

UPPER FOX-WOLF DEMONSTRATION FARM NETWORK

REPORT



Upper Fox-Wolf
Demonstration Farm Network

Protecting Wisconsin's Soil and Water Resources

Year 5 (2023)
Annual Report

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ABOUT THE DEMONSTRATION FARMS



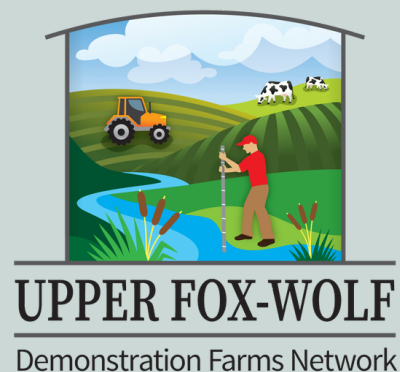
The Upper Fox-Wolf Demonstration Farm Network, a collaboration between U.S. Department of Agriculture, Natural Resources Conservation Service, and Waupaca County Land & Water Conservation Department, in partnership with Fond du Lac, Green Lake, Marquette, Outagamie, Portage, Shawano, and Winnebago counties and the Green Lake Association, was formed in 2018 to test and demonstrate conservation practices to reduce phosphorus, nitrates, and sediment entering the Great Lakes basin. This collaborative effort is funded in part by the Great Lakes Restoration Initiative (GLRI), NRCS, County partners, lake associations, and others.

The demonstration farms represent a wide range of farm types, but all have a common goal – to share the knowledge learned on their farms about innovative techniques to improve soil health. These farmers, with technical support from the project management team, voluntarily implement conservation agricultural

practices in their operations. They also host educational field days and share their soil health journeys with other farmers and the public with the goal of helping others implement soil health practices in their operations. In this way, the Network tests and demonstrates the best conservation practices to reduce non-point source pollution entering the Great Lakes basin.

CONTACT OUR TEAM

- **Matt Brugger** (Project Manager)
 - matt@tilthag.com 920-470-3889
- **Derrick Raspor** (NRCS Coordinator)
 - derrick.raspor@usda.gov 920-740-5810
- **Brian Haase** (Waupaca County Conservationist)
 - brian.haase@co.waupaca.wi.us 715-258-6482
- **Maranda Miller** (Outreach Specialist)
 - maranda.miller@wisc.edu 608-590-5758



FARM SUMMARIES



Jamie Albright

ALBRIGHT BROTHERS, LLC

WINNEBAGO COUNTY

- The farm has utilized no-till on many of their acres, recognizing the benefits to soil health. The farm has found that their no-till acres are more accessible during the year and are able to avoid getting stuck in wetter areas of fields that would be full of ruts under normal tillage conditions.

Plans for the Future

- They hope to try interseeding in the future as a way of establishing covers in their corn grain fields as well as to continue experimenting with multispecies mixes.



Dan & Ruth Boerst

BOERST FARM

WAUPACA COUNTY

- Dan has embraced many soil health practices on his farm including multi-species cover crops, no-till practices and Regen Acres (planting a season long cover crop).
- Dan fenced in some of his cropped fields and continues grazing cover crops after harvest of his row crops.
- In Fall 2022, the farm planted a cover crop plot aimed at looking at the interactions between several species of grass, legume and brassica.
- Dan also planted a large forage plot in the fall of 2023, part of which was harvested for feed.
- Dan grows some cover crop seed and also provides many of his neighbors with seed as well.

Plans for the Future

- The farm plans to continue to innovate and try new practices while focusing on soil health, including utilizing unharvested cover crops on fields for a year to provide a break in his rotation.

FARM SUMMARIES



Adam & Kristy Erickson and family

ERICKSON DAIRY FARM

OUTAGAMIE COUNTY

- The farm continues to implement no-till practices on some of their acres.
- They continue using their Bazooka LDMA tool bar mounted on a tanker to apply manure.
- In 2023 they utilized modifications to their planter to better handle no-till fields.

