Book Reviews

SOILS, THEIR ORIGIN, CONSTITUTION, AND CLASSIFICATION


Dr. Gilbert Wooding Robinson, until his death on May 6, 1950, was Professor of Agricultural Chemistry and Dean of the Faculty of Science in the University College of North Wales. He was widely known among students of soil science for his writings on the subject, and especially so for his textbook, of which this is the third edition.

The current edition is divided into four general sections. The first deals with the origin, constitution, and properties of soils in their natural relationships. The second is devoted to description, with examples of the chief soil groups of the world cited. The third division includes a discussion of the problem of classification and an account of the geographical distribution of soils. The book concludes with a treatment of soil surveys and soil analysis and a discussion of the inter-relationships of soil, plant growth, and agriculture.

Among the chapter headings are the following: Soil Formation, the Clay Complex, Base Exchange and Other Reactions of the Colloidal Complex, Soil Organic Matter, General Physical Properties of Soils, Water Relationships of Soils, Soils of the Podzol Group, Chernozems and Their Related Groups, Hydromorphic Soils and Heats, Saline, Alkaline, and Soloti Soils, Soils of the Humid Tropics and Subtropics, Soils Associated with Calcareous Parent Materials, and Classification of Soils.

The book is dedicated to Curtis Fletcher Marbut, American soil scientist.

SOILS OF WISCONSIN IN RELATION TO SILVICULTURE

By S. A. Wilde, F. G. Wilson, and D. P. White. Madison, Wis.: Wisconsin Conservation Department. 171 pages (illus.). 1949. $1.00.

In this report, Dr. Wilde and his co-authors give a description of the soil-forest associations of Wisconsin, basing the report on analyses of both forest stands and soils that support them. The authors point out that the State of Wisconsin occupies a unique position from an ecological viewpoint, in that few other areas of equal size include such a diversity of physiographic and geobotanical conditions.

Subject matter is divided under three main headings: immature soils (soils of slightly weathered strata or youthful deposits exposed or accumulated by denuding processes. These soils are distributed over the entire State and usually support stands of pioneer species), soils in the podzol region of northern Wisconsin, supporting conifers and northern hardwoods, and soils in the prairie-forest region of southern Wisconsin, supporting largely oaks and their associates.

THE ANALYTICAL BALANCE: ITS CARE AND USE


This monograph is well designed to answer the questions of research workers, graduate students, industrial chemists, and directors of laboratories on the problems of selecting, mounting, cleaning, adjusting, testing, and repairing a balance. Directions for the use of the analytical balance are included. Lists of names and companies who repair balances are included. Proceeding from an inventory of parts, the care, use and testing are considered, and the care and use of the vacuum are considered. This little volume will find a useful place on the bookshelf of every analytical laboratory.

INTRODUCTION TO AGRICULTURAL BIOCHEMISTRY


Introduction to Agricultural Biochemistry is an earlier volume bearing the same name and published in 1932. Dr. Dutcher, now head of the Department of Plant Biology and Biological Chemistry at The Pennsylvania State College, was one of the two authors of the earlier edition.

The new text is described as following the general lines in the previous textbook. So far as subjects concerned, however, it is listed as a new book. All of the chapters, with the exception of Chapter 1, have been completely rewritten.

Among the new chapters are the following: Protein Metabolism, Protein Nutrition, Mineral Nutrition, and Mineral Nutrition. Other headings included in the new chapters are Chemistry of Living Matter, Physical State of Proteins and Enzymes, Lipids, Proteins, Enzymes, Seed Germination, the Soil and Its Role in Growth, Fertilizers, Plant Metabolism, and Pest Control.

BIBLIOGRAPHY OF WEED INVESTIGATIONS FOR 1951


This bibliography is limited mainly to weed control articles published in 1950 and is the first attempt by the Division of Weed Investigations to list the many publications in the field. Present plans are to publish future issues on a quarterly basis. Persons interested in the publication are directed to write to the Division.

AMERICAN BARLEY PRODUCTION

By John C. Weaver. Minneapolis, Minn.: Book Co. 117 pages. 1950. $3.00.

The author discusses the possible origin of barley in few pages, one source being in Northeastern Afghanistan, and the other, Southeastern Europe. A possible origin of barley in the American colonies is presented. It was first introduced in 1602 by the early settlers of Martha's Vineyard and the Elizabeth Islands. Those grown in New England apparently also cultivated barley, and such as cultivated on Manhattan Island were shipped to Holland in 1626. It was estimated that two-thirds of the barley in the United States was being produced in New York. At this time the industry was concentrated in the Atlantic states, due to the availability of transportation facilities.

In the West, barley was introduced into California by the Spanish soldiers and missionaries and had a place in the agricultural practices introduced by the Spanish fathers in California. The author follows closely the development of barley and the gradual movement from California to the Pacific Coast. The author states that the story of barley development in the United States during the century between 1839 and 1939 falls quite logically into four primary divisions: (1) the dominance of barley and the gradual movement from New England apparently also cultivated barley. Samples from the Pacific Coast. The author states that the story of barley development in the United States during the century between 1839 and 1939 falls quite logically into four primary divisions: (1) the dominance of barley and the gradual movement from New England apparently also cultivated barley.