

## RECENT BOOKS, SPRING 2002

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### **Toxic Plants of North America**

By G. E. Burrows and R. J. Tyrl

*Iowa State University Press: Ames, IA, 2001; 1342 pp.*

Describes toxic genera from 75 plant families, with plant descriptions (including some line drawings), distribution and habitat (including distribution maps for some), disease problems caused by exposures to toxic constituents (with some chemical structure diagrams), clinical signs, and treatment.

### **Handbook of Pesticide Toxicology, 2nd ed.**

Edited by R. I. Krieger

*Academic Press: San Diego, CA, 2001; 2 volumes, 1908 pp.*

Includes fundamentals of pesticide toxicology and new insights gained from more recent research, with contributions from more than 100 authors. Volume 1 presents 43 chapters dealing with aspects of pesticide toxicology, and volume 2 contains 45 chapters discussing individual chemicals or groups of chemicals.

### **Handbook of Chemical Risk Assessment: Health Hazards to Humans, Plants, and Animals**

Edited by R. Eisler

*Lewis Publishers: Boca Raton, FL, 2000; 3 volumes, 2416 pp.*

Selectively reviews literature on specific contaminants, including source and use; physical, chemical, and metabolic properties; field concentrations; deficiency effects; and lethal and sublethal effects. A three-volume set, it covers selected metals, organics, metalloids, and radiation.

### **Indirect Food Additives and Polymers: Migration and Toxicology**

By V. O. Sheftel

*Lewis Publishers: Boca Raton, FL, 2000; 1304 pp.*

Contains toxicological information on almost 2000 potential food contaminants. Covers monomers, plasticizers, stabilizers, catalysts, initiators, curing and cross-linking agents, rubber ingredients, solvents, polymers, and other additives.

### **Nitrogen in the Environment: Sources, Problems and Management**

Edited by R. F. Follett and J. L. Hatfield

*Elsevier Science: Amsterdam, The Netherlands, 2001; 538 pp.*

Contains sections covering the background and importance of nitrogen, nitrogen transport and water quality, atmospheric effects, emerging modeling and nutrient management technologies, and economic and policy issues.

### **Insect Pest Management: Techniques for Environmental Protection**

Edited by J. E. Rechcigl and N. A. Rechcigl

*Lewis Publishers: Boca Raton, FL, 2000; 392 pp.*

Presents an overview of ecological, physical, chemical, and biological pest control measures, as well as cultural practices that enhance pest control, with an emphasis on environmentally safe and ecologically sound management.

### **Antioxidants in Food: Practical Applications**

Edited by J. Pokorny, N. Yanishlieva, and M. H. Gordon

*CRC Press: Boca Raton, FL, 2001; 388 pp.*

Topics discussed include antioxidants and food stability, antioxidants and health, sources of natural antioxidants, and practical applications in food products and processing.

### **Coffee Flavor Chemistry**

By I. Flament, with the collaboration of Y. Bessiere-Thomas

*Wiley: Chichester, U.K., 2002; 422 pp.*

Describes individual constituents contributing to the smell of green coffee and the flavor of roasted coffee. Includes a short history of coffee and a historical survey of coffee aroma research, as well as a chapter on roasting reactions and analysis of constituents.

### **Soil Liquid Phase Composition**

By V. V. Snakin, A. A. Prisyazhnaya, and E. Kovacs-Lang

*Elsevier Science: Amsterdam, The Netherlands, 2001; 316 pp.*

Discusses soil liquid phase as a structural element of ecosystems, the impacts of environmental factors and processes on the soil liquid phase, spatial and temporal properties of soil liquid phase, and methods for investigation.

### **19th International Conference on Coffee Science**

Association Scientifique Internationale du Café (ASIC)

*ASIC, Italy, 2001; published as a CD-ROM.*

Proceedings of a meeting held May 14–18, 2001, in Trieste, Italy. Includes sections on human physiological effects, chemistry, coffee processing, moisture control to prevent mold, genomics, breeding and genetics, biotechnology, agronomy, and pests and diseases.

### **Fenaroli's Handbook of Flavor Ingredients, 4th ed.**

Edited by G. A. Burdock

*CRC Press: Boca Raton, FL, 2002; 1863 pp.*

Entries contain primary name, synonyms, identifying codes and numbers, description, sensory thresholds, molecular structure, empirical formula/MW, specifications, natural occurrence, synthesis, consumption, food use categories, and regulations/guidelines.