Plans for the Future

- The farm plans to continue to implement cover crops and expand their no-till acres. They also continue to modify their planter to better fit their no-till acres.



Rick & Kimberly Gehrke and family

GEHRKE FAMILY FARM, LLC

WINNEBAGO COUNTY

- The farm continues to plant no-till and plants green whenever possible.
- Rick continues to monitor soil health on his no-till conversion acres, utilizing two temperature sensors, one in a long term no-till field and one in the conversion field.
- Data from the weather station with temperature and moisture sensors that was installed on the farm is available through the Network's Facebook page and website.
- Rick continues to establish multi-species cover crops following wheat and rye crops.
- Several fields were soil tested to look at potential stratification from fertilizer over years of surface applied fertilizer.

Plans for the Future

- The farm plans to continue to find new ways of integrating cover crops and hopes to find a way to integrate livestock. Rick also plans to outfit his planter for below ground application of nutrients.

FARM SUMMARIES



Matt & Sara Hintz with their son

HINTZ FARM

PORTAGE COUNTY

- The Hintz Farm practices no-till farming with cover crops.
- Matt utilized soil testing and tissue testing on one of his corn fields to track nitrogen through the season.
- The farm also utilizes grazing to manage their beef herd that is sold locally.

Plans for the Future

- The farm plans to continue experimenting with soil health practices to better improve their operation. Matt also continues to lead the Farmers for Tomorrow watershed group.



Ed Montsma

PINEY LAWN ACRES

FOND DU LAC COUNTY

- Ed Montsma has practiced no-till for over 20 years.
- The farm has been utilizing cover crops and for the last four years planted multi-species covers after wheat.

Plans for the Future

- The farm plans to continue experimenting with covers to improve soil health and has expressed interest in late season interseeding.

FARM SUMMARIES



Chris Pollack

POLLACK-VU DAIRY, LLC

FOND DU LAC COUNTY

with funding from

GREEN LAKE ASSOCIATION

- The farm has implemented some no-till practices on some of their acres.
- Chris continues to look for opportunities for grazing his steers and is looking toward windrowing corn stalks this fall.
- The farm also had temporary temperature sensors installed in a no-till field and a conventionally tilled field for a third year.
- The farm held off on interseeding in 2023 due to dry weather.

Plans for the Future

- The farm plans to continue planting more covers and finding ways to use them to improve their operation. The farm hopes to continue grazing cover crops.



Dave and Dusty Schultz

SCHULTZ LEGACY FARMS

FOND DU LAC COUNTY

- Schultz Legacy Farms practices no-till across all of their acres.
- Over the last few years they have integrated cover crops into their operation.
- Schultz's continue to utilize a self-propelled Hagie modified for cover crop seed they use to do late season interseeding in corn and beans on their acres as well as doing custom work.
- The farm held a soil health social this summer, getting local farmers together to discuss drought related issues they saw during the spring planting season.

Plans for the Future

- The farm plans to continue implementing more cover crops as well as experimenting with different cover crop mixes. They also plan to host an edge of field monitoring station.

FARM SUMMARIES



Greg & Steve Tauchen

TAUCHEN'S HARMONY VALLEY FARM

SHAWNO COUNTY

- In 2023 Tauchens continue to plant hundreds of acres in rye cover crop, some of which are harvested for feed.
- The farm also interseeded a multispecies cover crop mix on over 70 acres of corn silage, 20 of those acres for the 5th consecutive year. On some acres they made a Low Disturbance Manure Application (LDMA) using an Aerway unit.
- Haney Soil health tests were pulled in the interseeding field and a neighboring conventional tilled field.

Plans for the Future

- The farm plans to continue utilizing cover crops to protect their soil and provide feed options. They will also continue to evaluate interseeding as a way of establishing multi species covers and improving soil loss protections.



Zeb & Melanie Zuehls and family

ZUEHLS FARMS

MARQUETTE COUNTY

- The farm has gone to strip-till and no till across its acres.
- In 2023 the farm held off from interseeding due to dry weather.
- The farm had temporary temperature sensors installed in two fields to monitor changes through the season for the 3rd year, as well a sensor placed in a neighbor's tilled field.

