BETWEEN THE LAKES DEMONSTRATION FARM NETWORK

Between the Lakes Demonstration Farm Network

Conservation Agriculture for Clean Water & Healthy Soils

Year 3 (2022) Annual Report



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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.

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.

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FARM SUMMARIES

GREENDALE FARM



Dale Theel

For 2022, Dale Theel planted an extensive corn plot to evaluate 30-inch vs a 30-60-30 inch pattern. He also interseeded a diverse cover crop mix into the plots using either a modified threepoint grain drill or a spinner spreader. Yield results are not available at the time of this printing. Dale also tried interseeding his soybeans at the time of planting by blocking every third row of the drill. The blocked rows were seeded to a light mixture of dwarf Essex rape, plantain, and phacelia using the small seed box. The soybean interseeding showed mixed results. Dale plans to experiment with different interseeded species in the future. Dale hosted a field day in October of 2022 to feature his demo plots. Greendale Farm is 100% no-till with cover crops.

LIBERTYLAND FARM



Greg Gries

In 2022 every corn and soybean field was no-till planted into a cover crop on Greg Gries' Libertyland Farm. The farm uses a variety of methods to establish cover crops. After corn silage is harvested, a blend of 40 lbs. bin run spring barley and 40 lbs. of bin run winter wheat is surface spread using a trailer type fertilizer spreader. This is followed with manure application through a ZML minimum disturbance injection toolbar. Some fields that are not scheduled for manure application are followed with a rotary hoe or shallow vertical till to cover the seed. The farm also uses a no-till drill to establish cover crops after wheat harvest. The farm tried spreading the barley/wheat mixture into regrowth of an alfalfa field scheduled for fall termination. The wheat and barley germinated successfully and the alfalfa was terminated later in fall with 2,4-D.

FARM SUMMARIES

DALLMANN EAST RIVER EAST RIVER DAIRY



Nick Dallmann

In 2022, Dallmann East River Dairy harvested several hundred acres of winter rye for forage followed up immediately with the corn planter which was followed within a day by a dribble bar application of 9000 gallons of liquid manure. This practice continues to be successful for the farm. Quick turnaround between ryelage harvest, corn planting, and manure application is the key to success. They also no-till planted 250 acres of fall manured stale seed bed ground in addition to many acres of fall killed alfalfa-grass to corn in 2022. This acreage did not have a cover crop. The farm is continuing the stale seed bed practice to allow for quicker planting in spring. Several of the stale seed bed fields will have a cover crop for comparison in the spring of 2023.

NICK KLEIBER GRAIN FARM LLC



Nick Kleiber

Nick Kleiber evaluated 2022 minimum In disturbance subsoil strips side by side in corn planted after soybeans with and without a wheat cover crop. There was no noticeable difference in growth of the corn between the strips throughout the season. He also evaluated side by side strips of a standard soybean seed fungicide package vs some newer fungicide seed treatment ingredients designed to reduce early season pythium and phytophthora root rots. 2022 was a relatively dry season so there were no yield differences between the treatments. He continues to increase his use of cover crops and no-till in his corn soybean – wheat rotation. Nick and Amanda Kleiber hosted a June 2022 field day that featured these demo plots.

OUTREACH ACTIVITIES



In-Person Outreach

Farmers learn best from other farmers and when the information they receive is locallybased and relevant to them. For this reason, one of our main outreach strategies is infield days. person Farmers, agency and personnel, 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-theground 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 county partners and with the support of the demonstration farmers we hosted 3 large field days. We also partnered with farmer-led groups to assist with field days.

