BOOK REVIEWS

Soil Management for Conservation and Production


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 for sustained production and conservation of soil 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, Northeast, Southwest, Southern 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 work, and refreshing.

Even though western agriculture is not specifically discussed, the information is applicable to that section of the country.


Pochvovedenie (Soil Science) 3rd Edition


The term soil refers to the uppermost layer of the earth's crust, inhabited by organisms, enriched in organic matter, and endowed with productivity, i.e., fitted to bear vegetation. This rather narrowly utilitarian definition of the soil, given at the outset of an introductory chapter, casts a pronounced technological color over the entire content of this book, probably the most complete and up-to-date Russian textbook on soil science. Dokuchaev's concept of the soil as a peculiar natural body brought into being by certain environmental factors is mentioned, indeed, but the author hastens to add that more recently Williams redefined this natural body and described it more correctly as "The loose uppermost layer of the earth's crust capable of yielding crops."

Laudatory references to Williams are scattered through the book. According to Vilensky, Williams unfolded Dokuchaev's theory and "raised it to a new and higher level, binding it most intimately with agriculture." Furthermore, Williams "originated the biological trend in soil science, thus providing theoretical criteria for the control of soil productivity and the reaping of progressively higher yields of agricultural crops.

This flattery of Williams and his pseudo-scientific theories are common features of Russian texts on soils and are no longer surprising foreign readers. What is surprising, however, is the blind overestimate of the biological aspect of soil formation and a stubborn tendency to minimize the role of weathering, a point terrestrial life itself is merely a function of the same geophysical processes which are instrumental in the formation of our soils and that the old paradox of which came first, the egg or the chicken, is still unresolved seem to be of no concern to this school of thought. It appears as if in his time Williams decreed: "The egg! Whoever thinks otherwise is an enemy of the people—period," and since then this dictum has become dogma.

References to Williams, purely polemical attacks on the "plundering" agricultural practices under "savage" capitalistic regimes, and somewhat naive dithyrambs to their counterparts in socialistic countries mar this otherwise fine textbook, but these are not organically woven into the text and could be omitted without detriment to the remainder.

The book is divided into two parts. The first 17 chapters (pp. 1-225) deal with the history of soil sciences; the origin of soils; their micro- and macropopulations; their mineralogical, physical, and chemical composition; and, finally, their classification and the problem of their productivity.

The second part (chapters 18-31) is devoted largely to a detailed description of the soils of the U. S. S. R. Only the last two chapters deal with soils in other parts of the world. Of these, a short chapter (No. 30, pp. 420-424) is headlined "Soils of the World" and a longer chapter (No. 31, pp. 425-437) deals with "Soils of the countries of people's democracy," i.e., Poland, Czechoslovakia, Hungary, Romania, China.

The Russian text is accompanied by two small soil maps in color, a 1:75,000,000 map of the world and a 1:20,000,000 map of the U. S. S. R. These maps are not included in the English translation.

The English translation of Vilensky's textbook leaves much to be desired. Grave errors probably are rare, but minor ones are numerous. For example, a sentence "Like minerals or organisms, soil is a peculiar natural body" is rendered as "Soil, like the kingdoms of minerals and organisms, is a special being in nature with a body" (p. 5, last par.). A statement "Loess is... characterized by... uniform mechanical composition of silt-loam... and formation of vertical gully walls on erosion..." is translated as "Loess is a rock... characterized by... a uniform dusty loam, mechanical structure... and the formation of vertical walls when it is washed away." (p. 51). Still another example is a statement "Formation of soil takes place with the settlement on rocks of organisms... which break these rocks extracting from them essential nutrients and at the same time enriching the uppermost layer of land by organic compounds containing the added elements of the plant food and nitrogen which was absent in hard rocks" is translated as "The formation of soil occurs when organisms... settle on the rock... and destroy this rock, extracting from it the necessary nutritious substances, but at the same time enrich the superficial layer of land with organic compounds that contain ash and nitrogen, which are present in rocks, for an extended period." (p. 4). Errors such as these are scattered throughout the volume.

The major defect of the translation, however, is of a different nature. The translators apparently believe that a good translation requires a slavish retention of the syntactic peculiarities of the original text and complete ignorance of the syntax of the language into which they translate. This renders the product extremely clumsy and forces the reader to stumble over almost every sentence.—C. C. Nikiforoff.