

Reports and Comments

EFSA publishes Scientific Opinion on the welfare of beef cattle and intensively reared calves

The European Union (EU) policy on animal welfare is currently being evaluated by the European Commission (EC) with the aim of improving animal welfare, whilst also taking into account socio-economic and trade issues. As part of the evaluation process the EC has requested that the European Food Standards Agency (EFSA) Panel on Animal Health and Welfare (AHAW) investigates how animal-based measures may be used to assess the welfare of farm animals. EFSA has already published Scientific Opinions on this subject for dairy cattle and pigs (January 2012) and it is expected that similar reports will also be published for other farm species.

Before considering how animal-based measures may be used to assess the welfare of beef cattle and intensively reared calves, the EC requested that EFSA first review, and update as necessary, two previous reports that cover the welfare of these animals: *The welfare of cattle kept for beef production* published in 2001 by the Scientific Committee on Animal Health and Animal Welfare (SCAHAW), and *The risks of poor welfare in intensive calf farming systems*, EFSA 2006. EFSA has since published an Opinion that combines both of these reports: *Scientific Opinion on the welfare of cattle kept for beef production and the welfare in intensive calf farming systems*.

Following a general background and introduction, the report is then divided into two sections. The first section considers the welfare of beef cattle reared in a range of systems from intensive (eg housed throughout rearing until slaughter) to semi-extensive (eg housed initially and then finished at pasture), and the second section looks at the welfare of intensively reared calves. An intensively reared calf is defined as one that is “born to a dairy cow, separated from its mother shortly after birth, and reared artificially for the production of white or pink veal, or until such time as it enters a beef production system”. Calves reared for white veal are given a predominantly liquid, milk-replacer diet for 20–26 weeks. Calves reared for pink veal are weaned at 8–9 weeks of age and from this point are fed *ad libitum* roughage and by-products. The Opinion does not consider the welfare of suckler cows, breeding bulls, and unwanted ‘bobby’ calves killed soon after birth. EFSA recommend that the welfare of these animals is examined in the future.

A wide range of factors and their impact on beef cattle and calf welfare are examined, including: temperature, space allowance, flooring, nutrition, social contact, human-animal interactions, mutilations, genetics and disease management, amongst others. The Opinion does not repeat sections of the previous two reports which have been covered extensively (such as production systems, housing design, and natural behaviour) and only updates and amends sections as justified by new scientific evidence. Consequently, it is useful for the new Opinion

to be read alongside the previous reports to gain a full appreciation of the factors that can affect welfare.

One area that has moved on considerably since the last report on beef cattle is the field of genetics. The new Opinion therefore discusses the potential of various genomic initiatives and states that “Genomics should lead to new ways to improve health and welfare, as well as performance”. One aspect of cattle welfare that EFSA believes could be further improved through genetics is the development of a more accurate, breed-specific DNA test for the poll gene to enable reliable breeding of polled cattle: “Breeding polled cattle is a non-invasive, welfare-friendly method of replacing the practice of dehorning”. It is also suggested that genetic variability should be taken advantage of to improve health and that the “Health of food animals needs to be improved permanently through genetic strategies in order to decrease dependence on vaccines and drugs, and to improve food safety and welfare”. EFSA go on to recommend that: “Research efforts aimed at developing tools needed for implementation of marker-assisted selection to improve genetic resistance to pathogen-associated diseases should receive high priority, since genetic improvement of disease resistance will also achieve substantial, permanent and cumulative improvements in welfare of beef cattle”.

Following the discussion of the various housing, environment, and management factors and their effect on welfare, EFSA then uses a hazard analysis to identify the most serious risks to beef cattle and calves. In beef cattle the three most important categories of welfare problem were found to be:

- “Respiratory diseases: linked to overstocking, inadequate ventilation, and mixing of animals, as well as failure of early diagnosis and treatment;
- Digestive disorders: linked to intensive concentrate feeding, lack of physically effective fibre in the diet; and
- Behavioural disorders: linked to inadequate floor space, co-mingling in the feedlot and intensive concentrates”.

The welfare problems that intensively reared calves were most at risk of were:

- “Iron deficiency anaemia: a direct consequence of dietary iron restriction used to produce white meat;
- Digestive and respiratory disorders: linked to high intakes of liquid feed and inadequate intake of physically effective fibre, and cross-infection resulting from mixing of calves from multiple sources; and
- Discomfort and disturbed resting behaviour: linked to inadequate floors and floor space”.

EFSA also considered whether the conclusions and recommendations of the previous two reports were still valid and the new Opinion uses a table format at the end of both the beef and calf section to illustrate where there is agreement with previous conclusions and recommendations, and where new data have resulted in either an amendment or full change.