Plans for the Future

- The farm plans to continue to integrate cover crops and look for ways to improve soil health. Zeb plans to try integrating cover crop grazing with his beef herd.

NEW DEMO FARMS AGREEMENT



In 2023, the Upper Fox-Wolf Demonstration Farms partners signed a new agreement with NRCS through Great Lakes Restoration Initiative (GLRI) Funding. This agreement added Waushara County, and extends work with Waupaca, Shawano, Portage, Fond du Lac, Winnebago, Outagamie, and Marquette Counties, and Green Lake Association.

Importantly, this agreement will bring new demonstration farmers into the program. Similar to existing demonstration farmers, these new farmers will become part of the Network where "demonstrations will be conducted to showcase the effectiveness and adaptability of conservation practice systems that reduce erosion, sedimentation and nonpoint source pollution and provide education/technology transfer opportunities for the public, farmers, land managers, agribusiness, environmental organizations, natural resource agencies and research entities."

New Demonstration Farmers

Eric Lind (Lind Family Farm)

- Tustin, WI
- Long term no-till and cover crops

James "Jim" Luedtke (Dreamhaven Cattle)

- Hortonville, WI
- Long term no-till and cover crops

Jacob Strassburg (Strassburg Creek Dairy)

- Wittenberg, WI
- Implementing no-till and cover crops

Pete Badtke (Badtke Dairy LLC)

- Ripon, WI
- Transitioning out of dairy to row crops
- Transitioning from conventional practices to no-till and cover crops

We're looking forward to working with these farms in 2024 and beyond!

WELCOME NEW DEMO FARMERS!

OUTREACH ACTIVITIES



Dan Boerst talks with participants at his Pollinator Picnic event.

In-Person Outreach

Farmers learn best from other farmers and when the information they receive is locally-based and relevant to them. For this reason, one of our main outreach strategies is in-person field days. Farmers, agency personnel, and county conservation professionals attend in-person days where they are shown local soil health practices our demonstration farmers are using.

Participants can ask questions of demonstration farmers, and can see on-the-ground practices that are working. They may also find practices that aren't working so well, and can explore ways to adapt these practices to work better in their systems.



In-Person Outreach at a Glance

This year, in conjunction with our partners and with the support of the demonstration farmers, we hosted 5 field days covering a variety of topics. We also tried a new style of bringing farmer together for conversation; Soil Conversations Social Hour. Details about these events can be found on the following pages.

Overwintered Cover Crop Exploration

- Dairy-licious Farm
- April 25

Pollinator Picnic

- Dairy-licious Farm
- August 3

Corn Dry Down Day

- Tauchen's Harmony Valley Farm
- September 19

Soil Conversations Social Hour

- Schultz Legacy Farms - July 17
- Dairy-licious Farm - August 30

Learning about soil health via a soil pit.

OVERWINTERED COVER CROP EXPLORATION

April 25, 2023

This pop-up style field day was hosted by Dan Boerst on his farm near Manawa. The topic of the day was Dan's 25-species cover crop trials.

Dan's cover crop plot was planted on August 16, 2022, following cereal rye for seed harvest. The plot was laid out in a grid pattern with a mix of Warm Season Grasses, Warm Season Broadleaves, Cool Season Grasses, and Cool Season Broadleaves.

By planting cover crops early (after small grain), Dan extended the window for them to grow and maximize their Fall growth going into winter. Dan is interested in building armor on the soil and

maximizing soil cover year-round. Our team watched the cover crops to see which ones put on the most above-ground growth in the Fall. We also watched plant development for things like how well they helped build soil structure, provided late season pollinator food, and captured nutrients. During the Spring we will monitor the plot to see which cover crops recover after winter and continue to build that cover on the soil.

Participants were able to explore Dan's trial plots, inspect growth of cover crops that had overwintered, plus ask questions of Dan and the Demo Farms team.

