

BETWEEN THE LAKES DEMONSTRATION FARM NETWORK

REPORT



Between the Lakes
Demonstration Farm Network

Conservation Agriculture for Clean Water & Healthy Soils



Year 4 (2023)
Annual Report

TABLE OF CONTENTS



Page **01** About the Demonstration Farms

Page **02** Farm Summaries

Page **04** In-Person Outreach Activities

Page **05** Field Day Highlights

Page **09** Social Science Driven Outreach

Page **10** Expanding Outreach Partnerships

Page **11** Digital Outreach

Page **13** Team Transitions

ABOUT THE DEMONSTRATION FARMS

The Between the Lakes Demonstration Farm Network, a collaboration between U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) and Calumet County Land & Water Conservation Department, in partnership with Fond du Lac, Sheboygan and Manitowoc counties, was formed in 2020 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.

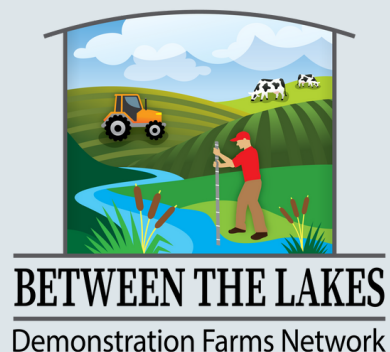
The four demonstration farms, Nick Kleiber Grain Farm LLC, Greendale Farm, Dallmann East River Dairy, and Libertyland Farms, represent a wide range of farm types, but all have a common goal – to share the knowledge learned on their farms about innovative techniques to improve soil health. These farmers, 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

- **Steve Hoffman** (Project Manager)
 - steve.hoffman@indepthagronomy.com 920-323-3820
- **Derrick Raspor** (NRCS Coordinator)
 - derrick.raspor@usda.gov 920-740-5810
- **Tony Real** (Calumet County Conservationist)
 - anthony.real@calumetcounty.org 920-849-1442
- **Maranda Miller** (Outreach Specialist)
 - maranda.miller@wisc.edu 608-590-5758



FARM SUMMARIES

GREENDALE FARM



Dale Theel

Dale Theel put in a corn interseeding plot to compare 30 inch rows to a 30-30-60 inch pattern. The plot was duplicated with two different corn hybrids and two different seed blends. He also replicated the plot with two planting methods; spinner spreader and an interseeder drill. Dale also continued to experiment with interseeding several species into soybeans. Flax, plantain, buckwheat and phacelia were evident in the soybean plots. Many species of pollinator insects were common in the plots throughout the summer and fall.

Greendale Farm hosted a field day on September 27 to feature these demonstrations along with a cover crop strip trial with 19 different single species including winter barley and winter lentil. Participants also inspected a two-year-old prairie planting to gauge progression of plant species from the previous year.

LIBERTYLAND FARM



Greg Gries

Libertyland Farm planted 100% of their corn and soybeans no-till into green covers. The farm hosted two "Poker Run" field demo events to showcase corn and soybeans planted into cover crops that were established with different methods. A very shallow "tickle" pass with a vertical till (VT) implement was tested on several corn fields in spring to improve plantability on fields that were slow to dry. The cover crop remained anchored in place after the shallow VT pass and the planter was able to properly close the seed trench 12 hours after the shallow VT pass.

A herbicide plot was installed in one of the soybean fields to test the weed control contributions of living winter rye. Treatments ranged from "0 pre-emerge herbicide ingredients" to "4 pre-emerge herbicide ingredients". The winter rye was terminated prior to heading to preserve soil moisture.

Manitowoc County and Brown County coordinated on a corn inter-seeding demonstration of 3 different legume and pollinator mixes at Libertyland Farm in June.

FARM SUMMARIES

DALLMANN EAST RIVER DAIRY



Nick Dallmann

Dallmann East River Dairy successfully planted corn no-till in several scenarios in 2023;

1) planting green into a cover crop of winter wheat and spring barley, 2) no-till into an early killed cover crop of winter rye, 3) no-till into a stale seedbed without a cover and 4) no-till into winter rye stubble after ryelage harvest.

The farm acquired a 360 RAIN irrigation unit to apply liquid manure and feed area runoff water to a 210 acre field several times throughout the growing season. A field day was held on July 6th to feature a demonstration of the unit. The farm also utilized a center pivot irrigation system to apply feed area runoff water to alfalfa in-season. Dallmann's currently have almost all of their 2024 corn fields planted to a winter rye cover crop.

