

Book Reviews

On-farm Monitoring of Pig Welfare

Edited by A Velarde and R Geers (2007). Published by Wageningen Academic Publishers, PO Box 200, NL-6700 AE Wageningen, The Netherlands. 203 pp Paperback (ISBN 978-90-8686-025-8). €49, US\$65.

This book has arisen as a deliverable from the COST Action 846 working group “measuring and monitoring farm animal welfare”. COST (Co-operation in Science and Technology) is a European Intergovernmental network which simply aims to bring together scientists from Europe and beyond. This was certainly achieved in the case of the ‘Pig’ sub-working group judging by the range of active and respected researchers who have contributed.

The book aims to outline methods of monitoring the welfare of pigs, on-farm. A range of welfare issues are addressed from lying behaviour, fear of humans and stereotypies through to those relating to specific physical problems such as vulva biting, cannibalism and lameness. Physical indicators such as skin lesions, bursitis, body condition and cleanliness are also included along with some chapters which address methods of assessing environment provisions such as space allowance, bedding provision, floor type and recreational devices. Each parameter is afforded a single chapter containing a summary of potential methods of measurement along with a discussion of their validity, reliability and feasibility. Finally, every chapter is rounded off with some summary recommendations from its author about how and indeed whether the parameter should be measured and in what circumstances. The chapters all follow a clearly laid out, standard format which makes the book straightforward for a reader to navigate through.

The book takes a no-nonsense approach to putting forward a range of measures. It overcomes the now almost obligatory angst of animal welfare researchers about what really is welfare, what matters most to the animal and who should be carrying out these measurements through the simple expedient of not discussing them. In one sense this gives the text a brisk and business-like feel but possibly leaves the reader wondering a little about how the selected parameters were arrived at and what should be done with them now. This straightforward approach has, in places, resulted in some rather brusque treatment of important considerations. For example, in the chapter concerning surgical interventions, ably written by Valerie Courboulay, the possibility of long (or even short) term pain associated with tail docking is downplayed to the point of insignificance. This contrasts with an earlier chapter by Marc Bracke who highlighted the fact that tail-stumps amputated through biting episodes have been found to develop neuromas which may be associated with tail-stump sensitivity or even phantom ‘tail’ pains. The final chapter offers some guidelines for the use of these welfare measures in the development of a monitoring tool for on-farm welfare. The authors point out straight away that the selection of parameters for inclusion in an assessment

system depends upon its ultimate application and what resources are available to its user ie a pen and paper or equipment for ultrasonic backfat depth measurement. Following this rather humble acknowledgement is a table presenting a summary of the parameters discussed, their strengths and weaknesses and the COST groups’ decision about their suitability for inclusion as a monitoring tool.

The writing in places is dense and rather dry, demanding considerable concentration from the reader. In addition, its attempt to cover all aspects of pig production sometimes leads to confusion about which measures are applicable to which class of pig. As this is, however, a general reference text it is up to the reader to decide on the ultimate applicability of the measures. The index of welfare problems to be measured appears comprehensive in terms of problems experienced by pigs in modern production although as welfare science increasingly embraces the debate about indicators of positive welfare it would have been nice to see this included, possibly through a greater scope for the qualitative assessment work of Françoise Wemelsfelder.

So, in summary, I found this book to take a business-like and pragmatic approach to listing, describing, in places usefully illustrating and evaluating a series of animal-, environment- and management-based welfare measures. It is an excellent resource which I am delighted to have on my bookshelf and would enthusiastically recommend to animal welfare scientists and students with an interest in monitoring pig welfare. However, experience also provokes me to caution that generating a welfare assessment system which finds the balance between being comprehensive and feasible is often as much of a challenge as identifying the individual measures themselves. Added to this is the responsibility we all have to ensure that our on-farm welfare assessment systems are linked to mechanisms for achieving welfare improvement.

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Ethical Eye: Animal Welfare

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“The Council of Europe was the first intergovernmental organisation to express concern about the fate of animals used by man. The general public in all Council of Europe member states is genuinely concerned about unnecessary suffering on the part of animals, and pressure is being brought to bear on governments to remedy this situation.”

So writes Egbert Ausems, former Head of Animal Welfare of the Council of Europe’s Directorate of Legal Affairs, and one of 23 distinguished European authors contributing to this latest book in the Council’s *Ethical Eye* series.

The series, which includes titles on subjects such as Euthanasia and Drug addiction, aims to “outline the ethical issues relating

to each topic” and “make topics accessible to as wide an audience as possible”. It claims, therefore, to be geared to the needs of both specialists and non-specialists alike.

Ethical Eye: Animal Welfare comprises three broad sections: Ethical issues; Religious viewpoints; and Situation in Europe. Whilst the information given in the first section (Ethical issues) could be readily acquired from alternative animal welfare texts, the inclusion of the second two subject areas in a single volume is unique and engaging. Although Europe does not receive a section of its own until the latter part of the book, it is the book’s focus, and Council of Europe conventions and other European instruments aimed at improving animal welfare are referred to throughout.