Matt Brugger discusses cover crop root growth.



Field day participant explores cover crop growth.



Derrick Raspor and Dan Boerst discuss Dan's cover crop trials with attendees.

POLLINATOR PICNIC

August 3, 2023

This family-friendly pollinator picnic was designed as a day for public non-farmers to learn about water quality and soil protection practices, and how farmers are protecting pollinator species via pollinator strips.

This event was hosted at Dan and Ruth Boerst's property, across the road from Bear Lake, near Manawa. The event started with families getting to learn directly from demonstration farmer Dan where he described his farm history, his soil health mindset, and sharing some of the practices on his land. Families learned what a pollinator strip is and how farmers use them to protect their soil and our pollinators. Families explored root depth, colors of a prairie, and diversity of plants.

Kids learned how water moves through soil by participating in a hands-on experiment. A chalk art session allowed families to learn about different types of pollinators. The kids got to channel their artistic side to create chalk art on the sidewalk, or via a take-home paper piece. Finally, participants explored soil health and its connection to pollinator plants and pollinators via a soil pit.

The event looped in partners that were new to the Demo Farms including the public attendees, Wild Ones - Fox Valley Chapter, Ms. Planet (Amanda Zehren, Nature artist, Photographer, and Educator), and Kitchens Brew LLC catering.



Learning about pollinator plants.



Attendees walking to field site.



Learning about pollinators through art.



Amanda making pollinator art.

CORN DRY DOWN DAY

September 19, 2023

This pop-up style field day was hosted at Tauchen's Harmony Valley Farm in Bonduel.

Scott Reuss, Agriculture Agent with University of Wisconsin Division of Extension collected silage samples from neighboring farms. Samples collected were processed using a wood chipper, then individually bagged and delivered to the lab for NIR analysis the same day. Silage moisture results from the Bonduel area were found to be as low as 62% and as high as 69%.

From this data, we were able to inform farmers and make some general recommendations,

especially related to this summer's drier conditions. We pointed out that silage would continue to dry down the typical 0.5 points per day, but with the dryer conditions this season for NE WI, higher rates of daily drydown were possible. Dairy producers were advised to continue to monitor moisture levels in silage.

The original intent of this day was to also have silage management and interseeding discussions following the sample collecting. But, those topics didn't appeal to the crowd so we proceeded without those. Despite foregoing the presentations, the day still offered an informal networking and discussion opportunity for neighbor farms.

Scott Reuss processing corn for lab analysis.



