

## Book reviews

*The Nutrition of the Rabbit*. C. de Blas and J. Wiseman (editors). Oxford: CABI Publishing. 1998. Hardback, pp. 352 £55 (US\$100) ISBN 085199279 X

*The Nutrition of the Rabbit* is a multi-authored book, with most of the authors from research institutes in the major rabbit-producing countries of France, Italy and Spain. Only two authors, Maertens of Belgium and Lowe of the UK, were from other countries. The book begins with a chapter on the rabbit digestive system, followed by chapters dealing with digestion of starch and sugars, protein, fat and fibre. Chapters on nutrient requirements deal with energy metabolism, protein requirements, and minerals and vitamins. Other chapters deal with feed processing and manufacturing procedures, diet formulation, and feeding systems for intensive production. The influence of diet on meat quality, the relationship of nutrition to disease, and climatic effects on nutrition are other chapter topics. The final chapters are on the feeding and nutrition of angora rabbits and pet rabbits.

It is perhaps a bit remarkable that there is not a single example in this book of the composition of an adequate diet for rabbit production. It certainly would have been desirable to have listed a few examples of formulas of satisfactory diets for intensive rabbit production.

This book will be primarily of interest to the rather small audience of rabbit-research scientists. The treatment of topics is probably too in-depth to be relevant to feed compounders and manufacturers, or to rabbit producers. As a reference book for scientists specializing in rabbit nutrition, it will be useful. However, most chapters fall short of being at the cutting edge of new knowledge.

Although English is not the first language of most of the authors, the chapters are well-written in good English composition. The book is well illustrated with figures, tables and graphs. There is not a lot of overlap or redundancy among the chapters.

A chapter on Feed Evaluation provides a good review of a collaborative European program to standardize techniques such as the determination of digestibility, by the European Group on Rabbit Nutrition. This chapter contains a comprehensive table on the chemical composition and nutritive value of forty-seven feedstuffs commonly used in rabbit nutrition. A summary table of nutrient requirements for intensively reared rabbits was presented in the chapter on Feed Formulation.

In summary, this will be a useful book for specialists in rabbit nutrition, and some other rabbit scientists.

After reading the book, I had a bit of a feeling of being let down. The treatment of topics seemed a bit dull and pedantic. The book didn't really seem to capture some of the exciting and unique aspects of rabbit nutrition and present them in a thought-provoking manner. I had the feeling that this was an opportunity missed. The authors are a marquee-list of prominent European rabbit scientists.

Somehow they escaped putting their knowledge together in a way that truly reflects the essence of rabbit nutrition.

Peter R. Cheeke

*Response in the Yield of Milk Constituents to the Intake of Nutrients by Dairy Cows*. AFRC Technical Committee on Responses to Nutrients, Report No. 11. G. Alderman, editor. Wallingford, Oxon: CAB INTERNATIONAL. 1998. pp. 112. £19.95 ISBN 0 85199 284 6

This short book is a reprint of the 11th report of the AFRC TCORN Working Party, which reviewed nutrient use for milk synthesis, and developed recommendations for a new model to predict the responses to nutrients of milk production by the dairy cow. The original report was published in *Nutrition Abstracts and Reviews - Series B* (volume 68, no. 11).

Following a brief but clear and comprehensive history and review of ruminant feeding systems in the UK and other countries, which is marred only slightly by a profusion of abbreviations, this book proposes a model for the supply and utilization of nutrients for milk production by the dairy cow. Three chapters briefly consider our current understanding of nutrient supply, nutrient use, and cow characterization. The first of these focuses on digestion and the relationship between diet and nutrient supply. The lack of a good definition of this latter point is highlighted as a major limitation in the development of ration formulation for dairy cows. The report does not, however, consider intake at all, since this was the subject of a separate TCORN report. Nutrient use by the dairy cow is considered in relation to milk synthesis and the competing processes of 'maintenance' and growth of the body and the fetus. Finally, the importance of an adequate description of the cow is discussed. The definition of the cow's current state (i.e. body composition), potential to produce milk (genetics), and what its priorities are with regards to nutrient use, are obviously central to any prediction of milk production. They are also difficult to provide at this time.

The report concludes with recommendations for future research that would extend our knowledge of these processes. It sets out a framework for a new approach to the modelling and prediction of milk production in response to nutrient supply, suggesting that the way in which we currently characterize feeds needs to be re-evaluated. Similarly, the report suggests new methods for characterizing the cow, and the way in which nutrients are used.

However, this book is ultimately rather disappointing in that it does not live up to its title. Unlike the TCORN Report No. 9, published in 1992, and the advisory manual which followed in 1993, there are no practical guidelines. This book does not provide details of how to predict accurately

the yields of milk constituents given a specific diet and a well characterized cow, for the reasons discussed in its early chapters. Instead, this report sets out a possible agenda for research that may eventually allow this to happen. Perhaps one of the biggest problems with this report is that feed intake is not considered at all. This is absolutely key to what is proposed, although the prediction of intake may well be one of the biggest obstacles to predicting lactational

responses to nutrition. However, should the reader feel inspired to have a go, an appendix to the book provides details of how to construct a mechanistic model to do this.

In conclusion, this report is worth reading, but it's worth remembering that it may already be in your library in *Nutrition Abstracts and Reviews*.

Jon Moorby

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