Introductory chapters by Professor Donald Broom and Professor Elisabeth de Fontenay precede the three main sections, introducing concepts such as suffering and animal rights. Setting the scene, Professor Broom reminds us that Members of the European Parliament receive more letters about animal welfare than on any other topic. He considers the effects of attitudes and legislation on animal welfare, and defines relevant terms such as welfare, stress and suffering. Offering a personal view, he criticises the use of the terms ‘rights’ and ‘freedoms’, arguing that the former should be replaced by ‘obligations’ (of people to act in an acceptable way towards each animal which is used), whilst the latter, though conceding that they have been of value in the past, should now be replaced by ‘needs’. He ends by stressing the importance of a scientific understanding of animal welfare; a sentiment that is emphasised throughout the book.

Professor de Fontenay’s chapter, ‘Do animals have rights?’, which explores historical, legal and philosophical aspects of the rights debate, is followed by the book’s first section proper, ‘Ethical issues’. Despite the title, there are few references to ethics *per se*, and ‘Animal welfare issues’ would have been equally appropriate; it may be worth noting that the book is unlikely to satisfy those wishing to learn about ethical analyses.

The section comprises six chapters covering farming, transport and slaughter, animal experimentation, animal testing, biotechnology and pets. This is a slim book, and given the potentially vast scope of its content the chapters are necessarily cursory. Farming, for example, gives a background to domestication and its effects on behaviour, different farming methods and the welfare concerns that arise. The case of broilers, laying hens, slaughter pigs and farrowing and lactating sows are given a small number of paragraphs each, as examples, but despite the lack of detail, the chapters are lucid and cover the relevant points adequately. The role of consumers in motivating change is highlighted, as would be hoped of a book aimed partly at the lay reader.

This role is emphasised in the following chapter on international transport and animal slaughter. Dr Jacques Merminod laments that “most consumers do not realise that they have a major responsibility” in encouraging welfare improvements, concluding: “if we do not want to feel guilty about the way animals are treated, we must be prepared to pay the price.” It is the conclusion to a rather doleful chapter, in which initial enthusiasm to improve standards of welfare during transport

and slaughter, resulting in the European Convention for the Protection of Animals during International Transport, is said to have given way to apathy, and that now “economic interests... unfortunately take precedence over any form of animal protection worthy of the name”.

The book conveys optimism and pessimism in equal measures, resulting in a reasonable and balanced whole. The two chapters on animal experimentation and animal testing give an example. The first, animal experimentation, is written by Roman Kolar, scientific advisor to Eurogroup for Animal Welfare. Although giving an informed and valuable account of why and how animals are used in experiments, relevant legislation, and how ethical evaluation of experiments could and should apply, the author’s opposition to experimentation is barely concealed, and nor, probably, should it be. Beginning with “the animal welfare community can accept only one final goal in connection with animal research: its total abolition”, his feelings find further expression throughout the chapter with comments such as “animal experimentation today... still allows for grievances in laboratories and housing facilities that are beyond imagination” and “it is time to end the unimaginable suffering of millions of animals that are susceptible to pain and suffering”. Out of context, such statements sound extreme. Tempered, however, by his support for the Three Rs concept and for the pragmatic approach taken by welfare organisations of participating in “any effort that could contribute to diminishing the suffering of animals in the laboratories” they are moderate, reflecting, in fact, a realistic but passionate approach that is likely shared by the readership of *Animal Welfare* journal.

The following chapter, animal testing, is subtly different in tone. The author, Charles Laroche, is a representative from industry: President of the AISE (International Association for Soaps, Detergents and Maintenance Products), and a board member of several European trade associations. He assures commitment to the replacement of animals in product testing, such as chemicals and cosmetics (a section is devoted to the cosmetics directive (Directive 76/768/EEC) and its 7th amendment), but the language of the previous author is absent. It is replaced by emphasis of the need for product safety for consumers (emphasised by the recent REACH proposal) and of the reality that “in the absence of validated alternative methods, animal testing remains the only effective means of ensuring product safety”. Concern for animal welfare must be compatible with “guaranteeing product safety for consumers”. For the animal welfarist, Roman Kolar’s animal experimentation chapter is the more comforting, but the cold voice of reality from industry is a vital contribution, reminding us of the views of a key stakeholder. There is also reassurance to be found, via the latter author’s endorsement of, and active involvement with, ECVAM (European Centre for the Validation of Alternative Methods) and the European Partnership for Alternative Approaches to Animal Testing (EPAA).