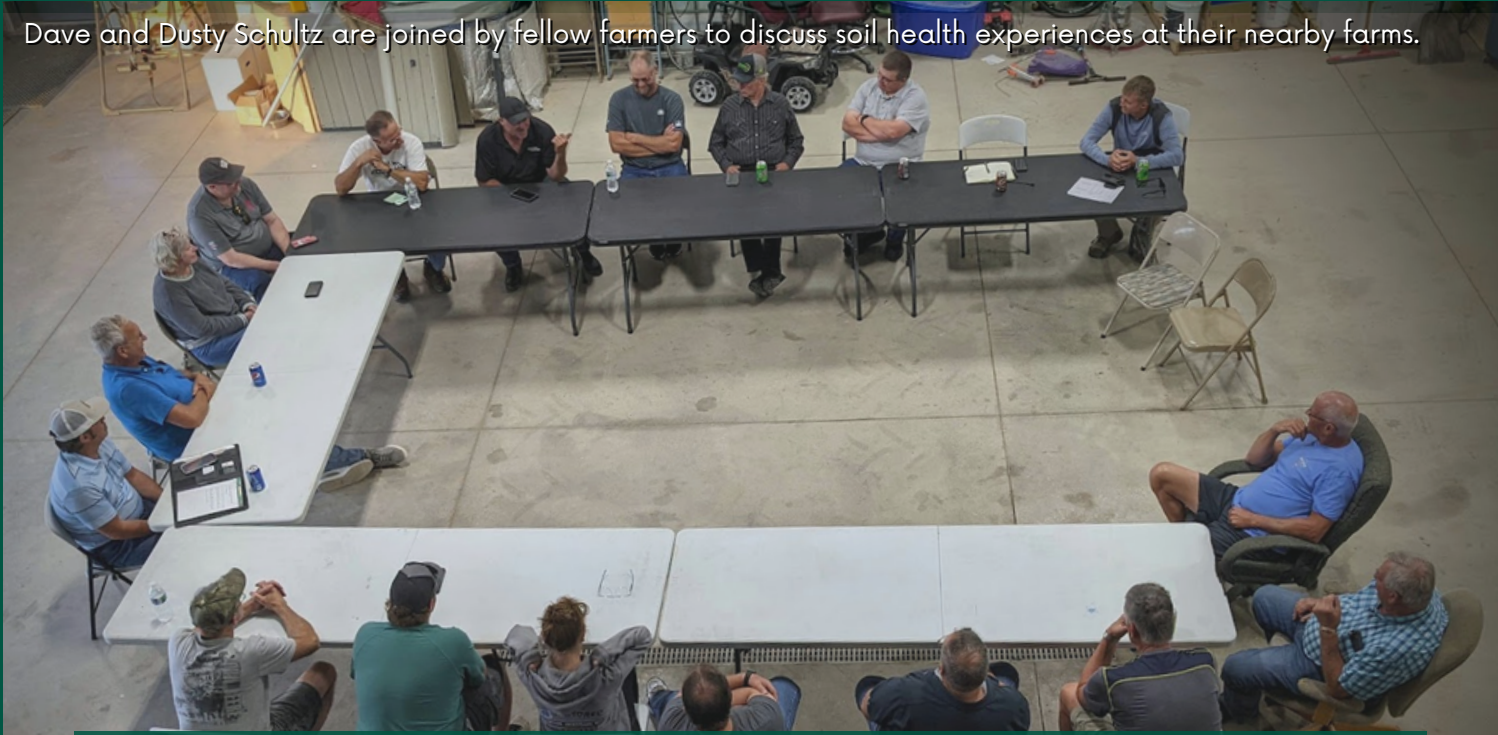
Corn ready for lab analysis.



Informal conversation at the drydown event.



Dave and Dusty Schultz are joined by fellow farmers to discuss soil health experiences at their nearby farms.



SOIL CONVERSATIONS SOCIAL HOUR

EVENING DISCUSSIONS FOR FARMERS TO CONNECT

SCHULTZ LEGACY FARMS

July 17, 2023

This year the Upper Fox-Wolf Demonstration Farm Network tried a new way of connecting farmers. Modeled after Lower Fox Demonstration Farm Network's "Demo Farms at Dusk" events, we hosted "Soil Conversations Social Hours." These were informal evening events for farmers to get together and discuss water quality and soil protection practices that are working, or explore things that need to be adapted locally.

The first of these talks occurred at Schultz Legacy Farms and was hosted by Dave and Dusty Schultz. They, as well as members from UFW's project management team invited farmers from land surrounding the Schultz farm. This way the topics discussed at the social hour would be locally relevant and relationship building could happen amongst farmers who would be likely to come in contact with one another. This approach resulted in 16 participants attending this evening.

The evening followed a very loose structure with a few conversation-starting questions from UFW's management team, but the conversation was allowed to flow where the farmers wanted it to go. We plan to continue this style of connection opportunity in the future as it was a helpful tool to encourage farmers to connect to their neighbor farmers, discuss locally relevant issues, and brainstorm solutions.

The farmer social hour took place at Dan and Ruth Boerst's renovated event barn.

SOIL CONVERSATIONS SOCIAL HOUR

EVENING DISCUSSIONS FOR FARMERS TO CONNECT

DAIRY-LICIOUS FARM

August 30, 2023

Our second Soil Conversations Social Hour was hosted by Dan and Ruth Boerst, near Manawa. This evening provided unstructured discussion and connection opportunities for local farmers. It also served the purpose of helping to boost morale during the tough dry summer.

