

but not complex. Two or three such diagrams may appear on the same page, thereby making useful comparisons easy to see.

The appendices include a comprehensive glossary (25 pages), a bibliography for each unit, and 14 color plates of major food-producing plants. These plates are attractive and detailed, and the accompanying descriptions are interesting. They form an appropriate ending for a botany textbook, in these times of increased awareness of the importance of plants in the feeding of mankind.

I have only one criticism. The text tends to be encumbered with technical terms, some of which seem unnecessary at this beginning level. For example, the algal component of lichens is easily enough understood without the use of the term "phycobiont."

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MYCOLOGY GUIDEBOOK, ed. by Russell B. Stevens. 1974. University of Washington Press, Seattle. 727 p. \$15.00.

Mycology Guidebook is an extensive compilation of a wide-ranging variety of information appropriate to introductory mycology laboratories in particular.

The book is organized into four parts and several appendices. Part I deals—briefly, and in general terms—with the collection, isolation, and maintenance of cultures and specimens of fungi. Part II repeats the approach of Part I but does so for many specific taxonomic groups. Additionally, manipulative techniques and suggested experiments are presented, often with appropriate literature citations. The taxonomy used here is very close to that found in *Introductory Mycology*, by Alexopoulos. The approaches of Part II are repeated in Part III, but an ecological rather than a taxonomic emphasis is employed. Mycorrhizae, dung fungi, predaceous fungi, and many others are included here. Part IV deals with the use of fungi in demonstrating genetic, physiological, and ecological phenomena. Finally, there are several valuable appendices dealing with sources of cultures, specimens, and audiovisual materials and formulas for media, stains, and solutions.

In general the availability of this guidebook—and the name is well-chosen—will undoubtedly result in the improvement of mycological instruction. This will occur through the use of more and varied living material and through expansion of traditional morphological-taxonomical approaches into those of genetics, physiology, ecology, and industrial mycology.

Mycology instructors will find the book invaluable, and it may well serve as a sourcebook for teachers of botany

and general biology at the high school and college levels. The Committee of Mycologists, chaired by the editor Russell Stevens, are to be commended for providing an overdue and invaluable resource for large numbers of biologists.

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TOPICS IN BOTANY: A LABORATORY MANUAL, by Ray F. Evert and Susan E. Eichhorn. 1974. Kendall/Hunt Publishing Co., Dubuque, Iowa. 99 p. \$4.25 (softback).

In this laboratory manual, designed for introductory botany courses, the authors attempt to acquaint students with recent advances in the plant sciences, while providing sufficient basic principles for a strong foundation in botany. Each of the 24 laboratory exercises is brief but concise. This may be an attractive feature to some instructors and students.

The book commences with exercises on laboratory techniques, cell structure and function, plant physiology, and photosynthesis. These are followed with topics on the major plant groups, and the book concludes with several exercises on plant anatomy and plant growth and development. Questions are provided for each topic, as are illustrations, tables, and life cycles where pertinent.

The number of laboratory manuals suited for one-semester or one-quarter botany courses is rather limited. This book should, therefore, be a welcome addition.

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PLANT FUN: TEN EASY PLANTS TO GROW INDOORS, by Anita Holmes Soucie. 1974. Four Winds Press, New York. 125 p. \$5.95 hardback.

The beginning indoor gardener will delight in a book which dissolves the green-thumb mystique and approaches the problems of plant selection, soil preparation, crockery, potting, and plant care with a basic no-nonsense attitude. A practical introduction to ten, easy-to-grow, easy-to-obtain, inexpensive plants includes discussions of the following: African violet, avocado, wax begonia, desert cacti, coleus, jade plant, dieffenbachia, grape ivy, philodendron, and sweet potato. Individual attention is given to each plant with emphasis on its daily care, environmental requirements, monthly care, pests, and repotting. If one should find the introduction to plant propagation (ch. 3) a bit premature, methods for propagating each plant are described for use after one has mastered the skill of simply keeping a plant alive.

Probably the most frustrating problem for the beginner is trying to figure out what on earth is wrong with an ailing plant. Unfortunately, the chapter on identifying problems is too brief and not specific for the peculiarities of each plant. However, knowledge about first aid for plants usually comes from years of experience and does not belong in an introductory book. As the author points out, you can find inexpensive plants virtually anywhere; however, I feel it is not a good idea to buy your first plant from a store whose salesperson cannot give you some simple pointers on its maintenance and care. There is often an advantage in paying the "slightly higher" prices at greenhouses; they can recognize the need for your first encounter with house planting to be a successful one.

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BOTANY: AN INTRODUCTION TO PLANT BIOLOGY, by T. Elliot Weier, C. Ralph Stocking, and Michael G. Barbour. 5th ed., 1974. John Wiley & Sons, Inc. New York. 697 p. \$14.95.

This textbook has progressed through five editions and has been written by an almost equal number of author groups. Throughout its life the book has had essentially the same purposes—to acquaint beginning students with the various fields of modern botany; to impress them with the great diversity of plants included within each of the phyla; and to prepare students adequately for further work in botany. The text reads easily. The illustrations are superb. The coverage is extensive, and function is interwoven with structure to give greater reality to the biological concepts. Students are alerted to new words and key ideas by their presentation in heavier type; this often gives pages a fact-packed appearance.

After a short introduction to plant diversity and classification, studies of structure and function take over. A discussion of the basic anatomy of typical plant cells is followed by some details of their physiology along with enough related physical principles and chemical reactions to present definite ideas of plant metabolism without snowing the beginner. Protein synthesis, as regulated by DNA and RNA, receives extended treatment in the section on the dividing cell.

The next 212 pages are devoted to the structures and activities of seed plants: their stems, roots, leaves, flowers, and fruits. Pictures, sketches, diagrams, and charts—whatever will effectively clarify or amplify the textual materials—have been included. Textual explanations are simple and to the point. Details and flow diagrams in the sections on photosynthesis and respiration use more names and empirical formulas than the usual maze (for