

Book review

Nutrition and Feeding of Poultry. M. Larbier and B. Leclerc

Translated and edited by Julian Wiseman, Original French language edition: Institut National de la Recherche Agronomique 1992. English translation: Nottingham University Press 1994. (pp. 305) ISBN 1-897676-52-2. £50.00.

Poultry production is a very important industry in France but, as the authors point out, there has been a dearth of up-to-date texts on the nutrition and feeding of poultry, particularly in the French language. Two senior poultry nutritionists have collaborated to make up the deficiency with data and recommendations from their own considerable experience. They have endeavoured to relate the scientific bases of nutrition to the practical business of feeding all classes of poultry, including ducks, geese, guinea fowl and game birds. As such extensive coverage is rare in any language, scientists at the University of Nottingham considered that it merited a wider readership, hence this very readable translation by Dr Julian Wiseman.

The first half of the book deals with the fundamental principles of avian physiology and metabolism, highlighting any differences from mammalian processes. The mechanisms underlying the basic nutritional functions are described in detail, in order to promote a better understanding of current feeding practices. An ambitious attempt to cover every topic thoroughly, from fundamental mechanisms to practical methods of measurement, has led to some oversimplification and even to occasional errors. But matters of particular importance in the feeding of poultry are dealt with at length and provide a logical basis for chapters on nutritional requirements of growing, laying and breeding birds.

There is an extensive survey of the raw materials used in poultry feeding. The general characteristics, advantages or limitations of very many cereals and industrial by-products are described, accompanied by a series of useful tables of their composition. Processing of raw materials or whole diets and the consequences to their nutritional value are also considered.

A final chapter briefly discusses biometrical approaches to requirements. The use of modelling to formulate the most economically optimal diets is illustrated and the principles of least cost formulation are discussed.

There are very many simple illustrations, including some clear line drawings of the avian gut, diagrams of metabolic reactions and graphs of parameters such as muscle weights, egg production and growth responses to different dietary ingredients. Tables of recommended requirements of individual nutrients for almost all classes of poultry are provided. References listed at the end of each chapter are sparse, and cite mainly text books and symposia volumes. Individual authors mentioned in the text are not included. The index could be extended with advantage.

Surprisingly in a book that claims to reflect current thought the *Système Internationale* and some other universal systems have not been adopted; calories are used for energy measurement, international units for vitamins A and D and vitamins of the B complex are referred to by numbers.

The book will find its greatest appeal among academics. Teachers and students alike will appreciate its topicality, and the prospects it opens up for further research. The more practical chapters will be of use to feed compounders and poultry husbandmen in deciding the most economic diet formulations and management practices.

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