NICK KLEIBER GRAIN FARM LLC



Nick Kleiber

Nick Kleiber no-till planted a corn hybrid trial green into a wheat cover crop. His objective was to test the performance of corn hybrids in a no-till cover crop scenario. The trial included strips with and without various biological treatments. He also evaluated winter wheat vs winter rye covers in a different corn field. Pre-sidedress nitrogen tests were pulled on both cover crop treatments. No significant difference was seen in nitrate levels of 12 inch corn.

Nick wanted to take a look at nutrient stratification in his long term no-till field. Soil samples were pulled at 0-2", 2-4", 4-6" and 6-8" depths and analyzed for pH, organic matter, phosphorus and potassium. Definite stratification of P and K was obvious. A foliar soybean application of Envita was also tested against an untreated check.

OUTREACH ACTIVITIES



Field day attendees learning about soil health.

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 field 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.



Participants at Dallmann's 360 Rain demonstration day.

At a Glance

This year, in conjunction with our county partners and with the support of the demonstration farmers we hosted 2 large field days and 3 pop-up field days. We also partnered with farmer-led groups to assist with field days.

Cover Crop Poker Run (2 Days)

- Libertyland Farms - Greg Gries
- Round 1 - April 12, Round 2 - June 13
- Partners:
 - Manitowoc County Forage Council Soil Health and Water Quality Team

Soil Health Field Day

- Dallmann's East River Dairy
- July 6
- Partners:
 - Calumet County Ag Stewardship Alliance
 - Manitowoc County Forage Council Soil Health and Water Quality Team

Herbicide and Cover Crops Trials in Soybeans

- Libertyland Farms - Greg Gries
- September 13
- Partners:
 - Manitowoc County Forage Council Soil Health and Water Quality Team

My Soybeans are Buzzing

- Greendale Farms - Dale Theel
- September 27
- Partners:
 - Fond du Lac County Land and Water Conservation Department
 - Fond du Lac County Watershed Alliance

FIELD DAYS

Libertyland Farm
April 12 & June 13, 2023

At these pop-up style field days Greg Gries discussed his experience planting different cover crop species and using varying planting or manure application methods. The events took place over two hours during which attendees arrived at their leisure and traveled to five different fields and learned from speakers about the methods applied there and the implications for soil health.

Participants also selected a playing card at each station and in poker-run style, whoever had the best poker hand at the end of the day won a prize.

Two days were paired together for this event so that participants could view the cover crop progression at various stages. Each day had good attendance with 22 participants at the first day, and 15 at the second.

From these field days, Tara Wachowski of Manitowoc County Soil and Water Conservation Department, created a virtual story map. This allowed people who could not attend the field day, or who attended and wanted to review information, to explore 5 quick and low-cost methods used to establish cover crops.

Steve Hoffman discusses cover crop growth with participants.



Participant selecting their cards.



Showing cover crop root growth.



Greg Gries discussing his cover crop practices with attendees.

FIELD DAYS

Dallmann East River Dairy
July 6, 2023

This field day was made up of three sessions of concurrent talks. Participants rotated through all the stations in small groups.

During the first session, Dave Murphy (360 Regional Manager) and Nick Dallmann discussed and demonstrated the 360 Rain implement for applying wastewater to standing corn. Participants learned about how the 360 works, uses for this type of tool, how the 360 runs autonomously, and what they may need to consider to use this on their land. Participants were able to get up close and watch this machine apply nutrients, plus turn while avoiding crushing crops all autonomously.

The second session included a discussion about if vertical tillage has a fit in soil health systems. Led by Steve Hoffman farmers including Nick Dallmann and John Vandenboom as well as farmers attending the event had the opportunity to share their experiences and discuss this potential use of slight tillage.

The third session was comprised of Nick Dallmann and John Vandenboom discussing their experiences with no-till corn after winter ryelage harvest.

This field day was very well attended. In total, over 155 people were present. We believe the 360 Rain was a big contributor to drawing this type of crowd.



Participants line up to view the 360 Rain as it applies wastewater to standing corn.



Nick discussing the 360 Rain.



Discussing vertical tillage.



