Advancing Producer-Led Watershed Protection Projects and Incentive Programs



Using Precision Agriculture and Conservation to Improve Profitability and Soil Health

Pairing precision agriculture with conservation practices provides the opportunity to improve profit per acre while addressing soil health and wildlife habitat improvement goals for a farm operation. The Buffalo-Trempealeau Farmer Network and the Hay River Farmer-Led Watershed Council are partnering with Pheasants Forever on projects using this concept. A specialist works one-on-one with farmer members to provide a sub-field analysis of farm data to identify revenue-negative acres and alternative management options for those acres that align with farm goals. Practices may include: Diverse cover cropping, hay plantings, pasture plantings, filter/buffer strips or pollinator habitat.

To learn more about how to integrate precision farming data with conservation planning, contact Scott Stipetich, Precision Agriculture Conservation Specialist with Pheasants Forever at sstipetich@pheasantsforever.org, or (715) 209-4846. See these project examples for more information:

- Pheasants Forever <u>Precision Ag & Conservation Solutions</u> and specifically, their Purina <u>Soil</u> <u>Health and Habitat Program</u>
- ◆ IL Corn Growers <u>Precision Conservation Management Program</u>

Small Grains Cost-Share Program

Cover crops are an important tool for soil health improvement, however planting cover crops alone is not likely to result in significant water quality improvement. Bringing a small grain back into a crop rotation adds diversity to the system and can also provide better windows of opportunity for establishing cover crops and applying manure.

For an example of how to promote small grains in your watershed project area, check out the <u>Practical</u> <u>Farmers of Iowa small grains pilot project.</u> Project highlights:

- Incentive payments are provided to farmers to plant wheat after soybeans in a corn-bean rotation
- A multi-species cover crop containing a legume must be planted after the wheat
- There is a small grains market development component of the project to address market access/supply chain challenges with small grains production in the Midwest including partners such as Oatly, Unilever, and Sustainable Food Labs.
- Practical Farmers of Iowa also publishes a directory of buyers of small grains located throughout the Midwest to help with market access

Nitrogen Use Efficiency Studies

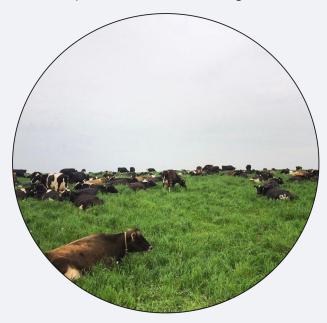
There is a valuable opportunity to partner with UW Discovery Farms on Nitrogen Use Efficiency (NUE) studies. When farmers in a watershed participate in the study, it offers the chance to benchmark and compare individual farmer nitrogen use efficiency to other farms in your area, as well as across the state, offering valuable insight into strategies or specific fields where nitrogen management could be improved.

For more information, contact: Abby Augarten, NUE Project Coordinator, UW Discovery Farms at (914) 844-2146 or by email: abigail.augarten@wisc.edu.

Managed Grazing Programs + Networks

Managed grazing is a way to incorporate all five components of soil health: Decrease disturbance, maintain living roots, increase ground cover, foster diversity, and incorporate animals on the land. Transitioning to a rotational grazing system can also reduce farm input costs, particularly feed. If your group is interested in learning about or promoting rotational grazing practices, there are multiple resources to utilize and connect with throughout the state to build your program or network.

<u>GrassWorks</u> is an organization working to advance managed grazing throughout Wisconsin, providing a multitude of resources; you can connect with other graziers through the <u>Ask-A-Grazier Forum</u>, find <u>Grazing Experts</u> throughout the state, or locate an existing <u>Grazing Network</u> near you. Contact: Jill Hapner, Executive Director, <u>grassworks@wi.rr.com</u>.



