Fillmore County

CONSERVATION CHRONICLES



June, 2022

FILLMORE SOIL AND WATER CONSERVATION DISTRICT

900 Washington Street NW Preston, MN 55965

PHONE: (507) 765-3878 ext. 3

DISTRICT STAFF:

Doug Keene Anne Koliha Aaren Mathison **Dean Thomas** Sara West Nikki Wheeler Mindy Williamson

WE'RE ON THE WEB! See us at: www.fillmoreswcd.org

DISTRICT BOARD: Travis Willford—Supervisor Tim Gossman—Chair Dwayne Ostrem—Secretary Kathy Tesmer-Vice Chair Eunice Biel—Treasurer

5:00 PM at DreamAcres Farm.

DreamAcres is an off the grid, organic farmstead located outside of Wykoff, MN. During the Prairie Walk we will talk about the history of the prairie at DreamAcres, the management of the prairie and help each other identify wildflower species. DreamAcres has a woodfire pizza oven and will be serving pizza before the walk at 5:00 P.M. Pizzas are 14", made with farm fresh ingredients and completely vegetarian. One pizza typically serves 2-3 people and cost ranges from \$18-25. Pizza is



optional but encouraged. Jake Staken of DreamAcres will speak at 6:30 P.M. and the walk will start around 7 P.M. Please bring chairs and dress appropriately for the prairie and weather. Looking forward to a great walk in the prairie! If you have any questions please contact Nikki Wheeler at (507) 765-3878 ext. 129 or nikki.wheeler@fillmoreswcd.org.

Prairie Walk 2022

2022 Forestry Field Day

The Fillmore Soil and Water Conservation District is once again hosting an annual Forestry Field Day. This years will be held on Wednesday, July 27th, at Chimney Rock Forestry LLC, near Houston, MN. Learn about incorporating several different management techniques that have a big impact on resource conservation and land productivity. Experience a sawmill operation and how

woodland maintenance improves lumber quality & profitability. Several management techniques will be present: grazing of goats, Christmas trees, pollinator habitat, & timber stand improvement.

We will be providing the usual light supper this year at 5:00 P.M. on site. Attendees are encouraged to bring their own lawn chair, water, wear appropriate (closed-toe) shoes for hiking, and prepare for bugs/ticks. The event is free



and open to all! The site is located at 20920 Cty Rd 26, Houston, MN 55943. For more information, contact Aaren Mathison at (507) 765-3878 ext. 109 or aaren.mathison@fillmoreswcd.org. We look forward to seeing you all out in the forest!

SWCD Awards High School Scholarship

Part of the ongoing work of conservation is ensuring there is a continuous stream of high quality individuals working in the field and/or acting as knowledgable spokespersons for conservation concerns. We encourage high school seniors to consider the importance of conservation as they plan their future studies. Each year we offer a \$500.00 scholarship to a graduating Fillmore County high school senior who is planning to study natural resources, agriculture or a related field.

This years recipient is Morgan Pickett, daughter of Colin & Jen Pickett of Preston. Morgan plans to attend the University of Minnesota-Twin Cities to major in Nutrition and minor in Ag Education. She edged out some strong competition with her combination of academic and athletic accomplishments, leadership, and extra-curricular activities. We wish her well and are glad we could help her persue her future goals. Congratulations, Morgan!

Future applicants...check out our website for details on the application process at: <u>http://</u> www.fillmoreswcd.org/scholarships.html.

pew Website

The Fillmore SWCD is expecting a to rollout a brandnew website in the beginning of July 2022. Completely new look with tons of great content. Check in with our Facebook for launch date!



SWCD Offers Returning College Student Scholarship

Each year the Fillmore SWCD offers a \$500.00 scholarship to a Fillmore County college Freshman, Sophmore or Junior who will be returning to college in the fall. To be eligible the student must be pursuing a degree in Natural Resources, agriculture or related field, enrolled in classes for fall, and not be a prior recipient of a SWCD scholarship. Students who are interested in applying must submit a completed application along with the required

essay on "What Natural Resource Conservation Means to Me." The completed application and essay must be received by the Fillmore SWCD office by 4:00 p.m. on Monday, August 8, 2022. No late applications will be considered.