Farmers were asked to bring any topics to the table they'd like. We also let attendees know that we were simply creating a space for farmers to connect, vent, communicate, and potentially problem solve. The evening was co-hosted with Waupaca Forage Council.



Attendees discussing and socializing.

Details of Dan and Ruth's event space.



SOCIAL SCIENCE DRIVEN OUTREACH



Filming a video recap of Rick Gehrke's farming season.

Social Science in Our Outreach

Our outreach specialist and natural resources educator, Maranda Miller, is working at the intersection of social science, visual media, and environmental education. In combination with Extension-informed strategies she's working to drive behavior change that supports soil health practice adoption. This involves examining what knowledge, skills, and attitudes our audiences need to have to change their behavior, and then working to provide those via Demonstration Farm Network outreach efforts.

Outreach strategies are tied to behavior change; done intentionally, they can drive soil health-supporting behaviors, but

done carelessly, they can reinforce destructive soil management practices and social norms. For this reason, outreach through the Demonstration Farm Networks must be done thoughtfully.

Maranda specifically influences behavior change through the visual aspects (photos, videos, graphics, social media posts, etc.) of the Demonstration Farms' outreach. Our outreach strategies have continued to grow and shift as we build capacity and understanding for outreach needs. This year, Maranda focused on the three main areas, shown at right.



Outreach Specialist, and
Natural Resources Educator,
Maranda Miller

2023 Project Areas

- **Creating and reinforcing social norms through visual media**

Constructing visuals that reinforce the social norm that soil health practices are 'normal' and/or expected across Northeastern Wisconsin.

- **Cultivating audience understanding with visual media**

Considering who the target viewers of the content will be, what knowledge those viewers may have and what they may lack. Constructing visuals to fill in those knowledge gaps.

- **Guiding team members to create thoughtful visuals**

Guiding partners to create and supply imagery that's targeted for the specific purpose it's meant to serve.

DIGITAL OUTREACH

Digital Outreach

This year we continued to utilize and expand our digital outreach. Aside from in-person events, our main outreach tactics have been to create digital materials that are available online for farmers to access at their convenience. This has included educational Facebook posts, and videos around soil health topics.

This year we switched from MoboMix Text service to EZ Text. The platform functions the same as other years, but we now have a new text number (920)-260-6200. We have also grown our text list members by 28 people this year.

We also purchased, in partnership with Between the Lakes Demonstration Farms Network, additional audio and visual equipment to support our outreach specialist in producing professional materials.



Digital Outreach at a Glance

Educational Materials Created:

- Facebook posts
 - Our materials
 - >6 posts
 - Sharing Others' Materials
 - >4 posts
 - Miscellaneous
 - 11 posts

Event Promotion, Thank You's, and Photos

- 24 posts

Outreach Materials Purchased

- Pixel 6

Communication Platforms Utilized

- EZ Text
- Eventbrite
- Facebook
- Twitter



Google Pixel 6 purchased for outreach efforts this year in partnership with Between the Lakes Demonstration Farms Network.



EXPANDING OUTREACH PARTNERSHIPS

Partnerships are important for the Demonstration Farm Networks to expand awareness of soil health practices, inspire farmers to adopt those practices locally and regionally, and generate public awareness of the demo farms. For this reason, we partner with organizations for field days and other activities.

Event partnership expansion occurred around Upper Fox Wolf Demonstration Farm Network's Pollinator Picnic. This day featured hands-on activities for families to learn about pollinators and how local farmers are protecting these important species. To support this event, Maranda created new partnerships across community groups, non-profits, Extension offices, NRCS teams, and other organizations.

Through these partnerships she crafted an event with educational topics geared towards our target age group, and event materials that attracted families. She also created a network of event advertising avenues across 4 counties, and generated partnerships that will serve as a launching point for public events in future years.