Nick Dallmann and Dave Murphy discuss and demonstrate the 360 Rain. 6

FIELD DAYS

Libertyland Farm
September 13, 2023

This field day was intentionally focused toward a local and small crowd in order to generate conversation. Greg Gries invited his neighbors to join a discussion and field tour about in-field trials he was conducting.

Participants explored soybean plots and heard discussions exploring how a winter rye cover crop could help reduce weed control costs and improve soil health. During this day, participants learned that using winter rye as a cover crop could reduce their herbicide costs. Winter rye cover crop was discussed as a tool to help manage water hemp, given its

chemical suppression properties and ability to reduce available sunlight for water hemp.

Participants were reminded that there is no prescription for which ingredients will work on their land. They were encouraged to try a few test strips on their own land and determine which mix provides the most benefits at the least cost. Participants were reminded that Greg and Zak will also continue to learn by exploring a few things next year that they learned this growing season.

Event participation was about 19 people.

Greg Gries discusses his herbicide and winter rye cover crop trials.



Greg's soybean plots that participants explored.



Greg and Steve recap some of their findings.

FIELD DAYS

Greendale Farm
September 27, 2023

A main topic of this field day was "My Soybeans are Buzzing." Dale Theel has been experimenting with inter-seeding cover crops into soybeans. This was year 2 of these trials, so he shared his experiences and attendees inspected the field to view species, weeds present, and generally how the plantings were doing.

Participants also learned about multi-species cover crops that Dale uses after wheat. They inspected the plots of non-typical cover species, while Dale and Steve provided comments.

Dale also continued to use different seeding methods and row spacing this year. He conducted a discussion about the benefits and challenges of using a drill versus a spinner spreader. He also discussed the differences in his 30"-60"-30" corn row patterns and participants examined the field rows.

The University of Wisconsin interseeding study was discussed, by Francois Anglade. What's been learned so far about the interseeding success and effects on corn yield were of particular interest.

The rainfall simulator was displayed by Derrick Raspor to explore the question if soils function differently in a dry year. Dale's prairie strips were also briefly featured with a prairie walk and informal discussion about species present.

The newly-formed farmer led watershed group, Fond Du Lac County Watershed Alliance, was introduced by Bruce Peterson. This was followed by an introduction of other farmer groups in the area and gave participants a great overview of options for connections and support in their soil health journeys. Attendance included 54 participants at this event.



Dale Theel discusses his cover crop trials.



Phacelia interseeded into soybeans.



Multiple farmer organizations introducing themselves at the field day.

SOCIAL SCIENCE DRIVEN OUTREACH

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



Outreach Specialist, and Natural Resources Educator, Maranda Miller filming a field day.

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 below.

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.



EXPANDING OUTREACH PARTNERSHIPS

Partnerships are important for the Demonstration Farm Networks to expand awareness of soil health practices and drive farmers to adopt those practices locally and regionally. For this reason, we partner with organizations for field days and other activities. This year, Maranda expanded collaboration and partnership-building across a variety of organizations including counties, Extension personnel, non-profits, and other Demonstration Farm Networks to support our outreach efforts.

One example of an educational content partnership is with Between the Lakes Demonstration Farm Network and Manitowoc County. Tara Wachowski and Maranda collaborated on outreach materials from Libertyland field days. They partnered on a story map to share images and findings regarding quick and low-cost methods to establish cover crops. Later, Tara created videos of BTL's agronomist, Steve Hoffman and Libertyland farmer, Greg Gries discussing findings from their herbicide in soybean trials. Maranda shared those videos to BTL's Facebook page to expand their reach and get that information out to BTL's

followers. Maranda created charts and a textual story from the same field day to represent the information in a secondary way that could reach other types of learners (i.e., visual learners). Plus, her textual post covered different details than were highlighted in the video. Tara then shared that post from BTL's Facebook page to Manitowoc County's Facebook page. In this way, we reached multiple audiences across the Network, didn't duplicate outreach efforts, and built partnerships across organizations.

Similar partnerships are in development with Calumet County Ag Stewardship Alliance, Fond du Lac County Land and Water Conservation Department, and others.

DIGITAL OUTREACH ACTIVITIES



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. We continue to focus on helping farmers to share the stories of their soil health experiences, including the successes and challenges in their own words. This has included educational Facebook posts, and videos around soil health topics.

