October 2024

Oane Demo Farms

>>> NEWSLETTER <<<

FARMER DRIVEN RESEARCH



COLLABORATIVE CONSERVATION

COST-SHARE OPPORTUNITIES

>>> READ MORE ON PAGE 2-3

Are you interested in making some improvements on your farm to protect your farmland and keep your soil in place? There are cost-share opportunities available to support your efforts. To help you navigate the options, check out page 2 for more information.

READ MORE ON PAGE 4

Cover crops, plot data, and drone technology were among the key topics discussed during the field day hosted by Tom Ripp near Black Earth. Attendees roasted in the September sun to learn about Tom's journey with cover crops and gain insights into his field practices. If you were unable to attend, no worries, we've got the summary on page 4.

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Cost-Share Opportunities

For Cropland Protection in Dane County

Several organizations within Dane County provide cost-sharing opportunities for various conservation practices. These organizations include the USDA-Natural Resource Conservation Service (NRCS), the Dane County Land and Water Resources Department (LWRD), and the farmer-led watershed group, Yahara Pride Farms. Other farmer-led watershed groups in the county also have funds available.

Each organization administers its cost-share program with slight variations. Funding is contingent on approved budgets annually. Details below:



All organizations provide cost-share reimbursements for conservation practices, ensuring that each practice has been verified as completed prior to issuing payment. The verification process may vary slightly among organizations.

Contact Info

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NRCS: Brooke Lerum, brooke.lerum@usda.gov, 608-224-3750, <u>nrcs.usda.gov/wi/eqip</u> or stop by the office at 5201 Fen Oak Drive, Madison

Dane Co LWRD: landcon@danecounty.gov, 608-224-3730, <u>lwrd.danecounty.gov</u> and click on 'grants & cost-share' at the top of the page, or stop by the office at 5201 Fen Oak Drive, Madison

Yahara Pride Farms: communications@yaharapridefarms.org, yaharapridefarms.org

Cover Crops	No-Till	Grassed Waterway
Overwintering = OW Non-Overwintering = NOW	NRCS: \$20/ac, no limit on acres, funding available for up to 5	NPCS: drainage area under 200

NRCS: OW=\$61/ac. NOW=\$41/ac, no limit on acres

Dane County LWRD: OW=\$50/ac, NOW=\$30/ac. max of 200 acres total

Yahara Pride Farms: OW=\$50/ac. max 100 acres, NOW=\$35/ac, max 60 acres

funding available for up to 5 consecutive years

Dane County LWRD: \$18/ac, acreage limit based on funding, funding available for up to 4 consecutive years

Yahara Pride Farms: \$30/ac, max 60 acres, no-till into alfalfa, sovbean stubble, or cover crops only

NRCS: drainage area under 200 acres=\$3/ft., drainage area 200-600 acres=\$4/ft., drainage area over 600 acres=\$8/ft., free technical services provided

Dane County LWRD: up to 70% of the actual cost, not to exceed \$100,000, free technical services provided

Other Cost-Share Opportunities

Additional conservation cost-share practices are available from each of these organizations, as outlined below:

NRCS: manure storage structures, transition to grazing, strip tillage, and more

Dane County LWRD: funds to support the purchase of soil health equipment under their SHEP program, funds for continuous cover under their CCP program, manure storage closure, nutrient management planning, roof runoff management, managed grazing systems, well decommissioning, and more

Yahara Pride Farms: annual cropping practices include strip tillage, low disturbance manure injection, low disturbance deep tillage with cover crops, winter headland stacking of manure, composting manure, deferred fall killing of alfalfa until spring, and no-till alfalfa seeding

Farmers for the Upper Sugar River: this organization covers the surrounding area of Mount Horeb, Verona, and Belleville, funding opportunities vary each year based on the interests of the group, for more information, please contact Wade Moder at wade.moder@gmail.com or 920-850-6902

Biological Farmer Friends: while primarily focused in the southern part of the Yahara Watershed, this group is open to all farmers, funding is available for farmers to attend relevant conferences and training sessions, as well as to host large-scale in-field demonstrations, for further details, please reach out to Marie Raboin at raboin.marie@danecounty.gov or 608-228-6324