The successful applicant will be chosen by the Fillmore SWCD Board of Supervisors at their August meeting. Applications are available at <u>www.fillmoreswcd.org</u>, or may be picked up at the SWCD office in Preston located within the USDA Service Center at 900 Washington Street NW. For more information, contact Mindy Williamson at (507) 765-3878 ext. 101.

New Summer Intern

Hi! I'm Margaret Windingstad, the current intern from the MN Conservation Corps at the Fillmore SWCD. I'll be here until August 12th dipping my toes into a ton of different projects to gain experience in multiple aspects of conservation and natural resource management. I'm particularly looking forward to



gathering water quality data and learning how to manage said data. I grew up on the East side of Saint Paul and now study geology and watershed sciences at Colorado State University. This is my first time in Preston so I'm excited to explore the area, especially nearby caves and springs. After I get my degree, I'm planning on moving back to Minnesota

to work on geology-related natural hazard management. In my free time I enjoy hiking, swimming, (anything that will get me outside), as well as reading and dancing.

Conservation at Home

Everyday Conservation at Home

- Recycle
- Reduce water consumption Turn faucet off, shorter showers
- Reduce electricity use Unplug electronics, use cold setting on washer, turn off lights
- Plant a tree
- Skip lawn/garden fertilizer
- Plant native plants This reduces chemical use
- Grow vegetables
- Compost Reduces waste and improves soil health
- Use rechargeable batteries
- Maintain your vehicle to maximize efficency
- Go paperless
- Reuseable shopping bags
- Replace old light bulbs with LED bulbs

Rain Barrels

A rain barrel is a rainwater collection system that stores rooftop runoff to be used for watering lawns and gardens. When rainwater falls off your rooftop, it runs into gutters and downspouts and then either soaks into the soils of the surrounding landscape or flows into the street. The water that ends up in the street is called storm water. Excess storm water carries a wide variety of pollutants such as gasoline, motor oil, heavy metals, trash, and urban fertilizers and pesticides from lawns. Many homeowners have to drag a long garden hose, or carry multiple watering cans to their gardens. Have you ever considered collecting rain water from the garden shed that is next to the garden? In just a 1" rainfall, the water from a common garden shed (8' x 10') will fill a 55-gallon rain barrel. This water would be right next to the garden, and be incredibly convenient. The Fillmore SWCD sells Rain Barrel kits for \$40.00. Contact Aaren Mathison at (507) 765-3878 ext. 109 if you'd like to purchase one or find out more about them.

Rain Gardens

A rain garden is a depressed area in the landscape that collects rain water from a roof, driveway or street and allows it to soak into the ground. Planted with grasses and flowering perennials, rain gardens can be a cost effective and beautiful way to reduce runoff from your property. Rain gardens can also help filter out pollutants in runoff and provide food and shelter for butterflies, song birds and other wildlife.

Lawns to Legumes – Bee The Change!!



Minnesota is home to more than 450 native bee species. Pollinators also include butterflies, moths, beetles and native flies. All play a key role in pollinating many food crops and native plants, but populations have significantly declined worldwide in recent years. Population decline can be attributed to habitat loss and lack of related nutrition for pollinators, as well as pesticide use and pathogens. Lawns to Legumes seeks to combat population decline by creating new pollinator habitat and habitat corridors that provide food sources and nesting space for pollinators. The program emphasizes protection of at-risk species, such as Minnesota's state bee, the federally-endangered <u>Rusty patched bumble bee</u>.

