

BOOK REVIEW

COHEN A.C.: INSECT DIETS: SCIENCE AND TECHNOLOGY. CRC Press, Boca Raton, London, New York, Washington, D.C., 2003, 344 pp. ISBN 0-8493-1577-8. Price GBP 87.00.

To prepare a suitable artificial diet for rearing insects, especially species never previously reared in a laboratory, is often difficult for entomologists. This book, written by an experienced specialist who is at present director of the "Insect Diet & Rearing Institute, LLC" in Tucson, Arizona, addresses this problem.

The text is divided to 15 chapters and appendixes.

The first 6 chapters are devoted to theoretical problems. Particular components of insect diets are discussed in detail, especially those that are necessary or unsuitable. The chemistry and physics of diets and changes caused by their preparation (e.g. cooking) are described in detail. The importance of particular components is demonstrated for several well-known diets. The history of the development of insect diets including those for economically important species never previously reared in a laboratory is also discussed. Some opinions, however, are frequently repeated which complicates the full picture. The author rarely cites the chemical formulas of the salts used, which introduces some ambiguity as only common English names are given.

For understanding the basic problems chapter 7 is very important: "Insect feeding biology and the logic of metabolic

systems". This chapter contains a detailed description of the alimentary tract, digestive enzymes and metabolism of digestion in insects. This is important for the successful development of an artificial diet.

The following chapters are devoted to the complexity and nutritional aspects of diets.

Two very important chapters are Chapter 10, "How to develop artificial diets", and 11, "Development of problem-solving strategies, quality assessment, and quality control standards". In principle they present instructions on how to utilise the knowledge acquired from the previous chapters for producing a suitable diet and controlling its quality.

The last 3 chapters deal with the equipment needed for the mass production of diets.

Short appendices are worth mentioning: I is a glossary, II gives a short historical review, III – discusses vitamin and mineral mixtures commonly used in insect diets. The last 4 appendices are devoted to the quality control of diets.

The book ends with 12 pages of References and an Index.

The author has included a lot of useful and important information on insect diets in this book. It is a pity the book does not contain more recipes of at least the most frequently used diets, which would increase the value of this handbook for the current user. Despite its failings this book undoubtedly is a very useful manual for laboratories working with insects.

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