The benefits of food irradiation to the public health have been described extensively by organizations such as the Centers for Disease Control and Prevention in the USA and the World Health Organization. The American Medical Association and the American Dietetic Association have both endorsed the irradiation process. Yet the potential health benefits of irradiation are unknown to many consumers and food industry representatives who are wary of irradiated foods due to myth-information from “consumer-advocate” groups.

This updated second edition of Food Irradiation Research and Technology reviews the latest developments in irradiation technologies as they are applied to meat, seafood fish, fruits, vegetables and nuts. Experts from industry, government, and academia define the basic principles and public health benefits of irradiation.

New chapters in this edition address irradiation chemistry, including furan formation due to irradiation, irradiation of packaging materials, processing irradiation technologies and parameters, and ready-to-eat meat products. Coverage of safety and quality of fresh fruits and vegetables, phytosanitary applications and consumer acceptance has been expanded to address recent interest and development.

The book is designed to appeal to a broad readership: industry food scientists involved in the processing of meat and fish, fruits and vegetables; food microbiologists and radiation processing specialists; and government and industry representatives involved in the import and export of food commodities.
ABOUT THE AUTHOR

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FEATURES

• presents the latest scientific findings of researchers at the leading edge of food irradiation

• reviews recent advances in the irradiation of meat and poultry, fruits and vegetables, seafood, and the use of irradiation as a phytosanitary treatment

• new research on the effect of irradiation on the chemistry and toxicology of irradiated foods including 2-alkycyclobutanones, furans and trans-fats

• covers new research on irradiation of produce

• discusses use of irradiation for decontamination of RTE foods (e.g., bagged salads and luncheon meats) and for food security

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