empirically and by trial and error, not by an understanding of the underlying science, developed almost all confectionery products. An exception to this is the development of products resembling sugar confectionery but free of sugar, where more scientific efforts have been required. Sugar confectionery also has a link with the pharmaceutical industry; in the making of sugar tablets and applying panned sugar coatings.

The Science of Sugar Confectionery deals with the background science of sugar confectionery. Remarkably the front cover depicts sweets products which come from just one particular manufacturer. The book contains 17 chapters, starting with an introduction covering some basic definitions and commonly used ingredients, followed by several chapters on emulsifiers, colours and flavours. Subsequent chapters give detailed information on various types of sugar confectionery, which include boiled sweets, grained sugar products, pan coating, toffees and caramels, gums, gelled products, liquorice, chewing gums, aerated products and lozenges. The book concludes with chapters covering tabletting and experiments to make various types of sugar confectionery, and information on sugar-free confectionery.

The Science of Sugar Confectionery is an interesting and clearly written book, aimed for everyone attracted to the science behind sugar confectionery. Simple recipes are included in the text, enabling the readers to make some of their own sugar confectionery. The book also provides numerous illustrations and examples of manufacturing methods, however, it is not intended as a manual of methods.

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Trends in Food Product Engineering

J.E. Lozano, C. Añón, E. Parada-Arias & G. V. Barbosa-Cánavas (Eds.), Technomic Publishing Co. Inc., Lancaster (PA), 2000, 372pp £96.00, ISBN 1-56676-991-4

Food processing is becoming more and more sophisticated and diverse with the ever-increasing demand for quality foods. Today's customer expects convenience, variety, adequate shelf life and reasonable cost among a host of requirements. To meet these demands strategies are continuously being developed: these include modifications to existing food processing techniques and the implementation of novel processing technologies. Food engineering is rapidly gaining worldwide recognition as an important facet of food and engineering-related programmes both in academia and in the food industry.

Trends in Food Engineering presents an assembly of edited technical papers based on invited and volunteered contributions from the 2nd Ibero–American Congress on Food Engineering held at the Universidad Nacional del Sur, Bahia Blanca, Argentina from 24–27 March 1998. The book is divided into three sections. The first deals with physical and sensory properties of food and covers structure-property relationships, rheology and correlations between physicochemical and sensory data. The second part concentrates on advances in food processing, including the latest developments in minimal preservation and non-thermal processing. The final part examines state-of-the-art topics such as applied biotechnology, food additives and properties of proteins.

This book is well structured and presented, with comprehensive sets of references at the end of each contribution. It is highly recommended as an invaluable, broad vision of state-of-the-art food engineering for food engineers, technologists and scientists wishing to consolidate and update their knowledge in areas vital to the food industry today.

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High-fiber ingredients

Amy L. Nelson, Eagan Press, St Paul, Minnesota, 2000, vi + 97 pp., $69.00, ISBN 0-891127-23-3

Fibre is an important part of diet and nutrition, however,

its use as a dietary constituent has only recently been considered as important. It plays an important role in many physiological digestive functions, such as providing bulk for waste elimination and regulating glucose and lipid levels. As a result of its nutritional value, fibre is a key component of modern food products, especially as the food industry is catering to an increasingly health conscious population. High-fibre ingredients can range from wholemeal flours to the exterior portion of shellfish, and synthetic ingredients such as polydextrose are also a source of high-fibre ingredients. Therefore, specific information on the use of many carbohydrate polymers (e.g. alginate, arabinogalactans, chitin, chitosan, CMC, curdlan, inulin, pectin, polysaccharide gums, resistant starch and xanthan) is contained within this volume.

High-Fiber Ingredients is part of the Eagan Press Handbook Series, which aims to bring together essential information that is not available from a single source. This particular volume is designed to assist in understanding the properties, functions and applications of high-fibre foods, by providing general information and practical advice on the uses of fibres in foods, from dairy applications to baked products. The book is composed of six chapters, with the introductory chapter defining high fibre ingredient terminologies, specifically covering the history of dietary fibre, its composition, and the production and processing of high-fibre ingredients. The second chapter focuses upon high-fibre properties and analyses, detailing the factors influencing properties such as solubility, viscosity, gelation, and the binding capacity of water, oil, minerals and organic molecules. The next three chapters cover specific applications, namely baked goods and extruded applications (such as breads, cookies, cakes, muffins, batters, etc.), beverage and dairy applications, and other applications (such as jams, jellies, icings, confectionery, meat, soups, sauces, etc). The final chapter discusses special topics, which include health and nutrition aspects, and labelling, nutrient content, and health claims.

The book is presented in a user-friendly format and contains definitions of terms (in the margins for quick reference and in an extensive glossary), examples, illustrations and trouble shooting tips, and is a good reference tool for food industry professionals and any individuals with interests in the applications of high-fibre ingredients. It is a welcome addition to the *Eagan Press Handbook Series*, which was developed by the Eagan Press (the food science publishing imprint of the American Association of Cereal Chemists, AACC) as a series of practical guides aiming to offer a practical approach to understanding the basics of food ingredients, applications, and processes.

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