
This is a well written and organized book in a “not too crowded” field. The general principles of quantitative genetics are presented with many well chosen examples.

The first five chapters the author chose to call “Population Genetics”. Chapter 1 is devoted to the genetic constitution of a population with a discussion of the frequencies of genes and genotypes, and develops the important concept of population equilibrium by use of the Hardy–Weinberg Law. The next four chapters deal with the conditions which affect population changes involving Mendelian genetics. The second part of the book, Chapters 6 to 20, labeled as “Biometrical Genetics” or “Quantitative Genetics” deals with the genetic theory of continuous variation. The composition of the variation of populations is described with a discussion of the partition of the variance into the genotypic and environmental components, and the subsequent division of the genotypic variance into its genetic components. Considerable discussion is devoted to the use of various breeding systems in affecting population changes for quantitatively inherited characters.

The author, in effect, brings together in a logical sequence, with a minimum use of mathematics, much material which is covered in part in many plant and animal breeding and/or genetics courses. This book should be extremely useful for persons who want an introductory text in this area but whose training was not specifically directed to the field of statistics. It is not meant to imply that the book is simple reading because this is not the nature of the subject matter.—W. P. Byrd, Clemson College, Clemson, S. C.


This book is a revision of Introduction to Agricultural Biochemistry by Dutcher, Jensen and Althouse. It has been completely rewritten to include a broader coverage of basic biochemical information. Space devoted to history and to soils has been sharply reduced with complete deletion of the sections on farm chemurgy and pesticides.

The book is divided into three sections: general biochemistry, plant biochemistry and animal biochemistry. To avoid serious overlapping in the development of the subject matter, the authors have made suitable textual references to appropriate sections rather than to redevelop the subject.

The text is ideal for introducing the student to the basic concepts dealing with plant and animal metabolism. There are concise but well developed sections dealing with plant structure, plant metabolism, seed germination, plant nutrition and growth regulation. The section dealing with animal biochemistry is divided into a discussion of the body tissues, vitamins, mineral, carbohydrate, lipid and protein metabolism, feeds, digestion and energy.

This book would make a valuable addition to the library of most agricultural workers.—Merle R. Teel, Purdue University, Lafayette, Indiana.


County Agricultural Agents, Vo-Ag Instructors, Farm Managers, Commercial Vegetable growers and even the backyard gardeners will find this book a welcome and practical addition to their reference or working library. Extension specialists, students and others in the field of plant pathology will also find it very useful.

Dr. Chupp, well known Professor Emeritus and former Extension Plant Pathologist at Cornell University, and Dr. Sherf, present Extension Pathologist in Vegetable Crops at the same University, both drew from their own knowledge and practical experience in writing this book. They also reviewed the literature on vegetable diseases to round out its contents.

County agents and commercial growers should like the way this book is organized. The index lists the diseases separately and by crops, giving the common names of diseases as well as the scientific names of the organisms.

Of the 22 chapters in the book, 16 are devoted to diseases of 40 or more major vegetable crops. Another chapter deals with diseases of tropical and little-grown vegetables. The remaining five chapters cover general subjects, such as seed rot, mineral deficiency “diseases”, nematodes, and soil treatments. One of these chapters, entitled “General Diseases”, deals with those pathogens that attack a rather wide range of crops, such as soft rot bacteria, wilt and scab organisms, Sclerotina and Rhizoctonia diseases, etc. It is too bad that diseases of potato are not included in this book.

In discussing each disease the authors present the distribution and frequency of occurrence of the disease, a description of the symptoms, and recommended control measures. A list of references is given in connection with the discussion of each disease.

Photographs are a tremendous asset to any book of this nature. There are 170 or more photographs and drawings throughout the book. This is a goodly number considering the difficulty of assembling pictures suitable for printing. There perhaps could be more photographs showing disease symptoms.

Everything considered, this is a type of book that seldom will be found collecting dust on the owner’s bookshelf.—E. K. Wade, Plant Pathology Dept., University of Wisconsin.


This volume contains a collection of the papers presented as a Symposium on Agriculture at the AAAS meetings in December, 1957. Many of the aspects of the problem of pest control are considered by authorities in each area. The symposium presented a broad program which included a consideration of herbicides and of all classes of pests of plants and animals. It sought quite successfully to highlight the most notable achievements and the critical problems in each area.

The introductory section reviews the approaches to pest control in one paper, the problem of forest pests and diseases in the next