### **Handbook of Nutrition and Food**

Edited by C. D. Berdanier

*CRC Press: Boca Raton, FL, 2002; 1533 pp.*

Covers food constituents, metabolism, comparative nutrition, human nutrient needs in the life cycle, human nutritional status assessment, modified diets, and clinical nutrition.

### **Delivery and Perception of Pathogen Signals in Plants**

Edited by N. T. Keen, S. Mayama, J. E. Leach, and S. Tsuyumu

*American Phytopathological Society: St. Paul, MN, 2001; 280 pp.*

Summarizes the 8th Japan–U.S. seminar on plant–pathogen interactions.

**Merck Index: an Encyclopedia of Chemicals, Drugs, and Biologicals, 13th ed.**

Edited by J. O'Neill, A. Smith, and P. E. Heckelman

*Merck: Whitehouse Station, NJ, 2001; 2564 pp.*

A one-volume encyclopedia of chemicals, drugs, and biologicals, containing over 10000 concise descriptions of single substances or small groups of closely related compounds. Indices include Name, Formula, CAS Registry Number, and Therapeutic Category/Biological Activity. Organic name reactions are listed and described.

**Genetically Engineered Organisms: Assessing Environment and Human Health Effects**

Edited by D. K. Letourneau and B. E. Burrows

*CRC Press: Boca Raton, FL, 2002; 438 pp.*

Discusses research on pollen movement, spread of transgenes in natural communities, fitness effects, resistance development, benefits, risks, and unpredicted impacts on target and nontarget organisms.

**Herbicide Resistance and World Grains**

Edited by S. B. Powles and D. L. Shaner

*CRC Press: Boca Raton, FL, 2001; 308 pp. mtb*

Examines the impact of transgenic crops and new technology on herbicide resistance management in maize, soybean, wheat, canola, and rice ecosystems.

**Aroma Active Compounds in Foods: Chemistry and Sensory Properties**

Edited by G. R. Takeoka, K.-H. Engel, and M. Guntert

*ACS Symposium Series 794; American Chemical Society: Washington, DC, 2001; 303 pp.*

Contains sections on instrumental analysis of food flavors; correlation between sensory properties and chemical structures; synthetic, thermal reaction, and enzymatic approaches to flavor components; and additional properties of flavor components.

**Active Packaging for Food Applications**

By A. L. Brody, E. R. Strupinsky, and L. R. Kline

*CRC Press: Boca Raton, FL, 2001; 224 pp.*

Oxygen scavengers, oxygen scavenger systems, moisture control, gas permeability control, ethylene control, odor removers, aroma emissions from plastics, and antimicrobial packaging are discussed.

**Osmotic Dehydration and Vacuum Impregnation: Applications in Food Industries**

Edited by P. Fito, A. Chiralt, J. M. Barat, W. E. L. Spiess, and D. Beshnlian  
*CRC Press: Boca Raton, FL, 2001; 336 pp.*

Presents developments in osmotic dehydration and vacuum impregnation in fruit and vegetables; also discusses salting processes, vacuum salting, and combined processes.

**Pulsed Electric Fields in Food Processing: Fundamental Aspects and Applications**

Edited by G. V. Barbosa-Canovas, Q. H. Zhang, and G. Tabilo-Munizaga  
*CRC Press: Boca Raton, FL, 2001; 289 pp.*

Topics include engineering considerations, physical properties with measured values in specific foods, pulsed electric field inactivation of enzymes and microorganisms, comparisons with other technologies for microbial inactivation, shelf stability, sensory analysis, and product safety assurance.

**Irradiation for Food Safety and Quality**

Edited by P. Loaharanu and P. Thomas

*CRC Press: Boca Raton, FL, 2001; 232 pp.*

Proceedings of FAO/IAEA/WHO International Conference on Ensuring the Safety and Quality of Food through Radiation Processing, October 19–22, 1999, Antalya, Turkey.

**Structured and Modified Lipids**

Edited by F. D. Gunstone

*Dekker: New York, NY, 2001; 557 pp.*

Examines why new structured lipids and lipid sources are required; discusses quality assurance for lipid modification methods, extending the use of specialty oils, the nutritional importance of milk fat, fish oils, and microorganisms; and considers the use of reduced and zero energy lipids and fat-like substances.

**Metabolic Maps: Pesticides, Environmentally Relevant Molecules and Biologically Active Molecules**

By H. Aizawa

*Academic Press: San Diego, CA, 2001, 343 pp.*

Contains metabolic maps outlining the fate of pesticides, pharmaceuticals, natural products, and chemicals of environmental concern. Covers information presented in references published since approximately 1985.

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