

Bakery Products Science And Technology

While thousands of books on baking are in print aimed at food service operators, culinary art instruction, and consumers, relatively few professional publications exist that cover the science and technology of baking. In *Bakery Products: Science and Technology*, nearly 50 professionals from industry, government, and academia contribute their perspectives on the state of baking today. The latest scientific developments, technological processes, and engineering principles are described as they relate to the essentials of baking. Coverage is extensive and includes: raw materials and ingredients, from wheat flours to sweeteners, yeast, and functional additives; the principles of baking, such as mixing processes, doughmaking, fermentation, and sensory evaluation; manufacturing considerations for bread and other bakery products, including quality control and enzymes; special bakery products, ranging from manufacture of cakes, cookies, muffins, bagels, and pretzels to dietetic bakery products, gluten-free cereal-based products; and specialty bakery items from around the world, including Italian bakery foods. Blending the technical aspects of baking with the freshest scientific research, *Bakery Products: Science and Technology* has all the finest ingredients to serve the most demanding appetites of food science professionals, researchers, and students.

A new study of the challenges presented by manufacturing bakery products in a health-conscious world The impact of bakery products upon human nutrition is an increasingly pressing concern among consumers and manufacturers alike. With obesity and other diet-related conditions on the rise, the levels of salt, fat, and sugar found in many baked goods can no longer be overlooked. Those working in the baking industry are consequently turning more and more to science and technology to provide routes toward healthier alternatives to classic cake, bread, and pastry recipes. With *Baking Technology and Nutrition*, renowned food scientist Stanley P. Cauvain and co-author Rosie H. Clark present an innovative and much-needed study of the changes taking place in the world of baking. Their discussion focuses on the new avenues open to bakers looking to improve the nutritional value of their products and encompasses all related issues, from consumer preferences to the effects of nutritional enhancement upon shelf-life. Featuring an abundance of new research and insights into the possible future of modern baking, this unique text: Offers practical guidance on developing, delivering, and promoting high-nutrition bakery products Discusses reducing ingredients such as salt, fat, and sugar for improved nutrition while preserving quality and consumer acceptability Explores how wheat-based products can be ideal vehicles for improving the nutrition of major sectors of populations Suggests real-world solutions to problems rising from poorly defined quality guidelines and inadequate dialogue between bakers and nutritionists *Baking Technology and Nutrition* is an indispensable and timely resource for technologists, manufacturers, healthcare practitioners, or anyone else working in today's food and nutrition

industries.

A thoroughly revised edition that encompasses new material including sections dealing with extrusion cooking and the use of cereals for animal feed. The section on industrial uses for cereals has been expanded considerably.

This book provides a comprehensive source of information on freezing and frozen storage of food. Initial chapters describe the freezing process and provide a fundamental understanding of the thermal and physical processes that occur during freezing. Experts in each stage of the frozen cold chain provide, within dedicated chapters, guidelines and advice on how to freeze food and maintain its quality during storage, transport, retail display and in the home. Individual chapters deal with specific aspects of freezing relevant to the main food commodities: meat, fish, fruit and vegetables. Legislation and new freezing processes are also covered. Frozen Food Science and Technology offers in-depth knowledge of current and emerging refrigeration technologies along the entire frozen food chain, enabling readers to optimise the quality of frozen food products. It is aimed at food scientists, technologists and engineers within the frozen food industry; frozen food retailers; and researchers and students of food science and technology.

This thoroughly revised second edition addresses the full spectrum of cereal grain science, employing agronomic, chemical, and technological perspectives and providing new and expanded treatment of food enrichment techniques, nutritional standards, and product quality evaluation. Written by over 40 internationally respected authorities, the

An up-to-date, comprehensive guide to understanding and applying food science to the bakeshop. The essence of baking is chemistry, and anyone who wants to be a master pastry chef must understand the principles and science that make baking work. This book explains the whys and hows of every chemical reaction, essential ingredient, and technique, revealing the complex mysteries of bread loaves, pastries, and everything in between. Among other additions, How Baking Works, Third Edition includes an all-new chapter on baking for health and wellness, with detailed information on using whole grains, allergy-free baking, and reducing salt, sugar, and fat in a variety of baked goods. This detailed and informative guide features: An introduction to the major ingredient groups, including sweeteners, fats, milk, and leavening agents, and how each affects finished baked goods Practical exercises and experiments that vividly illustrate how different ingredients function Photographs and illustrations that show the science of baking at work End-of-chapter discussion and review questions that reinforce key concepts and test learning For both practicing and future bakers and pastry chefs, How Baking Works, Third Edition offers an unrivaled hands-on learning experience.

