change, which requires it to reduce its carbon dioxide emissions to 12.5% below the 1990 figure by 2008-2012. The Government has set a further domestic goal of reducing these emissions to 20% below the 1990 figure by 2010.

5. The 2007 Energy White Paper confirmed the Government’s target of 5% biofuel penetration into the transport fuel market by 2010. A Renewable Energy Directive was adopted by the European Commission on 23 January 2008 and sets out a 10% biofuel target for 2020 (subject to conditions including production being sustainable and second-generation biofuels becoming commercially available), as part of a 20% target for renewable energy in the EU as a whole. Bioenergy is expected to contribute to meeting the overall 20% target, alongside a range of other renewables including wind, wave and solar power.

6. Biofuels can reduce fossil carbon emissions, because the carbon dioxide emitted as they are burned has already been offset by the carbon dioxide the crop absorbed as it grew; although these carbon savings will be affected by the energy used in the crop's cultivation, harvesting, processing and transportation. In general, most biofuels offer a carbon saving of around 50% compared to fossil fuels, although the actual saving varies widely depending on feedstocks used and processing technologies.

Co-products of Biofuel Production

7. The animal feed industry has traditionally used certain co-products from the food, drink and milling industry (e.g. wheat bran) in the manufacture of feeds but co-products are now also available from the biofuel industry. World biofuel production currently generates three main co-products with a potential feed use. Rapeseed meal (a co-product of oilseed rape) and glycerol (a co-product of vegetable oils) are derived from the production of biodiesel. Distillers' dried grains with solubles (DDGS) are derived from the production of bioethanol. Rapeseed meal and DDGS are also obtained from the food and drink manufacturing industry and are already widely used from this source as feed materials in the UK. There has been limited use of glycerol in animal feeds but increased quantities from biofuel production means that larger quantities are now available for feed use.

8. In the short term, co-products from the production of biofuel from oilseed rape are likely to have a similar nutritional profile to existing co-products from the manufacture of food for human consumption. However, the nutritional profile of DDGS from the production of bioethanol from wheat is likely to differ from that of DDGS currently generated as a co-product from the distilling of alcohol for human consumption and is subject to nutritional variability.

9. Glycerol derived from the production of biofuel may have a high methanol and salt content which has safety implications for livestock: high levels of methanol can be toxic to livestock and excessive salt levels can cause dehydration in animals. It is expected that EFSA will provide advice as to what would be an acceptable level of methanol in glycerol. The UK Food Standards Agency is of the opinion that excessive methanol residues are more of an animal health issue than one of consumer safety.

10. In the medium term new varieties of crops may be developed for biofuel production, which will result in a lower protein content in co-products for feed use.

Alternative Crops

11. In the longer term advances in technology are expected to enable a switch to what are known as second generation biofuels - chiefly non-food crops such as wood, miscanthus, the stalks of cereal crops, various sources of lignocellulose (a

structural material that comprises much of the mass of plants), and waste biomass. There may also be increasing R&D effort on the use of alternative oilseeds and, on a longer timescale, the development of third generation biofuels based on algae. It is currently estimated that it will take seven to ten years for second generation biofuels to become competitive, but that by 2020 they could account for approximately 30% of all biofuels used.

12. The Department for Environment, Food and Rural Affairs (Defra) operates the Energy Crops Scheme in England, which provides for the establishment of short rotation coppice and miscanthus under the Rural Development Programme for England (RDPE) which runs from 2007 to 2013. This offers grants to farmers for short rotation coppice (ash, alder, hazel, lime, poplar, silver birch, sycamore, sweet chestnut and willow) and for energy crops grown on set-aside land.

Availability of Feed Supplies

13. Concern has been expressed that the growth of the biofuel sector may lead to shortages of feed materials as crops, and co-products derived from the manufacture of food for human consumption, are being used as alternative sources of energy. Globally, this growth has to be set in the wider context of other factors influencing the supply of feed materials, e.g. the recent poor harvests of cereal crops.

14. Recent media coverage and a number of high profile reports have raised concerns about the impact of biofuels on rising food prices and the destruction of tropical rainforest through clearance for palm oil plantations. This includes the House of Commons Environmental Audit Committee which called for a moratorium on biofuel targets.

Comment [m1]: This is not true. Dimas said the Commission understimated the risks to sustainability, but the Commission are not proposing lower targets.

Conclusions

15. From the information made available to it, ***the Committee does not anticipate a significant risk to either animals or human consumers of animal products from the use, in feed, of co-products from biofuel production***. However, the Committee noted that in the future new types of crops may be used for biofuel, which could result in an increasing range of co-products with potential feed uses. ***The Committee therefore considers that the position should be kept under review to ensure that emerging co-products with potential feed uses do not present a risk to the feed and food chains***.

16. Regarding the use of glycerol, ***the Committee considers that the feed industry should take into account the methanol and salt contents of this feed material when formulating compound feeds***.

17. The Committee also noted the potential for nutritional variability in co-products derived from crops grown for biofuel use, which could be an issue for

feed manufacturers seeking to source feed ingredients with the nutritional profiles required to satisfy their feed formulations. ***The Committee considers that currently this does not appear to be a significant problem. The development of plant breeding methods and more efficient biofuel production might address this potential problem***.

18. The Committee noted the concerns which have been expressed about the potential impact of the growth of the biofuel sector on the availability of feed materials. The supply of feed materials is dependent on a number of other factors. ***The Committee agreed that it was important for the feed industry to have continued access to good quality feed materials, and considers that the potential impact on the feed industry, including the nutritional and safety status of feed, should be taken into account when biofuel targets are set***.

19. ***The Committee will review, as appropriate, significant developments on the above issues, so that it can monitor any further impact on the safety of food and the feed industry from the production of biofuels***.

ACAF Secretariat
February 2008