

one paper discusses the role of plant cell tissue culture for the production of fragrance and flavour materials. Also, only one paper is devoted to the relationship between the molecular structure of compounds and their odour properties.

Most of the papers are of high scientific quality and provide a useful contribution to the literature. The material is very well presented, and it makes a pleasant change to see a uniform typeface used throughout an entire volume of a symposium proceedings. With a few exceptions, the diagrams are clear and well reproduced. The editors are to be congratulated on producing a book with very few errors. Three indices are included, author, subject, and, essential for a compilation of this type, a species systematic index. The book is essential reading for all those concerned with the chemistry of fragrances and flavours, in particular those concerned with terpene chemistry.

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Review of Low-Calorie Products. Edited by G. G. Birch & M. G. Lindley. Elsevier Applied Science, London. 1988. ISBN 1-85166-161-1. xi + 287 pp. Price: £40.

Low-Calorie Products is the outcome of an industry–university co-operation symposium held at Reading University in March 1987 under the auspices of the Department of Food Science and Technology. The symposium is another in the series initiated by the National College of Food Technology nearly two decades ago. It continues the series' reputation, making another valuable and timely contribution to the literature of food science. There are eighteen chapters in the book, about a third of which are by authors with commercial affiliations. The book deals with two very different groups of food materials: the intense sweeteners which are used in minute quantities and the new bulk materials which have been developed to replace some of the starches, sugars and fats that we eat.

The recent changes in the market for low-calorie products are emphasised in a number of papers. Their position has developed rapidly from one of relative obscurity in the health food market (not forgetting their use in meeting the special needs associated with some diseases), to one of increasing importance for the population at large as people have become concerned with the energy value of their foods and conscious of the consequences of poor diet and of being overweight.

The opening chapter describes the current market for low-calorie products and gives details of the monetary value of the various parts of the diet food sector. The paper points out, as do later ones, the very large

number of people who are dieting these days, or have been doing so, hence the current buoyancy of this market sector. On a cautionary note, however, it is pointed out that continued success will depend on the development of products which equal or surpass conventional foods and drinks. The special case of the diabetic is also given attention.

A chapter on low-calorie soft drinks and three on low-calorie foods follow. The latter encompass the use of hydrocolloids, the development of low-calorie dairy products and the use of CALO materials, CALO being the American term for low-calorie. The use and special properties of Palatinit[®] (Isomalt), Polydextrose[®], Acesulfame K and NutraSweet[®] (aspartame) are described in the next four chapters.

Most of the chapters already referred to have a flavour of commercial presentation. The following eight are devoted mainly to scientific considerations while the final paper is on legislative aspects.

Low-calorie products are promoted in part for their potential value in dietary strategies aimed at controlling or reducing body weight. It is therefore of paramount importance to know what is the effect of consuming palatable, low-energy foods and drinks on food and energy intake and on weight control. This is dealt with particularly in a paper on saccharin and food intake but it is a theme which crops up in other papers, too. Appetite is obviously important in body weight control and work on the use of intense sweeteners to study appetite is described in detail.

Metabolic aspects are described in papers on nutrient ingestion and body weight, the genetics of metabolic rate and the consequences of obesity. There is also a paper on the role of diet in diabetes.

Good methods for determining the energy values of food ingredients are required for various purposes such as the development of new products, legislative aspects, food labelling, etc., and this matter is dealt with in two papers, one dealing with dietary fibre and guar gum, the other dealing more generally with methodology but giving particular attention to Polydextrose[®].

The book is generally well produced and is reasonable value at £40. There are some errors—for example, the ordinate scale in Fig. 4 on p. 254—but they are relatively few. There is an index, which is helpful, though not as comprehensive as it could be. These are quibbles, however; on the whole this volume should prove useful to food technologists and scientists for the wide coverage given to the subject.

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