The first edition of Breadmaking: Improving quality quickly established itself as an essential purchase for baking professionals and researchers in this area. With comprehensively updated and revised coverage, including six new chapters, the

second edition helps readers to understand the latest developments in bread making science and practice. The book opens with two introductory chapters providing an overview of the breadmaking process. Part one focuses on the impacts of wheat and flour quality on bread, covering topics such as wheat chemistry, wheat starch structure, grain quality assessment, milling and wheat breeding. Part two covers dough development and bread ingredients, with chapters on dough aeration and rheology, the use of redox agents and enzymes in breadmaking and water control, among other topics. In part three, the focus shifts to bread sensory quality, shelf life and safety. Topics covered include bread aroma, staling and contamination. Finally, part four looks at particular bread products such as high fibre breads, those made from partially baked and frozen dough and those made from non-wheat flours. With its distinguished editor and international team of contributors, the second edition of Breadmaking: Improving quality is a standard reference for researchers and professionals in the bread industry and all those involved in academic research on breadmaking science and practice. With comprehensively updated and revised coverage, this second edition outlines the latest developments in breadmaking science and practice. Covers topics such as wheat chemistry, wheat starch structure, grain quality assessment, milling and wheat breeding. Discusses dough development and bread ingredients, with chapters on dough aeration and rheology.

The Technology of Wafers and Waffles: Operational Aspects is the definitive reference book on wafer and waffle technology and manufacture. It covers specific ingredient technology (including water quality, wheat flour, starches, dextrans, oils and fats) and delves extensively into the manufacturing elements and technological themes in wafer manufacturing, including no/low sugar wafers, hygroscopic wafers, fillings and enrobing. The book explains, in detail, operating procedures such as mixing, baking, filling, cooling, cutting and packaging for every type of wafer: flat and shaped wafers for making biscuits, ice cream cones, cups, wafer reels, wafer sticks (flute wafers) and biscuit wafers. It also explores the various types of European (Belgian) waffles and North American frozen waffles. Serves as a complete reference book on wafer and waffle technology and manufacturing, the first of its kind. Covers specific ingredient technology such as water quality, wheat flour, starches, dextrans, oils and fats for wafer and waffles. Explores wafer and waffle product types, development, ingredients, manufacturing and quality assurance. Explains the scientific background of wafer and waffle baking. Informs both artisan and industrial bakers about many related areas of bakery product manufacturing.

Ever wondered why bread rises? Or why dough needs to rest? From cakes and biscuits to flat breads and standard loaves, the diversity of products is remarkable and the chemistry behind these processes is equally fascinating. The Science of Bakery Products explains the science behind bread making and other baked goods. It looks at the chemistry of the ingredients, flour treatments, flour testing and baking machinery. Individual chapters focus on the science of breads,

pastry, biscuits, wafers and cakes. The book concludes with a look at some experiments and methods and goes on to discuss some ideas for the future. The Science of Bakery Products is an interesting and easy to read book, aimed at anyone with an interest in everyday chemistry.

This book examines both the primary ingredients and the processing technology for making candies. In the first section, the chemistry, structure, and physical properties of the primary ingredients are described, as are the characteristics of commercial ingredients. The second section explores the processing steps for each of the major sugar confectionery groups, while the third section covers chocolate and coatings. The manner in which ingredients function together to provide the desired texture and sensory properties of the product is analyzed, and chemical reactions and physical changes that occur during processing are examined. Trouble shooting and common problems are also discussed in each section. Designed as a complete reference and guide, Confectionery Science and Technology provides personnel in industry with solutions to the problems concerning the manufacture of high-quality confectionery products.

