

contexts of livestock production and takes account of issues of animal production (including 'micro-livestock'), disease control, training and education, and the enhancement of rural livestock. This book goes a lot further than being a 'production agriculture' text; there is a good balance of case studies and of synoptic reviews, a refreshing lack of jargon and a stimulating interdisciplinary approach.

But what of animal welfare? With grassland-based systems contributing only 9.3% of total meat output and 7.9% of cow's milk, clearly the important systems are, and will continue to be, those based on crop-livestock integration or intensive housing-based systems. Given the market opportunities for exporters of breeding stock, one can predict strong economic incentives to use high input — high output exotic breeds, leading, probably, to challenges of a nutritional and production disease nature. Veterinary care would undoubtedly be withheld from animals of little monetary value.

Therefore, the livestock revolution in the developing world may well challenge those 'freedoms' that relate to physical conditions of husbandry — the freedoms from hunger and thirst, from discomfort, and from pain, injury and disease. However, in smallholder systems, one might expect human-animal interactions to be generally positive and imprinting of young animals on their keepers might be expected; therefore, two Freedoms, namely from fear and distress, and the expression of normal behaviour might be better assured than in many developed world systems.

Animal welfare is not mentioned in any detail by any of the authors, but what this book admirably succeeds in providing is an authoritative overview of the way livestock husbandry is evolving in a developing world context. I would have liked to see a chapter on appropriate breeding strategies for developing-world livestock, for example, selection for fertility appears misguided until the survival of juvenile animals has been improved, and the disease resistance of local breeds needs to be studied and exploited. Generally though, it appears that welfare interventions in these livestock systems are only likely to be introduced if they show a clear financial return. This book is highly recommended for all livestock scientists.

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Swan Keepers Handbook — A Guide to the Care of Captive Swans

GR Gardner, FF Funk, SA Bolin, R Webb Wilson and SA Bolin (2003). Published by Kreiger Publishing Company, Kreiger Drive, Malabar, Florida 32950, USA. 133 pp Hardback (ISBN 1 57524 199 4). Price £31.50.

This is an easy to read and very well illustrated title, which will prove most valuable to veterinary students, as well as swan carers and rescuers. The book has sections on the history of the mute swan; appearance and general habits of swans; captive swan husbandry; hazards of captivity for swans; diseases and infections (that includes lead

poisoning, clostridial infections including botulism, foot damage and the deformity angel wing); nutrition; plants that may be safely used alongside swans (including a list of toxic plants); providing accommodation for swans; breeding; incubation; rearing; veterinary care; genetics; legal aspects (that relate primarily to differing legislation in US states); identification and details of other swan species.

The book is written by US authors and is based on many years of detailed research and experience working with a large flock of swans at the Orange Lake Resort and Country Club in Orlando. Some aspects detailed in the book relate more to the US situation than the UK; however, this does not detract from this delightful and useful book.

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TNR Past Present and Future — A History of the Trap-Neuter-Return Movement

EP Berkeley (2004). Published by Alley Cat Allies, 7920 Norfolk Avenue, Suite 600, Bethesda, MD 20814-2525, USA. 116 pp Paperback (ISBN 0 9705194 2 7). Price US \$16.00.

When cats congregate, their group behaviours of breeding, marking, fighting, feeding and even becoming ill can reach pest proportions if they overlap with people, which of course colonies of feral cats often do in holiday resorts, in ports or other areas where food is available. How do you tackle the problem in a humane way that provides a long-lasting solution and which does not bring you up against people who care for cats? Many authorities and governments have had to consider this problem and have often resorted to poisoning or killing with the aim of removing all the feral cats. Only 50 years ago this response was not surprising and there was no real alternative. However, the development of the TNR — trap-neuter-return — method for the control of feral cats has proved that it can tick all the boxes associated with control and welfare. But such a neat solution does not arrive by magic; it took feline knowledge, behavioural research, veterinary cooperation, trapping skills, community communication and cooperation, and no small doses of determination on the part of many cat lovers in many countries to make it happen and to make it successful.

Ellen Perry Berkeley is the ideal person to tell this story — she understands the need for scientific publication and academic proof, together with the zeal, determination and practical application of the rescue worker and the compassion of the cat lover, and weaves their stories with great skill. On reading of the ups and downs, successes and failures, and of the devotees and opposers, it is clear how much effort was required to find a way to deal with animals that are, to all intents and purposes wild — giving little thanks but engendering great loyalty and satisfaction for those who work for their welfare.

The TNR method is being adopted worldwide thanks to the work of groups like Alley Cat Allies, the publishers of this fascinating little book, who have made it into a science all of its own. The book is a must for all of those who work to help