BOOK REVIEWS

Osnovy ucheniya o pochvennoy vlage
(Basic principles of soil water)

By A. A. Rode. 1965. Hidrometeorologicheskoye izdatel'stvo, Leningrad, Russia. 8 rubles, 16 kopeks. (This book may be ordered from Victor Kamkin Bookstore, 1440 Columbia Road, N.W., Washington, D. C. 20000).

The present volume is the first of three on soil water. Title of Volume 1 is “Properties of soil water and movement of soil water.” This monograph is divided into two parts: I—Properties of soil water; and II—Movement of water in soil; soil water and plants. Part I includes chapters on soil porosity, properties of soil and nature of several phenomena associated with bound water of vapor sorption, bound water of liquid sorption, suspended water in soil, and gravitational water. Part II includes chapters on thermodynamic potential of soil water, water movement in soil, soil water and plants, and forms of soil water.

Dr. Rode has taken data from several sources on soil water to document single statements in his book. Extensive use is made of reference material in the English literature. A reader will soon conclude from reading the book that the data on soil water in Russia are based on observations and experiments in the field where the soil is studied as a whole with its natural make-up. Such an approach has its basis in the Dokuchayev genetic soil science. On the other hand, the experimental work on the energy and mathematical approach to soil water is taken from the USA, England, and Australia. Except for the Russian print, the presentation of the second approach reads like a review by an American writer dealing exclusively with the English literature on soil water. Full credit is given to the Americans for the work in this field. Dr. Rode presents both of these approaches but his leanings are toward the first approach.

Volume I covers adequately the subject material on soil water. With two additional volumes to be published, Dr. Rode will indeed have summarized our knowledge on soil water. Older data are brought into the discussion and interpreted in terms of modern concept. For example, for a long time Russian investigators have been concerned with the practical aspect of available water in Chernozems, Chestnuts, and Shirozems. It is interesting to follow the development of different concepts in the book.

Much space in the book is given to forms of water which seem to have a particular attraction to the Russian soil scientists. However, it is emphasized repeatedly that boundaries between the forms of water are not clear and that soil texture and the make-up of the soil in the field are factors to be considered.

Like most Russian books, the present volume lacks in having an index of subject material. Considerable time can be spent looking for a specific subject on soil water.

The book is written for the Russian specialist in agrophysics, hydrology, hydrogeology, agronomy, and soil science. The book is written in the same style as found in English scientific literature which makes the book readable to an American. The book is recommended for reading and for purchasing by the libraries.—A. P. MAZURAK, University of Nebraska.

Soil Survey Manual for Malayan Conditions

By M. L. Leamy and W. P. Panton, Malaysia Division of Agriculture Bulletin no. 115, $5.00 or 11s. 8d. 226 p. 1966.

The purpose and content of the manual are indicated by the title. Beyond that, the preface states that the manual is intended for “practicing soil surveyors working in the field” in Malaya. The manual should serve this purpose well.

The first main section outlines methods and terminology for the study and description of soil sites and profiles, covering the kinds of information that surveyors are expected to record. The second major section discusses units of mapping and classification, methods of field work, and the nature of survey reports. The third main section consists of 13 appendices covering a number of items related to soil survey work under Malayan conditions. Smaller sections of the manual are a list of recognized soil series, with brief notes on the nature of each.

The manual draws heavily on those published earlier in the USA and New Zealand. As indicated in the preface, standards and terminology for describing characteristics of individual horizons are virtually the same as those of the two earlier manuals.

The system of horizon designation uses the five capital letters O, A, B, C, and D for major horizons and a set of lower case letters, either singly or in combination, for subhorizons. No numerals are used. The system has been constructed by selection and modification of elements of systems developed in other countries, especially in Canada and the USA. The system shares some features with a number of others but is also unique in some ways. Reference to the Malayan manual will be necessary for those who study profile descriptions in soil surveys published in that country.

The soil series is regarded as the basic unit to both mapping and classification. The definition follows:

“The soil series is a group of soils with similar profiles, similar temperature and moisture regimes, and the same or very similar parent material....”

This definition is amplified by examples and further discussion. Considering the series as the same basic unit in both classification and mapping parallels the concept of the soil type held by C. F. Marbut. His writings indicate that individual soil bodies identified as one soil type were the individuals being classified, a concept which has largely given way in this country.

Apart from the clear implication that soils do share many important properties across the world, inherent in the direct applicability in Malaysia of terminology and standards developed for describing soils elsewhere, the manual affords an intriguing story of working conditions. Reconnaissance surveys in jungle areas require a labor force in one party of up to 30 persons with various degrees of technical knowledge. Trails, each of which is called a renta, must be cut through the jungle, and the rate of progress for a single crew seldom exceeds 1 mile/day. Portable pocket tape recorders are used for making notes about soils, vegetation, and the like, because of difficulties of writing under hot, wet conditions. A first-aid and health guide, as one appendix, advises the surveyor, among other things, to get his clothes washed every day even though there is no opportunity for them to dry—... the habit of donning wet clothes each morning is easily acquired, and can be refreshing under some circumstances.”—ROY W. SIMONSON, Soil Classification and Correlation, SCS, USDA, Washington, D. C.

New Editorial Policy Adopted for Metric System and C and K Temperature Scales

The SSSA Board of Directors approved the following new editorial policy during its meeting on Nov. 4, 1965 at Columbus, Ohio:

All manuscripts submitted to the SSSA Proceedings after April 1, 1966, and published after January 1, 1967, must:
1) Report all temperatures in degrees Kelvin (K) or Celsius (C).
2) Report all measurements in the metric system. The English equivalent for any measurement may be shown in brackets, at the discretion of the Editorial Board, if accuracy or communication is improved. Conversion factors from the metric to the English system may be shown as footnotes on tables and in legends of figures at the Board’s discretion.

The above policy was first approved and recommended by the Editorial Board.