



Book reviews

Reviews in Food and Nutrition Toxicity: Volume 1

V.R. Preedy, R.R. Watson (Eds.); Taylor & Francis, London, 2003, xii + 458 pp., ISBN 0-415-28025-7, £115.00

A vast range of chemical components, additives, etc. are utilised in the production of foods and beverages for a variety of reasons, mostly to improve particular physico-chemical characteristics and properties or to prevent decomposition (increase shelf life). However, some may cause unwanted allergenic reactions and other health problems. Such potentially toxic compounds can be found in both chemical and biological products, especially plant-derived components that are routinely used in human foodstuffs (such as herbs and spices). It is a widely held belief that such components are ‘natural’ and therefore intrinsically harmless and potentially beneficial, however, in certain circumstances they can be potentially toxic or even fatal.

This volume is comprised of 19 chapters, which present a detailed overview of food toxins; chemical and metal substances that can act as toxic agents and allergens that can be found in beverages, vegetables and fruits, crops, and other food and nutrition products. Some nutrients seem to have considerable benefits, however, they may cause some illnesses and associated health problems. Selected topics covered include the toxicity of herbal beverages, arsenic in vegetables, allergens in food, metals in wine, pesticide residues, and ethylene oxide in the food supply. Topics of specific interest to biopolymer scientists include cyanogenic compounds in cassava, toxic considerations related to the ingestion of carrageenan, parenteral nutrition as a source of toxicity, and the safety of probiotic bacteria.

All of the aforementioned topics include information and evidence from animal models and human studies in order to clearly demonstrate the beneficial role of nutritional compounds in the prevention and/or treatment of related diseases and also to provide a broad range of detailed information on toxicity in food and nutrition. This volume is highly recommended to all individuals with research interests in areas of toxicology, pharmacology, food science and nutrition.

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Available online 9 September 2004

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doi:10.1016/j.carbpol.2004.05.001

Encyclopedia of Common Natural Ingredients used in Food, Drugs and Cosmetics (2nd Edition)

A.Y. Leung, S. Foster (Eds.); Wiley-Interscience, Hoboken, NJ, USA, 2003, xxxv + 649 pages, ISBN 0-471-47128-3, £96.95

Numerous natural ingredients are currently used in the production of commercial food, drug, and cosmetic products. These do not include antibiotics, vitamins and many other natural substances that constitute prescription drugs, or medicinal herbs, some of which are not readily available in commercial products. Most are materials from actual ‘natural’ sources, e.g. botanical extracts, and some are produced or modified by chemical processes. Such natural ingredients often contain many chemical constituents, some of whom may have toxic effects and cannot be used to humans. However, the mere presence of such toxic components in a natural ingredient does not necessarily make the ingredient toxic. The concentration and biological availability of the toxic component should be taken into account in order to determine the potential toxicity of the ingredient itself.

Continuing increases in the use of natural ingredients means that detailed information about such ingredients, particularly chemical compositional information, is required, and is available as a result of the continuous development of more powerful analytical techniques. This encyclopaedia aims to be a reference volume that deals specifically and simultaneously with commonly used natural ingredients in processed foods, over-the counter drugs and cosmetics. This volume provides information on the composition, processing and manner of use of approximately 500 of the most commonly used natural ingredients. Each entry is presented in alphabetical order according to its common name (which is cross-referenced to

its scientific name in the index), and includes synonyms, a general description, chemical composition information, purity, uses, commercial preparations, regulatory status, classifications and references. Information on sources, habitats, parts used or derived from, and pharmacology or biological activities is also provided where possible.

The uses of ingredients described in this volume are categorised into four major areas: pharmaceutical and/or cosmetic, food, traditional medicine, and others, which refer to current uses in commercially available products (mainly in the USA). A glossary of terminology commonly used in the botanical industry is found in the introduction. Specific references are cited immediately following each entry. Seventy new entries are presented in this edition, especially in health food products, over-the-counter drugs, and herbal teas and formulations for prevention and treatment of illnesses and diseases. Furthermore, a new classification on Chinese medicinal herbs, drawing on both classical and modern Chinese medicine provides information from over 50 Chinese journals for the first time in English.

In conclusion, this volume is an easily accessible source of detailed information on natural ingredients and will be of value to chemists, food technologists, pharmacists, botanists, and product developers in the cosmetic, food and drug industries, as well as consumers and researchers who require an authoritative, up-to-date source of accurate information on this constantly expanding area.

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doi:10.1016/j.carbpol.2004.05.002