Cashing in on cover crops: Benefits range from better drainage and weed control to livestock forage

By Julie Buntr on Nov 12, 2015 at 9:38 p.m.

OKABENA – Rural Lakefield farmer Jerry Ackermann has planted cover crops for several years now, and while it has been a learning process, he’s finding more and more advantages to keeping a living root in the soil year-round.

During a Cover Crops Conversation earlier this week in Okabena, Ackermann said the seed mixes he uses in his cover crops are doing the work that tiling has done for farmers in the past.

“I think we’re going to be using cover crops for drainage,” he said. “We’re not calling the tile machine to come in.”

The reason, Ackermann said, is cover crops are generating tap roots that help break up the soil – and not just the top few feet. The roots are going in deep, working through the hardpan and creating all sorts of channels for water to flow through. He no longer has ponding water on his farm fields.

Ackermann, who with his wife, Nancy, farms approximately 1,200 acres – one-third each planted to corn, soybeans and alfalfa – said this is the first year he has planted cover crops on all of his land. Of course alfalfa, a perennial, is considered a cover crop.

In fact, it was the yield bump Ackermann noted after converting alfalfa acres to row crops that got him thinking about cover crops.
After about half a dozen years of cover crop plantings, he noted his greatest challenge is still planting the seed. Ackermann has tried aerial seeding for several years, but it is the most costly option and pilots are difficult to schedule. Part of the problem is that when Ackermann wants cover crops seeded, the pilots are busy spraying soybean fields for aphids.

Ackermann experimented with a three-point seeder this year out of necessity, but noted some of his best results came with use of a high clearance seeder.

"With the high clearance seeder, you get the seed down to where you want it," he said.

Ackermann planted his first cover crops on April 4 this year, on land he'd acquired in late March. Concerned about the soil's health, he drilled in peas and oats, letting the roots work the soil before soybeans were planted on May 13.

In mid-June, Ackermann interseeded cover crops into his corn acres, and aerial seeding was done on Aug. 29.

By the time he harvested soybeans this fall, Ackermann said the cereal rye was about 3- to 4-inches tall.

"Cereal rye is kind of soft – just getting established in the fall," he said. "It all just laid over when the cutter bar went by."

Ackermann noted the best stand of cover crops were those planted in early maturing beans, with the worst stands of cover crops growing amid later season varieties.

"I'm still trying different mixes and combinations (of cover crops)," he said. "Your cereal or annual rye, I think, are still going to be your base.

"If you can keep a living root in your ground year-round, you're going to see the best results," he added.

Aside from the benefits of creating a healthy, cottage cheese-looking soil structure, Ackermann said he's noticed his cover crops are also helping to reduce weed pressure.

"The thing I noticed is we have no other weeds," he shared. "I think we can use cover crops for weed control."

As Ackermann learns from the cover crop plantings, so too are other agencies. One of his farms received an Environmental Protection Agency 319 grant through the Heron Lake Watershed District (HLWD), and the HLWD is conducting water filtration testing on the parcels where cover crops are grown.

The information is hoped to help other producers considering the use of cover crops.

In recent years, more farmers in southwest Minnesota are testing cover crops on their land as evidenced by the number of fields filled with lush green plants dotting the landscape in mid-November.

Some farmers are even planting cover crops to provide forage for cattle grazing. With the mild temperatures and welcome rain events this fall, cover crops are still growing and will continue to do so until temps get down to 15 to 20 degrees for three consecutive nights.

Ackermann, along with Okabena farmer Dave Christoffer, are among the veteran cover crop growers in the Heron Lake Watershed District.

Christoffer used a five-way mix of cover crop seed, and noted a "real good stand" this year in early variety soybeans.

"Everything I farm is pretty flat," he shared. "The first years I was using mostly cereal rye and I noticed the water infiltration. There was very little ponding and I didn't lose crop where I normally lost crop.

"That's one of the big advantages of cover crops," he added.
Brian Biegler of rural Lake Wilson is in his third year experimenting with cover crops. This year he put together a machine with an 80-foot boom, airbox and monitor to do interseeding, and it worked well.

“I planted annual ryegrass and (tillage) radish into soybeans on Aug. 24, then strip-tilled a couple of weeks ago,” he shared.

Biegler also tested RyzUp on the cover crop, which is touted for generating more plant growth. It’s a benefit for farmers who want to graze cattle on the cover crop. His primary reason for planting cover crops, however, is to prevent wind erosion and loss of topsoil.

Brian Post of Lakefield is working with a mix of cereal rye, turnips and radishes, going from 50 acres of cover crops four years ago to 160 acres today.

“The last two years it’s worked really well,” Post said. “We put (cover crops) on fields we could graze cattle on. Last year, we had good growth in the fall and the cows ate out there all winter long.”

In his first year experimenting with cover crops, Bruce Brunk of rural Rushmore interseeded cereal rye, rapeseed, tillage radish and clover in corn on June 20, and noted that after corn harvest, the cover crops started growing really well.

After recording eight inches of rain in a three-day period in early August, Brunk saw firsthand the benefits of cover crops.

“Normally when we get any kind of rain like that, it runs through the field and cuts it out,” he said. “After the rain, I went out there and there was no sign of water running out of that field. The culvert was actually dry.

“I’ve been farming that ground for 30 years and I’ve never witnessed that before,” he added.

Darwin Roberts, who farms near Granada, said the benefits of cover crops are “astronomical,” and encouraged farmers to find what works best for them.

“I’ve done cereal rye, radish, turnip and rapeseed and my fields are literally green,” Roberts said. “I have eight- to 10 inches of growth right now on my soybean stubble and everybody around me is totally black because they’ve plowed in manure.”

Roberts said he has noticed a yield boost on fields where he planted cover crops. This year he averaged 67 bushels per acre for soybeans and 219 bushels per acre on corn.

Area producers interested in trying cover crops have several funding options available to pursue, from EPA 319 grants to Environmental Quality Incentive Program dollars.

Ackermann said EQIP offers one-, three and five-year programs for producers to try cover crops.

"I think you'll see some results," he said. "What worked for me may not work for the next guy. This three-year study has really been an eye-opener."
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