Soil Characterization Data Studies

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The characterization of soil properties has been the mainstay of soil science for generations. A considerable amount of information on various soils had accumulated prior to the initial development of Soil Taxonomy. Although some soils data was available prior to its development, Soil Taxonomy with its many quantitative laboratory requirements generated a huge explosion of laboratory data. Although Soil Taxonomy has been published, the need for additional data is very evident and more data continues to be generated in federal as well as many state laboratories. In recent years, as more and more data have accumulated, a concern has arisen about the accuracy and particularly the precision of laboratory soil characterization data. This is of particular concern with the development of computerized data bases in which data from many different laboratories will be entered and used for correlation and classification, refinement and modification of classification criteria and in litigation proceedings. Because of these concerns, in 1980 Div. S-5 of the Soil Science Society of America formed a committee and charged it to: 1) collect references or data on comparative studies of soil characterization data (three or more laboratories) and 2) collect information on the availability of standard samples for soil characterization analyses. Given below is the information collected by the committee (the committee members are the authors of this article).

Charge 1: Collect References on Soil Characterization Studies

Authors: R. H. Rust and T. E. Fenton
Remarks: Ten horizons were sampled from five soil series and analyzed by eight laboratories.

Author: R. C. Cronce
Remarks: Fourteen soil samples from nine soil series were analyzed by seven laboratories.