Field Days

Soil Health Field Day

- Nick Kleiber Grain Farm LLC
- June 22
- Partners:
 - Sheboygan County Planning and Conservation Department
 - Sheboygan River Progressive Farmers

Soil Health Field Day

- Danes Farms Inc.
- August 17
- Partners:
 - Calumet County Ag Stewardship Alliance
 - Manitowoc County Forage Council Soil Health and Water Quality Group

Bringing Pollinators into Cash Crops

- Greendale Farms Dale Theel
- October 20
- Partners:
 - Fond du Lac County Land and Water Conservation Department

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FIELD DAYS

At this field day Nick Kleiber discussed his experience planting into a field that was fall manured using low disturbance manure injection. Attendees got to inspect corn plots with and without fall low disturbance subsoil tillage. Long term compaction was discussed and participants got to explore compaction using soil probes and shovels.

Nick and program manager, Steve Hoffman, explained some soybean strip plots on Nick's land, and attendees were able to inspect the plots. Damon Smith provided discussion around soybean diseases in his talk, "Let's Talk About Soybean Seedling Root Diseases."

Attendees got to hear from a panel of local farmers. Brody Stapel and Travis Luedtke discussed cover crops in their presentation, "My Go-To Cover Crop System That Works on My Farm.

Josh Bendorf shared field profitability maps and discussed options to improve overall farm profitability.

Sheboygan County Land and Water discussed cost share and technical assistance opportunities local farmers can take advantage of.



FIELD DAYS

Danes Farms Inc. August 17, 2022

This field day was made up of three sessions, each with concurrent talks. Participants attended all eight talks, just in small groups.

During the first session, a team from Riesterer and Schnel discussed and demonstrated a John Deere air drill for seeding cover crops. Zak Kenneke and John VandenBoom presented rapid methods for establishing a cover crop during harvest season. Nick Dallmann and Bob Danes presented about successful establishment of a crop after winter ryelage/ triticale.

The second session included a ride in a "bus wagon" to view 3 live mobile GPS hazard mapping systems. This was followed with discussion from Jake Zutz, a custom hauler, about their experience using live mobile GPS hazard maps. A third talk featured Tony Reali and Amanda Kleiber discussing what farms and custom haulers need to know about hauling manure on areas of shallow Silurian soil.

The final session of the day featured Bob Danes sharing his experience establishing alfalfa into winter rye and triticale. Steve Hoffman shared "Thoughts on Growing Your Own Nitrogen and Keeping Manure Nutrients Available for Your Crops."

This field day ended with a discussion about low disturbance manure injection by Mark Petrie. Which was followed by demonstration of manure injection into winter rye stubble.



FIELD DAYS

Greendale Farm October 5, 2022

The topic of this field day was "Bringing Pollinators into Your Cash Crops." Dale Theel started the day by discussing his experiment inter-seeding a cover crop species into soybeans. Attendees then inspected the field to view species, weeds present, and generally how the plantings were doing.

Andy Paolucci and Joe Smedberg conducted miniature workshops to show participants how they could measure soil health on their own farms. These included in-field soil health assessments using soil penetrometers, slake tests, and soil color inspections.

Dr. Erin Silva provided updates on UW interseeding research Dale is participating in. Dale Theel and Zach Laughlin explained 30" and 60" corn rows that Dale interseeded this year. Participants got to inspect the rows and view the interplant drill and seed spinner Dale used for the plots.

A key section of this field day revolved around prairie strips. Dale commented on why he chose to install a prairie strip. Greg Baneck discussed what farmers need to know to successfully establish a prairie strip, and showed a drill he uses for prairie plantings. Melanie Kalmerton commented on the success of Dale's prairie strip. She discussed the general timeline for prairie establishment, and showed participants which species to look for if the planting has successfully established in year one.

Participants could stay after the field day to further inspect the plots if they chose to.





Phillip Laatsch discussing the soybean field.

Abundant black-eyed Susan's in Dale Theel's prairie strip illustrate good establishment in the first year.

OUTREACH ACTIVITIES (CONTINUED)



Digital Outreach

This year we continued to utilize our digital outreach platforms, mainly Facebook and YouTube. We focused on telling farmer's stories in their own words through videos of them presenting their experiences.

