

Reports and Comments

UK Report on the welfare of poultry and rabbits at slaughter or killing

The UK's Farm Animal Welfare Council (FAWC) has published the second of its recent reports on the welfare of farmed animals at slaughter or killing (the first, on red meat animals, was published in 2003). This Report (see details below) deals with broilers, laying hens, turkeys, ducks, geese, game birds and rabbits. The number of animals involved is very substantial with approximately 839 million chickens, 15 million turkeys and 17 million ducks and geese killed in Great Britain each year. The last time this subject was reviewed by FAWC was in 1982 (FAWC Report on the *Welfare of Poultry at the Time of Slaughter*) and at that time a number of recommendations for improving welfare at slaughter or killing were made. The new Report seeks to promote further developments.

The Report is divided into three parts with a series of Annexes. The main findings are presented in the section entitled 'Welfare issues' which covers a range of activities, from catching and loading of birds on-farm, to the design and approval of equipment used. The Report makes 53 recommendations for improvements in animal welfare. These are aimed mainly at the Government and various sections of the industry, mainly slaughterhouse operators and, to a lesser extent, equipment manufacturers.

FAWC makes two general recommendations regarding the welfare of 'white meat' animals (poultry and rabbits). Firstly, that guidance on the welfare of poultry at slaughter or killing should be converted to a statutory Code of Practice; and secondly, that monitoring and control systems based on welfare considerations, and including critical control points, should be put into place in slaughterhouses.

A number of recommendations are made on the catching and transporting of birds, including a legal requirement for members of catching teams to undergo training. It is also recommended that workers on the shackle line undergo training and that changes be made to existing shackle lines to improve bird welfare. However, in the longer term, FAWC would wish to see the inversion and shackling of all poultry phased out. In the meantime, FAWC favours the use of 'stun-to-kill' systems to ensure bird welfare once the stun has been administered. There are a number of recommendations for Government action, including assessing developments in high frequency AC and pulsed DC stunning; funding research into electrical pathways through poultry during stunning; and co-operation with industry in developing electrical stunning systems which address the welfare concerns associated with the use of variable current and live shackling.

Concerning controlled atmosphere stunning (CAS) systems, FAWC recommend that legislation be amended to permit gas mixtures currently banned in Great Britain, but used elsewhere in Europe, to be used in the future. It also recommends that research into CAS should continue in order to clarify any welfare issues, and to develop new gas mixtures

and equipment, including systems for small-scale processors. Current operating systems should, where necessary, be modified in order to comply with the legal requirement that birds can be monitored visually while they are in the chamber.

FAWC is in agreement with the scientific consensus that slaughter without pre-stunning causes avoidable pain and distress, and concludes that all birds should be stunned before slaughter. It recommends that the Government should engage with the relevant communities to ensure that avoidable pain and distress is prevented. It also recommends that where poultry are likely to experience pain or distress the manipulation of the neck cut should not take place.

For emergency culling of poultry, FAWC recommends the use of an effective concussive killing method, believes that neck dislocation should continue to be permitted for culling small numbers of small birds, but wants concussive methods to be further refined and developed. During mass killing of poultry for emergency disease control, animal welfare must be considered at all stages. It is recommended that the Government, together with industry, should give high priority to developing methods for using foam as a vector for killing poultry on-farm.

FAWC makes a number of recommendations regarding training, in particular that Government and industry ensure that there are appropriate schemes in place for training farmers, stockmen, slaughterhouse workers, field professionals and others involved in killing animals. It is also recommended that a system for the independent assessment and approval of slaughterhouse equipment be established to ensure that the equipment is fit for purpose.

Report on the Welfare of Farmed Animals at Slaughter or Killing, Part 2: White Meat Animals (May 2009). A4, 52 pages. Available free of charge from: Farm Animal Welfare Council, Area 5A, 9 Millbank, c/o Nobel House, 17 Smith Square, London SW1P 3JR. www.fawc.org.uk.

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EFSA issued Scientific Opinions on the main EU systems for stunning and killing farmed fish

Following a request from the European Commission, on 14 April 2009, the European Food Safety Authority (EFSA) panel on Animal Health and Welfare published four Scientific Opinions on the species-specific welfare aspects of the main systems of stunning and killing eels, rainbow trout, Atlantic salmon and seabass and seabream. On 27 April, the panel released a further Opinion on the welfare aspects of stunning and killing of carp, on 6 May a report of the same kind regarding tuna and, finally, an Opinion on the stunning and killing of European turbot on 11 May.

