5. THE VALUE OF THE SOIL SURVEY AS A BASIS FOR SOIL STUDIES AND SOIL USE

B. IN EXPERIMENTAL WORK IN SOIL MANAGEMENT AND USES

Discussion by E. E. DeTurk

When the soil survey of Illinois was begun twenty years ago, there was very little definite knowledge concerning the soils of the state. Just as the systematic organization and classification of the existing and accrued knowledge in any science is fundamental to the development of the science, so the systematic classification of the soils of the state was recognized as fundamental, both to the planning and execution of future soil investigations and to the most efficient utilization of land in agricultural practice. Thus, the soil survey has served as a method of classifying not only the soils themselves but also the knowledge obtained by the soil survey workers, concerning the various soil types as they occur in the field.

THE VALUE OF THE SOIL SURVEY IN INVESTIGATIONAL WORK

Knowledge which will make possible the better management of farm soils for increased, or more efficient food production, is obtained mainly through two types of investigation. These are: first, laboratory investigations, including physical, chemical and biological studies and greenhouse cultures; and, second, the experiment field. These two lines of investigation must, of course, supplement each other.

It is not appropriate at this time to enter into a discussion of the extent to which laboratory and field investigations contribute to the solution of problems in soil management. It is of value, however, to note some of the ways in which the soil survey aids in attacking soil problems in laboratory and field.

LABORATORY INVESTIGATIONS

In Illinois, the analysis of soil samples representing each soil type as it occurs in each county has been carried out as a part of the soil survey itself. This record of analytical data, together with the soil maps, serves as an “index” of the soils of the state, and by reference to it the soils which are best suited to a given investigation can be located. The following instance illustrates this use of the data.

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