

entomologist the value of this compilation would have been increased many fold if definite references to literature cited had been incorporated. At the end of the 20 chapters there is a "bibliographical appendix," a list of some of the more important books and publications in entomology.

In general, the information presented produces fascinating reading. For the average biologist, who is not too familiar with insects, more and better illustrations would have been most helpful. The 70 or more figures are fair to good, with the line drawings superior to the photographs.

The author is to be commended on his effort to cover such a wide scope of knowledge about insects. His presentation of numerous thought-provoking questions, with suggested answers for many of them, adds much to the value of the book. I can recommend this book to anyone who has a moderate knowledge of entomology.

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Livestock and Poultry

Livestock and Livestock Products. Theodore C. Byerly. Prentice-Hall, Englewood Cliffs, N.J., 1964. x + 422 pp. Illus. \$10.

Theodore Byerly drew on his vast experience and training in writing his book *Livestock and Livestock Products*. In addition to several academic posts, he has for many years headed important programs related to the livestock industry for the U.S. Department of Agriculture.

This is but one of a relatively large number of books of this sort that have been published recently. However, the author has condensed a tremendous amount of information into a rather small book. For example, history, breeding, feeding, management, disease and parasite control, and marketing are dealt with in a comprehensive manner. Byerly should be complimented on his free and interesting style of writing. He begins with a very readable and fascinating history of livestock production in the United States and then proceeds with a logical development of the rest of the subject matter. Although it is condensed, the book is very factual and exceptionally well organized. The detailed table of contents is most helpful, and the clear

and informative tables and graphs are excellent. Qualifying statements frequently stress the importance of the industry.

Byerly clearly brings out the rapidly changing field, with the marked trend toward specialization and the shifting centers of production in merchandising. He emphasizes the fact that the decrease in the number of farms with the corresponding increase in the size of the operations requires more managerial skill. Science has eased but not removed the burden of husbandry, although it has helped us to understand the task.

In the discussion of swine breeds, it is rather surprising that the Maryland No. 1 is not mentioned or listed, since it was developed in cooperation with the U.S. Department of Agriculture and has now attained breed status. And in the chapter "Insects affecting livestock" Byerly does not mention the face fly that has been so annoying to cattle in the East during the past 5 years. The seemingly inevitable typographical and printer's errors occasionally appear in this treatise.

In summary, *Livestock and Livestock Products* should be a valuable addition to the other books that deal with this important subject.

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Notes

Plant Diseases

This little paperback book, *Les Maladies des Plantes Maraichers* (Institut National de la Recherche Agronomique, Paris, 1963. 153 pp. Illus. F. 21), by C. M. Messiaen and R. Lafon, was designed as a handbook to aid growers, teachers, extension personnel, and research workers in identifying and controlling the most important diseases that attack vegetable crops. Chapter 1 contains very brief but very good descriptions of the major groups of fungi, bacteria, and viruses that cause plant diseases. Nonparasitic diseases are given very brief descriptions under the respective crop headings. The treatment of bacteria is so brief that it de-emphasizes their importance as plant pathogens. Although one form of bacteria can be distinguished from another only by microscopical and cli-

nical tests, a text should list some of the basic differences—flagellation, color and growth characters on selected media, and the like. The major methods of disease control are described and illustrated in chapter 2.

The remaining chapters describe and illustrate diseases of tomato, eggplant, and pepper; cucurbits; bean, pea, and broad bean; celery and parsley. The material is factual, but many of the illustrations, particularly those of virus diseases, are hand drawings and leave much to be desired. It is difficult to understand why specimen photography was not used throughout. Presumably diseases of potato, onion, crucifers, and spinach will be treated in a second volume.

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Annual Review of Pharmacology. vol. 4, Windsor C. Cutting, Ed. Annual Reviews, Palo Alto, Calif., 1964. xxxii + 453 pp. Illus. \$8.50. There are 21 essays: "Outlines of a pharmacological career," by Ernst Rothlin; "Biochemical mechanism of drug action," by J. R. Cooper; "Receptor mechanisms," by R. F. Furchgott; "Modern concepts in relationship between structure and biological activity," by F. N. Fastier; "Mechanisms of drug absorption and excretion," by Ruth R. Levine and E. W. Pelikan; "Metabolic fate of drugs," R. T. Williams and D. V. Parke; "Antibacterial chemotherapy," by Mary Barber and E. B. Chain; "Cardiovascular pharmacology," by D. M. Aviado; "Effect of drugs on the inotropic property of the heart," B. H. Marks; "Pharmacology of reproduction and fertility," L. Fridhandler and G. Pincus; "Effect of drugs on contractions of vertebrate smooth muscle," by E. E. Daniel; "Toxicology: Organic," by H. W. Gerarde; "Toxicology: Inorganic," by G. Roush, Jr., and R. A. Kehoe; "Drug Allergy," by M. Samter and G. H. Berryman; "Kinins—A group of active peptides," by M. Schachter; "Composition and mode of action of some invertebrate venoms," by John H. Welsh; "New substances of plant origin," T. A. Geissman; "Excerpts from the pharmacology of hormones and related substances," José Ribeiro do Valle; "Effects of drugs on the central nervous system," H. Grundfest; "Pharmacology of the autonomic nervous system," by E. Zaimis; and "Review of reviews," by Chauncey D. Leake.

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