

variety of sources including onions, leeks and a pig liver extract. Chemical synthesis of a wide range of flavonoid derivatives, including daidzein, daidzein-7-sulphate, diadzein-7-glucuronide, quercetin-3-sulphate, quercetin-3'-sulphate, 3-methylquercetin, quercetin-3-glucuronide, isorhamnetin, and 3'- and 4'-methylcatechin, is described in copious detail in an informative contribution by Plumb et al.

Much of the current interest in the nutritional relevance of phytochemicals has its origins in early 1990s when Dutch investigator Michael Hertog acid hydrolysed fruits, vegetables and beverages containing flavonols and flavones and quantified the released aglycones by isocratic HPLC with detection at 365 nm. The subsequent development of the methodology for the quantitative determination of flavonols in foods and biological fluids is covered in an article by Arts et al. This charts the use of enzyme as well as acid hydrolysis and the increase in sensitivity and selectivity that is necessary to analyse plasma and urine that can be achieved with electrochemical detection or post-column derivatization to form fluorescent flavonol derivatives.

There is a 36 page tour de force by Bond and his colleagues from the Unilever Research Group on the analysis, purification and chemical and physical properties of tea derived catechins, theaflavins and their polymeric oxidation products. There is an enormous amount of valuable information in this chapter which if not presented in this book would probably have remained hidden in laboratory note books and been lost as it would never have been published. This is followed by two extremely useful and detailed reviews, by Lazarus and her American colleagues and Cheynier and Fulcrand, on the specialised procedures involved in the purification and analysis of proanthocyanins and various com-

plexes including tannins from teas, red wines, cocoa and other plant sources.

Clifford contributes a chapter that provides very useful and informed insights into the properties, purification, analysis and characterization of caffeoylquinic acids and other hydroxycinnamate derivatives. Anyone even thinking about analysing chlorogenic acid (5-*O*-caffeoylquinic acid) and related compounds must read this article. Finally, the book concludes with chapters on the analysis and identification of anthocyanins by Rivas-Gonzalo and flavanones, chalcones and dihydroxy-chalcones by Tomás-Barberán et al.

Overall, this is a high quality book that contains much more than a straight forward catalogue of the methods used to purify and identify polyphenols. All the chapters are written by investigators who have a solid analytical background and have made a significant contribution to the field, no “fly-by-night” operators here! The contributors have been well chosen by the editors who have clearly done much work to ensure the high quality of the text and the illustrations. The book is an essential reference for anyone working on the analysis of polyphenols, it is an extremely rich source of information for the experienced investigator and even more so for new comers to the field. It is a book which will be consulted routinely (my copy is already “well-thumbed”) and not one that gathers dust, unused on the top shelf of a bookcase.

Alan Crozier

Plant Products and Human Nutrition Group

Graham Kerr Building

Division of Biochemistry and Molecular Biology

Institute of Biomedical and Life Sciences

University of Glasgow

Glasgow G12 8QQ, UK

E-mail address: a.crozier@bio.gla.ac

doi:10.1016/S0031-9422(03)00512-0

Plant Resources of Southeast Asia (PROSEA) No.17: Fibre Plants

Eds. M. Brink and R.P. Escobin, Backhuys Publishers, Leiden, The Netherlands, 2003. 456 pp. ISBN 90-5782-129-X. Euro 120

This text, vol. 17 of the Prosea Handbook series, provides a collection of data on fibre-producing plants, which are important regionally or locally to Southeast Asia. These plants are important natural resources and are grown or collected for their fibres, having commercial applications for textiles, cordage, paper, baskets, mats, wickerwork and thatching. Many of the most economically useful fibre plants in use worldwide

today occur in this region and are described in this book.

A very comprehensive collection of 72 major plant species and 129 minor plant species primarily used as fibre-producers comprises the largest part of the book; a further 450 plant species are listed, whose use as fibre-producers is secondary to their main applications. The 72 major fibre plants described in Chapter 1 include the very important international mainstays of commerce, *Gossypium* spp. (cotton), *Corchorus* spp. (jute) and *Linum usitatissimum* L. (flax), and are arranged alphabetically from *Abroma augusta* (devil's cotton) to *Wikstroemia ovata* (salago). This chapter also contains brief compilations of the chemical and physical compositions

of natural plant biopolymers such as cellulose, hemicellulose, lignin and pectin, and follows with a survey of the botany, ecology, agronomy, harvesting and processing of the plants.

Chapter 2 is the major focus of the text and contains a detailed survey of a selected 45 genera and species of the major fibre-producing plants surveyed in the previous chapter; there is much useful information here, including vernacular nomenclature, origins, geographical distribution, botanical classification and practical details on the harvesting and processing for each of the plants selected. This survey occupies an information-packed 184 pages and contains a literature digest, compiled for each entry for further research.

Chapter 3 accomplishes a similar but albeit briefer survey of the minor fibre-producing plants (56 pages and 201 references). Chapter 4 lists the fibre plants which have other primary uses and this occupies 85 pages, including references.

A useful feature of the book is the glossary and indices of vernacular and scientific names of the plants described in the book, which facilitates the location of a plant described in the text accurately and rapidly.

The book is an excellent compilation of botanical, chemical, ecological and geographical information about a highly important group of plants. It provides a valuable addition and supplement to the literature for specialists and for those who are approaching the subject with interdisciplinary backgrounds. The information contained in this book should benefit researchers into these valuable natural resources especially for the detailed source materials and cross-referencing contained therein. The book is recommended as a reference source for these plants and is a worthy addition to the Prosea library.

H.G.M. Edwards

*Department of Chemical and Forensic Sciences
University of Bradford, West Yorkshire, UK
E-mail address: h.g.m.edwards@bradford.ac.uk*