BOOK REVIEWS

New French Journal of Soil Science

The first issue of SCIENCE du SOL, published by the French Association for the Study of Soils, appeared in May 1963 and the second issue in 1964. The journal publishes original papers dealing with genesis and classification of soils; their physical, chemical and biological properties; soil fertility and utilization. Each issue contains a table of contents in English and each article has an English summary. The Editors-in-Chief are A. Feodoroff and J. Boulaine. Annual membership in the association for foreigners, including a subscription to SCIENCE du SOL, is 30 F. (For foreign subscribers to the journal only is 30 F. The address is: Association Francaise pour l'Etude du Sol, Etoile de Choisy, Route de Saint-Cyr, Versailles (Seine-et-Oise) C.C.P. Paris 195-465.

Chemistry of the Soil, 2nd Edition


The second edition is a revised and expanded version of the original ACS Monograph No. 180, which has been a widely used reference source and text on soil chemistry for the past 30 years. In many ways the second edition is vastly improved over the first. Chapters by Marion L. Jackson (Chemical Composition of Soils), James L. Mortensen and Frank L. Himes (Soil Organic Matter) and J. L. Stevenson (Biochemistry of Soil) are especially good and alone make the book worth having. E. R. Graham contributed a new chapter dealing with naturally-occurring and man-made radionuclides in soils, and with some uses of radioisotopes in soils research. The remaining chapters follow the pattern set in the first edition, with varying degrees of updating. Robert L. Mitchell's much-expanded chapter on Trace Elements in Soils is excellent and up-to-date. Chapters on The Chemistry of Soil Development (Isaac Barshad and F. Seitz) and Alkaline Soils and Soils (Lloyd F. Seitz and H. B. Peterson) have been modernized, although the basic subject-matter coverage has not been changed significantly. The chapters on the Physical Chemistry of Soils (S. J. Toth) Logging and A Concerto Phenomena (Lambert Wicklander) and Soil Fixation of Plant Nutrients (Louis T. Kardos) are little changed from the first edition. The three combined refer to a total of only 9 papers published within the past 10 years, and do not provide the authoritative up-to-date coverage one would hope for in such a volume. The various chapters are spotty in quality as well as modernity. Scope and coverage vary from absolutely first-rate to average. Some topics the reviewer regards as important parts of modern soil chemistry either are omitted entirely or treated in a trivial manner. Despite its unevenness, the book is the best collection of reference material on soil chemistry available and will be useful to the professional soil scientist and student.—N. T. COLEMAN, University of California, Riverside, Calif.

Turbidites


Turbidites are sediments deposited from turbidity currents. These currents are a type of density current which moves long and down the deep slope of the bottom of standing water because it is caused and turbid with sediment which gives the mass a greater density than the overlying, clear water. Turbidites typically deposit graded bedding (i.e., particle size grades from coarse at the bottom to fine at the top) and coarsely sedimentary structures such as flute and groove casts at their bedding planes. Since the turbidity currents are relatively viscous, they cannot be formed by rapid flows and most deep and commonly do carry large amounts of mixed sand, silt, and clay unexpectedly far out into deep water environments. Even though some turbidite currents move sand with large longshore deposits with young large and parallel currents and commonly do carry large amounts of mixed sand, silt, and clay unexpectedly far out into deep water environments. Even though some turbidite currents move sand with large longshore deposits with young large and parallel currents and commonly do carry large amounts of mixed sand, silt, and clay unexpectedly far out into deep water environments.

An Introduction to the Theory of the Formation of Frozen Rocks


In the North American and Asian arctic regions particularly, frozen soils have been the subject of an increasing number of investigations. Much of this work has been concerned with the superficial mechanical and physical changes in frozen soils. This brief physical-chemical treatment by one of the USSR's most notable authorities in the field, however, represents an approach that should be of considerable general interest to soil scientists.

As would be expected in such a brief discourse, the author deals only with those broad principles that he feels are of significance to the study of frozen soils. Indeed, if one criticism may be raised, it is the lack of specific experimental interpretation to aid the reader grasping the exact approach and meaning of the author in this translation. As is particularly evident from Chapter III on the "Formation of a Cryogenic Structure" the book is obviously written by one thoroughly familiar with the field and as such deserves the attention of the soil scientist with a serious interest in frozen soils and the process of freezing in soils.—JOHN S. CLARK, Soil Research Institute, Canada Agriculture, Ottawa.


This excellent but inexpensive bibliography was prepared in collaboration with leading soil scientists for the joint occasion of the 20th International Geographical Congress and the 8th International Soil Science Congress. It fully succeeds in its aims of assisting students, teachers and research workers to find papers and books, either on various aspects of soil science or within particular regions of the British Isles. Over 200 journals have been consulted and yield some 1000 citations, many accompanied by informative abstracts. In general, only papers published since 1920 are included, except for early works of outstanding significance. The bibliography is in two parts, A and B. The second comprises 16 sections dealing with geographical regions, there being 7 for England, 3 for Scotland, 2 each for Wales and Ireland and 1 for the Channel Islands. The first part contains 11 sections concerned with the following specialities: history; classification; fertility; weathering and soil formation; geo-