New Public Event Partnerships

- Wild Ones Fox Valley
 - Shannon Davis-Foust, Fox Valley Chapter President
- Ms. Planet
 - Amanda Zehren, Nature artist, Photographer, and Educator
- Girl Scouts of the Northwestern Great Lakes
 - Jennifer Ruege, Membership Engagement Coordinator
- Waupaca County Extension
 - Penny Tank, 4-H Program Educator
- Portage County Land and Water Conservation Division
 - Tracy Arnold, Conservation Technician
- Lower Fox Demo Farm Network
 - Whitney Prestby, Natural Resources Educator



WINNEBAGO WATERWAYS
2023 FARMER ROUNDTABLE

February 15, 2023 in Oshkosh

Farmers & Landowners: \$10
Students: \$10
Conservation staff: \$50

Register online by 02/08/2023:
FWWA.ORG/WWFARM

LUNCH AND HAPPY HOUR INCLUDED!
FULL DAY EVENT!

Harvest your Farms Potential by Maximizing Soil Health



ADDITIONAL PROJECTS

2023 Farmer Roundtable

This year we continued to build upon our partnership with the Fox-Wolf Watershed Alliance (FWWA). We contributed multiple articles to their newsletters including Winnebago Waterways e-news, and their semi-annual Basin Buzz mailer. We co-hosted the 2023 Farmer Roundtable event with FWWA, which had about 107 attendees. Matt, Derrick, and Maranda have been planning with FWWA at the end of 2023 for the 2024 Farmer Roundtable.

Maranda created and analyzed the 2023 Farmer Roundtable event evaluation. We had 53 respondents, 43 who indicated they were farmers. Through that survey we learned that participants found the keynote session, "How to Incorporate Soil Health Practices into Your Operation to Reach Your Farm Goals," was the most relevant to them. Breakout Session A, "Using Cover Crops to Meet Your Farm Goals," was the second most relevant to participants. This event drew participants from two main counties; Winnebago and Fond du Lac, which are the same area as our 2022 Farmer Roundtable.

Regarding soil health practices, our respondents told us they had mainly tried or incorporated reduced tillage, cover crops, or planting green. This finding was the same in our 2022 Farmer Roundtable. We also learned that participants would like to learn more about "How to Track Farm Metrics to Determine if Soil Health is Working on Your Farm," and "Economics of Soil Health in Wisconsin," as indicated from a pre-established list of topics from the Roundtable planning committee.

**Note: Our event evaluation data came from <45 farmers and therefore findings must not to be extrapolated to represent all farmers or the entire watershed.*

Project Partners



Partner Contacts

Person	Role	Phone	Email
Greg Baneck	Outagamie County Conservationist	920-832-5074	greg.baneck@outagamie.org
Todd Morris	Green Lake County Conservationist	920-294-4052	Tmorris@greenlakecountywi.gov
Scott Frank	Shawano County Conservationist	715-526-4632	scott.frank@shawanocountywi.gov
Steve Bradley	Portage County Conservationist	715-346-1334	bradleys@co.portage.wi.us
Chad Casper	Winnebago County Director	920-232-1951	ccasper@co.winnebago.wi.us
Pat Kilbey	Marquette County Conservationist	608-296-2815	pat.kilbey@wi.nacdnet.net
Brad Murry	Fond du Lac County Conservationist	920-906-4672	bradly.murry@fdlco.wi.gov
Stephanie Prellwitz	Green Lake Association Chief Executive Officer	920-294-6480	stephanie@greenlakeassociation.org

Report Credits

Report Created by - Maranda Miller

Farm Summaries Written by - Matt Brugger

Cover Image - Dan Hagenow Video Creation

About Us Page Image - Matt Brugger

Field Day and Outreach Activities Images - Maranda Miller

Farm Summary Images by - Dan Hagenow Video Creation, Wisconsin Corn Growers Association, Country Visions Cooperative, USDA NRCS

WE'RE LOOKING FORWARD TO 2024!

UPPER FOX-WOLF DEMONSTRATION FARM NETWORK

Protecting Wisconsin's Soil and Water Resources

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