**Book Reviews**

**CLAYS AND CLAY MINERALS**


This volume consists of all the papers presented at the Second National Conference on Clays and Clay Minerals held at Columbia, Mo., Oct. 15-17, 1953. The conference was sponsored by the Committee on Clay Minerals of the National Academy of Sciences—National Research Council.

The 36 papers included in this publication cover the genesis of clays, methods of identification, fundamental chemical and crystallographic studies and miscellaneous related subjects. The papers represent the efforts of physicists, mineralogists, petrographers, crystallographers, geologists, ceramists, soils scientists, petroleum and civil engineers in the general field of clay mineralogy. The subject matter covered indicates the many interests to which a knowledge of clays is of extreme importance and shows this field of study has increased in recent years.

The papers are well edited and have been arranged, roughly according to subject matter. The complete index with the titles of papers set forth in bold face type along with a brief abstract preceding each paper facilitates rapid reference to the contents. Tables, photographs, and charts are presented in excellent fashion and the printing is extremely well done. Typographical errors are few and of a minor nature.

The publication should be a valuable reference to all interested in clay mineralogy, not only for the subject matter but for many references included to original literature in the field. The editors and publishers are to be congratulated for the excellent manner in which the proceedings of this conference have been presented.—C. D. Jeffries.

**FARM SOILS—THEIR FERTILIZATION AND MANAGEMENT, Ed. 5**


This is an up-to-date revision of a popular soils text which first appeared under Mr. Worthen’s name in 1927. The authors have successfully presented the subject in as non-technical a manner and style as possible with emphasis on the basic principles of soil management. It is intended for the beginning soils student and for practical farmers. It contains 14 chapters of which the following titles are representative, Soils, Climate and Crops; How to Fit Plant and Cultivate; Fertilizers for Higher Yields; Organic Matter: Life of the Soil; Liming to Correct Soil Acidity; Conserve and Use Farm Manure; Water Management; Special Suggestions for Individual Crops; Muck and Peat Soils; Land Use, Rotations, and Fertility; Classification; and How to Buy a Farm.

The chapters are prepared for consecutive reading and study. The more technical terms of fertility and management in common usage are listed in a glossary. The chapter on Soils, Climate, and Crops presents a general picture of the climate, soils, and types of farming in the 22 northeastern states. This chapter alone is of special merit. The authors are to be commended for the readability and practicality of this book.

**THE TRACE ELEMENT CONTENT OF SOILS**


Mr. Swaine of the Macaulay Institute for Soil Research, Aberdeen, Scotland, has compiled a bibliography of some 700 papers in world literature dealing with the occurrence of 44 minor elements in soils. References for each element are tabulated as to location, number of samples, ppm. content, methods of determination, and remarks. More information is given for each as in the following example for barium: “Abundance in lithosphere: 430 ppm. The first indication of the presence of Ba in soils was Scheele’s (1778a) extraction of BaSO₄ from the beech ash, 20 years before elementa! Ba was isolated by Davy. Most soils contain 100–3,000 ppm. total Ba and up to c. 30 ppm. extractable by neutral 1N NH₄Ac. Vinogradov (1938) gives 100 ppm. as the average Ba content of soils, and Robinson, Whetstone, and Edgington (1950) state that values quoted in the literature range from a trace to 3,200 ppm.

**MULCHING**


This is the first of a series on mulching that will be issued separately by the Commonwealth Bureaux of Soil Science and of Horticulture and Plantation Crops. Its scope embraces the effects of mulching on soil properties (Part I), and stubble-mulch farming (Part II). Part I covers the effects of mulching on soil moisture, soil temperature, organic matter content and biotic populations, chemical content of soil, and soil structure. Part II contains excellent chapters on stubble-mulch farming equipment, stubble-mulch farming systems in the U. S., Canada, and Australia, and a separate chapter on experiments in Nebraska, Iowa, Ohio, Michigan, Virginia, New York, Indiana, and the southeastern U. S. Seventeen figures show stubble mulch tillage equipment, tillage methods, and effects of stubble mulching on erosion control.

**MENTION**

*Nellie Landblom’s Copybook for Beginners in Research Work. By Nellie Thompson Landblom. Multigraph Service Bureau, Colorado A&M College, Fort Collins, 112 pp. multigraph. This book is the result of numerous requests from the author’s former students at Colorado A&M College for model problems to be used in analyzing experimental data. Its first part contains hypothetical problems to show methods of procedure. Knowledge of fundamental principles of statistics is requisite to the use of the book. Part II, “Fitting of Constants,” is an actual experiment from the Colorado A&M Animal Husbandry department.*

*A Record of Research. The Institute of Statistics, the Consolidated University of North Carolina. III (July 1, 1953 to June 30, 1955).* This report covers the research and developments of the Institute of Statistics during the 1953–55 period. Summarized are the Institute’s research projects, special sessions, visitors, papers published by its staff, and dissertations and theses.