

Antioxidants in Muscle Foods — Nutritional Strategies to Improve Quality

E. Decker, C. Faustman, C.J. Lopez-Bote (Eds.); John Wiley & Sons, New York, 2000; xii + 499 pages; ISBN 0-471-31454-4, \$71.50.

Developments in understanding of factors affecting meat quality together with the demands of human nutrition for a reduction of saturated fatty acid content in the human diet have led to much research aimed at improving the nutritional profile, pigmentation and oxidative stability of meat and poultry products. This book is an excellent account of the current state of development of this research area.

The book comprises 17 chapters. Part I (6 chapters) describes oxidative processes in muscle foods including protein and myoglobin oxidation, and discusses the activity and mechanisms of activity of selected antioxidants, including carotenoids and endogenous skeletal muscle antioxidants. Part II (8 chapters) covers the utilization of dietary strategies to influence the antioxidant composition of muscle. This part of the book includes discussion of the potential for altering the quality of muscle and milk, and discusses the dietary delivery of antioxidants and their consequent effects on meat qual-

ity. The focus is very much on carotenoids and vitamin E, but other antioxidants are also discussed. Part III (3 chapters) discusses the scientific and economic implications of muscle with altered composition. Each chapter has copious references, and the book is completed by a comprehensive index.

Many of the leading researchers from Europe and USA have contributed chapters to this book, and the quality of the chapters appears to be generally very good. The degree of overlap between chapters has been kept within acceptable limits, and the book is relatively error-free, although the incorrect structure of tocopherylquinone on page 33 should have been picked up. This book will be very valuable as a state-of-the-art text and is strongly recommended for purchase by researchers in the field. Researchers interested in the action of antioxidants in non-muscle foods will also find several chapters of interest in the book.

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