

Reports and Comments

The welfare of animals during transport: a report from the European Food Safety Authority

In March 2002 the European Commission's Scientific Committee on Animal Health and Animal Welfare (SCAHAW) produced a report on the welfare of horses, pigs, sheep and cattle during transport. A second report has recently been published by the European Food Safety Authority (EFSA), in which the effect of transport on the health and welfare of other species that are transported is addressed. The species considered in this report include broilers, laying hens, turkeys, ducks, geese, pigeons, quails, ostriches and other ratites, deer, reindeer, rabbits, dogs, cats, rodents, primates, fish and exotic animals.

This comprehensive 183-page report contains conclusions, based on scientific evidence, pertaining to the effect on welfare of a number of aspects of the transport process, including the pre-transport preparation of animals and vehicles, planning for emergencies, loading, loading densities, travelling times, resting times, watering and feeding intervals, inspection, provision of good vehicle conditions, monitoring of animals and conditions, and unloading with subsequent handling. Following initial chapters on general principles such as assessing welfare (including the behavioural, physiological and biochemical measures employed), infectious diseases, inspection, and the training of personnel, the report focuses on the specific transport considerations associated with each species. Each of these chapters commences with a brief description of the origin and domestication of the species in question, accompanied by an explanation of current industry practice, before considering the species-specific transport issues relating to welfare. Because of the large inter-species variation in the amount of scientific work in this area, the chapters in this report vary greatly in length and detail.

For those requiring a more succinct version, the EFSA has produced an accompanying Opinion, in which the data contained within the report are assessed and conclusions and recommendations made. Again, general conclusions and recommendations are considered along with species-specific issues. In concluding, the opinion indicates particular areas where data are lacking and further research required:

- The effect of transport longer than 48 h after hatching on the health and welfare of day-old chicks and turkey poults.
- Nutrient availability from the yolk sac to newly hatched poultry and the effect on welfare of food and water deprivation for 24–72 h in relation to transport conditions.
- Mechanisms and pathways of the spread of infectious agents by animal transport.
- The effect of the physical environment, fasting times, and climatic conditions during transport on dog and cat welfare.

- The effect of journey length and transport conditions on rabbits, deer, ostriches, other ratites, ducks, geese, pigeon and quail.

- The development of mathematical formulae to describe space requirements relative to body weight for those species in this report for which no formulae exist.

The Welfare of animals during transport. Scientific Report of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to the welfare of animals during transport (Question No EFSA-Q-2003-094). Adopted on 30 March 2004. EFSA (2004). 183 pp A4.

Opinion of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to the welfare of animals during transport (Question No EFSA-Q-2003-094). Adopted on 30 March 2004. EFSA (2004). 36 pp A4. Both are available at: www.efsa.eu.int/science/ahaw/ahaw_opinions/424_en.html

Best practice guidelines for the welfare of animals in abattoirs

The development of quality assurance schemes has resulted in a new mechanism that can be harnessed for use in raising animal welfare standards. Whilst world trade rules prevent import controls on foods derived from animals raised in conditions that fall below those permitted in the importing country, quality assurance schemes enable customers to select only products of guaranteed welfare provenance. These schemes thus provide a means of driving welfare standards above legal minima. They operate by requiring that producers agree to adhere to a set of clear standards and to this adherence being subject to strict audit. The key to welfare improvements is then to establish good, and auditable, standards for all aspects of animal care.

There has been a proliferation of such quality assurance schemes in recent years, driven by consumer concerns about safety, environmental sustainability and animal welfare. In many of these, the animal welfare standards have been focused primarily on the circumstances on-farm, and welfare at the abattoir has been dealt with only cursorily. In order to establish a framework for good welfare standards in abattoirs, and to provide a ready-made set of standards for incorporation into quality assurance schemes, the Humane Slaughter Association has produced four booklets on best practice guidelines covering, respectively, the welfare of cattle, sheep and goats, pigs, and poultry (see details below).

These guidelines cover the welfare of animals from the point of unloading to the time they are slaughtered, and address design, maintenance and management of facilities, care and handling of animals, restraint for stunning and slaughter, and stunning and slaughter procedures. There are sections on the responsibilities of the nominated animal welfare officer, casualty animals, lairage, pre-slaughter handling, equipment, stunning, stun/kill methods, and bleeding. The best practice guidelines cover all the

standards required by UK law (and these are clearly marked as such) but also include others above and beyond these. Appendices include an example animal welfare policy and an example standard operating procedure. Advice is given throughout the document to encourage operators to strive for high standards of welfare.

