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Soil Survey

For more information about soilss in Minnesota
Check out the MN NRCS website::
www.mn.nrcs.usda.gov

Soil surveys provide a field-based scientific inventory of soil resources, including soil maps, data about physical and chemical properties of soils and information on the potentials and limitations of each soil.

The NRCS is the lead Federal agency responsible for the soil mapping of private lands. Many other state and local agency partners also contribute both staff and money to the mapping effort.

Soil surveys have many uses, but are intended for people so use of the land fits the soil. Soils data can be used to determine highly erodible areas, potential wetlands, sites where livestock manure could be distributed with little environmental impact, prime farmland, or other soil interpretations critical to natural resource management. Soils data is also useful to urban planners and other government agencies.

During FY 2003, Minnesota soil scientists mapped almost one million acres.

The first soil surveys were conducted a century ago. Just as time has progressed, so has soil mapping technology. The digitizing of soil maps and the development of the soil survey geographic database are an integral part of the soil survey process today. They are completed concurrently with other activities in both initial and maintenance soil survey projects.

A soil survey geographic database is one of the products of a completed soil survey. The soil survey geographic database is maintained in the field office and archived at the National Cartography and Geospatial Center.

The Soil Survey Geographic Database (SSURGO) is the most detailed geographic database. It contains digital data developed from detailed soil survey maps that are generally at scales of 1:12,000 or 1:24,000.

Currently, there are 36 counties in Minnesota that meet SSURGO standards, and work is underway on many others. In addition, NRCS is working with its partners to utilize new technologies and to speed up the digitizing of soil surveys.

Soil Scientists play an integral role in USDA-NRCS

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Lester - Loam

The Lester Series consists of very deep, well drained soils that formed in loamy, calcareous glacial till, on ground moraines. Slopes range from 5 to 70 percent. Mean annual precipitation is about 28 inches and mean annual soil temperature is about 49 degrees.

These soils formed under wooded vegetation that has been removed in many areas for agricultural production. Where used for crops, corn and soybeans are the principal ones. Corn yields range from 107 to 144 bushels/acre and soybeans from 27 to 44 bushels/acre, depending on percent slope and climate in Major Land Resource Area 103.

Lester soils are of moderate extent, occurring in 75 map units in 17 counties in south-central Minnesota. Total acres are over 600,000.

Determination of soil textures is one of the important physical properties soil scientists identify in the field

Typical soil landscape for Lester loam in Martin County, Minnesota, showing wooded areas near Wilbert Lake and adjacent cropland where trees have been removed.

Soils information is the foundation of all Farm Programs, conservation planning and other technical services which NRCS provides to it's customers.