Grassland 2.0 is a collaborative of researchers, supply chain partners, farmers and other conservation stakeholders working to create profitable and productive opportunities for grass-based agriculture throughout the Midwest. They are actively looking for groups to become in engaged in their work. For more information, contact: Laura Paine, Outreach Coordinator, lkpaine@wisc.edu or 608-338-9039.

To learn more about:

- Hosting or organizing pasture walks
- Developing a grazing plan
- Grazing enterprise financial evaluation tools
- Programs to assist with funding the installation of fence, or other grazing infrastructure,

Get in touch with the Conservation Specialist at DATCP, Dana.Christel@wisconsin.gov.

Engaging Supply Chain Partners in Your Conservation Projects

Farmer-led groups can collaborate with supply chain partners and other industry stakeholders to advance their conservation efforts. An example of this is the Milkshed Pilot Project involving the Lafayette Ag Stewardship Alliance (LASA). In partnership with the Dairy Strong Sustainability Alliance, Grande Cheese Company and other stakeholders, the project is documenting and quantifying sustainability efforts from farm to end user using a suite of tools.

Field to Market's Fieldprint Platform is used to evaluate on-farm sustainability metrics. There is also a financial analysis component to understand the impact of conservation on a farm's finances through partnership with Southwest Wisconsin Technical College.

The project will help LASA members learn while also providing transparency and information for buyers along the supply chain. Aggregate results of the environmental and financial impact of conservation practices will be communicated to other farmers, customers, the local community, agricultural supply chain and regulatory agencies.

If you are interested in organizing a similar project, visit the <u>Field to Market Project Directory</u> for other project examples or contact Lauren Brey with the Dairy Strong Sustainability Alliance at <u>Ibrey@voiceofmilk.com</u> or (920) 883-0020 x107.

A Perennial Cover Practice: Prairie STRIPS

Prairie STRIPS integrate small amounts of prairie strips in strategic locations in grain crop fields, slowing the flow of water across a field, which can mitigate soil erosion risk while providing important habitat for pollinators and other beneficial species. Farmers in the Dodge County Farmers for Healthy Soil Healthy Water as well as the Cedar Creek Farmers have implemented Prairie STRIPS. For more information about the practice, view:

- <u>lowa State University's webpage on STRIPS</u>
- **Sand County Foundation Prairie STRIPS Efforts**

For information regarding technical assistance, contact: Greg Olson, golson@sandcountyfoundation.org, or (989) 430-5483

Handling Manure: Composting

Composting manure has been utilized and promoted by farmer members in groups such as Yahara Pride Farms. This practice provides a way to avoid manure applications during high run-off risk time periods while producing a high nutrient value soil amendment. Additionally, composted manure:

- Reduces manure weight and volume, reducing hauling costs
- Can improve water retention in the soil
- Can alleviate manure storage needs.

YPF has shared other information about the benefits manure composting can provide to farm operations, soils, and water quality on their website. Read more about it **here**.

Water Quality Monitoring

Many groups express interest in collecting water quality data to inform the progress of their watershed projects. Water quality monitoring devices and infrastructure can be expensive, however there are other approaches to collecting water quality data that can still provide useful data to help track progress.

Citizen-Based Water Quality Monitoring

Farmers for the Upper Sugar River are working with their Watershed Association's Water Action Volunteers to collect water samples throughout the watershed to provide data on dissolved oxygen, turbidity, water temperature, stream depth, stream flow, and macroinvertebrates. More information can be found at the <u>USR Watershed Association website</u>.

Partnering with a Point-Source (such as a city waste water treatment facility)

The Watershed Protection Committee of Racine County is partnering with their local wastewater treatment facility to receive funding for water quality samples. Working with their county land conservation department, they selected important locations throughout the watershed to collect routine grab samples throughout the year to provide a better idea of how water quality is changing as they implement more conservation in their watershed project area.

Questions?

For more information on any of the ideas provided in this resource, please contact our conservation specialist, **Dana Christel at (608)-640-7270 or by email: Dana.Christel@wi.gov**