A nostalgic ode to the joy of homemade cake, beautifully photographed and with easy mix-and-match recipes for a sweet lift any day of the week. Everyone has a favorite style of cake, whether it's citrusy and fresh or chocolatey and indulgent. All of these recipes and more are within your reach in Simple Cake, a love letter from Brooklyn apron and bakeware designer Odette Williams to her favorite treat. With easy recipes and inventive decorating ideas, Williams gives you recipes for 10 base cakes, 15 toppings, and endless decorating ideas to yield a treat--such as Milk & Honey Cake, Coconut Cake, Summer Berry Pavlova, and Chocolatey Chocolate Cake--for any occasion. Williams also addresses the fundamentals for getting cakes just right, with foolproof recipes that can be cranked out whenever the urge strikes. Gorgeous photography, along with Williams's warm and heartfelt writing, elevate this book into something truly special.

Bakery Products Science and Technology John Wiley & Sons Bakery Products Science and Technology Wiley-Blackwell

Taking a fresh approach to information on baked products, this exciting new book from industry consultants Cauvain and Young looks beyond the received notions of how foods from the bakery are categorised to explore the underlying themes which link the products in this commercially important area of the food industry. First establishing an understanding of the key characteristics which unite existing baked product groups, the authors move on to discuss product development and optimisation, providing the reader with coverage of: Key functional roles of the main bakery ingredients Ingredients and their influences Heat transfer and product interactions Opportunities for future product development Baked Products is a valuable practical resource for all food scientists and food technologists within bakery companies, ingredient suppliers and general food companies. Libraries in universities and research establishments where food science and technology is studied and taught will find the book an important

addition to their shelves.

Most baking books do not focus on the simultaneous heat and mass transfer that occurs in the baking process, thereby ignoring a fundamental facet of process and product development. Addressing the engineering and science elements often ignored in current baking books, *Food Engineering Aspects of Baking Sweet Goods* explores important topics in understanding the baking process and reviews recent technological advances. With contributions from various international authorities on food science, engineering, and technology, the book covers the rheology of cake batter and cookie dough, cake emulsions, the physical and thermal properties of sweet goods, and heat and mass transfer during baking. It also presents the science of soft wheat products, including the quality of soft wheat, the functions of ingredients in the baking of sweet goods, and the chemical reactions during processing. In addition, the contributors discuss cake and cookie technologies as well as recent advances in baking soft wheat products. The final chapter examines the nutritional issues of consuming fats and sugars and presents general strategies for substituting fats and sugars in baked products. Taking an engineering approach to the field, this volume delineates the complex food process of baking, from ingredients to production to finished product.

Baking Problems Solved, Second Edition, provides a fully revised follow-up to the innovative question and answer format of its predecessor. Presenting a quick bakery problem-solving reference, Stanley Cauvain returns with more practical insights into the latest baking issues. Retaining its logical and methodical approach, the book guides bakers through various issues which arise throughout the baking process. The book begins with issues found in the use of raw materials, including chapters on wheat and grains, flour, and fats, amongst others. It then progresses to the problems that occur in the intermediate stages of baking, such as the creation of doughs and batters, and the input of water. Finally, it delves into the difficulties experienced with end products in baking by including chapters on bread and fermented products, cakes, biscuits, and cookies and pastries. Uses a detailed and clear question and answer format that is ideal for quick reference Combines new, up-to-date problems and solutions with the best of the previous volume Presents a wide range of ingredient and process solutions from a world-leading expert in the baking industry

