What is a Soil Series?

By

Thomas D. Rice

Soil scientists for several years have given much attention to the principles of soil classification, and it is now well that we should examine the categories in the scheme of classification used by Soil Surveys of the United States Department of Agriculture and of the co-operating States, to determine if possible whether these groupings are the most useful that could be devised.

In a study of classifications we should keep clearly in mind that material objects exist in nature but that classifications do not; that classifications are purely mental contrivances by which we handle objects and facts more conveniently.

That outer portion of the earth's surface which we designate as the soil varies greatly in character in different regions and changes noticeably from place to place even within short distances. No two soil profiles observed in different places are exactly alike. If a soil profile observed at any point on the land surface of the earth is regarded as being that of a distinct soil, then an enormous number of such soils or soil individuals must exist. Some of these soils are similar with respect to one or more features of origin, environment, characteristics or productiveness and on the basis of these similarities they may be placed in groups or classified.

Classification may be defined as the mental grouping of related objects in such a way as to show their relationships. Soils like other natural objects may be classified scientifically on any basis whatsoever that will enable us to handle the facts we have acquired concerning them and to ascertain the fundamental laws that underlie their development.

It is now quite generally agreed among soil scientists that soils should be classified according to their characteristics. That proposition being conceded, the question arises: What characteristics should be used as criteria in soil classification? The answer to this question, based on the results of soil research in this country, is that any one of the characters that soils possess or any combination of these characters may be taken as a foundation upon which to group soils and that any number of groups and subgroups may be established. It is essential, however, that if a scheme of classification is to be most useful, only the most important and significant characteristics should be considered in the differentiation of the broader groups and that the categories should be as few as possible.