Asian-Aust. J. Anim. Sci.
Vol. 22, No. 2 : 305 - 306
February 2009

www.ajas.info

Book Review

Nutrition and Feeding of Organic Poultry. Robert Blair, University of British Columbia, Canada September 2008, 256 pages, Hardback, ISBN 9781845934064 £70.00/US$140.00/€110.00 Published by CAB International

---

I hope this review will provide poultry farmers with valuable information about *Nutrition and Feeding of Organic Poultry* written by Dr. R. Blair, University of British Columbia, Canada. Easy to understand language and precise sentences found in this book makes it especially attractive. The topic of this book is particularly worthy since recent years there has been a rapid increase in organic animal production in many countries.

Organic means are a response to an increased consumers demand for food that is perceived to be fresh, wholesome and flavoursome, free of hormones, antibiotics and harmful chemicals, and produced in a way that is sustainable environmentally and without the use of gene-modified (GM) crops.

The author divided this book into 8 chapters: 1. Introduction and Background, 2. Aims and Principles of Organic Poultry Production, 3. Elements of Poultry Nutrition, 4. Approved Ingredients for Organic Diets, 5. Diets for Organic Poultry Production, 6. Choosing the Right Breed and Strain, 7. Integrating Feeding Programmers into Organic Production Systems, 8. Conclusions and Recommendations for the Future.

In the Introduction and Background (1) short sentences are used. Purchases of organic meat were superior to conventional meat in terms of quality, safety, labeling, production methods and value (O'Donovan and McCarthy, 2002). The author suggests that organic feed is generally more expensive than demanded feed, resulting in organically produced eggs and meat being twice as costly as the conventional products.

In the Aims and Principles of Organic Poultry Production (2) the author distinguished between Organic Standards and the International Standards used in 37 countries including the Republic of Korea.

In the Elements of Poultry Nutrition (3), sixteen tables were included in this chapter. Among these, Tables 3.7 and 3.8 are the most promising for their usage. Tables 3.11, 3.12, 3.13, 3.14, 3.15 and 3.16 include practical aims for feed companies.

As noted in other Korean poultry nutrition textbooks, poultry require five components in their diet as a source of nutrients: energy, protein, minerals, vitamins and water. A nutrient shortage or imbalance in relation to other nutrients will affect performance adversely.

Chapter 4 is related to Chapter 3. The author suggests that New Zealand (NZ) is one of the few countries to include a list of approved feed ingredients in the organic regulations. The author also suggests that the EU has a somewhat similar list. Most countries follow the EU system and do not publish an approved list, stating that all feedstuffs used must meet organic guidelines. Tables 4.3, 4.4, 4.5, 4.6, 4.7, and 4.11A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, 14A, 15A, 16A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 39A, 40A, 41A, 42A, 43A, 44A, and 45A are useful for feed company, especially for organic poultry production. Each feed has its nutrient contents and its use for organic poultry.

In the Diets for Organic Poultry Production (5), thirty-two tables were included in this chapter. These tables include

many examples of diets for pullets, layers, broilers, geese, ducks, turkey, game birds, ostrich, emus and rheas. The author describes "Farms Producing No. Feed Ingredients", "Farms with Grain Available for Use on Poultry Feeding", "Farms with Grain and Protein Feedstuffs Available for Farm Use", "Steps in Feed Manufacture on-Farm", and feed formulas for each type of poultry. He continues "Feed Formulation", "Mixing Complete Diets", "Selection of Ingredients", "Formation", "Preparation, weighing, batching and blending", "Mixing and further Processing", "Quality Control", and "Tests" for organic poultry. A key aim of organic farming is environmental sustainability. Consequently organic producers wish to provide most or all of their required inputs, including feed. However, this is not possible on small farms, and even larger farms which may produce some of the feedstuffs required may not have the necessary mixing equipment to allow adequate diets to be prepared on-site. Farms with a land base sufficient for the growing of a variety of crops may be able to mix diets on site or in a corporate mill.

The content found in the chapter Choosing the Right Breed and Strain (6) was similar to korean poultry production editions.

In Chapter 7, the author pointed out that one of the aims of organic production is to manage poultry in such a way as to mimic as closely as possible the natural state. The main differences between organic and conventional poultry production relate to housing systems, access to outdoor areas, genotype, range of feedstuffs available for dietary use and disease prevention measures. In housing systems, one consequence of allowing birds access to outdoors is that they can no longer be housed in temperature-controlled buildings and instead are subject to ambient temperatures. Energy requirements of outdoor poultry are generally higher because of increased exercise and exposure to outside temperatures. Producers need to be aware of these effects, possibly adjusting the level of metabolizabe energy (ME) and nutrients in the diet when feed intake is lower than expected, and ensuring an adequate supply of drinking water in close proximately to the birds during periods of high ambient temperature. In regards to genotypes, a great deal of research will have to be done to identify breeds and stains best suited for organic production. Many producers have to use modern hybrids, which may not be the most suitable for this purpose since they are likely to have been bred for different housing and management systems. A logical system for organic producers to adopt is choice-feeding, involving the use of whole grain which may be available on-farm. This system approaches the natural feeding system much more closely than other feeding systems and is therefore highly appropriate for organic production. Forage intake and its significance in relation to nutrient needs is of practical needs is of practical importance. Health matters are described in the following sections.

In the 8th chapter, the author suggests that the organic poultry industry is small at present but is likely to expend in the future due to a strong demand from consumers for organic foods. At present, poultry producers lack advisory aids to assist them in developing organic systems.

K.H. Nahm, Ph.D,
Professor,
Department of Animal Resources,
DaeGu University,
Kyeongsan-si, Gyeongsangbuk-do
Korea (S) 82-53-805-6721