SOIL PHYSICS, 3rd Edition

The 3rd edition of L. D. Baver's well-known book, Soil Physics, is a complete revision of the earlier edition. Besides bringing the book up to date, Dr. Baver has added two new chapters, one on drainage and one on irrigation. Also, there is new material on such topics as soil puddling and compaction, chemical soil conditioners, aeration, hydraulic conductivity, soil moisture stress, and wind erosion. There are nearly 100 additional pages.

Besides presenting the material of other workers, the author evaluates, as in earlier editions, his findings. This is a help to the reader. At the same time the reader has the material available to make other conclusions should he wish to do so. In the chapter on Drainage, Dr. Baver concludes "It will take good judgment, local experience and trial and error with a thorough understanding of basic principles to design satisfactory drainage systems".

The book publishers (John Wiley and Sons, New York) are to be congratulated on a good job. The print is clear and the layout goes smoothly. A few errors have crept in. At the top of page 222 it should read "The data in Table 17, page 160 indicate...", rather than Table 14, page 136. On page 179, it states that the pressure is P1V1 rather than saying the pressure volume relation is P1V1. The symbols A and B in the first two equations on page 179 are also loosely used.

Most readers will not recognize the source of the third equation (the law of conservation of mass). In Figures 5 and 6 readers will not know that M.B. stands for methyl blue. These matters are minor.

Soil physicists and others interested in the physical properties of soil are indebted to Dr. Baver for this thorough revision of his valuable book. He has done this under the stress of administrative duties as Director of the Experiment Station of the Hawaiian Sugar Planters Association. This coming school year, as in the past, we plan to use Dr. Baver's book in our first graduate soil physics course.—DON KIRKHAM, Iowa State College.

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. 13-17, 1953. The conference was sponsored by the Committee on Clay Minerals of the National Academy of Sciences—Natural Research Council.

The 86 papers included in this publication cover the genesis and occurrence 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 minerals. The subject range and accuracy 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.