## **Book Reviews**

## The Economics of Farm Animal Welfare: Theory, Evidence and Policy

Edited by BV Ahmadi, D Moran and R D'Eath (2020). Published by CABI, Nosworthy Way, Wallingford, Oxon OX10 8DE, UK. 208 pages Paperback (ISBN: 978-1786392312). Price £45.00, \$US65.00, \$55.00.

This book is a timely publication with a clear focus on the economic aspects of animal welfare. In nine chapters the subject is covered from various angles, providing the reader with insights into the theory, evidence and policy of animal welfare economics.

It starts off well with a chapter summarising the history of animal welfare as a societal concern. The authors argue that our standard view of how farm animal welfare came to the fore may not tell the whole story. This, in turn, may affect where animal welfare is placed on the political agenda in terms of priority.

The whole book contains a minimum of acronyms which makes for easy reading. However, the concept of WTP (willingness to pay) is pivotal for the subject area, and this abbreviation should be kept in mind as it is used in almost every chapter. I particularly liked the chapter which presented a thought experiment on people's stated willingness to pay versus actual purchases. By systematically going through the different reasons why consumers might say one thing but do another, the authors very elegantly dissect the anatomy of market failure for improved animal welfare (spoiler alert: the markets are largely working!).

Some chapters are fairly heavy going. Elasticity of demand is difficult to comprehend at the best of times, but some of the detailed calculations may be justified in order to inform the reader that, for example, the demand for animal-friendly pork is more sensitive to price variation than organic pork is. Perhaps not surprisingly consumers turn out to be somewhat fickle in their purchasing behaviour, and their preferences seem to be influenced by more factors than I have eaten hot meals. This book makes it clear that predicting what animal welfare products will sell at what price is not for the faint-hearted. Product choices are — at least ideally — based on information, and information comes from many different sources, and relates to aspects other than animal welfare.

It is always difficult in multi-author books to avoid overlap between chapters, and the editors have done a fine job. Indeed, it can be very informative to hear the same story told from different perspectives. In many of the examples used in the different chapters, I could not help but compare my own choices with those of the sampled consumers, eg how many pence extra would I be willing to pay for a product for a given improvement in animal welfare?

One chapter looks at the animal welfare added-value concept from the perspective of the producers. It is interesting to compare the economics at farm level with those considered at the supermarket check-out. An improvement in animal health will likely provide both increased productivity as well as improved animal welfare and focusing on disease management is a good place to start. There are also sections in the book discussing the cost-benefit of compliance with animal welfare standards.

Breeding for animal welfare is a fascinating subject, and the many issues to consider are clearly presented in a chapter using poultry as an example. I found the illustrative graphs very helpful in understanding how, over time, we can tackle negative correlations between traits, such as those which exist between live weight and leg strength in broilers.

The final chapter tackles the future for farm animal welfare. It covers subjects ranging from big data, precision livestock farming (PLF), and systems modelling. Behavioural economics is the new black, where the behaviour is human, and economics are not merely a synonym for money. Keeping that in mind, I found the first sentence of this final chapter thought-provoking: "Science can help us understand what animals want and economics can provide the understanding of human motivation needed to deliver such wants."

Overall, this is — and will be for years to come — the go-to source for all things related to animal welfare economics. The index at the back is most helpful when trying to find details of specific subjects, and the value of having all the relevant information handy in one place makes this book an easier, more manageable mine of information than any online search.

Birte L Nielsen, UFAW, Wheathampstead, UK

## Farm Animal Behaviour: Characteristics for Assessment of Health and Welfare, Second Edition

I Ekesbo and S Gunnarson (2018). Published by CABI, Nosworthy Way, Wallingford, Oxon OX10 8DE, UK. 352 pages Paperback (ISBN: 978-1-78639-139-1). Price £40.50, \$US67.50, €54.00.

Farm Animal Behaviour: Characteristics for Assessment of Health and Welfare considers the behaviour of the commonly farmed domestic mammals (pigs, cattle, sheep, goats, rabbits and horses), and birds (chickens, turkeys, geese and ducks), as well as shorter sections on non-domesticated species (deer and ratites: ostrich, rhea and emu). This is the second edition of this book, with updates from 2010 onwards to the first edition. The book addresses each species under broadly similar topic headings, covering the domestication and management of each species, different aspects of behaviour, common mutilations applied in management and transport. For some species, there is also information about the human-animal relationship or the importance of the caretaker. The same approach and headings used for each species is useful as it allows a quick comparison between species and ensures that similar information is provided in all chapters. However, the mixing in of physiological parameters for clinical examination between behavioural measures is somewhat strange and might have most usefully been given as a separate heading

