

Protecting land for future generations, improving groundwater for all

Agricultural landowners and farmers can leave a legacy for future generations by protecting land with the help of financial incentives and technical resources.

By adopting land management practices, landowners and farmers can also improve crop production and enhance water quality, which supports the health and well-being of their families and neighbors. Roughly 90 percent of Dakota County residents rely on groundwater for their water supply.

Farmers and agricultural property owners could be eligible for grants or annual payments to adopt land management and conservation practices. Farmers could receive as much as \$80 per acre of cropland by combining some practices.

LAND MANAGEMENT METHODS

There are several ways to improve soil health, reduce nitrate loss and improve water quality:



Restoring land to prairie

Converting marginal or unproductive cropland to prairie or wetlands improves surface and groundwater quality and provides pollinator habitat.

Native vegetation, including flowers and grasses, is almost exclusively perennials. This allows them to develop root systems up to 15 feet in depth, capturing water and nitrate before it reaches groundwater.

The SWCD provides resource information for this type of restoration, including financial incentives for temporarily placing ag land into a conservation practice. These programs could help fund up to half of a restoration project and maintenance costs.



Planting cover crops

Planting cover crops, such as oats and winter rye, is an excellent conservation practice for protecting water quality.

They reduce nutrient losses, especially nitrate, from farm fields into ground and surface waters when the primary crop is off the field. Cover crops also lessen soil erosion, improve soil health, crowd out weeds and increase profitability.

The Dakota County Soil and Water Conservation District (SWCD) provides funding for voluntarily establishing conservation projects, including cover crops.



Using perennial crops

Using perennial crops, such as hay or switchgrass, with cultivated cropping systems also supports water quality. Perennial crops have deep root systems which absorb more rainwater. They catch nitrate before it escapes into groundwater.

Some perennial crops can capture up to 97 percent more nitrate than an annual corn crop. Many perennial crops also require less nitrogen fertilizer.



Managing irrigation water

Managing irrigation saves money and time and improves water quality. Irrigation scheduling provides growers an important tool to adapt water application to meet soil and crop needs. This practice conserves water and reduces overapplication that causes nitrate leaching.

When farms use irrigation scheduling tools, nitrogen loss can be reduced by up to 60 percent.

Financial assistance through federal, state and local programs can greatly reduce costs. The average return on investment from irrigation water management ranges between 20-50 percent for most systems that participate in cost-share programs.

The SWCD offers technical assistance on irrigation management and provides a tool that recommends when to irrigate based on field water balances.



Using proper nutrient management

As a grower, it is vital to keep nutrients on the field to maximize crops and prevent groundwater contamination. Proper nutrient management is important to achieve economic and environmental goals.

Follow the 4Rs of nutrient management. They stand for right source, right rate, right time and right place. They serve as a guide to growers on practices that keep nutrients on the field.

Growers who follow the 4Rs. either individually or by working with an agronomist, can reduce their nitrogen losses by up to 15 percent, saving the grower money and preventing water pollution.

Growers interested in developing new nutrient management plans or evaluating a current plan have several cost-share grant opportunities.

LEARN MORE

Ag property owners can get educational resources and technical assistance through the Dakota County Soil and Water Conservation District to assist with conservation planning and meeting farm operation goals.

For more information, call the SWCD at 651-480-7777 or email swcd@co.dakota.mn.us.

To learn more about the Dakota County Agricultural Chemical Reduction Effort (ACRE) plan, visit www.dakotacounty.us, search ACRE.

Scan here to learn how Dakota County farmers are adopting these practices:









