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Book Reviews

Nutritional and Toxicological Aspects of Food Processing. Edited by R. Walker and E. Quattrucci. Taylor and Francis, London, 1988. x + 375 pp. ISBN 0-85066-417-9.

In this book are published the proceedings of an international symposium held in Rome at the Istituto Superiore di Sanità in April 1987. They consist of 34 separate contributions, 21 from Italy, eight from the United Kingdom and five from three other countries, covering six major topics: chemical preservation, physical treatment, biotechnology, nutritional aspects, contaminants and food allergy/intolerance.

Of the 34 papers almost half are set-piece research papers, some very short, some very specific. They are found in all sections of the book except the last but are concentrated in Section 5, Contaminants, where all five papers are from Italian laboratories. Four out of the five are research papers and tend to reflect local concerns. Thus, the mercury results for canned tuna apply to the Italian market and are much higher than those, for example, for Australian canned tuna which meet a legal limit of 0·5 mg of mercury per kg. Some research papers are concerned with methodology and will have limited appeal, but there is sufficient variety, say, from the 'Antinutritional effects of sulphites in foods' through the 'Comparative mutagenic activity in commercial foods containing beef extract' to the determination of nitrogen in excreta and feeding mixtures, mercury in fish and aluminium in packaged foods to offer most food chemists something of particular relevance.

The reviews also will vary in appeal according to the special interests of each reader. All, by the very nature of the circumstances, may be described as

summaries. Some are mini-reviews but are none the worse for that, two of personal interest being on cassava and on formaldehyde as a bacteriostat in the manufacture of some Italian cheeses, a dubious practice which the authors would like to see prohibited. In some countries it is.

The longer reviews include Walker's lucid examination of the toxicological aspects of food preservatives, especially sulphites, nitrates, nitrites and nitrosamines, a subject about which some of us have been uneasy for some time, Elias' reassuring appreciation of the wholesomeness of irradiated foods and Anderson's concise and authoritative treatment of exudates and other gums as forms of soluble dietary fibre, in the course of which he makes singularly apposite comments on regulatory matters. In a most interesting discussion of the safety aspects of genetically engineered food products, Vettorazzi likens these products to those of the manufacturing industry and isolates the major research challenge as the measurement of genetic stability, while Miller and Nicklin use their brief overview of the mechanisms of food intolerance to point the way to a more unified experimental approach which, if successful, will at length provide specific answers to specific questions about food additives.

Because this book covers a wide range of topics a different reviewer would select different examples for comment. One can only envy those who attended the symposium and heard the discussions which each paper must have initiated. For the rest of us this book is full of interest and stimulates much thought. It is a necessary addition to all libraries concerned with food science and technology, especially those in and serving the food industry, but many individuals also will want to have it on their shelves.

The book is carefully produced. Tables, figures, diagrams and formulae are all clear and easy to follow. Errors are minimal and the eleven-page index is adequate.

K. T. H. Farrer

Developments in Food Proteins. 6. Edited by B. J. F. Hudson. Elsevier Applied Science, London, 1988. x + 335 pp. ISBN 1-85166-199-9. £56·00.

These volumes are now well established texts serving universities, institutes and larger companies where active research into food proteins occurs. Each volume aims to review recent developments in seven to eight subjects, the chapters being written by eminent scientists from around the world. Volume 6 presents: Nutritional and Functional Properties of Egg Proteins; Poultry—The Versatile Food; Vegetable Protein Products from Seeds; The Seed Globulins; The Plastein Reaction and its Applications; Protein Analysis by Electrophoresis; Metal–Protein Interactions and Dietary Protein Requirements.