knowledge and be a valuable source of methodology for those working in the area for a good time to come. The individual authors are to be commended for a job well done while the editors are to be congratulated warmly for putting together a really excellent book which I have no hesitation in recommending very strongly to students, research workers and all those interested in the separation of proteins and enzymes.

**A. T. Andrews**

**Principles of Food Sanitation.** By Norman G. Marriott. Second Edition. Chapman and Hall, London, 1990. ISBN 0-442-31807-3. xi + 387 pp. Price: £35.00.

This second edition of *Principles of Food Sanitation* is rather disappointing in that it has not convincingly developed or expanded the subject much beyond that achieved in the first adition. This book is, in fact, very similar to its predecessor differing largely through the addition of a limited amount of new material and use of new or modified headings.

There are 17 chapters in the book which range widely over the subject area from basic microbiology, personal hygiene, detergents and sanitizers; through sanitation equipment and systems, waste-product handling and pest control; to plant sanitation in various industries and quality assurance and sanitation programme development.

A new short chapter on 'Beverage Plant Sanitation' occurs in this edition, but its title is misleading since it covers only beer and wine industry sanitation without reference to the soft drinks and fruit juice industries.

There is both new and updated information in some important areas, including descriptions of pathogenic bacteria of more recent interest such as *Listeria monocytogenes* and *Yersinia enterocolitica*, and presentation of the HACCP system of microbiological control.

The early chapters are a source of some useful information on the principles or core material, and provide a framework on which a student reader might build. The later chapters on plant sanitation practices in various industries however, do not always measure up to this expectation. By their very nature these chapters tend to be descriptive and repetitive, but while repetition is to some extent acceptable there are instances in these chapters where it is quite unnecessary. For example, in the case of cleaning systems, and sanitizing agents, the information which is well-presented in the relevant earlier chapters is restated. Conversely, it is only in Chapter 13 (Fruit and Vegetable Processing and Product Sanitation) that reference is made to the principles of hygienic design of processing equipment and

design of buildings. This, of course, applies equally to all food processing equipment and buildings and would have been more appropriately discussed with other principles in an earlier chapter.

As a student textbook *Principles of Food Sanitation* succeeds in the breadth of coverage achieved and the virtual absence of typographical errors, although one typographical error worth mentioning is that which resulted in an insecticide being described as a 'neutron disruptor'! Regrettably this success is moderated by the number of erroneous, imprecise and sometimes confusing statements which were found throughout the text. Inconsistency of illustration is found in Chapters 7 (Sanitation Equipment and Systems) and 8 (Waste Product Handling). The former is liberally illustrated with photographs (13) of sanitation equipment which are of limited educational value; this contrasts sharply with the latter chapter which is totally devoid of illustrations and would have undoubtedly benefitted from diagrams of plant and flow-diagrams of processes. Tables and diagrams are otherwise well-presented, although the information contained in Table 11·2 is very confusing and the data refers to a range of temperatures different from that mentioned in the text!

These faults considered as a whole must undermine the value of *Principles of Food Sanitation* as a student textbook, although there are many parts of the book which could be recommended for reading. It is also a great pity that the interest generated in the early part of the book is not maintained throughout.

**A. J. Reynolds**

**Yeast Strain Selection.** Edited by Chandra J. Panchal. Marcel Dekker, New York, 1990. ISBN 0-8247-8276-3. x + 368 pp. Price: US$150.00.

The fact that yeasts have been employed for centuries for breadmaking or wine and beer production has meant that Man has already, albeit inadvertently, done much to select the best yeasts for particular purposes. The collection and re-use of beer yeasts is a classic example of this crude selection process, and the ready availability of wine yeasts among the vineyards of France provides further evidence of this natural trend.

The importance of this natural selection of yeasts for certain traditional roles is fully acknowledged in this book, and there are excellent chapters on 'Yeast Selection in Brewing', 'Yeast Selection in Baking' and 'Wine Yeast: Selection and Modification'. Nevertheless, while these on-going, commercial endeavours are given due credit, the impact of genetic manipulation and other modern scientific tools is assessed in depth. Thus, the contribution on