

FAWC Report on evidence and the welfare of farmed animals

The Farm Animal Welfare Committee (FAWC) has recently published its latest Report to advise Government departments and agencies in England, Scotland and Wales. The Report, entitled: 'Evidence and the Welfare of Farm Animals, Part 1: The Evidence Base', is the result of a working group set up in 2012 and forms the first part in what is expected to be a number of Reports investigating "how evidence is produced, why more evidence is available in some areas than others, who creates and uses evidence in GB, the wider EU and internationally and factors other than information that are used in decision-making". Part 1 aims to define evidence, explain the types of information that form evidence, and describe how evidence is supplied. FAWC note that the current version of Part 1 is considered to be a draft which may be reviewed at a later date once other part(s) have been completed.

FAWC defines evidence as: "information that is used to support or refute a proposition in the context of opinion-forming or decision-making" and state that: "Evidence is used to support many decisions and changes in farm animal welfare including in both government and private policy development, technology exchange, criminal law, day-to-day farm management and during formal assessment of the welfare of individuals and groups of animals, eg in quality assurance schemes". It is therefore vitally important that the evidence used to make these decisions is robust and from credible sources. However, FAWC observe that heuristic decision-making (influenced by belief, anecdote, tradition and hearsay) can often play a large part in people's decisions over animal welfare and use the example of foot-trimming of sheep: farmers will often still regularly trim the feet of sheep to control footrot even though scientific evidence now shows that trimming results in delayed healing. Even in Government, FAWC state that: "The true extent to which evidence has genuinely replaced opinion in Government's policy-making remains to be ascertained".

FAWC consider the key issues of evidence-based policy to be: "what rigorous scientific methods provide evidence; from whom is such knowledge considered valid; how are the demands for evidence determined; and at what points do knowledge become evidence, and evidence become advice, and how?"

A large part of the Report explores how evidence in farm animal welfare may be gathered and the importance of the following areas: natural science, evidence-based medicine, social science, ethics, and economics. FAWC also examines what is meant by the term 'expert' and the legal aspects of evidence when used in criminal law.

Within this section FAWC gives a good background on experimental and observational studies and the complexities which may affect them. The principles of power, significance, confidence intervals and the potential limitations of experiments are explained and the relationship between statistical association and cause is also discussed, including the criteria put forward by

Bradford Hill for associating factors as causal. Also discussed are the three types of indicator that are currently used to measure animal welfare: direct observation of animals, indirect measures from resources and indirect measures from records. FAWC stresses the need to utilise a range of measures when assessing animal welfare since a single measure is unlikely to adequately reflect the welfare of an individual or a population.

An interesting consideration put forward by FAWC is whether evidence-based veterinary medicine and evidence-based optimisation of animal welfare may be used to create a hierarchy where evidence from some sources is considered more worthy than others. FAWC suggests that there is a need for debate in this area to determine what weighting would be given to different types of animal welfare information which would then allow a hierarchy of farm animal welfare evidence to be determined.

Another interesting section involves social science research and how social science evidence may be important to farm animal welfare. Social science investigates how human actions and understandings lead to the construction of value systems, and how, in turn, value systems affect human society to influence human actions. FAWC note that social scientists have begun to recognise the role of animals as part of human society and that animal and veterinary scientists have begun to see the importance of working with social scientists when seeking to better understand human behaviour in the treatment of animals and the adoption of desired practices. FAWC consider that social science may be useful when seeking evidence in the following areas: Attitudinal and behavioural research; Policy-making and design research; Implementation and evaluation research; Science practice research; and Critical theoretical research.

The Report goes on to discuss the supply of evidence in farm animal welfare, such as peer-reviewed journal papers and review articles, as well as information gathered from surveillance and individual opinion (both lay people and experts). It is clear that sourcing and interpreting evidence for animal welfare is complex. The cyclical nature of evidence is also described (eg how evidence leads to implementation, to experience, to evaluation, to information, and back to evidence). FAWC propose that greater understanding of animal sentience is arguably one key area that requires a research breakthrough.

The Report finishes with a number of concluding thoughts, and the following five recommendations:

"It is important that all available evidence should be considered in evaluating the welfare of animals. Where there is conflicting evidence the animal should be given the benefit of the doubt.

Government, industry and all others involved in decision-making on animal welfare should have an understanding of the robustness of information that they are using.

All those interested in animal welfare should consider the extent to which it is appropriate and useful to develop a hierarchy for quality of research approach, and how different types of evidence interact in different contexts.

Government and other research bodies should commission more clinical trials to establish causality and identify factors that improve animal welfare.

When expert opinion is used the expert should meet a pre-determined level of independence from relevant stakeholder interests and their expertise should be externally validated, for example, through qualification and peer review”.

