vermiculite and smectite (montmorillonite) and soils common to the rest of New York State (Olson et al., 1981) with approximately 50% hydrous mica (illite) and very low percentages of vermiculite and smectite (montmorillonite). Vermiculite and smectite clays have more exchange sites and a higher cation exchange capacity (CEC) than hydrous mica. The St. Lawrence Valley clays have an average of 61 meq of CEC per 100 g of clay while the other fine-textured soils in New York State average 54 meq of CEC per 100 g of clay. In addition, soils have a relatively high potential for expansion and contraction during wetting and drying when the total content of clay is high and the percentage of smectite is significant.

References


Nearly 1.3 Billion Acres Served by the National Cooperative Soil Survey¹

J. Clatie Powell²

A certain restaurant chain has large signs that tell how many hamburgers it has sold to date. Seeing one of these signs after a hard day of describing, classifying, mapping, or interpreting soils, you may find your mind drifting from “Macs” to maps—and to questions like these: What is the latest count on acres of soil mapped? How many soil surveys have been published? Where will the major emphasis be placed in Soil Survey in the next few years? How close are we to completing the “first-time-over” survey?

The need for soil surveys produced by the National Cooperative Soil Survey (NCSS)—a joint effort by Federal agencies, land grant universities, and other State and local agencies—is at an all-time high. Demands are increasing for more kinds of soil interpretations and for faster availability of soil survey information. As demands on the land intensify, the need to understand the limitations and potentials of soils increases.

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