

It is sometimes a particular problem for people working in the field of animal welfare to locate specialist advice: this directory is certainly a step forward in promoting communication and collaboration between scientists, and between the research community and industry, government, non-government organizations and the media. Clear and accurate information about scientific developments needs to be accessible if decisions by politicians, industrialists and the general public are to be made from an informed viewpoint.

*Life Science Pages 1993/94: a Scientific Communication Initiative* David Manning and Tim France (1993). Life Science Press Ltd: Cardiff. c 119pp. Paperback. Available from the publishers, PO Box 267, Cardiff CF2 3YQ, UK. Price of postage only for bona fide educational establishments; £31.60 including postage within UK to companies.

### **Slaughter of pigs, cattle and sheep**

The Compassion in World Farming Trust has recently published a report on the welfare of pigs, cattle and sheep at the time of slaughter. It takes the form of a review of the scientific literature on the subject over the past ten years.

Much of the work that is cited was carried out as a direct result of the Farm Animal Welfare Council's 1984 *Report on the Welfare of Livestock (Red Meat Animals) at the Time of Slaughter*, many of the findings of which have already been incorporated into Codes of Practice. However the report does highlight the current scientific debate on the effectiveness or otherwise of carbon dioxide for stunning pigs and the use and possible misuse of head-restraint devices for stunning cattle. It would have been beneficial, however, if the Trust had recommended ways forward on some of the issues which it highlights.

*The Welfare of Pigs, Cattle and Sheep at Slaughter* A Compassion in World Farming Trust report by Peter Stevenson (1993). CIWF Trust: Petersfield. Paperback. 16pp. Obtainable from the publishers, Charles House, 5A Charles Street, Petersfield, Hampshire GU32 3EH, UK. Price £2.50 including postage.

### **Heat stress in farm animals**

The UK Ministry of Agriculture, Fisheries and Food publishes a number of free leaflets and booklets on farm animal welfare. Two of the latest ones are on heat stress in pigs and in poultry; they describe the main causes of heat stress in these two types of animals and outline some of the common sense management measures that will help to prevent it. There is also, apparently, a training video on heat stress available at a cost of £8.25 from MAFF Publicity Video Unit, Room 26, Government Buildings, Hook Rise South, Tolworth, Surrey KT6 7NF.

*Heat Stress in Pigs (PB 1316)* and *Heat Stress in Poultry (PB 1815)* Ministry of Agriculture, Fisheries and Food (1993). 12pp each. Paperback. Obtainable free of charge from MAFF Publications, London SE99 7TP, UK.

### Animals in medical research

Over the last few years the biomedical research community, in response to numerous attacks from animal welfare and anti animal-usage groups, has produced a number of popular and semi popular leaflets and booklets defending animal-based research. The two publications considered here are typical examples of the material that has been produced. '*Animals and the Advancement of Science*', a booklet from the British Association for the Advancement of Science, is a systematic expansion of the six point declaration on animal experimentation originally put forward at the Annual Meeting of the British Association for the Advancement of Science in 1990. Amongst other things, it lists and briefly discusses a number of medical discoveries that were largely dependent on the study of animals and it claims that research using animals is essential to the understanding of disease processes and in the development and testing of new treatments. '*Understanding Animal Research*' is a booklet in a less formal style, which has been sponsored by the Animals in Medical Research Information Centre and has been paid for by the pharmaceutical industry. It covers in essence the same ground as the British Association's booklet but in a more popular manner.

Both booklets have a case to make and there is certainly need for simple factual pro-research information to balance the material put forward by the anti animal-use groups. Before a balanced judgement can be made both sides of the argument have to be presented and discussed.

The two booklets make the point that in the UK there is a law which strictly regulates animal experimentation but they both largely fail to state the moral dilemma: man has probably benefitted enormously from animal research but this benefit has often been bought at the expense of substantial animal suffering.

It may be that short booklets just do not have the space for a balanced discussion of the many factors involved in any cost/benefit analysis of this dilemma - but the general reader should know that there *is* a dilemma and should be informed about the arguments which may or may not go towards its resolution.

*Animals and the Advancement of Science Working with Animals in Medical Research* Produced and published by the British Association for the Advancement of Science: London (1993). 10pp. Paperback. Obtainable free of charge from The British Association, Fortress House, 23 Savile Row, London W1X 1AB (ISBN 0 900902 09 4).

*Understanding Animal Research A Booklet in the Understanding Health Series* Edited by Dr Richard Hawkins and Edwina Conner (1993). Hawker Publications Limited: London. 15pp. Paperback. Obtainable free of charge from the publishers, 13 Park House, 140 Battersea Park Road, London SW11 4NB, UK.