

Wilkin SWCD leverages private funds to expand soil health options



Sugarbeets were planted between rows of cereal rye, seen here in spring 2021 in a Wilkin County field 3 miles east of Breckenridge. The cereal rye was planted on Sept. 20 the previous fall. Photo Credits: Kim Melton, Wilkin SWCD

Producers working with Wilkin Soil & Water Conservation District (SWCD) staff have incorporated soil health practices into their operations, leveraging Clean Water Funds from the Minnesota Board of Water and Soil Resources (BWSR) with private funds — including contributions from Cargill and General Mills.

Two watersheds that cover Wilkin County — the Buffalo-Red River and the Bois de Sioux-Mustinka watersheds — prioritized sedimentation as a concern in their comprehensive watershed management plans, developed under BWSR's One Watershed, One Plan (1W1P) program. Wilkin SWCD staff members were involved in developing both plans. The goal: improve water quality by curbing

runoff and the sediment it carries.

A \$200,000 Clean Water Fund grant BWSR awarded to the Wilkin SWCD in 2022 supports its soil health efforts. Partners include Wilkin County, the Buffalo-Red River Watershed District (BRRWD) and the Bois de Sioux Watershed District (BDSWD). More recently, the SWCD partnered with two private companies Cargill and General Mills, securing an additional \$1.45 million that allowed the SWCD to expand soil health incentives.

The Wilkin SWCD started its Cover Crop Incentive (CCI) program in 2019. Farmers could enroll up to 50 acres in a yearlong contract and receive a per-acre payment, which helped to cut the financial risk of trying something new. Farmers can enroll in the program



Clean Water Funds from BWSR contributed to the Wilkin SWCD's soil health efforts.



A turnip, radish and clover cover crop mix was broadcast in June 2019 along the edges of in Wilkin County field where compaction from field equipment made it difficult to grow a crop. It is pictured here in August 2019.

for up to five years. Those who signed up also received free annual soil health assessments. The program launched with funds from the BRRWD and the BDSWD plus Wilkin County.

"(CCI) expired every fall, but after they put down cover crops, they weren't allowed to do any tillage and so it kind of gave us a gateway into not doing tillage after cover crops are down, and it tried to lessen the tillage passes in the fall," said Kim Melton, Wilkin SWCD technician.

Wilkin County lies within the fertile Red River Valley, where the soils range from heavy clay to sandy. Melton said some farmers were hesitant about trying cover crops in areas with heavy clay soils, which tend to take longer to dry out.

"Farmers think they need tillage because they've got to open up their soil,

Wilkin SWCD Soil Health Stats

In 2022, producers entered into 92 contracts, covering 7,391 acres through three programs that included a total of \$257,835 in incentives for cover crop implementation.

In 2022, Wilkin SWCD's soil health programs include:

SHIP: 50 contracts, 6,395 acres, \$312,701 in incentives

CCI: 39 contracts, 1,900 acres, \$66,310 in incentives

WBIF: 3 contracts, 374 acres, \$12,000 in incentives

they've got to aerate it and they don't want to cover it or do no-till because they don't think it'll ever dry out," Melton said.

"Our soils are a challenge here in the valley, and incorporating cover crops is something that I like to tell farmers, 'Let's armor your soil and let's protect it. Let's cover it. Let's build infiltration and aggregation and be able to combat these fluxes that Mother Nature is throwing at us with the weather.' Farmers are sick of watching their dirt blow

away. They pay for that soil. They purchase the field. They want that soil to help them with production," Melton said.

Farmers enrolled about 700 acres the first year CCI was available.

The next year, Wilkin SWCD staff sought additional funding to offer incentives for enrolling more acres. Partnerships with Cargill and General Mills secured \$1.45 million in private funds. MBOLD, a coalition of Minnesota agriculture

and food companies, contributed an additional \$45,000.

The SWCD created the Soil Health Incentive Program (SHIP) with the funding from Cargill, General Mills and MBOLD. The threeyear contract offered via SHIP gave producers the option to implement one or more soil health practices — cover crops, nutrient management, crop rotation and reduced tillage — on up to 160 acres. Participating producers received a financial incentive per acre of practice. If producers sign up for all four practices, they receive \$65 per acre.

"We were able to offer farmers a better incentive program to install four practices instead of just one, and so this sold like hotcakes," Melton said. "The money was all encumbered in two months."

With private funds, the

SWCD could offer more flexibility in applying soil health practices than what is allowed through state or federal program-backed incentives. For example, growers could use a lower cover crop seeding rate than what might typically be required to meet Natural Resources Conservation Service standards.

"It's nice to be able to try to experiment and work with these farmers and give them the flexibility that they need," Melton said. "We're supporting their ideas on how to get these incorporated in the valley."

In 2022, SHIP covered 50 contracts and 6,395 acres. That year, farmers throughout Wilkin County enrolled a total of 7,391 acres in one of the SWCD's cover crop programs — including SHIP, CCI and a third program funded through Watershed-Based Implementation Funding.

With the SWCD's private funding, the SWCD gives farmers one year, if they do not plant or if weather or field conditions make planting impossible, they can opt out. They do not get paid for the practices they do not complete. Despite last fall's dry conditions, no one backed out of the contract.

"That is telling me that these guys are in it; it's here to stay," Melton said. "They're going to try to combat Mother Nature and they're going to make that attempt to improve their soil health and improve their organic matter and keep farming sustainable because that's what we need for the next generation."

Melton noted another indication that soil health



After an aerial cover crop seeding in late summer, cereal rye grew between corn rows in fall 2020 in Wilkin County.

practices are catching on in Wilkin County: Some landowners are taking small chunks of land out of their "production crop" rotation and planting rye to use as a cover crop seed source for the fall.

Melton said area agronomists have helped to make producers more aware of conservation practices such as cover crops, and the SWCD's incentives that support them. For the past five or six years, Melton has invited agronomists into the office where she lets them know what is available so they can relay that information to producers.

Greg LaPlante is an

independent crop consultant with decades of experience in regenerative farming practices, and whose working territory includes Wilkin County. Since the severe wind erosion that occurred in spring 2021 and 2022, LaPlante said producers in the watershed have been more receptive to soil conservation options.

LaPlante said one of his clients enrolled 500 acres in SHIP. That client is in the third year of planting rye cover crops in the fall, and minimally tilling sugarbeets, corn, soybeans and sunflowers.

"Growers have been

implementing different types of cover crops, especially for the sugarbeets. Mostly a barley or oats spring-seeded cover crop ahead of the sugarbeets," LaPlante said, adding that growers sometimes get nervous about planting a winter rye cover crop because they are not sure when to terminate it. That is where he can help.

"I've seen the continuous degradation of our soils, either through wind or water erosion. And I've been involved in soil sampling those profiles in those fields for 40 years and I see that our topsoil degradation has been pretty severe," LaPlante said.

"I get more involved in trying to change perspectives based upon I think we're running out of time as far as productivity of our soils," he said, adding that he's seen how topsoil erosion negatively affects yield.

Healthier soil leads to reduced runoff, which in turn means less flooding downstream and less sediment and pollutants such as phosphorous and nitrogen in the water.

"It's the foundation of all living things," Melton said. "I like to tell kids to name one thing that they don't think comes from the soil, and they always yell, 'Pizza!' And I'm like, 'Hey the crust comes from wheat; your cheese comes from dairy, and where do you think (the cows) get their food? Corn. Even the clothes you're wearing can be tied back to our soil producing crops for us to utilize to sustain life. We need healthy soil."