Enrobed and filled confectionery and bakery products, such as praline-style chocolates, confectionery bars and chocolate-coated biscuits and ice-creams, are popular with consumers. The coating and filling can negatively affect product quality and shelf-life, but with the correct product design and manufacturing technology, the characteristics of the end-product can be much improved. This book provides a comprehensive overview of quality issues affecting enrobed and filled products and strategies to enhance product quality. Part one reviews the formulation of coatings and fillings, with chapters on key topics such as chocolate manufacture, confectionery fats, compound coatings and fat and sugar-based fillings. Product design issues, such as oil, moisture and ethanol migration and chocolate and filling rheology are the focus of Part two. Shelf-life prediction and testing are also discussed. Part three then covers the latest ingredient preparation and manufacturing technology for optimum product quality. Chapters

examine tempering, enrobing, chocolate panning, production of chocolate shells and deposition technology. With its experienced team of authors, Science and technology of enrobed and filled chocolate, confectionery and bakery products is an essential purchase for professionals in the chocolate, confectionery and bakery industries.

Provides a comprehensive review of quality issues affecting enrobed and filled products
Reviews the formulation of coatings and fillings, addressing confectionery fats, compound coatings and sugar based fillings
Focuses on product design issues such as oil, moisture and chocolate filling rheology

In this comprehensive cookbook, America's Test Kitchen breaks down the often intimidating art and science of bread baking, making it easy for anyone to create foolproof, bakery-quality breads at home. Many home cooks find bread baking rewarding but intimidating. In *Bread Illustrated*, America's Test Kitchen shows bakers of all levels how to make foolproof breads, rolls, flatbreads, and more at home. Each master recipe is presented as a hands-on and reassuring tutorial illustrated with six to 16 full-color step-by-step photos. Organized by level of difficulty to make bread baking less daunting, the book progresses from the simplest recipes for the novice baker to artisan-style loaves, breads that use starters, and more complex project recipes. The recipes cover a wide and exciting range of breads from basics and classics like Easy Sandwich Bread and Fluffy Dinner Rolls to interesting breads from around the world including Lahmacun, Panettone, and Fig and Fennel Bread.

The popularity of the 1973 fifth edition of *The Technology of Cake Making* has continued in many of the English-speaking countries throughout the world. This sixth edition has been comprehensively revised and brought up to date with new chapters on Cream, butter and milkfat products, Lactose, Yeast aeration, Emulsions and emulsifiers, Water activity and Reduced sugar Eggs and egg products, Baking fats, and lower fat goods. The chapters on Sugars, Chemical aeration, Nuts in confectionery, Chocolate, Pastries, Nutritional value and Packaging have been completely rewritten. The increased need for the continuous development of new products does not of necessity mean that new technology has to be constantly introduced. Many of the good old favourites may continue to be produced for many years and they form suitable 'bench marks' for new product development. The sixth edition introduces the use of relative density to replace specific volume as a measure of the amount of aeration in a cake batter (the use of relative density is in line with international agreement). Specific volume is kept as a measurement of baked product volume since the industry is comfortable with the concept that, subject to an upper limit, an increase in specific volume coincides with improvement in cake quality.

The Proceedings of the 12th International Cereal and Bread Congress provide a wide-ranging, comprehensive and up-to-date review of the latest advances in cereal science and technology with contributions from leading cereals institutes and individuals from around the world. They bring together all elements of the 'grain chain' from breeding of new wheat varieties through the milling processes and on to the conversion of flour into baked products ready for the consumer at large. Evaluating and predicting wheat flour properties require new equipment and new techniques and these are covered in depth. Cereals other than wheat are given due consideration. The versatility of wheat flour and its conversion into food is reviewed across a whole spectrum of products. There is a strong emphasis on the use of wheat flour for bread making but with

consideration of applications in the manufacture of cakes, cookies, pastries, extruded foods, pasta and noodles. The development process and the benefits to consumers are also addressed. The Editors and the Organising Committee have assembled a collection of high-quality papers which provide a showpiece for the latest developments in cereal science and technology. Extensive collection of proceedings from the 12th International Cereal and Bread Congress High-quality papers highlighting the most recent developments in cereal science and technology Benefits for the industry and consumers are discussed

Water is the major contributor to the eating and keeping qualities and structure of baked products. Its management and control during preparation, processing, baking, cooling and storage is essential for the optimisation of product quality. This successful and highly practical volume describes in detail the role and control of water in the formation of cake batters, bread, pastry and biscuit doughs, their subsequent processing and the baked product. Now in a fully revised and updated second edition, the book has been expanded and developed through the inclusion of new information and references related to the formation and processing of batters and dough into baked products. The new edition includes a selection of case studies based on practical experience in the manufacture and optimisation of baked products. Each case study, illustrated as appropriate, considers the various roles that water may play in different manufacturing contexts. The book is aimed at food scientists and technologists in bakery companies; ingredient suppliers; flour millers; researchers and students in academic food science departments.