New Assistance Program for Private Well Users Tap-In for Private Well Users

Private well owners in Olmsted, Goodhue, Wabasha, Winona, Fillmore, and Houston Counties are eligible for financial assistance to address drinking water quality concerns in their private wells. The safe drinking water for private well users assistance program provides funding to eligible landowners or renters to <u>replace, reconstruct</u>, or <u>treat</u> drinking water supplies that are contaminated with nitrate-nitrogen. Olmsted, Goodhue, Wabasha, Fillmore, and Root River (Houston) Soil and Water Conservation Districts and Winona County were provided funding through the Minnesota Department of Health's Clean Water Funds to facilitate the program. The private water supply must be used as a source of drinking water for the residence to qualify for financial assistance.

For questions or more information, please contact: Nikki Wheeler Water Management Coordinator (507) 765-3878 ext. 129 nikki.wheeler@fillmoreswcd.org



For additional information, or for cost-share application paperwork, please visit: https://www.olmstedcounty.gov/post/new-financial-assistance-program-private-well-treatment-ornew-private-well-construction

Tree Program Re-Cap

With close to 200 orders received, over 13,000 trees were sold and picked up for planting, making the Fillmore SWCD tree program very successful once again this year. Thank you to all those who purchased trees or other supplies. If you are interested in receiving an order form for trees next year please give the office a call at (507) 765-3878 ext. 101 or email mindy.williamson@fillmoreswcd.org.



Distributing Trees to 5th Grade Students

Once again this year the Fillmore SWCD was able to provide tree seedlings to the 5th grade students of Fillmore County schools that wished to participate. We distributed almost 300 Red Pine seedlings. Red Pine are the Minnesota State Tree. We were able to get back into the classrooms this year, we really missed connecting with the kids! They learned about the benefits of trees and were able to plant one at home. Watching it grow is a wonderful conservation experience for our youth. Thank you to all the 5th grade classroms for your participation!

The Fillmore SWCD Offers:

*State cost share dollars for waterways, terraces, structural erosion control structures *Feedlot cost share assistance *Nutrient & grazing management plans *Manure spreader calibration

- *Survey flags
- *Tree planter & gopher machine
- *Tree bar rental/sale
- *Plat book sales
- *Bacteria & nitrate testing

CONSERVATION CHRONICLES

Visit Us At The Fair!

Mini Donuts, Demo Derbys and Rodeos can only mean one thing....The Fillmore County Fair is upon us!! The Fair is scheduled from July 18-24 this year. The Fillmore SWCD will have a display in the Commercial Building. The ever popular stream table will be open for all. We have new hands on activities planned this year for all ages. We can't wait to see you at the Fillmore County Fair!

Wednesday July 20th 2:00-3:00 P.M. Edible Soil - Learn about layers of soil. West end of the Commercial Building.

Thursday July 21st 2:00-4:00 P.M. Seed Balls - Making our own Seed Balls!

This simple activity is for all ages and demonstrates an effective way to establish plants without disturbing the soil.



West end of the Commercial Building.

Friday July 22nd 1:00-2:30 P.M. **Pine Cone Bird Feeder**

Help us make a bird feeder and learn about the advantages of having bird feeders. West end of the Commercial Building.



The SWCD's role The function of the Soil and Water Conservation District is to take available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land user.

Honey Basil Lemonade

This recipe from Earth Dance Farm is a delicious drink for warm summer days. Fresh honey and basil bring a new twist to a classic.

Ingredients

- 1 cup fresh juice from 10-12 lemons
- 1/2 cup honey
- 2 cups basil leaves loosely packed ٠
- 3 cups cold water ٠
- 1 quart ice
- 1 pinch salt ٠

Instructions

- Combine lemon juice, honey, basil leaves, and a pinch of ۲ salt in a blender. Blend on high for about a minute or until smooth.
- Filter your mix into a fine strainer (mesh) over your pitcher. ٠ Discard the solids. Add cold water and whisk to combine.
- Add ice, garnish with fresh basil and ENJOY!



