

## Book Review

Christine Williams and Judith Buttriss, *Improving the Fat Content of Foods*, Boca Raton, FL: CRC Press/Cambridge, UK: Woodhead Publishing Ltd. 2006, pp. 560, \$270/£150/€220, ISBN: GB- 1-85573-965-8/ USA-0-8493-9208-X

This book is an excellent resource for readers who seek an understanding of the underlying mechanisms of action of fatty acids at biochemical, cellular and molecular levels and how this might relate to incidence of various diseases/conditions, in particular diabetes, CVD and obesity. The book may also provide food producers with guidelines/rationale on why and how the fat content and quality of food can affect consumer choice as well as their health.

What makes this book interesting reading material is that it is complete in itself and provides readers with insights into the fatty acid content of foods, ways to manipulate fat for health benefits, the association of dietary fat and fatty acids with disease incidence and, finally, the psychological aspects of consumer perceptions and choices of such foods.

Most chapters begin with basic information and gradually progress to in-depth discussion, which includes identifying gaps in our current understanding followed by suggestions for further research.

The twenty-one chapters of the book are divided into three parts. Part I comprises eight chapters focusing on the various health aspects of different fatty acids. This includes effects on cell signalling, lipid metabolism, and haemostasis as well as on gene expression, with particular reference to mechanisms/aspects considered important in diabetes, CVD and obesity. In-depth discussions of effects of different fatty acids on insulin sensitivity and, hence, type II diabetes are included with references being as up to date as can be expected for such a book. There is some mention of the role of PUFA in colorectal cancer, cognitive and immune function but to my disappointment, except for conjugated linoleic acid in chapter 8, insufficient emphasis has been placed on the subjects of cancer and immune function. Chapters in part I on obesity and related

diseases, i.e. diabetes and CVD, fit in well with chapters on consumer perceptions and choices and strategies for altering the fat content of foods included in parts II and III of the book. Through discussion of the more scientific aspects of health issues, part I sets the scene for parts II and III, which make suitable reading material for public health and food scientists as well as for food producers. Chapters in parts II and III mainly cover issues on production of foods with altered fat content and consumers' perceptions of such foods. Discussions on modifications of the fatty acid profile of products through changes in animal feed are the highlight of this section. Sections on the appearance, sensory qualities and acceptability of fat modified foods also make an interesting read.

I particularly enjoyed the chapters on the effects of different fatty acids on insulin resistance and the challenges faced by scientists in health promotion and production of foods with favourable fat content.

Although a bit expensive, the book will prove a worthwhile companion for food producers/developers as well as science students (in particular, nutrition, food science, public health) and researchers, providing them with a fundamental understanding of the mechanisms of action of different fatty acids and factors that affect consumer choice of food. The best aspect of the book is that it gives updated information and provides its readers with guidelines on utilising the gained knowledge for further research and setting strategies for making appropriate changes to the fat content of food to suit/optimize consumer's health.

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