We also purchased, in partnership with Upper Fox-Wolf 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
 - 14 posts
 - Sharing Others' Materials
 - 11 posts
 - Miscellaneous
 - 8 posts

Event Promotion, Thank You's, and Photos

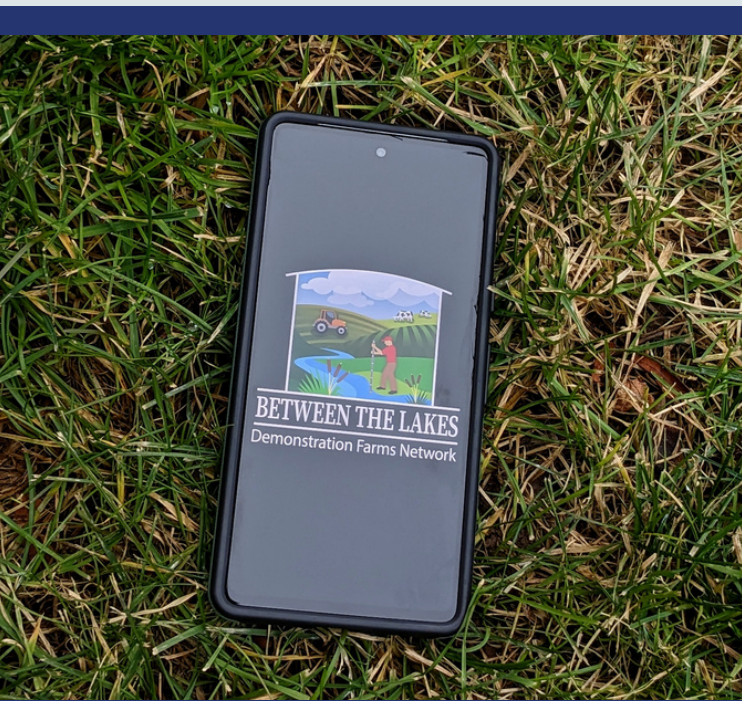
- 22 posts

Outreach Materials Purchased

- Google Pixel 6

Communication Platforms Utilized

- EZ-Text
- Eventbrite
- Facebook



Google Pixel 6 purchased for outreach efforts this year in partnership with Upper Fox-Wolf Demonstration Farms Network.

EVENT PROMOTION



Promotional Packet

A big part of hosting a successful event is promoting it. We do this in 3-main ways; Facebook promotions, EZ-Text list announcements, and partner promotions.

For this year's events, BTL's outreach specialist, Maranda Miller, continued to create event outreach packets with various sized materials to use in promoting the event. This approach helps us promote our event in a wide array of places. These packets include an Eventbrite image that brands the page where attendees reserve their spots. This image also serves to attract potential attendees directly from Eventbrite. Secondly, the packets contain a Facebook post image that we use to advertise our event to our followers. Partner organizations can also use the image in their own posts, or share ours, furthering our event promotion reach. Lastly, full-page posters are created for offices to print and hang in their facilities or hand out to interested parties as a flyer.

Text List Growth

Our text list allows us to stay in contact with people who are interested in the demonstration farms' events. It's a powerful tool to generate interest in our field days. Adding to this list is therefore, important. We add to the list in two ways. Prior to field days, we have participants register to attend using Eventbrite online forms. Through this registration process we ask each event attendee if they would like to be added to our text list. Participants are informed they will receive texts about event

Soil Health Field Day
JULY 6, 2023

Photo Credits: 360 Field Center

- 12:15 pm - Registration
- 12:30 pm - Lunch
 - sub sandwiches, chips, cookies and beverages
- 1:00 pm - Calumet and Manitowoc County FSA Program Updates
- 1:10 pm - Welcome
- 1:15 pm - Does Vertical Tillage Have a Fit In Soil Health Systems?
 - Static display of 2 - 3 vertical tillage implements.
 - Discussion led by Steve Hoffman.
 - Comments by farmers Nick Dallmann (Dallmann East River Dairy), John Vandenboom (Holsum Dairy), and others.

Please Register
By June 30

Registration is free, but greatly appreciated as it helps us order enough food.

