Partners in Conservation

Red Cedar Demo Farm Offers Hands-On Education

Above: (L to R) Katie Wantoch, UW-Extension; Dan Prestebak, Dunn County Land & Water; Mark Denk, Chippewa Valley Technical College; John Siippl, USDA Natural Resources Conservation Service; and Leah Nichol, Dunn County Land & Water; tour a full season cover crop plot on the demo farm.

The Red Cedar Demonstration Farm, in Menomonie, Wis., is a 155 acre, three parcel farm, leased by partners to educate and demonstrate conservation of natural resources. Collaborators in the partnership include the USDA Natural Resources Conservation Service (NRCS), Dunn County Land and Water, University of Wisconsin-Extension (UW-Extension), and Chippewa Valley Technical College (CVTC). Partners attended a county board meeting, presented a demonstration and educational farm idea, and showed soil health demonstrations and benefits. The City and County owners of the parcels were enthusiastic about the project and agreed to a five year lease to implement conservation practices to educate students, partners, and the community. "They saw different agencies coming together to form a truly interactive partnership looking at conservation management together; this was instrumental to the committee in approving our ideas for the project," said Dan Prestebak, Dunn County Land & Water.

"In 2015, a partnership was formed; we started implementing soil health practices, nutrient management standards, no-till, and cover crops," said John Sippl, Dunn County NRCS District Conservationist. CVTC Agricultural Program students perform farm work on the ground in an outdoor classroom environment. "The Demo Farm gives students a hands-on opportunity to plant, scout fields, monitor growth, harvest, write nutrient plans, take soil samples; really, it's a full farm laboratory for students," said Sippl. The land previously housed livestock for many years and was cropped and tilled in a corn-soybean rotation. Partners observed wind erosion and saw the potential for soil health quality opportunities when the project started. "The red cedar watershed is an impaired watershed, and one of the ways to improve water quality issues is to apply conservation practices and fix soil health issues first," said Sippl.

UW-Extension partners help with educational outreach for the farm. "New students arrive each year and have a chance to learn how to use farm equipment and also demo new technologies," said Katie Wantoch, UW-Extension Agent. NRCS partners take the lead in soil conservation, offering technical advice on soil health principles and helping students with soil sampling in the field. Interest in the demo farm has grown across the region; farmers and partners are discussing potential new demo farms in their areas. "Individuals and agencies want updates to stay informed on how the demo farm is progressing and if they can implement some of these practices on other county lands," said Sippl.

Students currently plant one-third corn, one-third small grains, and one-third soybeans. No-till is being used on the majority of the land and cover crops are also being used after each crop harvest. "We have two designated tillage test strips for education and monitoring; they are small fields within larger fields," said Sippl. "Students learn how to use tillage equipment on the control strip, to compare to no-till areas,

Helping People Help the Land

Left and below: (L to R) Sippl and Nichol assess clover cover crop establishment.

Above: (L to R) Mark Denk, CVTC; Dan Prestebak, Dunn County Land & Water; Katie Wantoch, UW-Extension; John Siippl, USDA-NRCS; and Leah Nichol, Dunn County Land & Water; proudly promote soil health and water quality through education and demonstration at the Red Cedar Demo Farm.

where conservation practices are implemented." An experimental field of nine different species of full season cover crops was also planted, including sunflower, sorghum sedan grass, cow peas, radish, winter triticale, turnip, and multiple clover species. After the small grain oat harvest, cover crops were also planted on the field, a multi-species mix of a winter annual, a brassica species, and clovers. "With multi-species cover crops on the ground, we've seen an abundance of wildlife, like turkey, deer, and waterfowl on the property; more than we've ever seen before," said Sippl. The soybeans had winter rye cover crop drilled in and will be harvested for grain in summer 2016. Corn fields were aerial seeded with a winter cover crop when corn was still standing. Lime and urea are also being applied for nutrient management. A weather monitoring station, funded through a UW-Extension Northwest Regional Innovative Grant, is also in place to compare weather and crop yields over the next five years.

The partners hosted a successful public field day. The two day event was very well attended, with over 100 interested farmers, partners, and community members. "Now that the word is out and the momentum is going, people are coming to us for information, technical assistance, and demo farm updates and successes; we've also spurred the city and private industry to do additional conservation leases in the area," said Sippl. "We are seeing results! During the field day we set infiltration rate tests on our full season cover crop plot, one in the corn plot, and one in the small grains plot; it rained over an inch on the already saturated ground. By incorporating crop diversity into the system, we saw better infiltration rates in just one years' time," said Sippl. "We've gone one step further by also bringing children from the community out through County programs to educate them on conservation principles," said Leah Nichol, Dunn County Land & Water.

CVTC, the lease holder and student coordinator, has a unique partnership with the local implement dealers. They have agreements worked out with suppliers so students are allowed to use equipment for educational purposes. "We are more on the production side of the partnership, bringing students to learn, promoting soil health and water quality, looking at agronomy, marketing, and the financial side of harvesting; we're excited to be a hands-on member of this great partnership," said Mark Denk, CVTC Instructor. "As a farmer and an educator, I'm passionate about this work and excited to foster the next generation." Students are able to use tractors, planters, and combines for planting and harvesting, as well as other needed equipment. "They are excited to have the opportunity to use first rate technology, GPS, and auto-steering, while also having partner staff as mentors and gaining hands-on educational experiences," said Sippl.

The demo farms main goal is conservation education. "NRCS, Dunn County Land & Water, UW-Extension, CVTC; we've always had a good relationship, but this project has really strengthened that relationship and it's been great for the students and community also," said Prestebak. They've taken baseline data and are excited to track data over time and see how things change for the positive with soil health principles implemented. "We're demonstrating it is possible to utilize no-till and cover crops, build organic matter, change the biological diversity in the soil, infiltrate more water, decrease erosion, increase soil health and more," said Sippl. "We have an opportunity to show how conservation efforts can make an impact long term. We've pulled many tests on the property; soils, bulk density, and more." The partners are excited to see the difference conservation can make in educating our next generation. "We can make a difference and educate others in the process," explained Sippl.

The USDA is an equal opportunity provider, employer and lender.

July 2016