

Preface

It is now 27 years since the first edition of *Industrial Chocolate Manufacture and Use* was published and eight years since the fourth was written. It is therefore very gratifying to have been asked to revise it once again and I am very grateful to those authors who have once again updated their chapters. Only one of these in fact contributed to the first edition. My being retired makes producing the book more difficult, so this time I have been aided by two co-editors. Mark Fowler, an international expert on cocoa, has made sure that the importance of this prime ingredient has not been overlooked. Prof. Greg Ziegler, from Penn State University, has added more North American points of view.

As with every other industry, however, both people and technology change and this new edition has had nine of the chapters completely rewritten. In four other cases, the original author has retired and their chapters have been updated by someone still involved with that particular subject. The book has also increased in size and, with four new topics, now has a total of 30 chapters. We took the opportunity to arrange the chapters in a more logical order: raw materials and ingredients, processes and manufacturing, formulation and recipes, quality and safety and finally consumer and legal aspects.

Even though it is very important to the industry, sensory analysis has not until now had a chapter to itself. Likewise aspects of quality control are present in most chapters and a new one has been introduced to present an overview for the different confectionery processes, with particular emphasis on the United States market.

In many countries, the artisan confectionery sales are increasing. This involves different products, throughputs and marketing compared to conventional large scale production and so merits a chapter to itself. The fourth new addition is about compound coatings, which in many countries are a market in their own right, particularly in connection with ice cream manufacture.

It is hoped that the book will continue to provide an up to date scientific and technical approach to the principles of chocolate manufacture, from the growing of the cocoa beans to the packaging and marketing of the final product. As the processes become larger and more complex, the aim is to give the reader the principles behind them in a practical and readable form. As with any multi-author book there are some repetitions, and indeed some apparent contradictions are present. These have been deliberately left, as each author has written according to his or her own experience. They are also an indication that our knowledge remains incomplete and that there is still a lot for researchers into

cocoa and its products to do. Mistakes still occur however and I would welcome readers informing me of them. Two letters in fact resulted in entries into subsequent editions. Some time ago I was told that I was incorrect in saying that Daniel Peter invented milk chocolate. This resulted in me going to the Nestlé archives in Switzerland and finding his original notebook, a page from which is reproduced in Chapter 1. Second, a competitor complained that the measurement of thermal conductivity was incorrect. The source of the original entry was traced and admitted that he had not measured it himself. In the end the measurements were made by Leatherhead Food International (UK) and have been included in the table of physical constants.

I would once again like to thank all the authors who have contributed to the book for the care they have taken and the time they have spent in producing their chapters.

Even revising an original chapter can take a considerable effort in confirming new information, updating references and so on. There cannot be many industries where people from competing companies and different continents come together to produce a book. The wide range of knowledge and experience of the different authors has greatly added to its usefulness to people within chocolate making and has resulted in the first four editions being present in factories in Asia, Africa and South America, as well as in those countries in which it was written.

It is sometimes said that the worldwide web will remove the necessity for books. I certainly hope that this is not the case and have not always found the web to be as reliable as you might expect. The website of one major international company once proudly announced that its chocolate was processed in a sea shell, which I very much doubt and suspect the author's misuse of a thesaurus on the word *conche*. An on-line encyclopaedia on the other hand informed me that most cocoa butter is made by hanging up sacks of nibs in a warm room, so that the fat runs out. I hope that readers will find this book to be much more reliable.

I would also like to thank my co-editors, without whose hard work this book would not exist, the publisher for giving us the opportunity and encouragement to produce this new edition and Dr Peter Ashby for his invaluable help in proof reading and producing the index.

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