
The author's experience in the soil management field has enabled him to write a very informative text on the subject. He has also included research information from other specialists working in different soils and climatic areas. As a result this book embodies modern-day concepts of soil management for sustained production and conservation of land and water.

The first 13 chapters deal with the major principles of soil management: namely, moisture relationships, structure, fertility, conservation measures, rotations, soil acidity, modern concepts of tillage methods, and other related information. It is well known that the selection and application of cultural, management and mechanical erosion control measures must be varied according to the kind of soil and climate. This is brought out in the six chapters that deal with different climatic and soils areas. These include the Great Plains, North Central States, North-East, Southwestern States, and Florida and adjoining Flatwoods. Each of these chapters contains a general description of the major soil areas involved, and methods being used to properly manage the land. Also included are separate chapters on the management of organic soils, greenhouse soils, turf, and forest soil management.

This is a well written book, easily understood, and contains a great deal of information. It should be valuable as a college text in agronomy and soils, and county agents, vocational agricultural teachers, and soil conservationists will find it to be a good reference source and refresher.

Even though western agriculture is not specifically discussed, the information is applicable to that section of the country.—B. D. Blakey, Soil Conservation Service, USDA, Washington, D.C.


The handbook contains a wealth of information in condensed form previously available only in many books and bulletins. It will be a convenient and excellent reference for practicing agricultural engineers. For engineers with one specialty, the handbook will not be completely adequate for that specialty, but will provide quick reference to related subjects. Members of SSSA will be primarily interested in Section II, Soil and Water Conservation, parts of Section I, Crop Production Equipment, Section II, Farmstead Structures and Equipment, and parts of Section IV, Basic Agricultural Data. Briefly the 880-page handbook contains the following material.

Section I—Crop Production Equipment—C. B. Richey, Editor

Chapters 12 to 19, have information that will be of direct use to SSSA members. The chapters briefly present tillage objectives, principles and characteristics of moldboard plows, disk tools, shovel and sweep tools and minor tillage tools; objectives, principles and characteristics of fertilizing and liming machines, seeding and planting machines, sprayers and dusters, and mowers and crushers.

Section II—Soil and Water Conservation—Paul Jacobson, Editor

Section II was written primarily by USDA, SCS personnel presenting material not readily available to the general public, but currently in general use. Some chapters give step by step design procedures, others give primarily principles depending on the author. Most chapters provide references for more detail. The chapter titles and authors are as follows:

Chapter 34, Principles of agricultural hydrology, by Lloyd L. Herd.

Chapter 35, Land leveling and grading, by John T. Phelan.

Chapter 36, Agricultural drainage, by John G. Sutton and Keith H. Beauchamp.

Chapter 37, Mechanics of water erosion, by Paul Jacobson.

Chapter 38, Erosion and diversions, by Paul Jacobson.


Chapter 40, Waterways for erosion control, by Paul Jacobson.

Chapter 41, Erosion-control structures, by Fred W. Blaisdell and Arthur F. Morat.

Chapter 42, Water management, conservation use, and legal aspects, by Howard W. Matson.

Chapter 43, Wind erosion and its control, by Austin W. Zingg.

Chapter 44, Irrigation, by Wayne D. Criddle.

Chapter 45, Frost control, by F. A. Brooks.

Section III—Farmstead Structures and Equipment

Chapter 46, Structural requirements of farm buildings, by Merle L. Esmay.

Chapters 47 to 50, by Carl W. Hall, give a good summary of requirements of livestock production facilities, principles and design elements for heat, air and moisture control, drying of farm crops, and storage of farm crops.

Chapter 51, Electrical equipment, edited by Donald P. Brown and W. J. Ridout.

Chapter 52, Fruit and vegetable handling, by Jordan H. Levin and Donald H. Dewey.

Chapter 53, Storage of fresh fruit and vegetables, by Donald H. Dewey and Jordan H. Smith.

Chapter 54, Service buildings and equipment, by Carl W. Hall.

Section IV—Basic Agricultural Data

Chapter 55, Livestock, by C. F. Kelley.

Chapter 56, Soil, A. Introductory soil formation and classification by H. H. Krusekopf, Soil physical properties by Don Kirkham, Soil plant food and use of fertilizer by O. T. Coleman.

Chapter 57, Farm climates and solar energy.

A subject matter index is provided at the end of the book.—Marvin E. Jensen, Fort Collins, Colo.


This yearbook gives the agricultural production of the world for several years up to 1960. Figures are given in about 200 tables arranged in nine categories: Land; Population; Production Index Numbers (by yeasts for countries and continents); Crops; Livestock (including even honey bees and silk worms); Food Supply; Means of Production (fertilizers, machines, and pesticides); Prices; and Wages and Freight Rates. The data are given by country and continent in each case. Comparative annual figures are given for as many as 10 years in some cases.

There are Notes on the tables; Country notes; Tables of weights, measures, and conversion factors; Lists of sources for price tables; and a Spanish glossary. All tables, notes, and lists are given in English, French, and Spanish.

The book is available from any Sales Agent for FAO publications in the U.S. the Agent is Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.

TRACE ELEMENTS IN PLANTS. 3rd Ed, By Walter Stiles. Cambridge University Press, American Branch, 32 East 57th Street, New York 22, New York. $7.50.

This is the third edition of “Trace Elements in Plants”, the others being entitled "Trace Elements in Plants and Animals". In this new book, Professor Stiles has restricted his discussion to trace elements in plants and to the effects of their deficiency or excess on grazing animals where such effects arise directly from consuming the plants involved.

The book contains 230 pages, of which 31 are references. This list of references is quite comprehensive and the book is well indexed. The following chapter headings give an idea of the scope of the book: Historical Introduction, Methods of Investigating Micro-Nutrient Problems, Trace-Element Deficiency Diseases of Plants, The Effects on Plants of Trace-Element Excess, Factors Influencing the Absorption of Trace Elements and Their Effects on Plants, The Functions of Trace Elements in Plants, Trace Elements in Plants in Relation to Some Diseases of Grazing Animals, and Concluding Remarks.

The trace elements covered by Stiles in the book are manganese, zinc, boron, copper, molybdenum, and chlorine. Iron is not included. Sixteen black and white photographs showing various deficiencies and toxicities in plants are presented.

The book is quite comprehensive on the influence of trace elements in plants, but contains very little on the influence of soils on trace element availability. It is up to date, well written, and easy to read.—R. C. Berger, University of Wisconsin, Madison.