DANE DEMO FARMS FIELD DAY RECAP

SEPT. 11TH NEAR BLACK EARTH

Tom Ripp, host of the field day, kicked-off the field presentations by discussing the cover crops he planted following the harvest of wheat. Currently, **Tom incorporates oats, sunflowers, and clover into his wheat fields post-harvest** (see cover photo). Initially, he utilized tillage radish; however, due to challenges with slugs, he transitioned to sunflowers, which effectively aid in alleviating soil compaction thanks to their aggressive tap root. He has previously used both white clover and berseem clover, and he included both varieties in his mix this year. **Notably, one of his best corn fields for 2024 followed a cycle of wheat and a cover crop mix in 2023**.

RESEARCH RECAP

Several University of Wisconsin (UW) specialists provided valuable data and insights on various topics, including evidence supporting the assertion that cover crops enhance water infiltration and reduce erosion. Research from the UW Weeds Team was also shared, indicating that cover crops contribute to the suppression of waterhemp and giant ragweed seed germination when a certain level of biomass is achieved. While pre-emergent herbicides may face challenges in reaching the soil surface due to cover crops, they remain equally effective when applied to cover crops as compared to bare soil. A key highlight for the Dane Demo Farms team was the data presented on nitrogen uptake by cover crops. There is a common perception that cover crops tie-up nitrogen throughout the growing season; however, the first year of Dane Demo Farm data revealed that even cover crops terminated at planting time can release nitrogen during the growing season, which can subsequently be absorbed by the cash crop.

Cover crop data, along with additional findings collected during the 2024 cropping year, will be analyzed and shared in the winter newsletter.

>>> DRONE DEMONSTRATION

The event concluded with a cover crop seeding demonstration via drone. Hero's Drone Service successfully deployed rye seed onto a soybean field and even sprinkled a few attendees. Participants had the opportunity to engage with the operator, Drew Morgan, and pose questions regarding drone capacity and battery life. While the maximum carrying capacity is 110 pounds, drones demonstrate efficiency for smaller fields, particularly during prolonged wet periods when tractor usage may not be feasible.

DANE DEMO FARM TOURS

Dane Demo Farms serves as a vital connection between the general public and the agricultural sector. Our partner farms are instrumental in educating the community about farming practices and the initiatives undertaken by farmers to improve sustainability through on-farm tours.



Endres Berryridge Farms recently welcomed a delegation from Pakistan visiting the United States as part of the Department of State's International Visitor Leadership Program. The primary focus of their visit was to explore climate-smart agriculture technologies and practices. During their time at the farm, Jeff Endres provided insights into the processes and rationale behind their compost production and usage, as well as shared valuable information on various cropping practices, including cover crops, no-till, strip-till, and more.

KIDS TAKING IN SOME COUNTRY AIR

Bruce Sime leads a tour of a dozen kids through his steer barn. The Sime's finish beef in confinement, and raise cow calf pairs on pasture and cover crops, near Stoughton.





Jeff Endres discussing compost during a tour with a delegation from Pakistan

W STUDENTS AT ENDRES BERRYRIDGE FARM

Students from across the country made a brief visit at Endres Berryridge Farm as part of the Freshwater@UW Summer Research Opportunities Program field trip. As participants in this research program, these students collaborate closely with UW faculty and staff to refine their research skills and learn the importance of science communication. Kevin Shelley from the UW, imparted valuable insights to the students regarding conservation practices and the challenges that come with on-farm implementation.

KIDS AT THE SIME FARM

A group of kids from the Dane County Junior Naturalist Camp visited the Sime Farm this summer for a guided tour with Bruce Sime. They had the opportunity to observe firsthand the appearance and aroma of a steer finishing barn. Bruce explained to the kids the rationale behind confining certain animals while allowing others to graze in pastures. Additionally, they acquired knowledge about various pieces of farm equipment and gained insight into soil aggregates and soil carbon.