Scientific Opinions are produced by EFSA's Scientific Committee and are one of the main outputs of EFSA's risk assessment work. These recent reports have been compiled by amalgamating expert advice from the various Animal Health

and Welfare working group members, complemented by drawing together recent peer-reviewed studies published by the fish welfare research community. The reports take a semi-quantitative risk assessment approach, with the aim of pinpointing areas of high welfare concern in order to encourage protective legislation and future research in key areas.

Legislation requires that the slaughter of farmed fish should be carried out in a way that causes no avoidable pain or suffering at any stage in the slaughter chain. However, the wide diversity of species in aquacultural farming systems, together with the variation in production and processing facilities, makes defining codes of best practice and fish welfare legislation complex issues. Generalisations are often made, yet welfare is more effectively addressed by taking account of the diversity of species' needs and tolerances, as recognised by EFSA in their opinions. There are over 30 species currently being raised in aquacultural systems in the EU and as, the demand for sustainable food sources grows so will the number of cultured species.

Over the previous decade, the aquaculture industry has actively striven to advance its knowledge base; supporting both scientific and practical research which has led to improved technology and streamlining of harvesting procedures, but there is still a lot of work to be done.

The EFSA opinions form part of a wider body of work by the Animal Health and Welfare (AHAW) panel addressing species-specific welfare issues in fish husbandry and harvesting. EFSA published five Scientific Opinions regarding husbandry systems for principal EU species in late 2008 and, in addition, the EFSA panel recently issued a comprehensive Opinion entitled '*General approach to fish welfare and to the concept of sentience in fish*' on 29 January 2009. This report examines scientific evidence of sentience in fish with a focus on the neurological capacity and sensory organs for pain perception and fear. It also explores practical indicators of fish welfare that may provide industry with behavioural measures and agreed protocols for welfare assessment in the future.

The January report on sentience provides a good prequel to the newly-released reports on the welfare aspects of stunning and killing practices, presenting a strong evidential basis for affording farmed fish the same welfare considerations as we do terrestrial livestock.

The latest opinions are to be welcomed given their species-specific approach; they also contain a wealth of opinion and research. With aquaculture now contributing over 40% of world fish supplies, the analysis of common systems for the stunning and killing of the principal EU species offer industry, academics and consumers a detailed risk assessment. Areas of concern with regards to welfare at slaughter and killing are highlighted and the inhumane nature of some of the more traditional methods, eg asphyxia, carbon dioxide narcosis and ammonia/salt bathing (of eels) is reaffirmed.

The reports specifically encourage the development of electrical stunning parameters for different species and present in-water electrical stunning as one of the most promising avenues for humane stunning of all farmed fish. The captive

needle method may also hold potential for the instantaneous percussive stunning/killing of eels. The welfare of eels is the poorest of all species considered and urgent research into humane methods of stunning and killing is needed. The salmon report is the most detailed of the seven, as would be expected; the majority of published peer-reviewed research has been conducted in salmonids. The salmon Opinion offers an in-depth description of the practical assessment of consciousness, indicators of which will be equally applicable in commercial and research settings and much of its content also applies to trout.

The reports incorporate assessment of key pre-slaughter handling stages, including crowding and transport, where the handling is likely to directly affect a fish's welfare at stunning and slaughter. In a welcome addition, the reports advocate that fish should not be held out of water for longer than 10 seconds. The Humane Slaughter Association, a charity that works globally through educational, scientific and technical advances, exclusively towards the highest worldwide standards of welfare for food animals during transport, marketing and slaughter, currently recommend a 15-second maximum. However, when examining food withdrawal periods prior to slaughter of Atlantic salmon, the reports state that a 1–2 week withdrawal period should not be detrimental to welfare and even advocate 2–3 days as necessary, a statement not in line with the Humane Slaughter Association's recommendation of a 72-hour maximum for gut emptying.

