Book Reviews

AUXINS AND PLANT GROWTH
By A. Carl Leopold. Berkeley and Los Angeles, Univ. of Calif., Press. 354 pages. illus. 1955. $5.00.

This book was written to assemble the fundamental work dealing with auxins and plant growth regulators. In the preface the author states that his object was to integrate the fundamental information on auxins with each of the applied phases of auxin technology. This aim has been attained by dividing the book into two parts: Fundamentals of Auxin Action, and Auxins in Agriculture. In the first part the development of the auxin concept and the revision and mechanism of growth regulators are discussed. Part two of this book deals with the practical uses of auxins in agriculture. Here are discussed such topics as rooting, parthenocarpic flower and fruit, hormonal defoliation and storage, and herbicides. The final chapter discusses the future potential of auxins in agriculture.

The author has succeeded very well in bringing together the mass of data in this field into an effective and well illustrated treatise. Numerous photographs, graphs, charts, and diagrams are used effectively throughout the text and an extensive bibliography is included in the appendix. This book is intended primarily for research workers who are interested in both fundamental and applied phases of plant physiology. It should be of value to an agronomist, a horticulturist, a plant pathologist, as well as to the plant physiologist interested in the fundamentals of auxin physiology—S. C. WIGGANS.

APPLIED ENTOMOLOGY. AN INTRODUCTORY TEXTBOOK OF INSECTS IN THEIR RELATION TO MAN, FIFTH EDITION

Since first published in 1921 as one of the McGraw-Hill publications in the Agricultural Sciences, Applied Entomology has been a popular and useful textbook for beginning students of economic entomology. A unique feature of this book has been the presentation of subject matter according to the classification of insects. The fifth edition retains the general organization of the previous editions.

Chapters 1 to 4 deal in a general way with the place of insects in the animal kingdom, and the structure, physiology, and development of insects; chapters 5 to 8 give briefly the economic importance of insects, control methods, and a discussion of insecticides, including the new organic compounds; chapter 9 presents the system of classification; chapters 10 to 33 give a broad outline of the insect orders, including distinctive characters, family designations, examples of important species and their control; chapter 34 gives details on animals other than insects, principally mites and ticks.

The book has excellent balance between text and illustrated material, and is adequately indexed. The thorough revision of many of the chapters is evidenced by the up-to-date titles included in lists of selected references which are at the end of the chapters. A helpful innovation is the use of footnotes to indicate the pronunciation of scientific names. A more concise book is suggested by the elimination of 15 pages and 14 text figures between the editions.

The fifth edition of Applied Entomology continues to attain the objective of the authors; namely, to provide a useful and informative book for students who will not specialize in entomology, but who desire a broad general knowledge of the subject, and also to serve as an introductory survey for those students who expect to become professional entomologists.—J. T. MEDLER.

AMERICAN AGRICULTURE—ITS STRUCTURE AND PLACE IN THE ECONOMY

This is the first of the new Census Monograph Series, sponsored by the Committee on Census Monographs of the Social Science Research Council, and written in cooperation with the USDA Agricultural Research Service. Agricultural statistics tend to make rather dull reading for almost everyone except the agricultural economist, and a book such as this might well serve to help correct such an unfortunate tendency. The voluminous agricultural facts enumerated in the 1950 census are tabled, graphed, mapped, and discussed in such a way that the general status of U. S. agriculture as of 1950, or any segment of it, is laid out clearly, simply, and impressively.

The great value of the book lies in its emphasis on historical changes that have taken place in U. S. agricultural development and the entire national economy. In the preface the author states that not even the American people themselves are fully aware of how far the nation has advanced toward an integrated economy and society in the first half of this century. Chapter headings include the following: Agriculture Today and Yesterday, which includes a discussion on the significance of new technology and inputs; Agriculture in the Total Economic Process, in which the interdependent nature of agriculture is analyzed; Dimensions of the Agricultural Plant; Structure of Commercial Farms in separate chapters on scale and type of commercial farms; Tenure and Debt; Part-time and Residential Farms; Group Interests in Agriculture—a discussion of farm organizations, co-ops, and government functions; Social Features of the Structure of Agriculture; and Changes and Structural Strain. The last is an excellent discussion of the "stresses and strains" which beset agriculture in general and individual farmers in particular. A thoughtful study of this chapter alone should lead many a reader to an understanding of the nature of contemporary agriculture and an appreciation of some of its social and economic problems. The author is an economist in Agricultural Research Service.

PROCEEDINGS, EIGHTH ANNUAL MEETING, SOUTHERN WEED CONFERENCE
Copies obtainable from Conference Secretary-Treasurer E. G. Rodgers, Agronomy Department, College of Agriculture, Gainesville, Fla. 477 pp., mimeo. 1955. $3.50.

This Proceedings contains 80 papers presented at the Eighth Annual Meeting of the Southern Weed Conference, St. Petersburg, Fla., Jan. 17-19, 1955. The papers offer an extensive summary of current work on weed control at southern research institutions. They are grouped under the following headings: general, cotton, other agronomic crops, woody plants, physiology, horticultural crops, and special weed problems. In addition, the volume contains a report of the conference's research committee and the minutes of the business meeting.