Evidence and the Welfare of Farmed Animals. Part 1: The Evidence Base (June 2014). A4, 40 pages. Farm Animal Welfare Committee. Available from the following website: www.defra.gov.uk/fawc, or by contacting FAWC at the following address: FAWC, Area 5E, Nobel House, London SW1 3JR, UK.

E Carter,

UFAW

Overview of cattle health and welfare in Great Britain

The Cattle Health and Welfare Group (CHAWG) have recently published a second Report on the health and welfare of beef and dairy cattle in Great Britain (the first Report was published in 2012). CHAWG is an industry-led organisation that seeks to inform and represent the interests of both the beef and dairy sectors throughout Great Britain. Its members include Government bodies (from England, Wales and Scotland), charity organisations, and industry groups, amongst others. CHAWG primarily concentrates its efforts on four key areas: Farm Health Planning; Surveillance and Monitoring; Bovine Viral Diarrhoea; and Dairy Cow Welfare (CHAWG is responsible for delivering and co-ordinating the Dairy Cow Welfare Strategy).

The beef and dairy industries use a significant number of animals; according to CHAWG there are approximately 4,823,000 beef cattle on 65,000 premises and 3,168,000 dairy cattle, on 27,000 premises in Great Britain (June 2013 figures). The health and welfare concerns for both beef and dairy cattle are similar and, as in their previous Report, CHAWG list the top nine conditions: Bovine Tuberculosis; Bovine Viral Diarrhoea; calf pneumonia and scour; fertility; genetics; Johne's disease; mastitis; nutrition; and parasites. Conditions which are sector-specific are lameness (mainly dairy) and Infectious Bovine Rhinotracheitis (mainly beef). An economic impact estimate is also given alongside each concern, where available, eg the cost of Johne's disease to the industry is estimated to be £13 million.

Surveillance and monitoring of disease is given a high priority within the Report and the work of the Animal Health and Veterinary Laboratories Agency (AHVLA), which is responsible for much of the surveillance work carried out in England and Wales, is discussed, specifically the latest scanning surveillance approach that has been put forward by the AHVLA, including the core features of the restructured model. Also mentioned is the work of the Strategic Management Board in Scotland (the body responsible for veterinary surveillance in Scotland).

CHAWG go on to discuss emerging health and disease threats over the past two years, such as an increase in bovine fasciolosis due to excessive rainfall, a decrease in Salmonellosis, and the ever-present threat of antimicrobial resistance. A

notable welfare issue picked up on through surveillance activity in recent years was abomasal or digestive disorders in calves fed milk once a day. This led to Defra clarifying with the European Commission that calves should be fed liquid food twice a day for the first four weeks of life.

Horizon scanning is also considered and a number of specific possible disease threats mentioned, including: Foot and mouth disease from the Middle East and North Africa; Bluetongue from mainland Europe; Lumpy skin disease from the Middle East; BVD type 2c from mainland Europe; and Bovine psoroptic mange from Wales. Other potential threats are then discussed, such as: climate change and anomalous weather events; anti-microbial resistance; recycled manure solids ('green bedding') used for cattle bedding; use of recycled waste; and changes to EU legislation.

The Report also covers the changes in the Red Tractor dairy cattle standards (which were updated in October 2013). One of the changes involves a modification to the assessment process; it will now be required when visiting a farm that the assessor scores ten cows against the following welfare outcomes: mobility; body condition; hair loss, lesions, swellings; and cleanliness. It is hoped that dairy cow welfare will be improved with these new measures and it is anticipated that the Red Tractor beef and lamb schemes will be similarly updated during 2014.

Breeding and genetics is the next subject considered within the Report and the changes in Estimated Breeding Values (for beef) and Profitable Lifetime Index (for dairy cows) are discussed. DairyCo plan to refine the Profitable Lifetime Index for dairy cows during August 2014, and the weighting of production traits (currently 45.2%) will be reduced to approximately one-third, and the weighting of fitness traits will be increased, including new measures: calving ease (both maternal and direct) and maintenance.

The final sections of the Report consider: culling and mortality; nutrition, transition and metabolism; fertility, udder health and mobility; young-stock; parasites; infectious diseases; handling and slaughter; and use of medicines. As in the previous Report, much of the focus is on production figures and economic impact when discussing conditions affecting beef and dairy cattle; however, there seems to be a gradually increasing inclusion of welfare when compared to the 2012 Report.

CHAWG round off the Report with eight conclusions under the following headings: Greater collaboration within the sectors to promote alignment; Animal Health GB as a concept; Performance criteria for industry initiatives; AHVLA evolution; Purchased stock and cattle movements; Changing weather patterns; Food chain information data; Animal Health and Welfare Board for England.

Second Report on the Health and Welfare of Beef and Dairy Cattle in Great Britain (July 2014). A4, 57 pages. GB Cattle Health and Welfare Group. Available for download from the Cattle Health and Welfare Group website: www.chawg.org.uk.

E Carter,

UFAW