Fillmore SWCD in the Classroom

The Fillmore SWCD has many interactive educational resources for your classroom and/or public event setting. People of all ages find our topics and models interesting and educational. Several of the topics we can cover include: Streambank and Soil Erosion *

- *
- Soil Health and Rainfall Simulation
- Groundwater Movement and Well Construction *
- * **Fish Habitat**
- * Water Quality and Water Testing
- **Current Agricultural Practices** *
- **Conservation Careers**

The Fillmore SWCD has exciting, interactive and hands on models to bring real world situations to your classroom or event. Presentations are fully customizable for the age groups and topics desired. For more information contact Aaren Mathison at (507) 765-3878 ext. 109, or aaren.mathison@fillmoreswcd.org.

Where Are They Now? An interview with Jess Stevens, Fillmore SWCD 2018-2019 Intern By Maggie Windingstad

How did you initially get interested in working with the MN Conservation Corps and the Fillmore SWCD?

I was interested with the Corps because I needed/wanted more experience in the field as a conservationist and they seemed to be a great organization to apply for. Being placed in Fillmore County just made it better since that was the closest place for me to get to.

What sort of projects did you work on and have they had any impact?

I did a lot of community outreach for several different programs. Some of those programs include helping with the Fillmore County Fair at the SWCD booth, Forestry Field Day, and prairie walk. These projects were a big confidence booster by learning how to talk and work in groups of people.

I also assisted with water sampling and monitoring. Going through the water monitoring process helped me be attentive to make sure I was practicing good QA/QC.

How did your experience at the Fillmore SWCD impact your career path? Working for the district helped grow my relationships and knowledge so when I was able to start applying for full time positions, I had those experiences to show for.

What is your current position?

Soil Conservationist for the Natural Resource Conservation Service.

How does your current work impact conservation practices?

I work with farmers to help educate them about/how to implement good land management practices that conserve soil, filter runoff, and establish more wildlife habitat.

Any exciting projects coming up?

We have our Conservation Stewardship Program (CSP) Renewal applications coming up in late summer, so we are starting to contact farmers to try and make a plan that gives them the opportunity to become better steward of their land. Common conservation practices that interest farmers through this program are cover crops, no-till/strip-till, field borders, pollinator plantings, etc..

Do you have any advice for future interns/students in natural resources? Summers are limited before you graduate college so always make it a priority to try and get an internship in natural resources. If unable to get an internship, the next best thing is volunteering. They are both great ways to help give you more experience and help build your early career path. 茶へ茶

*

CONSERVATION CHRONICLES

Over 80 Years of Dye Tracing Groundwater in Fillmore County

Dye tracing is used to study the movement of groundwater and to help solve problems involving the origin, destination and velocity of groundwater. This information can be used for pollution prevention, water resource management and aquifer monitoring. Some examples of where this information would be critical include: chemical and petroleum spills, fish kills and aquifer pollution levels. The first record of dye tracing in Minnesota is from 1940, after a typhoid outbreak occurred in Harmony. As it turned out, the city's sewer was dumping into a sinkhole that was then traced to a well approximately 1500 feet away. Following this investigation, the Minnesota Department of Health worked with hundreds of area residents to test their wells and provide well construction recommendations to ensure that their water supply would have reduced chances of contamination.



Dye tracing consists of installing charcoal dye receptors in various springs and other water sources in the study area, followed by pouring a unique, non-toxic, environmentally safe, fluorescent dye

into a sinkhole along with an additional water source to act as the 'carrier.' The additional water source can be snowmelt, stream water, or an external water tank such as a fire truck. The Fillmore SWCD helps to facilitate this research with the Minnesota Department of Natural Resources to increase our understanding of groundwater movement & direction in our area.

