

BOOK REVIEWS

Encyclopedia of Common Natural Ingredients used in Food, Drugs and Cosmetics, A. Y. LEUNG, Glen Rock, N.J. Wiley-Interscience, 605 Third Avenue, New York, NY 10158. 1980. xvi+409 pp. 18 x 26 cm. \$47.00.

Plant products are prime ingredients in many nonprescription drugs and foods and in cosmetics, soaps, and perfumes. A few of these products have uses in other consumer products. This encyclopedia is a collection of monographs of such products. The monographs describe plant parts such as barks and seeds, extracts prepared from plants or plant parts, plant exudates such as balsams and resins, essential and fixed oils and waxes and extracts of these, a few semipure products such as papain and algin, and one pure chemical substance, monosodium-glutamate. Each monograph is introduced by the common name of the product, and each monograph includes sections on (i) nomenclature, including synonyms and the genus, species, and family name of the plant source; (ii) a general description of the plant and its geographic and/or commercial origin, including some detail of the relationship of the product to the plant source; (iii) chemical composition of the product; (iv) the pharmacology or biological activity of the product; (v) uses in pharmaceuticals, cosmetics, and foods and, when appropriate, the folk medicine uses of the product; (vi) commercial preparations, and; (vii) regulatory status. Each monograph concludes with a list of references which are specifically related to the monograph. However, reference is also made to one or more of a list of 83 general references which are provided in a separate list immediately preceding the index. These later references are largely monographs and textbooks, but the list also includes an herbal and a number of books on folk medicine.

The volume contains a glossary of terms as a part of the introduction. The index is divided into two parts. The first section includes all of the common names and the scientific names, as well as all of the major use terms with the products grouped under each term. A chemical index which follows this presentation is a list of all of the chemical constituents listed in the monographs.

The author and the publisher contend that this reference book fills a void in a field where reference texts available today contain limited information or are out of date. I believe that most readers and workers in this field will concur in this assessment. To my knowledge, however, there never has been a book which covered such a broad array of substances. Most textbooks and monographs developed in the past have concentrated on a major field of natural products, that is, those used either as drugs or foods or cosmetics. This encyclopedia, therefore, offers a rather complete set of monographs which will best serve the technician, as well as individuals in the area of sales and purchasing in the chemical, pharmaceutical, food, and cosmetic industries. What it offers in completeness for this broad array of personnel, it lacks in thoroughness for most specialists or officials in any one of them. But even for the specialist, this volume may offer some new information. For a pharmacist, the language and the regulatory detail associated with food products were enlightening and probably the converse is also true. For example, the acronym "GRAS" means generally recognized as safe, as sanctioned by the FDA, but the fact that an ingredient having been approved for food use is not necessarily GRAS is somewhat confusing. In another instance, the fact that some products are "official in the F.C.C." referred to a compendium known as the Food Chemicals Codex. The second edition, which I presume is the latest, was published in 1972 by the National Academy of Sciences. It is a compendium of 639 monographs of food substances and has been given official recognition by the FDA. Finally, I was even able to add one new product to my long list of aphrodisiacs.

In attempting to assess the worth of this volume for a technician, a salesperson, or a buyer, I believe there are areas of overemphasis as well as underemphasis. The author informs the reader that there are grades of such products as pectin, papain, and carageenan, as well as of numerous other products, but then he provides no qualification of these. On the other hand, the undue attention given to a listing of the minor and not particularly pertinent chemical constituents of many products is probably useless information and detail for these readers. Additionally, the regular citing of the J. L. Hartwell articles on the folkloric use of plant products in cancer treatment is an emphasis which is difficult to justify, especially since the citation in many cases was based upon a single observation. Also, the manner in which certain products are presented may lead to some confusion. Cocoa butter, for example, is presented within the monograph labelled "cocoa", and detail about cocoa butter is scattered over four pages of text dealing with cocoa seeds, cocoa powder, cocoa extracts, and cocoa syrup. This is one example of numerous monographs which embrace multiple products. The index, however, enables the user to locate the product being sought. Finally, the attention given to the toxicity or potential toxicity of these products is meager.

The monographs are otherwise clear presentations making liberal use of references, many secondary in nature, including a number cited through Chemical Abstracts. This text will probably be well received by those for whom it is intended. The natural products chemist and the pharmacognosist will still need the more comprehensive, although sometimes old, references for introduction to these products and the modern literature retrieval systems for access to contemporary knowledge about them.

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