

This book has two rather annoying features. One is that there are very few cross-references to relevant information in other chapters. For example, the reaction of sulphite with thiamin is covered in the chapter on vitamins, but this is not mentioned in the section on sulphite in the food additives chapter. Flavour potentiators are covered in the chapter on sweeteners, but this is not mentioned in the chapter on flavour components. The second annoying feature is that many 'figures' are treated as 'equations' and therefore have no title. In addition, they are frequently located some distance from the text which refers to them.

In summary, this is a useful text for the advanced undergraduate student who already possesses a grasp of the basics of food chemistry. Certain concepts are assumed, for example the theory of enzyme action. In addition, the chemistry of fatty acids, monosaccharides and amino acids is not covered. The book possesses some errors, but these are mainly typographical. It is good value for money.

Jenny Ames

Preservatives in the Food, Pharmaceutical and Environmental Industries. Society for Applied Bacteriology, Technical Series No. 22. Edited by R. G. Board, M. C. Allwood & J. G. Banks. Blackwell, Oxford, 1987. xi + 305 pp. ISBN 0632-01727-9. Price: £40.00.

This book is based on a demonstration meeting of the Society for Applied Bacteriology and includes eighteen chapters dealing with many aspects of the attempts to preserve materials from the deprecations of micro-organisms.

Much of the book is taken up with detailed surveys of available biocides and descriptions of the methods available for evaluating their effectiveness, in particular commodities. Thus, there are chapters dealing with biocides for wool, wood preservation, building materials, marine antifouling paints, inhibition of sulphate-reducing bacteria, and pharmaceutical products, with separate chapters on sterile products and cosmetics and toiletries. In general, these chapters give exhaustive and useful surveys of the compounds and methodologies used.

Four chapters deal with investigations into particular applications, namely the use of carbon dioxide in milk, techniques for the preservation during transportation of samples for microbiological analysis, the use of urea for the preservation of high moisture grains and approaches to farm packing of beetroot.

The remaining four chapters are concerned with the modes of action of biocides. One presents an overview of the roles of salt, nitrite and heat in the preservation of cured meats. Another presents an excellent, detailed

description of the role of sulphur dioxide in sausages and includes full descriptions of analytical methods for free and total sulphur dioxide.

Non-plasmidic resistance mechanisms are considered in the penultimate chapter. This is a good introduction to the subject and emphasises the fact that laboratory nutrient broth-grown cells are unlikely to replicate the conditions of cells found in natural habitats.

The final chapter draws attention to the effect of dilution on biocide activity and the problems this can cause in comparing biocides.

In all, this book presents an exhaustive survey of the uses of biocides and of testing procedures in the pharmaceutical and certain other industries. Food industry applications receive relatively little space but, nevertheless, the book is useful since the longer history of biocides use in other industries means that they can offer many lessons for food industry users, especially regarding the problems and pitfalls of biocide testing.

J. D. Owens

Common Property Resources: Ecology and Community-Based Sustainable Development. Edited by Fikret Berkes. Belhaven Press, London, 1989. x + 302 pp. ISBN 1-85293-080-2. Price: £32.50.

'Natural resources the world over are being degraded because of direct overuse such as excessive exploitation and because of indirect abuse through pollution, habitat destruction and so on. This has been apparent to informed observers for over a century. Degradation has become more intensive and widespread because of increasing more powerful techniques with massive impact on and deep penetration of ecosystem processes; concentration of the demand for resources and of power to deliver them in distant "technically advanced" centres; and saturation of use and abuse of ecosystems to the extent that vast ecosystem slums result. A large proportion of the world's population suffers the consequences of such degradation. Some partial or local corrective measures have been undertaken successfully but at the levels of regions, continents and the globe, degradation has been intensifying on average and in total'. This quotation from Chapter 7 (Reforming the Use of Natural Resources) summarises the environmental problems the world faces with respect to its renewable resources, forests, pasture lands, wildlife, fisheries and water.

The theme of the book, which runs to sixteen chapters written by twenty-one authors, is not only that development must be sustainable but that that goal can be achieved through communal ownership. Evidence to support this claim is partly historical (see in particular pages 50 and 51), it being argued that joint tenure was both 'natural' as well as the one best fitted to produce sustainable rates of resource exploitation. However (page 151), the