

Criteria for Dynamic Soil Property Selection for Soil Survey. (S05-herrick162540-Poster)

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Abstract:

Reference data on dynamic soil properties are increasingly demanded by land managers, policy makers and the general public. We need properties that reflect both current capacity of the soil to support production and other ecosystem services, and others that reflect capacity to maintain or increase the system's potential to generate these services in the future. The properties must satisfy the three following criteria. (1) The relationship between the properties and the processes or functions they are intended to reflect should be clearly defined. (2) The properties should be easy to measure repeatably. Ideally, the properties should be measured in the field with simple tools. (3) The time required to complete the number of measurements required to detect a functionally significant difference in the property at a specified level of statistical significance should be minimized. We will illustrate how each criteria was evaluated for a field soil disaggregation test. We will list other criteria that should be considered in order to make the database as useful as possible. Some properties that do not meet all criteria may be sufficiently valuable to include in the database.

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Presentation Information:

Presentation Date: Monday, November 11, 2002
Presentation Time: 4:00-6:00 pm
Poster Board Number: 2115

Keywords:

Soil Survey, Cost Effectiveness, Sensitivity Analysis, Dynamic Soil

Properties