

Information on many other items, such as leaf-dimorphism, window-leaves, pollination, self-sterile and self-fertile forms is scattered throughout this most stimulating book. It will be sad if the price restricts the number of readers.

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**A Synthetic Approach to Plant Pathology** (review)\*—In the early years of plant pathology plant diseases were studied at their simplest level—pathologists were chiefly concerned with identifying the organisms associated with diseased plants. While this type of research has continued through the years the disciplines of which plant pathologists have to take cognizance have widened enormously. Thus, as never before, the data of the meteorologist, geneticist and plant protection chemist, are of prime importance to the pathologist. From all these disciplines a vast array of information has accumulated but few attempts at a general appraisal have been made, the nearest approach is usually a rather apologetic introductory chapter in texts which then treat individual diseases in more detail.

In this volume the authors have attempted this major task of synthesis. In general, they have succeeded. They deal in turn with the economics of plant diseases, the pathogens, epidemiology and control measures. A most notable feature—foreign, it must be admitted, to most textbooks of plant pathology—is the lucidity of the text. This has been achieved partly by concentrating on major pathogens with full discussion of the problems involved, rather than obscuring the picture by citation of a confusion of examples. At the same time, the text bristles with a most refreshing number of unsolved problems pointing to future paths for research. In this respect the book fulfils the true purpose of synthesis, which is surely not just to sum known facts, but to appraise our knowledge and indicate new lines for investigation.

Nevertheless, there are some rather surprising omissions. Not even a paragraph is devoted to the problems of seed-borne diseases, nor have some of the special aspects of forest or soil-borne diseases been given the place their importance merits them. Space for this could certainly have been found, for example, by pruning out details in the chapter on important international diseases which are given elsewhere in the book.

So many textbooks of plant pathology are illustrated by poor copies of hacknied originals that the excellent illustrations add to the pleasure of reading this book. They have been carefully chosen and emphasize the authors' main thesis, that plant pathology has outgrown its infancy and that all the cognate disciplines must be considered. Certainly they set out most of the principles and problems for the perusal of student, teacher, and plant pathologist in this stimulating text.

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\* *Principles of Plant Pathology*, by E. C. Stakman and J. G. Harrar. New York, Ronald Press Company. 1957. Pp. xi + 581, illus. Price 8 dollars.