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PHYTOCHEMISTRY

Phytochemistry 63 (2003) 631–633

www.elsevier.com/locate/phytochem

Book reviews

Handbook of Plant and Crop Physiology (2nd ed.)

M. Pessaraki (Ed.) Marcel Dekker, Inc. New York, Basel, ISBN 0-8247-0546-7, hardback £152.71

This editor intends this book to be a complete and comprehensive collection of topics in plant and crop physiology and with 48 chapters in 12 sections it makes a gallant attempt at reaching this ambitious goal. The sections group the chapters in a logical fashion. However the section Physiological relationships between lower and higher plants seems wrongly titled since it has only one chapter and that is on parasitic Angiosperms. The other section on lower plants discusses Volvox, mosses and ferns and although it might seem a bit out of place in a book with crop in its title it does remind the reader of the value of model organisms. The two chapters at the end round the volume off nicely. The first on lighting in controlled environments reminds us that artificial days are much more complex than turning the lights on and off while the last reminds us that one day we will be growing plants in outer space.

The book is nearly 1000 pages in length and clearly cannot delve into too much detail on every subject. The selection of topics seems appropriate and the individual chapters are a reasonable length, introducing each subject in an easily readable format. Most students should be able to follow the subject matter but the book is still informa-

tive to the experienced researcher. Each chapter cites a wide range of literature with some having as many as 200 references. In many of the chapters the cited literature goes back to papers in the 1930s and 1940s, which is heartening in this day and age when many students usually do not look further than the web. On the other hand, many chapters contain very recent references so the book certainly provides a ready access to the relevant literature.

The publisher has not helped the editor in presenting these diverse topics. Quite a few of the pictures look as if they were in colour and have been photocopied. Clearly production costs have to be kept down especially on a book of this size but at over £150 I feel that I should be able to find the minor veins in *Syringa vulgaris* or discern the parts of the photosystem complex without bright lights.

In conclusion the authors and editor have done a good job and the book should be prescribed reading for all those molecular biologists who do not realise that a knowledge of genes is of no use without an understanding of function.

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doi:10.1016/S0031-9422(03)00200-0

The Simple Plant Isoquinolines

Alexander T. Shulgin and Wendy E. Perry, Transform Press, 2002, xxxv + 624 pp., Hardback, ISBN: 0-9630096-2-1, \$40.00

The title *The Simple Plant Isoquinolines* will certainly draw immediate attention of anybody working in the area of natural products, especially plant alkaloids. Considering the recent resurgence of interest in phytochemical research, both in academia and industries, the timing for publication of this book is absolutely perfect. The authors' excellent effort in compiling all the names, structures and sources of simple plant

isoquinolines in a single easy-to-use volume must be appreciated greatly.

This book consists of mainly introduction, trivial name index, structural index and taxon index. The introduction focuses generally on the nomenclature and numbering of plant alkaloids, and chemical relationships among various isoquinoline alkaloids. However, in my opinion, the introduction lacks in some fundamental details regarding biosynthetic origin of these plant secondary alkaloids and can hardly be described as 'adequate'. It would have been useful if the authors had discussed the chemistry of these isoquinolines in the light of possible biosynthetic pathways. A brief discus-