

Using Soils Information to Help Farmers: What We Do, What We Don't, What We Should, and What We Could

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Conservationists and technicians, working for NRCS and Soil and Water Conservation Districts, use soil survey information every day to help farmers and landowners apply more effective and economical conservation. These technicians and conservationists combine an extensive array of disciplines to give sound advice and guidance to individual landowners. Engineering, agronomy, wildlife biology, forestry, economics and geology lock arms with soil science to address resource concerns ranging from soil erosion to water quality, from wetland conservation to grazing land management.

In much of Missouri our "Job-1" is controlling sheet and rill erosion on cropland. Developing a sound conservation plan to control erosion depends on knowing site-specific soil characteristics affecting the soil's susceptibility to erosion. Our "mechanical" conservation practices nearly all deal with management of water from precipitation runoff. It is essential to be able to accurately predict both the quantity and rate of delivery of the runoff. Soil characteristics revealed by the soil survey tell us how much water we're going to get and how fast. Other common uses of soil survey information may be less frequent but not less important.

I am excited about where we may be headed in employing computers through GIS, and I think using global positioning system (GPS) technology will expand our horizons even more. Using digital soil data through a GIS system will enable us to make complex calculations very quickly.