BOARD OF WATER AND SOIL RESOURCES

2020 June Snapshots

Cover crops: A means to expand beef herd





A \$796,000 Clean Water Fund grant from BWSR targets projects throughout the Buffalo River Watershed. The goal is to reduce the amount of sediment and nutrients that reach the Buffalo River.

Working with Becker SWCD staff and drawing from NRCS assistance, family explores soil health, no-till, rotational grazing opportunities

DETROIT LAKES — With three sons who might one day take over the family farm, Todd and Michelle Andresen are advancing plans to expand their beef operation without buying more land.

The Andresens run about 1,500 acres of grain, grow about 300 acres of hay and raise 110 cow-calf pairs of red Angus cattle on about 400 acres of pasture north of Detroit Lakes. Expanding last season's cover-crop trial would add pastureland, extend the grazing season, cut feed costs, and — once established — help to alleviate the excess spring moisture that often delays planting.

The initial trial started with a 27-acre wheat field. On the cover crops planted into the post-harvest wheat stubble late last summer, the Andresens grazed cattle for 10 days in November.

Environmental Quality Incentives Program (EQIP) assistance from the USDA's



Mead

Natural Resources Conservation Service (NRCS) reduced the financial risk of trying a cover crop. Clean Water Funds from the Minnesota Board of Water and Soil Resources (BWSR) covered part of the

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fencing costs. Becker Soil & Water Conservation District (SWCD) and NRCS staff offered technical assistance.

"We want to grow that end of our operation, and I think (how we're going to do it) has got a lot to do with these programs," Todd Andresen said. "We can grow our livestock end without a lot

The Andresens raise 110 cow-calf pairs of red Angus cattle. They purchased this property, which had been enrolled in the Conservation Reserve Program, about six years ago and, with NRCS assistance, turned it into rotationally grazed paddocks. The work included installing 7,000 feet of water lines and installing six water tanks. Their five-year contract expired, but they have continued the practice. Photo Credit: Ann Wessel, BWSR



Left: On a 27-acre field near his home place in Becker County, Todd Andresen planted a cover crop after this season's wheat harvest. Middle: From left: Becker SWCD Administrator Peter Mead, landowner Todd Andresen and Becker SWCD resource technician Brandon Dahring examine an emerging cover crop Aug. 29 in Becker County. Right: Todd Andresen planted a cover mix including spring wheat, winter rye, winter peas, tillage radish, annual rye grass, turnips and berseem clover. Photo Credits: Ann Wessel, BWSR

of capital expense. We don't need to purchase more land or rent more land. We can utilize the land we have now with cover crops — full-season cover crops or cover crops after we harvest our wheat or corn — and just grow internally."

That might mean expanding to 150 or 200 cows. Michelle's primary responsibilities center on the cattle. She also helps with fieldwork. Each son owns a few cattle.

In August 2019, the cattle grazed on land previously enrolled in the USDA's Conservation Reserve Program (CRP). The Andresens bought the CRP land about six years ago, intending to use it for pasture.

"I knew nothing about rotational grazing. We'd never done it. So we started with 152 acres, fenced the whole thing, made it into six paddocks, put in 7,000 feet of waterline and six water tanks," Andresen said.

EQIP assistance provided a rotational grazing payment.

Once the property was fenced and water installed, the paddocks opened to rotational grazing about four years ago. The grazing contract with NRCS expired in 2019. The Andresens are continuing the practice on their own. "We see the huge benefit in what's going on there," Todd Andresen said. "The best benefit is we can have more animals — cow-calf pairs per acre than we could in the past. We are utilizing our grass in a timely fashion and keeping our heights of grass to a manageable re-growth state."

The cattle also graze on 400 rented acres, and on nearby U.S. Fish & Wildlife Service land. Through an NRCS delayed haying program, the Andresens converted 25 acres of marginal cropland to pasture. Planted with native grasses, it can be grazed after Aug. 1.

This season's cover crop plans extend to 300 acres of wheat, which will be seeded with no-till cover crops after harvest, and then planted with no-till corn in 2021. That EQIP application to expand covercrop and no-till practices has been submitted.

Expanding upon a 4-acre experiment Todd tried on his own in 2019, they'll plant more 60-inch corn.

Andresen did the math, and deemed the cover-crop and 60-inch corn trials a success.

Both will require fine-tuning. A late wheat harvest delayed planting the cover crop. The 60-inch-corn fared somewhat worse than the 30-inch-rows in a windstorm that flattened a field and took out a barn.

Although the season was shorter than anticipated, Andresen figured that grazing the cattle on the cover crop for 10 days saved \$2,000 in feed costs. An earlier cover crop planting and later snow could extend grazing to 30 or 40 days. Although the test-plot corn yield was about 8 bushels per acre less, Andresen figured the value of a cover crop inter-seeded in the more widely spaced corn rows would more than compensate.

Continuing each year with the fields planted to wheat, the Andresens plan to slowly expand cover crops and no-till practices.

"Every person says start slow. I would love to jump in with two feet, sell my tillage equipment, get to no-tilling. I don't believe that's a very smart move on my part at this point. There's a lot of things that have to cash flow to make this operation sustainable. So we'll start slow."

Andresen bought a no-till drill this spring. He had to travel to lowa to find one, and plans to make it available for neighbors to rent.

"We're excited about switching and doing things differently. This investment was a big investment," Andresen said.

NRCS District Conservationist Ed Musielewicz said farmers like the Andresens are the key to making practices such as cover crops and no-till widely accepted.

"Finding that one person that is willing to take some sort of a jump in doing it really helps locally in getting practices implemented ... across the landscape," Musielewicz said.

Across the farm as a whole, the Andresens' biggest challenge has been excessive spring moisture — which delays planting.

"That's why tillage has been such a big part of our operation, because it dries out our soil and helps us get out there in the spring. My goal is to have cover crops growing to help dry the soil out in the spring and get in there in a timely fashion," Todd Andresen said.

The farm's big-picture goals involve growing soil health, eliminating erosion and controlling water.

"I think I want to get back a little bit more to having healthier soil," Andresen said. "We could maybe have better water infiltration systems that would help these soils, and try to grow soils instead of take away from them all the time."