The chapter ‘Animal biotechnology and animal welfare’ contains perhaps the greatest amount of ‘ethics’ content, with contributions from three prominent researchers (Mickey Gjerris, Anna Olsson and Peter Sandøe) from

bioethics departments in Porto and Copenhagen. A central, thought-provoking, theme of the chapter is the authors' attempt to distinguish between two conceptions of the ethical concerns about animal welfare: narrow and broad. The first focuses on subjective experiences, whilst the second focuses on ability to perform species-specific behaviour. The distinction is at first difficult to reconcile, as the welfare relevance of thwarting highly motivated behaviour is the negative affective state that is deemed to result. The authors acknowledge this, but provide explanation by suggesting that if changes could be induced in an animal (eg a hen) through breeding (via conventional or 'new' methods, eg genetic engineering) that allow it to live in a barren environment (eg battery cage) without negative subjective consequences, then the use of such biotechnology might be seen as ethically unproblematic. This, however, the authors go on to note, raises the question of how naturalness — "as something valuable in itself" — should be understood. As has been the present reviewer's reaction, now and in the past, such interventions can just seem wrong.

Companion animals have been understudied to date, and the chapter 'Pet animals: housing, breeding and welfare' by Andreas Steiger is excellent, and a tribute to the contributions that Professor Steiger's group are making in this field at the University of Bern. Making suggestions that would be well heeded, Professor Steiger calls for more regulations, education and research on companion animal species.

Religion is a crucial dimension in animal welfare that must be appreciated and accounted for when considering implementation, particularly in the global context. The second section of this book ('Religious viewpoints') is an invaluable introduction to the views towards animals, and their origins, of the world's major religions: Buddhism, Catholicism, Islam, Judaism, Orthodox Church and Protestantism, each of which receives their own chapter.

It is interesting that through these essays, each of the religions profess to attach great importance to the humane treatment of animals. In a world characterised by widespread adherence to religious teachings, the logical result should be a world containing far less inhumane treatment of animals than that which we know exists. Reasons for this will, of course, include usual culprits such as economic constraints, but it is valuable to know that, according to this book and the holy passages it quotes, religious beliefs themselves are unlikely to be legitimate obstacles to progress.

Also of relevance to all those involved in animal welfare is the situation in Europe, which gives the title to the book's third and final section. As was noted in the opening to this review, Europe is becoming ever-mindful of animal welfare issues, and chapters, beginning with a history of animal welfare concern in Europe, describe the national situation in Sweden, Slovenia, Spain and France. 'The Council of Europe and animal welfare' receives a chapter of its own, in which success is attributed to a "realistic approach" to animal welfare, which has resulted in five different conventions that are described.

It is difficult to escape a suspicion that in some cases the opportunity to contribute to this book may have been taken

to showcase all that is good; Sweden, for example, sounds, by all accounts to be approaching Webster's Eden! Positive animal welfare measures, however, are clearly present in Sweden and encouragement must be derived from the progress that has obviously been made there.

Spain stands out as an exception to the 'positivistic' rule. It is described as a "non-protectionist" country, in which "animal protection is not only alien... but, in some respects... incompatible with the traditions of the Spanish people". Bullfighting is an obvious example that comes to mind. The author, Martin Gamero, is keen to communicate, however, that foreign condemnation of bullfighting has sparked nationalist reactions and hampered progress. He warns that if this is not realised, anti-bullfighting will continue to "act as a brake on animal protection".

In a wise conclusion, Colin Tudge examines Europe itself. Adopting Gandhi's principle, he argues that this book, by examining "our treatment of (the) vulnerable...", "...measures the worth of the European ideal". Carrying the theme of the importance of science to the book's end, he asserts that animal welfare science is essential and calls for more to be conducted. In the context of commerce as a driver, however, he discards any sense of false positivity that the book may conjure, and shares his feeling that "all (is) to do". He notes that legislation and progress are slow, believes that much necessary science is lacking, and identifies an interdisciplinary approach, combining science, economics, philosophy and theology, as the route to aspirational advances.

This is an interesting book that, despite Colin Tudge's realistic but bleak conclusion, is a testimony to the continuing efforts being made by European institutions to improve animal welfare. The claim on the sleeve that the book takes a 'detailed look' at animal welfare is open to interpretation; that each of the sections could be a book in themselves renders this seemingly impossible; but it is eminently readable nonetheless and most likely fulfils its objective of providing something for the specialist and non-specialist alike. True progress must be distilled from that which is claimed, and must continue to be used to inspire further science-based improvements in all those who have a role to play.

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Stereotypic Animal Behaviour: Fundamentals and Applications to Welfare, Second Edition

Edited by G Mason and J Rushen (2006). Published by CABI Wallingford, Oxfordshire OX10 8DE, UK. 367 pp Hardback (ISBN 1-84593-042-8). £60, US\$110, €95.

Interest in animal stereotypes developed through two separate lines of enquiry. Soon after the Second World War, studies of amphetamine abuse showed that high doses could result in psychoses, and this finding led to the dopamine theory of schizophrenia. Attempts to model this process by injecting rats with high doses of amphetamine produced, not only the predicted stimulant effect, but also abnormal stereotyped activity. Subsequently it was found that certain tranquillisers ameliorated the stereotyped behaviour and