



THE NEW YORK BOTANICAL GARDEN



Springer

Review: [untitled]

Author(s): Richard Evans Schultes

Source: *Economic Botany*, Vol. 20, No. 1 (Jan. - Mar., 1966), pp. 111-112

Published by: Springer on behalf of New York Botanical Garden Press

Stable URL: <http://www.jstor.org/stable/4252714>

Accessed: 13/08/2010 09:42

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=nybg>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



New York Botanical Garden Press and Springer are collaborating with JSTOR to digitize, preserve and extend access to *Economic Botany*.

<http://www.jstor.org>

lations of Plants have done a good job, although some of the translations are rather poor (all of the authors are British or Europeans). I felt that the editors could have corrected a number of rather obvious and typical mistakes which arose because the papers were translated or were originally written by authors whose native language was not English. For the most part, however, there is a considerable uniformity of style with relatively few typographical errors.

It is difficult to generalize about a volume composed by some 28 different authors, but two rather general opinions formed in my mind as I read through these papers. First, there is quite a bit of rather fuzzy thinking. The most typical example concerns conclusions drawn on the basis of correlations which may or may not have a cause-effect relationship. It may be that, in this area of measurement in the field and then attempt at physiological explanation, such an approach is almost unavoidable, but we should fight the tendency. Second, there is a great deal of excess talk. A professor of mine once suggested that ecology might be defined as "the painful elaboration of the obvious." In many cases this is well borne out in the volume under discussion. Whereas Kozłowski's telegraphic style of the reviewer became very annoying, the exact opposite, long drawn out speculations based upon rather scanty and sometimes doubtful data, mars the value of this volume.

A few of the papers are trivial, being concerned with field measurements carried out by relatively poor methods and under conditions in which many of the parameters could not be measured. These contain much estimation and speculation. Although such work has some justification, reading about it can become a trying experience.

On the other hand, a few papers are outstanding, and some of these are exciting to read. Monteith's discussion of dew, for example, is extremely informative. Weatherley's discussion of water movement across the root cortex and the leaf mesophyll is also most stimulating and valuable. I have revised some of my research plans in light of this and related papers. In general, the theoretical papers on water and water movement in the environment, and the physiological studies of water balance, are more

interesting and valuable (there are eight of these papers) than the subsequent more typically ecological papers on water relations in natural conditions and the relation of growth and distribution to water (there are 19 of these papers). Whitehead's paper on wind is especially good among the ecological papers, and much is to be learned from Walter's paper on the water supply of desert plants, bringing together many years of experience.

Surely the most outstanding paper in this group, however, is that of Tranquillini who summarizes water relations of plants in the subalpine region. This is a wonderful model of a review-type paper. If Kozłowski could have followed this style, his book would have been readable. Tranquillini summarizes the work of the Austrian researchers in this field over at least a 30-year period, providing just enough data in graphical and tabular form to make his discussion meaningful without burying the reader in technical details. By such an approach he is able to provide adequate documentation for the general conclusions and the broad approach which are emphasized.

There are many good insights to be sifted out of the British volume, and Kozłowski's book contains a wealth of material. Both works should be on the reference shelves of workers in the field.

FRANK B. SALISBURY
Colorado State University
Fort Collins, Colorado

Proteins—Their Chemistry and Politics. Aaron M. Altschul. 337 pp. illus. Basic Books, New York, 1965. \$7.50.

At long last we have a non-technical book about proteins and their role in human affairs by a technical writer. And what makes it all the better is that it is an outstanding book that even the technically trained reader will find refreshing. Dr. Altschul, an internationally known specialist in plant-protein chemistry, is a member of the Seed Protein Pioneering Research Laboratory of the United States Department of Agriculture, a Professor of Chemistry at Tulane, and a Lecturer in Nutrition and Food Science at Massachusetts Institute of Technology. What brings him closer to readers of *Economic Botany* is the fact that he is

an active member of its editorial board.

This new book considers the role of proteins in the human diet and the role of proteins (or their lack) in world politics. A most fascinatingly written introduction (I) is followed by a section (II) on the chemistry of proteins—their structure, synthesis, and role as enzymes, and similar topics. Section III (“Proteins in Foods”) outlines such problems as protein requirements of man, nutritive value of different proteins, effect of heat (cooking, preservation, processing, etc.) on protein food value, general discussions, and considerations. In the final section (IV), there is a general discussion followed by rather specific or detailed consideration of the protein food problem and constructive suggestions as to possible solution of the critical protein shortages in some parts of the world.

Altschul somehow manages to infect his reader with his own well adjusted enthusiasms for proteins. Many specialists are inclined to lose themselves in perhaps justified enthusiasm for their own very restricted field of research and to arrive oftentimes at rather warped or limited general conclusions. Throughout his book, Altschul, while emphasizing proteins and the seriousness of their scarcity, never fails to keep a critical perspective. The reader sees this in one of his first sentences: “Proteins are a food, just as are fats and carbohydrates, vitamins and minerals; yet there is something special and unique about proteins.” Not of least importance in the contribution of this volume are the up-to-date and critically chosen bibliographies of current literature at the end of each section.

This volume not only will be read avidly by the educated layman—if it be brought to his attention by the wide review which it deserves in popular magazines and newspapers—but it will (or should) be widely employed in our universities in their courses in economic botany, nutritional science, and certain kinds of sociology. It may be a long time before we have such a succinct but panoramic appreciation of the role in human affairs of a chemical plant constituent.

RICHARD EVANS SCHULTES
*Botanical Museum
Harvard University
Cambridge, Massachusetts*

Elsevier's Wood Dictionary in Seven Languages. Vol. 1. Commercial and Botanical Nomenclature of World-Timbers; Sources of Supply. W. Boerhave Beekman. 479 pp. American Elsevier Publishing Company, New York, 1964. \$20.00.

This valuable book reflects the author's many years of experience with the timbers of both the Old and New Worlds. The author indicates that the need for a multilingual dictionary of wood became all too apparent when he served as Chairman of Mission 18 (Forests and Forest Products) under the “Marshall Plan.” The direct impetus for the present work was provided by the 1953 O.E.E.C. Stuttgart Congress. The book is designed primarily for foresters, wood technologists, and the forest products industries. Commercial and botanical names of 2500 world timbers and the sources of supply of these timbers are listed in seven languages.

The plan of this book is unique and very functional. In the first section the 2500 species are listed alphabetically by common name (3,700 English names), and for each is given a general reference number, a botanical reference number, and the synonyms in the six other languages (French, Spanish, Italian, Swedish, Dutch, and German); the sources of supply are also given in this section. The second section contains the scientific names. These names are alphabetically arranged according to genus, and before each species is the botanical reference number from the first section. Following this second section are common name lists in the six non-English languages. These lists have the general reference number to the English names so that the information is well cross referenced.

This book serves its intended purpose well, but I would have liked the family names as well as the genus names in the second section. Also the book does not fulfill the need for a more complete coverage of the woody plants. A companion volume of multilingual anatomical terms used in the description of woods would also be valuable.

GRAEME P. BERLYN
*Yale University
New Haven, Connecticut*