Handbook of Seafood Quality, Safety and Health Applications

Description: The global market for seafood products continues to increase year by year, with their perceived health benefits playing a significant part in their popularity. Seafood products are highly nutritious and provide a wide range of health-promoting compounds. Safety and quality are especially crucial when dealing with seafoods: they are highly perishable products and so special attention must be paid to the factors that influence safety and quality, from the time of the catch to the time they are prepared for food and consumed. The safety and freshness/quality of seafoods can be measured by sensory, non-sensory (chemical/biochemical, physico-chemical, and microbiological/biological), and statistical methods. During the last decade, there has been marked progress in the development of all three types of technique, some of which are rapid and non-destructive in nature.

Marine-based nutraceuticals and functional foods are gaining attention due to their unique features, which are not found in terrestrial-based bioresources. For example, fish, marine mammals, and algae are the richest sources of long-chain omega-3 polyunsaturated fatty acids, which play an important role in health promotion and disease risk reduction.

This volume is divided into three sections preceded by an introductory chapter providing an overview of seafood quality, safety, and health applications. The first section describes different aspects of seafood quality, the second section covers the safety of seafoods, and the final section discusses the health applications of seafood products, particularly marine nutraceuticals and functional foods.

The book is a resource for those interested in the latest advances in the science and technology of seafood quality and safety, as well as new developments in the nutritional effects and applications of marine foods. It will be especially valuable for food scientists and technologists, biochemists, nutritionists and marine technologists based in academia, government laboratories, and the food manufacturing industry. Although the book is intended primarily as a reference book, it also summarises the current state of knowledge in key research areas and contains ideas for future work. In addition, it provides easy-to-read text suitable for teaching advanced undergraduate and post-graduate courses.

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