Food Chemistry 37 (1990) 155–158

Book Reviews

Fermentation Process Development of Industrial Organisms. Edited by Justin O. Neway. Marcel Dekker, New York, 1989. 344 pp. ISBN 0-8247-7917-7. Price US$119·50.

This is the fourth volume in the series on bioprocess technology that Marcel Dekker started publishing in 1986. The book is well organised in six chapters that cover both the latest developments in fermentation processes using recombinant DNA technology and also the more conventional fermentation process development of industrial microorganisms.

The book presents material useful to those interested in manipulating the biology of organisms to produce economic levels of industrial products, covering the important ground between the geneticists and expression laboratories on the one hand and the production facilities on the other.

The six chapters have been arranged by type of organism, including mammalian cell culture: Chapter 1 on Actinomycetes, Chapter 2 on Baccili, Chapter 3 on Coryneform Bacteria, Chapter 4 on Industrial Fungi, Chapter 5 on Mammalian Cells and Chapter 6 on Yeast. They all illustrate both the diversity and similarity of industrial processes based on a particular organism. The book includes aspects of genetics, medium development, control of growth and expression, control of product quality and harvestability, and definition of biological parameters for scale up.

In summary, Dr J. O. Neway has done an excellent job in putting together a group of very knowledgeable authors and has hence produced a fine volume that covers the 'state of the art' of fermentation process development

of industrially important organisms. The book is certainly to be recommended to everybody involved in research and process development in the field.

Juan A. Asenjo

Food Uses of Whole Oil and Protein Seeds. Edited by Edmund W. Lusas, David R. Erickson & Wai-Kit Nip. American Oil Chemists Society, Champaign, IL, 1989. v + 401 pp. ISBN 0-935315-23-3. Price: US$80·00 ($60·00 for AOCS members).

This monograph presents reviews of the production of a wide range of food products from legumes, oilseeds, pulses and related food crops. The importance of soybeans in a variety of food products, including soymilk, tempeh, soybean sauces and miso, is reflected in the ten chapters devoted to this legume and its products. The other fourteen chapters deal with peanut, cottonseed, sunflowerseed, sesame seed, dry beans, coconuts, tropical nuts and palm fruits, as well as other pulses, legumes and oilseeds in relation to their application in Africa and Asia.

This text is very much a practical manual, with detailed information about the preparation of a wide range of products in different parts of the world. It is interesting to note, for instance, that the production of palm oil in Africa requires '3–5 people with clean legs to mash the seeds'! The preparation of a wide range of foods, including foods common in various parts of the world, is described in detail and this is particularly valuable in the context of the growing interest in Western countries in increasing the content of legumes and pulses in the diet. The scientific background to the food commodities and products is also discussed when appropriate. Nutritional, toxicological and other relevant information is included.

The text is by no means comprehensive, for instance the winged bean is not included. Also there is a certain degree of overlap between the chapters; for instance, a table summarising the production of soybeans in the major producing countries is included in Chapters 1 and 3, but the editors have managed to keep this to a minimum. The book lacks a detailed index and this is particularly regrettable. However, the book is still a very valuable source of information about a subject for which literature is rather scattered, and I strongly recommend it to all scientists and technologists interested in this area.

M. H. Gordon