Biscuit Baking Technology, Second Edition, is a reference book for senior managers and staff involved in industrial scale biscuit baking. It covers the biscuit industry process, ingredients, formulations, besides design, manufacture, installation, operation and maintenance of the baking ovens. Written by an expert on the biscuit baking industry, the book is a complete manual guide that will help engineering, production and purchasing managers and staff in the biscuit industry to make the best decisions on oven efficiency purchasing. Thoroughly explores the engineering of baking, details biscuit baking equipments, oven specifications, installation, operation and maintenance The second edition expands chapters 1 to 3, detailing basic biscuit process, product range, ingredients and process changes during baking. All the chapters have been reorganized and updated Provides details of best industry practice for safety, hygiene and maintenance of ovens Contains explanations of heat transfer and all the types of biscuit oven design with clear pictures and drawings Gathers all the information on how to select and specify an oven to be purchased for a particular range of biscuits

Handbook of Dough Fermentations describes the preparation of ferments and utilization of starters in the commercial baking and food industries and offers in-depth discussion on the modification of sourdough processes in the production of common bakery products, as well as the microbiological principles, fermentation pathways, product formulations,

This book surveys the functions and applications of additives used in baked foods at relatively low levels, details their reaction mechanisms and describes their technological effects, including how each additive helps to create high-quality baked products. Coverage includes oxidants, reductants and mix reducers, surfacants, emulsifiers and dough strengtheners, chemical leavenings, yeast, and gluten and gums. The author presents product applications and covers such important new areas as high fibre breads, enzymes in baking, the use of emulsifiers and vital wheat gluten manufacture.

Renowned international academicians and food industry professionals have collaborated to create *Food Processing: Principles and Applications*. This practical, fully illustrated resource examines the principles of food processing and demonstrates their application by describing the stages and operations for manufacturing different categories of basic food products. Ideal as an undergraduate text, *Food Processing* stands apart in three ways: The expertise of the contributing authors is unparalleled among food processing texts today. The text is written mostly by non-engineers for other non-engineers and is therefore user-friendly and easy to read. It is one of the rare texts to use commodity manufacturing to illustrate the principles of food processing. As a hands-on guide to the essential processing principles and their application, this book serves as a relevant primary or supplemental text for students of food science and as a valuable tool for food industry professionals.

The *Handbook of Food Products Manufacturing* is a definitive master reference, providing an overview of food manufacturing in general, and then covering the processing and manufacturing of more than 100 of the most common food products. With editors and contributors from 24 countries in North America, Europe, and Asia, this guide provides international expertise and a truly global perspective on food manufacturing.

Baking is both an art and a science, and mastery in baking allows the baker to be creative in exploring new and quality products from inconsistent ingredients and process conditions. This book, now in its second edition, gives a succinct account of the practical and theoretical concepts, the methods and processes involved in the preparation of various bakery products. The author, with her rich teaching and industry experience in the field, gives a wealth of information about making of various yeast-made products—bread, cakes, biscuits, desserts and pizza—their ingredients, leavening agents, and the functions of salt, sugar, eggs, and so on in bakery production. She also discusses the use of modern technology machines in bakery production, icings, decoration, bakery organization, and many other aspects. This revised edition updates and simplifies the existing text in a number of places, and also includes a large number of colour photos of finished products and ingredients, which will provide the readers with clear knowledge about them. This book is mainly intended as a textbook for undergraduate students pursuing courses in Hotel Management, Catering and Nutrition Science and Home Science. Besides, the book can also be useful as a guide for home bakers and industrial bakers as well as those engaged in the profession.

