

REPORTS AND COMMENTS

Alternatives to animal use in education

Reflecting a growing concern in society about the non-essential use of animals in education, Article 25 of the Council of Europe Convention (ETS 123) *For the Protection of Vertebrate Animals Used for Experimental and Other Purposes* states that scientific procedures on animals should not be carried out for the purpose of education or training unless absolutely necessary. In recent years, alternatives to the use of animals for education have been developed in a variety of fields. This video demonstrates a selection of these alternatives. Teachers and students at various European universities describe the advantages of these systems and provide a commentary. The video demonstrates clearly the power, flexibility and the high quality of the graphics of some of the programs now available. Among the systems described are: 'SimNerv' a virtual frog nerve preparation, 'SimMuscle' a virtual laboratory for exploring the physiology of frog skeletal muscle, 'Digidiss' which simulates the dissection of various animals, and 'Microlabs' which simulates experiments in pharmacology. The latter includes videos of rats suffering tonic and clonic convulsions. 'Not nice', says the video, 'but it will not need to be repeated any more'. The package can be used to explore the effects of various drugs in several species in relation to the dose, route of administration, and time after administration. It can be employed, among other things, for teaching how to decide humane end points in toxicological experiments. Also demonstrated are the artificial 'Koken' rat which is used to teach various procedures including intravenous administration or blood sampling from the tail vein; and a system which uses artificially perfused organs collected from slaughterhouses rather than anaesthetized animals for training in keyhole surgery techniques.

In addition to providing what appear to be excellent alternatives to the use of animals for teaching, these new resources offer a number of other advantages including more efficient use of teaching time, flexibility and repeatability. This video is a good advertisement for the particular alternatives it demonstrates, and a good advertisement for the whole concept of alternatives in education. Viewers are referred to the EuroNICHE book *From Guinea-Pig to Computer Mouse: Alternative Methods for a Humane Education* for further information (see review in *Animal Welfare* 8: 188-89). The video is likely to prove a useful tool for helping to promote the wide range of excellent alternatives that are now available.

Alternatives in Education: New Approaches for a New Millennium. EuroNICHE (1999). EuroNICHE: Leicester. PAL VHS Video. 33min. Available from NICHE-UK, 28 Fell View, Cockermouth, Cumbria CA13 9PQ, UK; or for North American orders from, Dr J Balcombe, HSUS, 2100 L Street NW, Washington, DC 20037, USA. Price £12.00 Western Europe and £6.00 Eastern Europe (or £8.00 and £4.00 for concessions); and US\$20.00 (or US\$15.00 for concessions).

Welfare standards for dairy cattle

Under current world trade agreement rules, countries are not permitted to block imports of animal products on the grounds that the welfare of the animals involved is unacceptable. Attempts to improve farm animal welfare through national legislation for high standards risk backfiring if they increase production costs which then give a marketing advantage to overseas competitors with lower welfare standards. The danger of simply exporting problems in this way is a real one. Welfare assurance schemes such as the RSPCA's 'Freedom Food' initiative provide an alternative way forward. In these schemes, produce from animals kept to high welfare standards are labelled as such and sold at a higher price. A growing proportion of consumers are prepared to pay more for foods which have been produced to guaranteed high welfare standards. The quality of life for at least a proportion of the national herd of production animals benefits in this way. The foundations of these schemes are the codes that define the

welfare standards which must be maintained in order for a farm to qualify for inclusion, and the systems for inspection and auditing which ensure these standards are maintained.

When the RSPCA's Freedom Food standards were first drafted, it was recognized that regular veterinary attendance and on-farm involvement were crucial to animal welfare. A written Veterinary Health Plan (VHP) forms part of the conditions for inclusion in the Freedom Food scheme and the RSPCA has now published a booklet (see details below) providing complementary notes to their welfare standards for dairy cattle, and guidance for producers and their veterinary surgeons in the formulation of the VHP. The booklet outlines the four areas which the VHP should cover: i) basic disease control measures (including mastitis prevention, parasite control, lameness, vaccination, stockmanship, neonatal care, carcase disposal, and casualty slaughter); ii) herd security against infectious diseases; iii) recording, monitoring and control of disease present on the farm; and iv) disease surveillance. In each section, the relevant RSPCA Freedom Food welfare standards are presented and guidelines or example guidelines on the nature of the husbandry and veterinary protocols expected are listed.

The last four pages of the booklet address the conduct of the VHP visit. There must be an inspection of all cattle on the farm, of their environment and of the relevant farm records. It is a requirement that the incidence of a range of specified disease conditions should be noted, including, in particular: unsatisfactory body condition, lameness, mastitis, coat cleanliness, infectious skin disease, and evidence of trauma. Relatively little guidance is presented on the nature of the VHP document itself. There are clearly great advantages to allowing flexibility in this, but inclusion of an ideal example or two would have been helpful.

This is an essential document for Freedom Food cattle farmers and their veterinarians but will also be of interest more widely – and especially to others involved in setting or assessing standards of cattle welfare.

RSPCA Veterinary Health Plan: Dairy Cattle Guidance Notes. Royal Society for the Prevention of Cruelty to Animals (1999). RSPCA: Horsham. 21pp. Paperback. Available from the publishers, Causeway, Horsham, West Sussex RH12, UK. Free.

Humane care and use of birds

The current *Guide for the Care and Use of Laboratory Animals* produced by the American Association for Accreditation of Laboratory Animal Care (AAALAC) does not specifically address the husbandry and care of birds. In view of this, the Association of Avian Veterinarians has recently given consideration to principles on the humane care of birds used in research or education and issued a policy statement on this subject. The recommendations provided have been 'based on scientific principles, expert opinion, and experience with methods and practices that have proved to be consistent with high quality bird care'; and the purpose of the guide is to assist scientific institutions and their animal care and use committees in establishing standards for the use and husbandry of laboratory birds in ways judged to be professionally appropriate. Although written specifically to meet a need in the USA, these guidelines provide quite a comprehensive framework of standards for avian husbandry and will be of interest and value to others developing codes of conduct on the use of birds in science and education.

Following a brief outline of the relevant North American legislation on animal welfare and protection of endangered species, the document covers various aspects of avian husbandry and the ethical use of birds under the following topics: general considerations, sampling (which is about determining sample sizes for experiments, rather than methods of collecting blood or tissue samples), laboratory bird management, laboratory bird quality and health, disposition of birds after experiments, and occupational health. Some idea of the nature of the document can