The EFSA work is driving towards the development of defined standards and legislative protection for farmed fish across the EU. Specific provisions for farmed fish are not included in the proposed new EU regulation (which will replace Directive 93/119/EC) on the protection of animals at the time of slaughter or killing. There is already sufficient information available on the stunning of fish, indicating that some basic requirements should be included in the new legislation (Norway legislate on the welfare of farmed fish) and these EFSA Opinions are likely to provide further evidence in support of this. The reports also promote the development of standard operating procedures by harvest staff which is in keeping with provisions for terrestrial livestock under the draft legislation.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Turbot (Question No EFSA-Q-2008-442) (May 2009). 34 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Tuna (Question No EFSA-Q-2008-443) (May 2009). 53 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Carp (Question No EFSA-Q-2008-439) (April 2009). 37 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Seabass and Seabream (Question No EFSA-Q-2008-437) (April 2009). 52 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Eels (Question No EFSA-Q-2008-440) (April 2009). 42 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Fish: Rainbow Trout (Question No EFSA-Q-2008-438) (April 2009). 55 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the Species-Specific Welfare Aspects of the Main Systems of Stunning and Killing of Farmed Atlantic Salmon (Question No EFSA-Q-2008-437) (April 2009). 77 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

Opinion of the Scientific Panel on Animal Health and Welfare on a Request from the Commission Related to the General Approach to Fish Welfare and to the Concept of Sentience in Fish (Question No EFSA-Q-2008-708) (February 2009). 27 pages. Available from European Food Safety Authority, Largo N. Palli 5/A, I-43121, Parma, Italy. www.efsa.europa.eu/EFSA.

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Humane control of rats and mice: Guidance notes and principles

One of the staple news stories that the media periodically revisit are alarmist stories on the rise in numbers of rats and mice. Reports in the UK press in 2008, for example, indicated that there had been a sharp increase in the number of pest control call-outs (NPTA 2008), with some newspapers claiming rises of 40–142% in some UK cities (Daily Mail 2008). At a time when local government authorities have increased their charges for dealing with infestations, decisions on how to control unwanted rats or mice is becoming one that householders and others, in the UK and elsewhere, are increasingly called upon to make (NPTA 2008).

With a range of different control methods on offer, and a growing interest in non-lethal options, the recent Report from the UFAW Humane Rodent Control Working Group is thus timely. This group seeks to promote welfare improvements in the control of rodents through, amongst other things and as contained in this report, the provision of advice and guidance about current methods. As one would expect from a UFAW Report, the guidance is very much grounded in the principles of replacement, reduction and refinement (The 3Rs) — although, in this case, the advice about reduction is not so much in the number of animals killed as in ensuring that only those pest species targeted are killed.

The Report starts by outlining the guiding principles that it sees as underlying any humane control measures — does the presence of rodents have to be addressed, and where it does, can this be through non-lethal exclusion measures rather than capture or killing? If the latter, then the report advocates an approach based on what it terms as ‘killing kindly’.

Pros and cons of the different control options are discussed, with some attention paid to what many householders would view as apparently the ‘most welfare-friendly’ option — that of live trapping. The Report notes that choice of this option requires some careful thought and cautions that such traps “can have a significant adverse welfare impact on the trapped animal”. Frequency of trap inspection is highlighted as a key issue, as is the decision as to what to do with the animal after trapping. On being faced with a successfully trapped rat or mouse, householders often balk at the idea of killing it themselves and opt for the ‘less troublesome’ release of the trapped animal into a different location. Again, the report cautions that release is not necessarily without welfare consequences and outlines the legal situation regarding such releases within the UK.

Other methods discussed include spring-powered killing traps, glue boards, gas traps and stretched rubber ring strangulation systems. It should, perhaps, be pointed out that this Report only considers the humaneness of control methods for rats and mice and the impact of these methods on the welfare of the individual animal. Those seeking other, more detailed information, such as on the relative effectiveness of the methods or how they should be deployed, are guided elsewhere to other published sources.

The Report concludes “that there is no perfect method of control” and that it “is not possible to make generic recommendations about which methods will be acceptable from a humaneness point of view in all situations” because “the humaneness of the various methods can vary greatly according to how carefully they are used”. Nonetheless, for those seeking to control rats and mice, seven steps for humane control are detailed.

For anyone who has ever been faced with the problem of controlling unwanted rats or mice or been asked to give guidance to others on the most humane methods, this Report will prove of use, as it will for those who are seeking topics for debate with their students. For considering an area of welfare concern that may be overlooked and unappealing but of no lesser importance for this, and indeed of worldwide