

the nation's infants is described by Mattingley.

Since 1964, the growth of chemical and allied industries has been large by world standards and industrial chemists and chemical engineers provide essays dealing with many of these. A chemical engineering viewpoint on the lactose industry by Wood is particularly interesting as is Earle's model for university-industry collaboration through NZ Pharmaceuticals.

Collaboration led to NZs dominance in the understanding and utilization of geothermal power - Ellis shows how. The DSIR zeolite team under Parker is largely responsible for NZs success in the conversion of natural gas to petrol by the untried Mobil process. Marshall and Wylde describe steel-making from NZ iron sands as a classic case-study. Similarly, the solar salt industry at Lake Grassmere is told by Pollard. Lastly, NZs great in-

dustrial success in establishing a pulp and paper industry based on *Pinus radiata*, is told by former NZFP chemist and managing director, Mackney.

What a collection of plots and authors. Appearing in the cast, from time to time, are politicians like Ward, Seddon, Sullivan, Douglas, Birch, and Muldoon. Too often, they showed a lack of confidence in the ability and ingenuity of NZ scientists and engineers, and blind faith in the overseas expert. One way to help this change would be to make *New Zealand is Different* compulsory reading for every MP, and Government Department Head so that Government's wish to add value to NZ exports might more easily be achieved. Finally, readers of *Chemistry in New Zealand* will find it a snip at \$30.

Abridged by the Editor

## Book Review: Handbook of Australasian Edible Oils

Editor: Charmian O'Connor. Managing Editor: Laurence Eyres ISBN 978-0-473-12283-6, 297 pages

With widespread comment and discussion in the media on food related health matters such as obesity, low density lipoproteins vs. high density lipoproteins, saturated fats vs. unsaturated fats, *trans*-fatty acids vs. *cis*-fatty acids, omega-3 fatty acids, 'natural' and modified fats and oils, etc. this publication from the Oils & Fats Specialist Group of the New Zealand Institute of Chemistry is very timely. It contains 14 chapters written by 25 people with expertise in their particular fields. Listing the titles of the chapters is the best way to illustrate this and convey the material covered:

**1.** Methods of analysis – a brief introduction; **2.** Avocado oil and other niche culinary oils in NZ; **3.** The development of the NZ extra virgin olive oil industry; **4.** Setting quality standards for Australasian olive oils; **5.** Marine oils in Australasia; **6.** A survey of omega-3-fatty acids in common NZ seafood; **7.** Marine oil production for nutraceutical use; **8.** Lipids and cancer; **9.** Nutraceutical oils derived from plants; **10.** Fat in the diet of children; **11.** International evidence supporting addition of plant sterols and stanols to functional foods; **12.** Processing oils and fats in NZ; **13.** The edible oil industry in Australia; **14.** Deep-frying mediums in NZ.

A twelve page Table of Contents listing the headings of every section in each chapter adequately also fulfils the role of an index, and allows a reader to quickly find a topic of interest. Abbreviations (e.g. PUFA) are widely used through out the book, but an excellent alphabetical list prior to the first chapter allows the reader to find the meaning easily. Every chapter has an extensive list of references to the primary literature.

This book will be invaluable to a wide range of people, both professional and lay. In view of the public interest in many of the topics I would hope all public libraries purchase a copy. Health and food journalists, political spokespersons on health and food should certainly have ready access to it. It will be invaluable for students in the areas of food technology, health and medicine. The composition and properties of all the different fats and oils used in making products for a wide range of food manufacturers, and of the finished products these manufacturers produce and we find in our supermarkets, are given clearly in many tables throughout the book. The manufacture of butter,

a major item in our diet, is not covered in this book as it so familiar to most people, but comparisons of its composition and properties with products made from other animal and vegetable fats and oils are given.

Those interested or concerned about the pros and cons of what they should and should not eat will find authoritative information on which to make decisions.

Reading this book reminded me of what I experienced as an "academic chemist" on receiving articles for *Chemical Processes in New Zealand*: how each industry has its own jargon, much of which is familiar to lay people, but the meaning of which is not always obvious to someone outside that industry, be they a chemist, technologist, cook etc. So I was so pleased to find that familiar terms used in chapters 12 and 13, covering the processing of raw materials to produce the range of edible products we find on supermarket shelves, were clearly explained as they were introduced. There were occasions where I felt a brief glossary of some terms would have been useful to readers with limited chemical knowledge, especially on the numbering used in unsaturated fatty acids. However a recent previous publication of the same group, *A New Zealand Lipid Manual*, also edited by Charmian O'Connor, and subtitled *Readings and introduction to the science, technology, analysis and nutrition of oils and fats*, 136 pages, is available (from Ruth Eyres – see below) and provides a basic introduction to this field.

The title *Handbook* is apt as it will serve as a comprehensive reference book for those working and researching in the food and health industries. However it is not just a reference book. Individual chapters are easy to read and cover many topics that should interest consumers.

The Oil and Fats Group should be congratulated in producing this invaluable source of information of interest to a broad range of people.

The cost including GST and postage is \$80 and the book can be ordered by post (Ruth Eyres, PO Box 25-499, St Heliers, Auckland), by fax (09 528-7032) or e-mail [eyresy@internet.co.nz](mailto:eyresy@internet.co.nz)

Reviewed by John Packer