



Knowledge of Soils is Important to Making Wise Land-Use Decision

Soils are important resources on any farm or ranch. Like snowflakes, no two soils are exactly the same. Some are good for growing crops, and some are not. Some are satisfactory as construction sites, and others are not. What is put on the land should be guided by the soil that is beneath it. Fortunately, information is readily available in Missouri to help land users know their soils and their soils' limitations.

Soil surveys have been completed for every county in Missouri, and are available as publications, on CDs, and online. Soil surveys contain text and soil maps that help land users identify the potentials and limitations of soils. Modern soil surveys contain a wealth of information about the soils of specific counties. The surveys include information about the use and management of soils, data on soil properties, detailed soil descriptions and soil classifications.

Soil surveys are prepared by soil scientists, who identify the different kinds of soils. Each different kind of soil is called a soil series. More than 10,000 soil series have been named and described in the United States, and more are being defined each year. There are 488 soil series in Missouri. They are named after towns and local landmarks in the areas where they were first identified.

To gather information for soil surveys, soil scientists walk over landscapes, dig holes with soil augers, shovels, and probes as they examine the characteristics of soil profiles. They observe soil textures (the ratio of sand, silt and clay), land slope, soil color, structure, amount of rock fragments, and the thickness of the different soil horizons. These and many other soil properties are

studied in the field, while others are determined through laboratory tests. The soil properties can predict soil behavior for a host of uses. These predictions, called soil interpretations, are developed to help users of soils manage the resource.

All soils contain properties that impact their suitability and limitation for specific uses. Although some properties such as slope may be altered to some extent to make a site more suitable, it is usually impractical to modify these properties extensively.

Many activities and pursuits are influenced by the properties of the soils beneath houses, roads, sewage systems, airports, parks, recreational sites, farms, forests, schools and shopping centers. Knowing a soil's limitations and what it is most suitable for will help get the right tree on the right soil.

More information about the soil survey program in Missouri is available at <http://soils.missouri.edu> or at a local USDA Service Center. The Natural Resources Conservation Service also has several web sites devoted to the soil survey program on a national basis. The primary one is -

<http://websoilsurvey.nrcs.usda.gov/app/>.

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