NEW DEMO FARM

Prosser Farms LLC, situated in the northeast corner of the county near Columbus, has recently joined the Dane Demo Farm network. Operated by John and Tim Prosser, Prosser Farms milks around 90 cows and farm over 200 acres. They plan to collaborate with Dane Demo Farms on a project focused on monitoring their transition to no-till, as well as hosting a study on cover crop termination. With the inclusion of Prosser Farms, our network now comprises five participating farms.



DANE DEMO FARMS GRADUATE STUDENT

As part of the NRCS joint funding agreement supporting Dane Demo Farms, funding has been designated to support a graduate student who will assist with the program. Dr. Francisco Arriaga, UW-Extension Soil Scientist, has recently welcomed Connor Schoelzel as the new graduate student.

Connor will be pursuing a master's degree in Agroecology at the University of Wisconsin-Madison starting this fall. Prior to this opportunity, he spent the last four growing seasons at Lovefood Farm in Stoughton, where he managed the Wash/Pack operations of a diversified organic vegetable farm.



This experience has equipped him with a comprehensive understanding of the needs and agronomic practices for a wide variety of vegetables.

Before his time at Lovefood Farm, Connor earned undergraduate degrees in Mathematical Sciences and English Literature from the University of Wisconsin-Stevens Point. He also has experience running a small business and managed a traveling coffee vendor stand, which allowed him to travel across the United States for two and a half years.

In his free time, Connor enjoys painting, performing with a country music band, and exploring various methods of food cultivation.

As a member of the Dane Demo Farms team, Connor will be involved in soil sampling, plant biomass collection, data analysis, and more.

GULLY EROSION WORTH ADDRESSING

As the harvest season advances across the county, operators of harvesting equipment may encounter unpredictable field terrain this year due to new instances of gully erosion. The impact of this year's late spring and early summer rainfall may have significantly affected soil stability, depending on the cropping systems employed on individual farms.

Gully erosion occurs when intense rainfall generates runoff that concentrates into defined flow channels. Although these concentrated flow areas may seem minor, recent years have demonstrated instances of rainfall exceeding 3-5 inches in a single day, as well as occurrences of 2 or more inches within a duration of less than an hour. Such extreme rainfall events can trigger gully erosion within fields, and once the erosion process begins, it may continue to escalate even with relatively modest rainfall events.

The initial strategy for addressing this issue often involves employing tillage to temporarily "fill in" the gully. However, this is generally only a short-term solution. A gully creates a physical depression in the terrain; even when filled through tillage, the overall topography is altered. This alteration typically results in a more defined and steeper flow channel, increasing the likelihood of erosion during future rainfall events.

"Man-despite his artistic pretensions, his sophistication and his many accomplishments, owes his existence to a 6inch layer of topsoil and the fact that it rains." -Paul Harvey So you've got a gully, now what?

- design and install a properly sized grassed waterway that provides adequate depth and width to effectively manage runoff within the channel
- enhance water infiltration in the field by reducing or eliminating tillage and incorporating cover crops where possible --> see cost share opportunities page 2-3

Did you know...

- a gully just 1 foot deep, 4 feet wide, and 225 feet long is about 2 dump trucks of soil lost from your farm
- the top 6 inches of soil contain much of your farms nutrients and soil organic matter it's worth keeping!



STAY IN THE LOOP!

Check out the Dane Demo Farms Podcast on your favorite streaming platform, just search 'Dane Demo Farms' to find us! And, don't forget to follow us on Facebook.

UPCOMING EVENTS

>>> WIS WATER AND SOIL HEALTH CONFERENCE

December 17-18: Hosted at the Kalahari Resort & Convention Center, Wisconsin Dells. WWASH, where on-farm research meets the implementation of soil health practices. Experience engaging keynotes, interactive breakout sessions, and insightful round tables designed to deepen your understanding of agronomy, water quality, and soil health. Register by November 15th for early bird pricing, https://cropsandsoils.extension.wisc.edu/wwash/

CONTACT **INFORMATION**

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Dane Demo