Scientific Opinion on the Welfare of Cattle Kept for Beef Production and the Welfare in Intensive Calf Farming Systems (2012). A4, 166 pages. EFSA Panel on Animal Health and Welfare (AHAW). *EFSA Journal* 2012; 10 (5): 2669. doi: 10.2903/j.efsa.2012.2669. Available online at: www.efsa.europa.eu/efsajournal.

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Contingency planning for farm animal welfare in disasters and emergencies

The Farm Animal Welfare Committee (FAWC) is an expert committee that provides independent advice on farm animal welfare to the Department for Environment, Food and Rural Affairs in England, the Scottish Government, the Welsh Government, and other Government Departments and Agencies. The latest advisory report issued by FAWC is an *Opinion on Contingency Planning for Farm Animal Welfare in Disasters and Emergencies*.

The Opinion identifies various disaster and emergency situations that may threaten the welfare of farmed species, including fish. FAWC defines a disaster as “an event that exceeds the local capacity to deal with it” and an emergency as “an unforeseen or sudden occurrence that demands immediate action”. A number of disaster and emergency scenarios that could adversely affect animal welfare are outlined by FAWC, including: human disease; animal disease; industrial accidents; deliberate acts; severe weather; natural disasters; loss of power or technical failure; transport problems; and damage to buildings. Examples are given for each of these scenarios and a brief explanation as to how they may impact upon animal welfare.

FAWC describe four main ways through which the needs of animals may be adversely affected by a disaster or emergency: (1) as a direct result of the disaster (eg during a flood animals may suffer from hypothermia and pneumonia following prolonged exposure to water); (2) as a result of the way in which animals are managed (eg if milking facilities and routines are disrupted for high yielding dairy cows then this can result in poor welfare due to mastitis); (3) through effects on farm or emergency workers (eg farm workers are themselves affected by an emergency and are unable to care for their animals’ needs); and (4) as a result of the way in which the emergency is managed (eg standstill orders may be given during a notifiable disease outbreak and these can have a great impact on the welfare of growing animals if they cannot be transported to other areas of the farm).

Disasters and emergencies may vary greatly in duration and scale, ranging from national, eg a widespread notifiable disease outbreak, to individual local incidents, eg the Hampshire Fire and Rescue Service undertook 350 animal rescues in 2010. Various emergency and disaster case studies are described more fully in the Appendix, along with a list of animal disease outbreaks that have occurred over the past 10 years.

FAWC defines contingency planning as: “a mechanism for anticipating and thereby proposing responses to unexpected and unintended events and emergencies”. The national and

regional considerations for co-ordinating a response to an emergency in the UK are discussed and it is noted that although there is a contingency plan in place to cover exotic notifiable disease of animals in Great Britain and Northern Ireland, there is no contingency plan in place for non-disease emergencies. Additionally, there are no contingency plans in place at an EU level.

The Opinion then outlines best practice contingency planning for livestock through using an established set of eight principles developed in other contexts: Anticipation; Preparedness of organisations and individuals; Subsidiarity; Direction; Information; Integration; Cooperation; and Continuity. Each principle is explained in the context of farm animal welfare. FAWC then goes on to describe the role that various livestock stakeholders may play in the management of animal welfare in emergencies.

The Opinion draws to a close with a number of recommendations, including: “Local farm animal emergency networks should be developed that involve relevant stakeholders and services in contingency planning an emergency response. National Farmers Unions and other stakeholders should be active in developing such networks, which should be integrated into regional and national emergency plans”. It is also recommended that “The Animal Health and Veterinary Laboratories Agency Disease Alert Subscription Service should be expanded to cover other types of emergency”.

Opinion on Contingency Planning for Farm Animal Welfare in Disasters and Emergencies (March 2012). A4, 14 pages. Farm Animal Welfare Committee. Available for download from the FAWC website: www.defra.gov.uk/fawc, or by contacting FAWC at the following address: Area 8B, 9 Millbank, c/o Nobel House, 17 Smith Square, London SW1P 3JR, UK.

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New Zealand Code of Welfare for goats

There are over 100,000 goats in New Zealand (NZ) and the National Animal Welfare Advisory Council (NAWAC) has recently published a new Code of Welfare to inform all ‘owners’ and ‘persons in charge’ of the relevant minimum standards to ensure that the needs of all goats are met. The Code covers all kept goats including: farmed goats (eg milk, mohair, cashmere and meat production); companion goats; tethered goats; goats kept on estates or safari parks; and feral goats when collected for farming or slaughter. The only ones not covered by the Code are those defined as ‘wild’ by the Wild Animal Control Act 1977.

The key areas considered are: Stockmanship and Animal Handling; Food and Water; Shelter and Housing Facilities; Husbandry Practices; Health; Emergency Humane Destruction; and Quality Management. Within these sections a total of 19 minimum standards are given and each standard follows a similar format. For example, minimum standard number 5 covers the mixing of goats and states: “Where goats are mixed, they must be managed to minimise the effects of aggression”. Example indicators are then given that may be used to show that this standard is being