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 the videos (as mentioned above) and educational Facebook photo posts about 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, Maranda Miller, in producing professional materials.



Digital Outreach at a Glance

Educational Materials Created

- 8 videos
- Facebook posts
 - Our materials
 - 15 posts
 - Sharing Others' Materials
 - 8 posts

Event Promotion, Thank You's, and Photos • 14 posts

Outreach Materials Purchased

- Zhiyun Smooth 5 Gimbal
- Manfrotto tripod
- DJI wireless microphone system

Communication Platforms Utilized

- EZ-Text
- Eventbrite
- Facebook

A gimbal, tripod, and wireless microphones purchased this year in partnership with Upper Fox-Wolf Demonstration Farms Network .

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OUTREACH ACTIVITIES (CONTINUED)

Farmer Videos and Branding

This year, we focused our video outreach efforts on telling farmer's stories with soil health practices in their own words. This was accomplished by recording farmer's stories at field days, then shaping those into video stories.

Importantly, we also created consistent branding across the thumbnails by using similar colors and fonts throughout the season. This created an eye-catching appearance, and showcases Between the Lakes

Demonstration Farms as a professional source of information. Thumbnails were also created to emphasize a piece of machinery, or a farmer sharing their story, with the intent of communicating at-a-glance that viewers would learn directly from farmers.

We posted these video stories on our Facebook page, and our YouTube channel. We did paid promotions for the videos on Facebook to encourage more views.

This effort paid off as the videos were viewed by thousands of people. See the top-performing videos below. These video thumbnails illustrate the focus placed on consistent branding this year.



Top Performing Videos

- Successful Establishment of a Crop after Winter Ryelage
 1.4 k views Spent S15 boosting the post
- Establishing Prairie Strips in a Cash Crop System
 1.4 k views Spent S20 boosting the post
- Live GPS Mobile Mapping Explore 3 ways to view hazards
 1.3 k views Spent S20 boosting the post



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 events this year, BTL's outreach specialist, Maranda Miller, created an event packet 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





Items from a promotional packet created for Dale Theel'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 187 participants.

ART + SCIENCE COLLABORATION

BRINGING THE DEMO FARMS' WORK TO THE PUBLIC

Floor loom weavings represent the work of the demo farms:



Student Artist

"I am a sophomore at UW-Madison studying Fashion and Textile Design with a Certificate in 3-D Design. I have been looking for a way to utilize my artwork to connect and change the world around me. This opportunity was the perfect way to explore making art for greater change." *Maia Rauh*





Water Partner

"Art is a powerful interpreter of abstract concepts, such as how water quality can be influenced by how we manage the soil. In my own work, I use art in the forms of photography, videography, and graphic design to communicate concepts and aid farmers in adopting soil health and water quality practices. I'm grateful for the opportunity to work with Maia, a talented artist, to bring the positive message of the demo farms to the public." -Mananda Miller

Change is in The Soil

The demo farm's work reached new public audiences via a partnership with UW student artist, Maia Rauh and Demo Farm's outreach specialist, Maranda Miller. The pieces created represent (left), traditional farming and demonstration farming techniques (right). Maia used traditional and experimental weaving techniques as well as various colors, patterns, and materials to represent different farming techniques and their impacts on soil and water health.

Maia's work was displayed at UW-Madison's School of Education Gallery summer 2022, was presented at the Water@UW-Madison's virtual Spring Symposium, and is available for viewing at Water@UW-Madison's website. Maia's full artist statement describing the pieces can be found at:

> Water.wisc.edu/the-flowproject/2022-artist-cohort

Project Partners



Report Credits

Report Created by - Maranda Miller Farm Summaries Written by - Steve Hoffman Weaving Image - Courtesy of Maia Rauh Maia Rauh Image - Courtesy of Maia Rauh Maranda Miller Image - by Lance Paden All Other Images by - Maranda Miller

WE'RE LOOKING FORWARD TO 2023

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