Book Review

Handbook of Australasian Edible Oils
Charmian J. O'Connor and Lawrence Eyres (eds.)
The Oils & Fats Specialist Group of
the New Zealand Institute of Chemistry, 2007.
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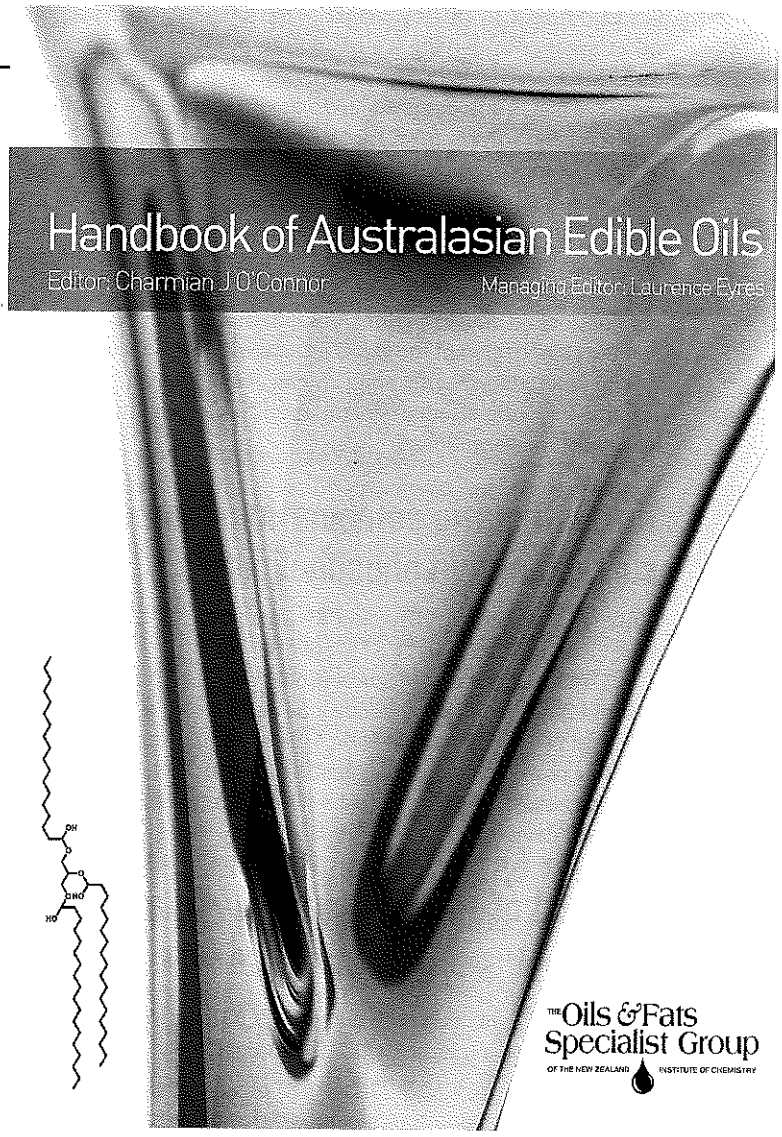

In the preface to the *Handbook of Australasian Edible Oils*, Managing Editor Lawrence Eyres states that the edible oil practices of Australasia do not exactly match those of the United States and Europe, where most published work on the subject originates. Thus, the purpose of this book is to focus on the field of lipid science and practices as it relates to Australia and New Zealand. To provide this unique perspective, the authors contributing to this book are all members of the Oils and Fats Specialist Group of the New Zealand Institute of Chemistry. Contact information (including e-mail address) is given for each contributor, as well as the website for the Group: www.foodworks.co.nz/oilsfats/news.htm.

After the first chapter, which reviews the analytical procedures used in the oils and fats industry, the following three- to four-chapter sections cover the diverse topics of plant oils, marine oils, lipids and health, and processing and quality control. The three-chapter section on oils of plant origin ranges from the more common olive and avocado oils to niche oils such as flaxseed, pumpkin, tree nuts, and even hemp. Brief, interesting histories of the avocado and olive industries in Australasia are provided. Owing to its importance in defining quality, significant detail is provided on the sensory evaluation of the oils.

The next three chapters describe the Australasian aquaculture industry. Detailed information is provided on both the total oil content and the lipid profiles of both wild-caught and farmed fish. Special emphasis is placed on the omega-3 (n-3) fatty acid content of Australasian fish oils, along with a discussion of marine oils used for production of nutraceuticals.

The next four chapters explore the relationships of saturated fats, fats containing *trans* fatty acids, fats containing omega-3 fatty acids, and other lipid materials with a significant potential effect on health and well-being. One chapter compares and contrasts several studies that link fat intake to cancer and gives a balanced view of the need to reduce or avoid intake of unhealthful fats and oils and replace them with more beneficial types. A full chapter is devoted to the role of dietary fat in child nutrition, while another chapter discusses the addition of plant sterols and stanols to functional foods.

The final three chapters cover the processing of oils by the large-scale edible oil industry of Australasia. Chemical and physical refining are both discussed, since both are used in Australasia to provide the wide variety of oils with characteristics needed for numerous applications that include baking and frying.

The text of each chapter is well supported by tables, graphs, and flow charts. The four-page table of abbreviations at the beginning of the book was particularly helpful. Researchers and nutritionists interested in Australasian fats/oils would find that the book is a good supplement to one of the more comprehensive texts on edible oil science and technology.

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