



Book Reviews

Microbiology Applications in Food Biotechnology. Edited by B. H. Nga and Y. K. Lee. Elsevier Applied Science Publishers, London, 1990. 232 pp. ISBN 1-85166-530-7. Price: £31.00.

This book is based on Proceedings of the 2nd Congress of the Singapore Society for Microbiology which was held in Singapore, 31 October–3 November 1989. As with many conference proceedings the chapters vary in quality and scope with some being very specific whereas others are more general review-type contributions. This often leads to an uneven structure in a book and many readers may only find one or two chapters of interest. This is particularly apparent with this book since the title is somewhat at variance with the contents.

The 16 chapters cover molecular biology applications, traditional genetics, microalgal cultivation, enzymes, pigments, flavours, pharmaceuticals, health and safety, microbiological criteria and DNA probes in food microbiology. Unfortunately, several of the chapters in the book cannot be considered to be within the subject area of food biotechnology. For example, I found the chapter on 'Drugs from the Sea' to be interesting in its own right but I do not see the food connection since the chapter primarily focused on pharmaceuticals with no mention of food applications. The chapters on 'Microbiological Criteria in Regulatory Standards: Reason or Rhetoric' and '*Salmonella*, The Organisms, Its Occurrence and Prevention in Foods' would have been better placed in a book on food pathogens or food microbiology. Because of the title of the book these chapters may be overlooked by those interested in this area. There are also several other chapters which do not seem 'at home' with some of the other contributions.

Although the typescript is clean I was disappointed to see the large number of spelling errors which in some chapters detracts from the scientific content. Although many of the figures and tables are clear, some would have benefited from being a little larger. In the chapter on *Salmonella*, several figures and tables are poorly reproduced. A single page index to contributors is provided but an index relating to the contents would have been useful for readers. Like many conference

proceedings this book has a certain unevenness, both in its scope and its coverage and, although many readers will find something of interest, the overall impression is rather disappointing.

P. E. Cook

Free Radicals and Food Additives. Edited by Okezie I. Aruoma and Barry Halliwell. Taylor & Francis, London, 1991. xvii + 201 pp. ISBN 0-85066-766-6. Price: £35.00.

There have been several separate debates in the last few years concerned with the safety and effectiveness of antioxidants and other food additives, and the mechanism, aetiology and prevention of diseases of major importance in the developed world including coronary heart disease and cancer. This book aims to bring some of these related topics together by discussing food additives in relation to free radical biochemistry.

Chapter 1 discusses 'consumers' perception of food safety' which is an area of general interest, but it is rather surprising that the editors included this chapter since the rest of the book is concerned with chemical and biochemical topics. Chapter 2 covers the basic principles of autoxidation, antioxidants and other free-radical processes, and chapter 3 describes the biological toxicity of free radicals and other reactive oxygen species. Lipid preoxidation and the significance of this reaction in foods for health are discussed in chapter 4 and 5. Chapter 6 covers the use of antioxidants in food, and chapter 7 considers the toxicological implications of migration of antioxidants from packaging into foods. Chapter 8 considers the changes in antioxidant properties in the presence of a wide range of other natural components present in foods or in living tissues.

This book serves a useful function in bringing together information about autoxidation of lipids and antioxidants in foods with information concerned with the biochemical and physiological processes involved in the aetiology of various diseases including coronary heart disease. Purchase is recommended for food scientists and scientists interested in nutrition and medical aspects of health.

M. H. Gordon