

late disease lesions. Involvement of head lymph nodes suggests an initial dietary acquisition of TB, such as by eating beetles and worms from contaminated pasture or cow pats direct, and the presence of the lung and the relatively rare kidney lesions is a feature of later pathogenesis. This would suggest that 'Old Brock' may after all be simply catching TB from cattle. Badger 'TB models' which fail to take account of this possible spillover are hence of dubious value. There is strong evidence, as in former Midlands blackspot counties, that TB dies out in badgers when not topped up from cattle. Badger culling is hence pointless, and badger vaccination strategies are probably equally useless, not least because cubs are not accessible for vaccination during their first eight weeks of life anyway.

Demonstrating a cattle to badger transmission of TB should be quick and easy to do, and perhaps rather more useful than much of the long-term research currently based on the still unproven assumption of badger guilt.

References

Hancox M 1994 Badgers: sociobiology and sett protection. *Animal Welfare* 3: 159

Hancox M 1994 Badgers and bovine tuberculosis in the UK: a reappraisal needed. *Animal Welfare* 3: 253-254

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Here's the Catch: An Animal Aid Investigation

Produced and published by Animal Aid (1994). Colour VHS video, 14 min. Booklet 14pp. Obtainable from Animal Aid, The Old Chapel, Bradford Street, Tonbridge, Kent TN9 1AW, UK. Video £5, booklet free.

Produced by the animal rights pressure group Animal Aid, this video and accompanying booklet gives a shocking and often brutal account of the UK poultrymeat industry. Undertaken as a 'secret investigation of one of the biggest exploiters of animals' the underlying message of the package is to persuade the public to boycott poultrymeat and, as such, the information paints a picture of a sinister and disturbing trade.

The video takes us inside intensive broiler and turkey units and highlights the problems which can occur when birds are caught and transported prior to slaughter. Filmed undercover, the footage shows birds being kicked and roughly handled with emotive shots of dead birds lying on the floor. The film illustrates how the 'traditional' method of fixed crate transport can cause injury and distress when birds are hurled into high level crates on the lorry. Unfortunately, however, the lack of narration leaves it unclear how the 'state-of-the-art' open-topped modules can reduce bird handling and, with a good catching team, can improve welfare. Instead the images show handlers cramming birds into the crates, trapping wings and heads and the system is portrayed as brutal and inhumane.

The accompanying booklet backs up the video with a collection of quotes from poultry handlers, covering all aspects of production from the catching of birds, artificial insemination, heat stress, culling, to disease and causes of death on-farm. The men interviewed are not connected with the video, but give an explicit and lurid account of the abuse of birds.

In reality such practices may occur, although ultimately, as the booklet describes, 'it is the consumer who dictates the shape of the industry' with pressure on producers to provide vast quantities of meat at 'trash-cheap' prices.

Whilst there can be no excuse for causing unnecessary cruelty, it should be made clear that this is one-sided propaganda made by an animal rights organization intending to shock the consumer into rejecting poultry. It cannot be denied that the industry does indeed have difficulties in producing such large volumes of cut-price birds under ideal welfare conditions. However, whilst this video and booklet bring the issues to the public's attention, they do little to solve the real welfare problems or ultimately improve the practical situation for the birds.

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Research Animal Anesthesia, Analgesia and Surgery

Edited by Alison C Smith and M Michael Swindle (1994). Scientists Center for Animal Welfare: Greenbelt. 170pp. Paperback. Obtainable from the publishers, Golden Triangle Building One, 7833 Walker Drive, Suite 340, Greenbelt, Maryland 20770, USA. Price US\$55, three or more US\$35.

These collected papers are the proceedings of a conference organized by the Scientists Center for Animal Welfare, in Atlanta, in 1994. Their rapid publication means that the majority of the papers are refreshingly up-to-date, providing a timely review of their respective fields. The proceedings do not attempt to provide a comprehensive text on anaesthesia, analgesia and surgery, but focus on specific subject areas. The main body of the book comprises a series of papers dealing with anaesthesia on a species by species basis. The approach of each author varies, but all have provided concise reviews of the relevant literature. I particularly liked the section on dog and cat anaesthesia, which departs from the conventional approach to the subject by providing a series of case-studies to illustrate the major factors involved in developing humane and effective anaesthetic regimens. In addition to more familiar laboratory species, brief consideration is also given to fish, birds, reptiles and amphibia. Each of the species papers provides useful dose rate tables, although as with any such listing, the data provided should be used with care, given the considerable strain variation in drug responses which can occur amongst laboratory species.

The species specific sections are augmented by a number of more general reviews. Concise guidance on intraoperative monitoring and coping with cardiopulmonary complications and emergencies is included. The physiologic effects of anaesthetics and analgesics are reviewed by Professor Heavner, who provides some interesting examples of the comparative effects of different anaesthetic regimens on body systems. A further general review examines the problem of pain and distress in animals, and additional practical guidance on this topic is given in a summary of the main considerations for post-surgical care of animals.

The book does not restrict itself to mainstream or conventional topics. Contributions on laparoscopic surgery training courses, cardiopulmonary bypass and xenotransplantation are included. I found the latter review particularly interesting since it addresses some of the ethical issues involved, rather than concentrating solely on the technical aspects of the subject.