Online (Preferred)
<https://July6FieldDay.eventbrite.com>
OR
Call Maranda Miller
608-590-5758

Address:
N6390 E River Rd - Potter, WI 54110

Driving Directions Available at:
<https://go.wisc.edu/July6FieldDay>

- 1:35 pm - Our Experience With No-Till Corn After Winter Rye LAGE Harvest
 - Discussion by farmers Nick Dallmann and John Vandenboom.
- 1:50 pm - Demonstration of 360 Rain Applying Wastewater to Standing Corn
 - Dave Murphy (360 Regional Manager) and Nick Dallmann (Dallmann East River Dairy).

USDA is an equal opportunity provider, employer and lender.
Persons with disabilities who require accommodations to attend or participate in this meeting/event/presentation should contact Phil Rivers at (608) 662-4422 or Federal Relay Service at 1-800-877-8339 one week prior to the event.

Items from a promotional packet created for Dallmann's field day. Packet pictured includes an Eventbrite header image (top left), Facebook post image (top right), and a full-page poster (bottom).

announcements, field days on the fly, and other event items. We also ask if they'd like to be added to the text list at the registration table during our field days. We began our text list in 2021, and since that time, we have grown it to 220 participants, 40 of those from this year.

PROJECT MANAGEMENT TEAM TRANSITIONS

Thank You Steve

Since the establishment of Between the Lakes Demonstration Farm Network in 2020, Project Manager Steve Hoffman has led countless efforts to innovate soil health practices, support farmers in their soil health journeys, and improve soil health and water quality in the Great Lakes basin. In 2024, Steve will be stepping down from his role as project manager.

Steve's time with the Network has spanned 4 growing seasons. He has hosted 12 field days, which together encompass over 700 attendees. During this time, he has hosted field days, secured partners and speakers, and handled the complex logistics it takes to run a multi-faceted field day.

Steve has shared his knowledge many times. He spoke at events sharing his expertise to guide and empower farmers to tackle soil health problems. He has worked one-on-one with farmers to meet them where they're at and adapt soil health practices to their unique situations.



Steve Hoffman, Between the Lakes Demonstration Farm Network Project Manager, from 2020 to 2023.

Steve has created regional partnerships and bolstered collaborations among farmers and associated organizations.

Ultimately, Steve has rallied folks to collaboratively work towards clean water and healthy soils. We are incredibly thankful for his efforts and are sad to see him go. But we'll flip the script here and send Steve off with the kind words he always tells us:

Steve, "Thank you for what you do for soil health!" We know you'll keep up the great work!

PROJECT MANAGEMENT TEAM TRANSITIONS

Welcome Jodie

Beginning in 2024, Jodie Weyland will be Between the Lakes Demonstration Farm Network's Project Manager.

Weyland grew up in Neenah on her family rotational grazing, 130 tie stall dairy farm with her parents and three older siblings. Her 7 years of involvement in FFA and other activities encouraged Jodie to continue to study in agriculture. In 2020 Weyland completed degrees in agronomy, precision agriculture and agribusiness at Fox Valley Technical College. Jodie has been employed with Tilth Agronomy for almost three years, is a licensed unmanned aircraft (drone) pilot, and received her Wisconsin Certified Crop Advisor credential this year.

When Weyland is not scouting fields, she spends time visiting her sister's robotic dairy farm. She enjoys volunteering in her free time, including; coordinating two local youth leadership programs, serving as a county fair volunteer, and being actively involved on the



Jodie Weyland, Between the Lakes Demonstration Farm Network Project Manager, beginning in 2024

alumni committee for the National Professional Agricultural Student Organization.

As project manager for Between the Lakes Network, Jodie is excited to collaborate with a team of growers and industry professionals to learn and share various soil health practices that produce viable and sustainable economic and environmental benefits in our Great Lakes region.

We look forward to working with Jodie this year and into the future!

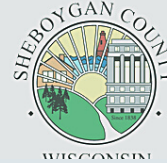
JODIE'S INFO

- Jodie Weyland (Project Manager)
 - jodie@tilthag.com 920-253-9197

Project Partners



Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE



Report Credits

Report Created by - Maranda Miller

Farm Summaries Written by - Steve Hoffman

Photo of Jodie - Department of Agriculture Trade and Consumer Protection (DATCP)

Photo of Steve - InDepth Agronomy

All Other Images by - Maranda Miller

WE'RE LOOKING FORWARD TO 2024

BETWEEN THE LAKES DEMONSTRATION FARM NETWORK

Conservation Agriculture for Clean Water & Healthy Soil

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