In 2022, the Fillmore SWCD assisted the MN Department of Natural Resources with pouring dye in 5 different locations. Two of these sinkholes were along County Highway 44, one near Big Spring Quarry near Harmony, and two adjacent to Forestville State Park. Of particular note, one of the groundwater dyes went a different direction from the surface water over 8 miles underground before emanating in surface water. Another dye traveled over 2.5 miles rather than emanating from a spring less than 0.5 miles away. If you are interested in learning more details about dye tracing, have a sinkhole or spring you'd be interested in tracing, contact our office at (507) 765-3878 ext. 109. The QR code below will take you to the complete database with an interactive map of MN Dye Tracing.



PAGE 7

Updated University of Minnesota Nitrogen Recommendations:

Earlier this spring the University of Minnesota released newly updated nitrogen fertilizer recommendations for fertilizing corn in Minnesota. The nitrogen recommendations were increased slightly based on updated research results. These recommendations are based on the maximum return to nitrogen (MRTN) and the response plateau that effects nitrogen's relationship with corn. Table 1 (below) is the updated chart from the University of Minnesota.

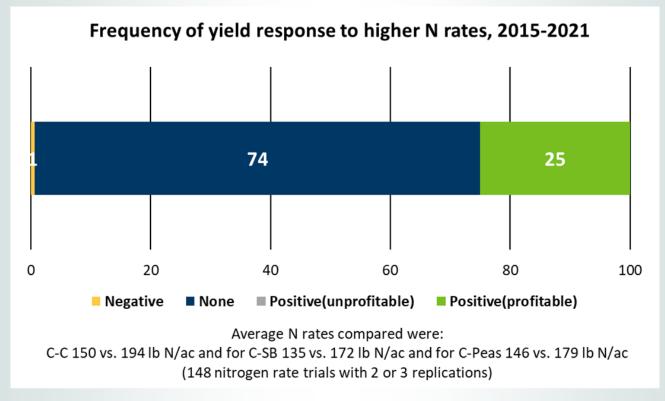
Table 1: Guidelines for use of nitrogen fertilizer for corn grown following corn or soybean when supplemental irrigation is not used.

Prior crop	N price/Crop value ratio	MRTN	Acceptable range
Corn		lbs N/acre	lbs N/acre
	0.075	190	170-205
	0.100	175	155-180
	0.125	165	150-175
	0.150	155	135-155
Soybeans		lbs N/acre	lbs N/acre
	0.075	150	135-165
	0.100	140	130-150
	0.125	135	125-145
	0.150	130	120-140

*You can find the table at https://extension.umn.edu/crop-specific-needs/fertilizing-corn-minnesota

As a reference the MRTN rate at the .10 ratio was increased by 10 pounds up to 175 pounds of actual nitrogen with a range of 155-180 lbs. As an example of how to calculate your own ratio, if the value of corn is \$4.00/ bu and the price for a pound of nitrogen is \$0.40, the ratio would be .10. Historically the .10 ratio is where the prices have been the past few years. This year the N price to crop value ratio was much closer to .15 or even higher and it's hard to say what the future years will be in comparison.

In addition to the plot data entered into the N rate calculator database and used to generate the University of Minnesota recommendations, there is also several local on-farm plots that compare two different nitrogen practices. The most common comparisons are nitrogen rate and timing. These trials back up the University of Minnesota information and the nitrogen rate on-farm trials have shown that 74% of the time the higher N rate did NOT have a profitable response in yields as shown in the graph below.



These trials compared average preplant nitrogen rates of 150-194 lbs/acre of nitrogen for corn on corn and 135-172 lbs/acre of N for corn on soybeans and have been spread throughout southeastern Minnesota over the past 7 years.

Looking forward to summer, Fillmore SWCD in collaboration with the MN Department of Agriculture and University of Minnesota will be hosting a field day during the week of August 15-19 at the Dover Nitrogen Rate and Timing research plot.

The field day will cover information on the N rate and timing research plots including plot tours, southeastern MN on-farm trial results, in-season N sensing with a drone, and a farmer panel on cover crops. Watch for more information soon on the Fillmore SWCD website (Fillmoreswcd.org) and Facebook page for the upcoming field day.