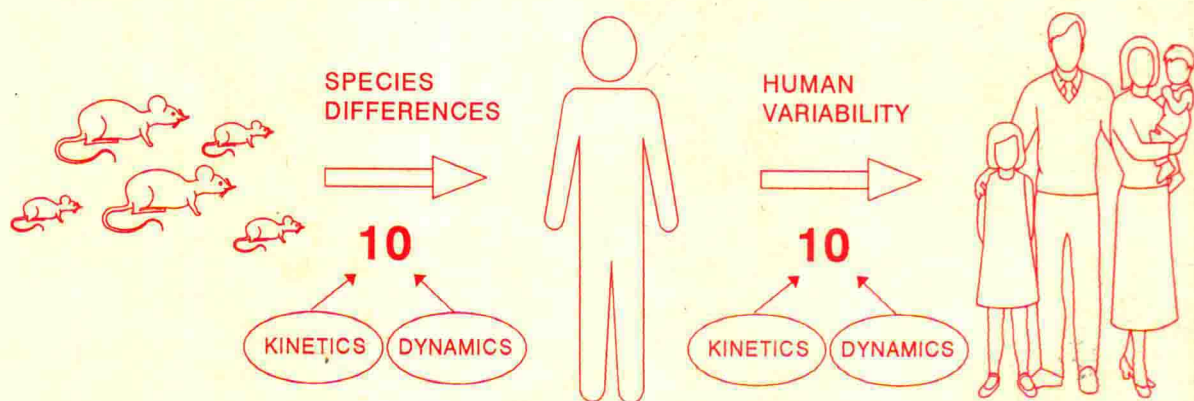


international FOOD SAFETY handbook

Science, International Regulation, and Control



edited by
Kees van der Heijden
Maged Younes
Lawrence Fishbein
Sanford Miller

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Preface

Access to safe food supplies continues to be a major issue in world public health. Despite substantial progress in the knowledge and application of food safety techniques, contaminated food is the direct cause of a high proportion of disease. The majority of disease agents that contaminate food are biological, posing a wide range of health consequences, but chemical contamination has also become a cause for public health concern.

In most developed countries, the creation of extensive food safety structures have ensured that the food supply is generally safe for the human population. Ongoing public demand for an adequate and safe food supply has led to major developments in the fields of food science, toxicology, analytical chemistry, microbiology, food hygiene, nutrition, regulation, and control. Researchers in these disciplines have interacted to minimize the potential health hazards to consumers, by establishing standards that both guarantee the safety and nutritional value of food items consumed and permit regulatory and control measures to be implemented, thereby recognizing that good science is imperative for effective regulations, and that adequate control must be based on these regulations.

The *International Food Safety Handbook* covers the three aspects of the subject: science, regulation, and control. These three major points are interconnected, but are often treated independently by various individuals and agencies.

From the scientific point of view, discussion focuses on food quality, nutritional value, chemical and microbiological food safety, emerging problems (such as novel foods and food sensitivities), health hazards, analytical methodologies, and environmental concerns. The issue of regulation is highlighted by the integration of scientific knowledge into the decision-making process at the national and international levels, the impact of regulations on politics and economics, and the role of various sectors of society in the process. Finally, the chapters on food safety control focus on how control institutions work at the national and international levels, how control is carried out in practice (through sampling and analysis), and how enforcement measures can be implemented.

Taken together, the book bridges the gaps between science, regulation, and control and shows how these three parts of the food safety system interact: science forms the basis for regulations, the implementation of which is monitored through control measures. The circle closes when new issues arising in the control phase are fed back into science to solve emerging problems. Thus, this work should be envisaged as a reference document, allowing those in a particular field of food safety to become familiar with other fields of the subject.

Ensuring adequate food safety requires input from and cooperation among all parties concerned: producers (including industry), legislators, and consumers. Taking into account the multisectoral/multidisciplinary nature of food safety, the editors have solicited experts in industry, government, and academia, as well as representatives of consumer groups and the media whose knowledge represents the spectrum of current views. The chapters herein reflect the views of the authors, and do not represent consensus views. Sharing views and exchanging opinions is the first step toward a multisectoral approach to achieve the common goal of ensuring that our food is essentially safe.

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Contents

<i>Preface</i>	<i>iii</i>
<i>Contributors</i>	<i>ix</i>
1. Food Safety: A Worldwide Public Issue <i>Fritz K. Käferstein, Yasmine Motarjemi, Gerald G. Moy, and F. Quevado</i>	1
2. Perceptions of Food-Related Risks: Facts and Fancy <i>Kristen McNutt</i>	21
3. Microbiological and Hygienic Aspects of Food Safety <i>Michael van Schothorst</i>	27
4. Chemical Safety Aspects of Food and Drinking Water: An Introduction <i>Maged Younes and Kees van der Heijden</i>	47
5. Exposure Estimation, Toxicological Requirements and Risk Assessment <i>Andrew G. Renwick</i>	59
6. Health Aspects of Nutrition <i>Michael J. Gibney</i>	95
7. Drinking Water Safety <i>Bent H. Fenger and Jamie Bartram</i>	107
8. The Safety of Bottled Water <i>Vincent Ducasse, Philippe Caillat, and Jean-Pierre Mareschi</i>	123
9. Safety Aspects of Soft Drinks <i>Thomas A. Vollmuth and Marilyn D. Schorin</i>	129

10.	Health Effects of Coffee, Tea, Mate, Cocoa, and Their Major Methylxanthine Components <i>James L. Emerson and Clifford I. Chappel</i>	141
11.	Dietetic Foods <i>Pierre René Guesry</i>	171
12.	Alternative Foods <i>Wija A. van Staveren and Pieter C. Dagnelie</i>	203
13.	The Role of Sports Foods in Physical Performance <i>Wim H. M. Saris</i>	213
14.	The Safety Assessment of Food Contaminants and Pesticide Residues <i>Arpad Somogyi and Klaus E. Appel</i>	225
15.	Safety Assessment of Food Additives and Flavoring Substances <i>Gérard Pascal</i>	239
16.	Safety Aspects of Residues of Veterinary Drugs and Feed Additives <i>F. X. Rolaf van Leeuwen</i>	257
17.	Safety Assessment of Food-Packaging Materials <i>Susan M. Barlow</i>	273
18.	Food Irradiation, Heat Treatment, and Related Processing Techniques: Safety Evaluation <i>Peter S. Nawrot, Elizabeth J. Vavasour, and Donald L. Grant</i>	287
19.	Assessment of Risk Arising from Food Alterations During Transport, Storage, and Preservation <i>John H. Steadman</i>	317
20.	Natural Toxins I. Mycotoxins <i>Hans P. van Egmond and Gerrit J. A. Speijers</i>	341
21.	Natural Toxins II. Phycotoxins <i>Hans P. van Egmond and Gerrit J. A. Speijers</i>	357
22.	Natural Toxins III. Inherent Plant Toxins <i>Gerrit J. A. Speijers and Hans P. van Egmond</i>	369
23.	Novel Foods <i>Gerrit J. A. Speijers, Maged Younes, and Kees van der Heijden</i>	381
24.	General Aspects of Microbiological Food Safety: Sources of Contamination, Processes, and Health Risks <i>Michael van Schothorst and Susan E. Jongeneel</i>	397