The adoption of these guidelines, for the welfare of animals in abattoirs, by quality assurance schemes and by abattoirs themselves around the world would be a very valuable step towards raising global standards. They will be of interest to all those in the food animal industry.

Best Practice Guidelines for the Welfare of Cattle in Abattoirs; Best Practice Guidelines for the Welfare of Sheep and Goats in Abattoirs; Best Practice Guidelines for the Welfare of Pigs in Abattoirs; Best Practice Guidelines for the Welfare of Broilers and Hens in Processing Plants (June 2004). Produced by the Humane Slaughter Association. Each is 19 pp A4 paperback. (ISBNs: 1 871561 31 0; 1 871561 30 2; 1 871561 32 9; 1 871561 33 7 respectively. Published by and available from the Humane Slaughter Association, The Old School, Brewhouse Hill, Wheathampstead, Hertfordshire AL4 8AN, UK; telephone +44 1582 831919; email info@hsa.org.uk. Price £5–10 per copy depending on number ordered.

Marking amphibians, reptiles and marine mammals

Studies of the biology of free-living animals for their conservation management or for other reasons often depend upon being able to reliably identify individuals. In most cases the only way this can be achieved is by marking them in some way. Many methods are available and in deciding which to use, the advantages and disadvantages of each, both for the purposes of the study and to the animals being marked, need to be carefully considered. New Zealand's Department of Conservation has published a very useful review of methods for marking amphibians, reptiles and marine mammals (details below) in which the practicalities, welfare aspects and issues of public perception are discussed.

The booklet, which is attractively illustrated with photographs of seals and reptiles marked in various ways, starts with introductory chapters on public perception and support, why and how animals are marked, and general safeguards for marking wildlife. There are then sections in which wide ranges of temporary, semi-permanent and permanent methods are outlined. For each method there is a description of the technique followed by bullet-point lists covering advantages, disadvantages, safeguards and acceptability.

The techniques outlined are too numerous to list here but include paints and dyes, adhesive tapes, fur removal, fluorescent powders, tags, telemetric devices, branding, ear notching, and toe clipping. Regarding the use of painful or stressful methods it is emphasised that, in addition to safeguards for animal welfare, the public "should be provided with the justification for the marking programme and the

method chosen and a careful explanation of the benefits and general and specific safeguards employed."

This is a valuable and well-written practical guide about the marking methods available and the issues surrounding their use. It is aimed at wildlife managers and researchers and, although the examples are of New Zealand fauna, it is relevant and includes sound advice for those working with reptiles, amphibians and marine mammals anywhere in the world.

Marking amphibians, reptiles and marine mammals: animal welfare, practicalities and public perceptions in New Zealand (June 2004). Produced by Mellor DJ, Bausoleil NJ and Stafford KJ of the Animal Welfare Science and Bioethics Centre, Massey University. 55 pp A5 ringbound (ISBN 0 478 22563 6). Published by and available free of charge from the Department of Conservation, PO Box 10-420, Wellington, New Zealand; email science.publications@doc.govt.nz.

Guidelines for the accommodation and care of primates in scientific research

Recognising concerns regarding the behavioural, social and environmental needs of non-human primates in the laboratory environment, the UK's Medical Research Council (MRC) has recently published an ethical guide entitled 'Best practice in the accommodation and care of primates used in scientific research'. Developed by the Centre for Best Practice for Animals in Research (CBPAR) following consultation with appropriate stakeholders and a review of the published literature, this guide is aimed at all those involved in research using primates and is essential reading for MRC staff and grant-holders, as all MRC-funded research using primates (including collaborations abroad) is now conditional on implementing the principles set out in the guidelines.

A brief introduction outlines the position adopted by the MRC concerning the use of primates in research. It "...supports the principles of the 3Rs (the replacement, reduction and refinement of laboratory animal use) and expects high standards of housing and care for the animals used in research which it funds...", and is "...committed to exceeding minimum legal requirements and to introducing and implementing standards which reflect contemporary best practice". Expanding on this central theme, subsequent chapters set out best practice guidelines in relation to the sourcing of animals, experimental design, accommodation and environment (including environmental enrichment), handling, restraint, training, the provision of technical and veterinary care and support, and the fate of the animals.

The most comprehensive section addresses the accommodation and environment, regarding which the guidelines state that "...primates must be provided with a complex and stimulating environment that promotes good health and psychological well-being and provides full opportunity for social interactions, exercise and to express a range of behaviours appropriate to the species". With this in mind, the importance of the cage/enclosure dimensions, floor material, natural light, and social housing is outlined, along