with, but we could find no escape from it. This was the only common characteristic we could find to tie together the dark-colored prairie soils of the Great Plains in the United States and Europe. Under cultivation in Iowa and Illinois the erosion has in places been quite severe and the mollic epipedon has been largely removed by erosion. This transfers the soils, if there is only a cambic horizon, from Mollisols to Inceptisols or, if there is an argillic horizon, from Mollisols to Alfisols. This has been severely criticized and with some justification, in that the eroded soils now become different series from the uneroded soils. At present we have found no escape from this dilemma but certainly one must say that when the mollic epipedon is gone there is a marked change in the behaviour of the soils.

Soil Survey Report Assists SEO’s in Bucks County, Pennsylvania

Larry Hepner

The soil survey report serves as a valuable tool for the Sewage Enforcement Officer (SEO) charged with issuing or denying permits for on-lot sewage disposal in Bucks County, Pa. (southeastern Pennsylvania, adjacent to Philadelphia).

In 1974 the Pennsylvania State Legislature adopted strict rules and regulations regarding on-site sewage disposal. These regulations address specifically the various soil series of Pennsylvania with regards to the type of system permitted. The physical characteristics of the soil profile are also addressed in the regulations to define limiting zones of bedrock and mottling. There are presently six different system types approvable based on specific characteristics of the soil at a site. Each site must be examined by the SEO who describes a test pit to a depth of 7 feet before a permit can be issued or denied. Bucks County uses seven SEO’s and one soil scientist to perform this function throughout the 392,960 acre county. Last year the SEO’s in Bucks County observed on the average about 500 test holes for permit application. Because of the extensive amount of field time this process requires, it was decided to try and make more efficient use of the Soil Survey Report of Bucks and Philadelphia counties.

A procedure was instituted whereby an office conference is held with the property owner prior to any field work. At this conference the site is located on the soil map and the various soil types and their characteristics are explained to the owner by the SEO. The majority of property owners know very little about different soil types, mottling, bedrock, etc. in relation to sewage systems which can or cannot be approved. This conference is an excellent time to acquaint the owner with the soils on his property.

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