

buildings, including the use of aerosols and mists. E. J. Bond similarly describes the fumigation of commodities and J. C. Dawson considers the advantages and disadvantages of spot fumigation. He mentioned that, since 1984, ethylene dibromide can no longer be used for fumigation purposes in the USA (a decision which the reviewer predicts will leave a damaging hole in the fumigation armoury).

R. T. Arbogast describes the present state of biological control work and concludes that, while this is likely to be of major importance in the future, the subject is currently still rudimentary at the technological level. E. Jay concludes that the use of nitrogen and carbon dioxide as 'modified atmospheres' for in-transit control of pests of grain is cost-effective compared to the alternative method of fumigation. A chapter by G. W. Olmstead outlines the risk to the health of workers in the food industry arising from their use of pesticides at work, while J. K. Phillips and W. E. Burkholder describe some of the irritations and allergies that such workers have developed as a result of contact with insect filth in food—debris from dermestid beetles is particularly unpleasant from this point of view.

In conclusion, the book is intensively practical in its approach, too wide-ranging to be rich in science, and, apart from phenomes, there may not be a chemical formula on the 384 pages. But it achieves its objective of providing an overview of the means of achieving insect control in the food industry. It is recommended to all interested in that subject.

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Glucose Syrups: Science and Technology. Edited by S. Z. Dziedzic and M. W. Kearsley. Elsevier Applied Science Publishers, London, 1984. 276 pp. Price: £35.00.

In that I occasionally receive queries on various aspects of the glucose syrups, and the subject is not particularly my *forté*, I found this reference text to be highly useful. The Introduction ('Glucose Syrups—Past, Present and Future') by D. Howling gives a brief historical resumé of the subject and points out how technological developments and the development of appropriate and convenient analytical techniques go hand in hand.

The first chapter, entitled 'Glucose Syrups—the Raw Material' and

written by G. Tegge, is a thorough and accurate discussion of starch, its occurrence, composition, structure, biosynthesis, properties, and production. The second chapter, entitled 'The Enzymic Production of Glucose Syrups' is by P. D. Fullbrook, and includes various enzymic techniques to be employed, even the isomerization of glucose to fructose. Chapter 3, by F. Verwaerde and P. J. Sicard discusses the 'Production of Hydrogenated Glucose Syrups' and some aspects of their use. Chapter 4, written by the editors, discusses the 'Physico-chemical Properties of Glucose Syrups' that govern their actual use. In Chapter 5, R. H. P. Lian-Loh discusses the 'Physiological Aspects of Glucose Syrups and Related Carbohydrates'. Chapter 6 by D. J. Folkes and A. Brooke covers 'Analysis and Characterization', including high pressure (performance) liquid chromatography (HPLC). Someone (some people?), somewhere, some day, is going to win a well-deserved prize for that technique.

The text logically concludes with a chapter by M. McDonald on the 'Multiple Use(s) of Glucose Syrups in the Food Industry', and with an index. I am certain that others will find it as useful as I do. It is carefully edited, as might be expected of Dziejczak and Kearsley, and is quite free of errors. In a trivial sense, wrinkled pea (*Pisum sativa*) starch is known to be predominantly amylose (p. 58), and I prefer to depict the major structural unit that repeats in starch as the α -D-1,4-maltosyl group rather than the glucosyl unit (p. 75), and confess that I do not know what isoglucose is (p. 117).

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