Book Reviews

FIELD CROP PRODUCTION (AGRONOMIC PRINCIPLES AND PRACTICES)

This is an excellent textbook for use in an introductory course in Farm Crops. Although it may have some value as a reference, it is definitely a text for beginners.

Written by two capable authors who have had much experience in teaching and writing, the book draws upon a wealth of experiences gained within and outside the classroom. A strong point is its excellent organization. Subject matter is up-to-date, well chosen and organized in a logical sequence for classroom presentation.

The authors have selected data and references from the various sections of the United States, not making the text sectional in use. Literature citations within each chapter and selected references following each chapter include the Agronomy Journal, Agricultural Experimental Station and USDA bulletins, and other books.

This book has 27 chapters and includes the history of agronomy, plants and plant growth, climate and soils in relation to plant growth, crop sequence and soil fertility, tillage, the small grains and their culture, corn, sorghum, rice, harvesting, storage, and marketing of small grains, grasses and legumes, pastures, hay and grass silage, sugar plants, cotton, tobacco, weeds, crop improvement, and quality seed production.

In general, reproduction of figures and quality of workmanship in production is mediocre. The book has a limited number of tables, charts, and graphs. Selection of figures is fair.

Questions at the end of each chapter will serve as a helpful guide to students. However, there are too few thought-provoking, or discussion questions which would be of considerably more value to the students than the simple question-answer type found here.

College instructors and others will find the book very workable for beginning crops courses.—DARIEL S. METCALFE.

GARDENING WITH NATURE

It will perhaps interest agriculturists and soil scientists to know that they are once again under attack for perpetrating the fraud of chemical fertilization of soils. Firman Bear of Rutgers University and Richard Bradfield of Cornell are singled out for special criticism because they feel that organic matter alone is not sufficient to meet the demands of present-day crop production. This book offers nothing new to the attacks on chemical fertilizers nor to the promotion of organic farming philosophy. Entomologists are also considered as rather a dangerous nuisance. Apart from these aspects of the book, Gardening With Nature does offer the home and hobby gardener a great wealth of hints and good advice on practical garden problems. The author describes his book as a "how to" book. That applies aptly to the chapters on gardening. The author's general attack on commercial fertilizers, however, necessarily falls upon the complete field of agriculture, and in that respect, its glaring deficiency is of course its failure to show farmers who have to make a living from their soil just "how to" apply Mr. Wickenden's organic principles to their farms. The author accuses his critics of emotionalism. He cites food rationing in some European countries as evidence of the inadequacy of chemical fertilization. While such a non sequitur might not justly be called emotional, it nevertheless will hardly win the respect of disinterested students.

BASIC BOTANY—AN INTRODUCTION TO THE SCIENCE OF BOTANY

This is the second edition of the college text which appeared five years ago. Dr. Emerson, formerly professor at New Mexico Highlands University, and now a botanical consultant, has followed the same organization of the first edition, and in this revision he has placed greater stress upon such applications to agricultural problems as those of growth-regulating substances, vitamins, micro-nutrients, enzymes and soil-water-mineral-nutrient relationships.

The contents follow a logical order of development from the two introductory chapters on plants and science in which the organization of plants and living matter is presented. Succeeding chapters in the central portion of the book deal in the following order with leaves, uses of food, cycles of energy and nutrients, water relations of plants, roots and their functions, structure and functions of stems, the plant as a unit, genetics, and the evolution of plants.

At this point chapter 12, "Kinship and Classification," presents the necessity for classification and outlines the fundamentals of systematic botany. This is followed by nine separate chapters on plant types. The closing two chapters are discussions of plant and biotic communities. Concise outlines at the beginning of each chapter point out the highlights of the ground to be covered, and a brief listing of supplementary reading at the end of each chapter introduces the student to pertinent advanced works.

The numerous illustrations and drawings are of exceptional high quality, and the style and general manner of presentation are commendable.

THE FLOOD CONTROL CONTROVERSY

This book, sponsored by the Conservation Foundation, is written by men who have had experience in the field of hydraulics through work with the U. S. Soil Conservation Service, U. S. Bureau of Reclamation, and U. S. Geological Survey.

Part I presents the flood control problem. Part II deals with downstream programs for flood control. Part III is devoted to upstream programs for flood control. Part IV calls attention to important inadequacies in the present flood control program.

In general, the analysis of the many problems relating to flood control is excellent. The authors obviously have had close contact with the groups supporting and opposing various flood control systems. They demonstrate an understanding of the principal arguments for and against big dams, flood-plain zoning, soil conservation flood control practices, floodways, etc. Their analysis of the claimed benefits, exaggerated statements, and efforts of certain groups to leave the public uninformed is enlightening.

Probably only a most ardent supporter of a particular method of flood control would charge the authors with undue bias in favor of a given proposal.

The authors received the cooperation of various federal agencies in the furnishing of the information for the book. The manuscript for the book was read and criticized by several people representing the Department of Agriculture, Corps of Engineers, Bureau of Reclamation, American Watershed Council, and Engineers Joint Council.

The authors point out that flood damage results from man's utilization of the flood-plain which is the right-of-way of the stream. They proceed to discuss means of reducing this damage through zoning and various flood control measures, pointing out the limitations of each and also their interrelationship. It is pointed out that reservoir storage is effective in reducing flood peaks immediately below the dam but that the effect diminishes rapidly with distance downstream. Therefore, levee and floodways are essential even with reservoirs. For great floods the effect of flood protection would charge the authors with undue bias in favor of a given proposal.

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The book is informative, giving enough detail to permit an insight into the problem of flood control.