Building Healthy Soils

A long-term strategy will foster more productive and profitable farms, improve water quality, and create better resilience during extreme weather events.

What is soil health?

It is the soil’s ability to sustain agricultural crop productivity without resulting in soil degradation or otherwise harming the environment.

One of the best ways to improve soil health is to keep farmland covered with vegetation for much of the year. Practices such as cover crops, reduced tillage, and planting perennial vegetation (known as continuous living cover) help to increase the organic matter and build healthier soils.

Accelerating the implementation of cover crops

Cover crops are plants grown with the primary purpose to build soil health (rather than a commodity). They help landowners build resilient landscapes by:

- holding more water in the soil (which reduces runoff)
- increasing water available for crops, reducing need for supplemental irrigation
- reducing nutrient losses into surface and groundwater
- allowing reduced fertilizer/pesticide use without negative impacts for crop production
- storing carbon in the soil

Challenges of cover crop adoption

Farm census data indicates that approximately 2% of Minnesota’s ag land includes cover crops. Some common hurdles to implementation include: the time it takes to establish, lack of information specific to northern climates, access to equipment and support, and funding to sufficiently offset risk until the crop is established.

2021 Budget Proposal (HF936/SF1036)

Governor Walz recommends $5.5 million to accelerate the use of cover crops on Minnesota’s farmlands. With the technical expertise of local government partners, these resources will help farmers with establishment costs that help offset risk.

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Top: Cover crop mix growing under corn near Faribault, MN. Bottom: Rye cover crop growing after harvest of no-till corn in Rice County. Photo credit: Rice SWCD