KEY FEATURES Describes many new bakery items as well as the use of modern machinery in bakery and confectionery. Gives a number of Review Questions at the end of each chapter. Provides Short Questions and Answers and two Model Question Papers for self-assessment. What the Experts Say : This book contains all the basic information related to raw materials/ingredients, types of bakery products, recipes, etc. I am sure that this book will serve as a good text for the students of Hotel Management and Home Science. —RAJ KAPOOR, Chief Executive, Assocom India Pvt. Ltd. With Mrs. Yogambal's rich experience in bakery industry and education, I strongly feel that this book will help the students in gaining in-depth knowledge in the field and I recommend it for all the students. —M. PONNILANGO, Director (Technical) Jenneys Academy of Tourism and Hotel Management

A solid introduction to the field of surfactant science, this new edition provides updated information about surfactant uses, structures, and preparation, as well as seven new chapters expanding on technology applications. Offers a comprehensive introduction and reference of the science and technology of surface active materials Elaborates, more fully than prior editions, aspects of surfactant crystal structure as well as their effects on applications Adds more information on new classes and applications of natural surfactants in light of environmental consequences of surfactant use

When things go wrong in the bakery, the pressures of production do not allow time for research into the solution. Solving these baking problems has always been the province of 'experts'.

However, with a methodical approach, keen observation and a suitable reference book then the answers to many baking problems are more easily identified. The companion volume to the popular *Baking problems solved*, *More baking problems solved* contains an updated guide to problem solving and the answers to further frequently asked questions. Once again arranged in a practical question-and-answer format, it will enable busy bakery professionals to understand causes of their problems and implement solutions. Written by two leading experts and based on a wealth of practical experience, *More baking problems solved* is invaluable to all bakery professionals, bakery students, food technologists and product developers. An updated guide to problem solving that provides answers to further frequently asked questions and baking An essential reference and problem solving manual for professionals and trainees in the industry An ideal companion volume to *Baking problems solved*

Baking, referred to as the oldest form of cooking, is used for producing everyday products like bread, cakes, pastries, pies, cookies, and donuts. These products are prepared using various ingredients like grain-based flour, water and leavening agents. They are considered fast-moving consumer goods (FMCG) and are consumed daily. Owing to their palatability, appearance and easily digestible nature, they are highly preferred for both formal and informal occasions. Nowadays, most traditional baking methods have been replaced by modern machines. This shift has enabled manufacturers to introduce innovative bakery products with different ingredients, flavors, shapes and sizes. The book is invaluable reading for those starting their own baking business or any baker looking to improve their existing business in order to increase profits. The Global Bakery Market size is predicted to reach USD 4.36 billion by 2030 with a CAGR of 3.8% from 2020-2030. Bakery products are a part of the processed food class. They include cake, pastries, biscuits, bread, breakfast cereals, and customized baker products. The growing per-capita consumption trends of bakeshop products indicates the untapped growth potential. The market potential is high particularly in the growing markets of Asia and South America; whereby, client demand is increasing for ready to eat bakery products, as a results of the influence of Western culture and additionally for its convenience. The book covers various aspects related to different bakery products with their manufacturing process and also provides contact details of raw material, plant and machinery suppliers with equipment photographs and their technical specifications. It provides a thorough understanding of the many new developments shaping the industry and offers detailed technical coverage of the manufacturing processes of bakery products. Food Mixer, Cookie Extruder, Rotary Oven, Biscuit Sandwiching Machine, Tunnel Gas Oven, Flour Mixer, Cookies Rotary Moulder, Bun Divider Moulder, Planetary Mixer, Spiral Mixer, Pillow Packing Machine, Oil Spray Machine are the various equipments described in the book with their photographs and technical specifications. A total guide to manufacturing and entrepreneurial success in one of today's most baking industry. This book is one-stop guide to one of the fastest growing sectors of the bakery industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial

production of bakery products. It serves up a feast of how-to information, from concept to purchasing equipment.

Trends in Wheat and Bread Making provides a comprehensive look at the state-of-the-art in bread making from ingredient to shelf-life, with a focus on the impact of processing on the nutritional value and consumer acceptability of this global staple. The book also includes chapters on new breads and bakery products fortified with plant-processing-by-products and/or natural antioxidants, and explores efforts to improve biotechnological processes and fermentation for bread making. It is an excellent resource for researchers, industry professionals and enterprises hoping to produce enhanced bread products through processing-related nutritional and quality improvements. Addresses gluten free products, organic farming and production techniques, enzymatic and biotechnological techniques, fortification of breads with plant by-products, and phenol-rich substrates Fills the gap in current resources, focusing on the application of new technologies for processing practices Provides a guide to industrial and commercialized applications of innovative breadmaking

Not another book on breadmaking! A forgivable reaction given the length of time over which bread has been made and the number of texts which have been written about the subject. To study breadmaking is to realize that, like many other food processes, it is constantly changing as processing methodologies become increasingly more sophisticated, yet at the same time we realize that we are dealing with a food stuff, the forms of which are very traditional. We can, for example, look at ancient illustrations of breads in manuscripts and paintings and recognize products which we still make today. This contrast of ancient and modern embodied in a single processed foodstuff is part of what makes bread such a unique subject for study. We cannot, for example, say the same for a can of baked beans! Another aspect of the uniqueness of breadmaking lies in the requirement for a thorough understanding of the link between raw materials and processing methods in order to make an edible product. This is mainly true because of the special properties of wheat proteins, aspects of which are explored in most of the chapters of this book. Wheat is a product of the natural environment, and while breeding and farming practices can modify aspects of wheat quality, we millers and bakers still have to respond to the strong influences of the environment.

Bakery products, due to great nutrient value and affordability, are an element of huge consumption. Due to the rapidly increasing population, the rising foreign influence, the emergence of a working population and the changing eating habits of people, they have gained popularity among people, causing significantly to the growth trajectory of the bakery industry. The Handbook of Bakery and Confectionery delineates a theoretical and practical knowledge on bakery and confectionery. Chapter 1-21: This part deals with basic concepts in baking and includes chapters on all bakery ingredients and their functions, bakery products in the baking industry. Chapter 22-23: This section provides an affluent

information about production of various chocolates and toffees. Note: T&F does not sell or distribute the hardback in India, Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka.

Coeliac disease (CD) and other allergic reactions/intolerances to gluten are on the rise, largely due to improved diagnostic procedures and changes in eating habits. The worldwide incidence of coeliac disease has been predicted to increase by a factor of ten over the next number of years, and this has resulted in a growing market for high quality gluten-free cereal products. However, the removal of gluten presents major problems for bakers. Currently, many gluten-free products on the market are of low quality and short shelf life, exhibiting poor mouthfeel and flavour. This challenge to the cereal technologist and baker alike has led to the search for alternatives to gluten in the manufacture of gluten-free bakery products. This volume provides an overview for the food industry of issues related to the increasing prevalence of coeliac disease and gluten intolerance. The properties of gluten are discussed in relation to its classification and important functional characteristics, and the nutritional value of gluten-free products is also addressed. The book examines the diversity of ingredients that can be used to replace gluten and how the ingredient combinations and subsequent rheological and manufacturing properties of a range of gluten-free products, e.g. doughs, breads, biscuits and beer may be manipulated.

Recommendations are given regarding the most suitable ingredients for different gluten-free products. The book is directed at ingredient manufacturers, bakers, cereal scientists and coeliac associations and societies. It will also be of interest to academic food science departments for assisting with undergraduate studies and postgraduate research. The Author Dr Eimear Gallagher, Ashtown Food Research Centre, Teagasc - The Irish Agriculture and Food Development Authority, Dublin, Ireland Also available from Wiley-Blackwell Management of Food Allergens Edited by J. Coutts and R. Fielder ISBN 9781405167581 Bakery Manufacture and Quality - Water Control and Effects Second Edition S. Cauvain and L. Young ISBN 9781405176132 Whole Grains and Health Edited by L. Marquart et al ISBN 9780813807775

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