

#### Visit our website at:

### www.grundyiaswcd.com



Newsletter provided by the Grundy County Soil Water Conservation District

# Attention!!

Cover Crop sign-up is happening now. If you are planning on doing cover crops this fall, please call, email



Meghan at Meghan.koch@ia.nacdnet.net or
Faith at faith.luce@ia.nacdnet.net
or stop by the office to sign up for cost

share assistance, available on a first-come

# <u>Important Dates!</u>

- Poster for Conservation
   Districts of Iowa Due April

   26th
- Summer Workshop @
   Grundy Co. Fair Thursday
   July 18th

-Topic: Biologicals

- Windbreak School
  - Friday August 23 9AM-1PM

### **Advanced Soil Tests Can Help Identify Improvements in Soil Health**

Thanks to the desire for data to corroborate soil health improvements, some tests have been developed that can be used to set a baseline and then track improvements. The Grundy SWCD is partnering with a couple area producers to do these tests in 2024 and again in 2027 to see if we can show some improvement. Soil tests for soil health metrics are somewhat dependent on weather, so we will be sampling when the soil has warmed up- around the beginning of May. The tests are also more expensive than a traditional soil test, we will be taking one to two composite samples per experiment area. The tests we will be doing are:

**Wet Aggregate Stability**- very similar to the slake test, but a lab test will quantify what percentage of soil particles stay intact.

**Bulk Density**- will calculate the mass (in grams) of the soil per cubic centimeter and demonstrate how porous the soil is.

**Phospholipid Fatty Acid (PLFA)-** a key component of cell membranes, phospholipid fatty acids can be tracked to show the amount of bacteria and good fungi in soils. An active and balanced microbial community improves residue breakdown, nutrient cycling and is a good indicator of life in the soil. Does not identify specific species within the soil.

**Haney Test**- uses gentler methods to extract nitrogen and phosphorus to identify more types of those elements present in the soil and available for plants. Also provides CO<sub>2</sub> off-gassing and a composite soil health score.

**Infiltration Rate**- this one will be conducted with equipment we own. The double ring allows for pre-wetting of a soil column and then the inches of water absorbed in 15 minutes are observed to calculate an infiltration rate in "inches/hour." Please contact the office if you are interested in us testing your field with this tool!



# Consider No-till to Conserve Moisture in 2024

# By Courtney Myers, District Conservationist

The March 28, 2024, release of the U.S. Drought Monitor report shows almost all of Grundy County in D2 status- severe drought. This is as we enter the growing season, usually when soil moisture is at it's peak. Many of you may have walked your fields already this spring and noticed the top is powder dry. As a hedge against continued drought conditions for the 2024 growing season, you might be thinking you want to try no-till planting.

Every pass of tillage in the spring evaporates a half inch of water. In addition to speeding evaporation, tillage will loosen up the surface particles and make crusts form on the surface, not allowing as good of infiltration. Although "no-till ground" is harder to the touch, it is much more structurally stable over the long run. The stability comes in the formation of soil glue called glomalin that is made by plant roots. It's a sugary substance that the microbes in the soil feed on. When the microbes and earthworms are thriving, they also make slimes and glues that build soil aggregates.

Speaking of earthworms- their castings are some of the best fertilizer! Due to the worm having calcium deposits in its crop, the castings come out near neutral pH. Because of the mucus from the digestive tract, worm castings are encased and function as a slow-release fertilizer, releasing plant-available form of nitrogen, phosphorus, potassium, calcium and magnesium. No-tillers have much higher populations of earthworms in the soil. Healthy soil might have upwards of 35 worms per cubic foot.

Many experienced no-tillers have invested in their equipment to make planting easier. Jim Kadner, of Conrad, has been no-tilling for at least 12 years. He began no-tilling soybeans into corn stalks at the request of a landlord and eventually began no-tilling all crops, including seed corn. He had the ability to compare no-till fields to ones he hadn't begun no-tilling yet and saw no yield differences. He has made sure to add trash-whippers that float on the surface to move residue out of the way of the furrow and encourages the proper maintenance of them so they stay effective. He also waits a little longer to plant so the soil can warm up. One of the biggest benefits he sees is time savings.



Earthworms- pull an old cornstalk out of the ground this time of year and you'll see how much the earthworms love the carbon source. Leaving these crowns Advances in both planters and knowledge make no-till easier than 30 years ago. Lots of farmers have tried no-till farming and gone back because they were frustrated with emergence, stand counts, and yields. Many area no-tillers swear by putting liquid nitrogen systems on their planter to provide a pop-up source of nitrogen near the seed. With earlier planting dates and unpredictable weather, 30-60 units of liquid nitrogen can give a corn seedling a boost to overcome diseases that might thrive in cool or wet weather. This becomes especially important for those farmers using cereal rye cover crops ahead of corn planting.

### No-Till Project on Davidson Family Farm

**By Don Davidson** 

Since the Grundy County District determined that one barrier to accepting conservation practices is the effect on yields, Commissioner Don Davidson is starting a no-till versus conservation tillage trial on his farm. For the next 4 years (2024 through 2027) Don and his tenant will perform conservation tillage practices on the east field of the 160-acre farm, and no-till practices on the west field. Both fields have similar soil types and topography. The same crop varieties will be planted on both fields, as well as the same fertilizer and herbicide applications. The only variable will be tillage or no tillage. Fields will be harvested separately and yields for each field will be provided to the District Office. Soil tests will be taken each year of project, to look for any fertility or biological changes. Residue counts on each field will also be taken after planting.



Slake Test- this is an easy test you can do to show the stability of your soil clods. The soil on the right has been no -tilled since the early 1980s and the one on the left is in a seed corn and soybean rotation with multiple tillage passes every year. Once dropped in water, the forces of the water moving into pores breaks apart the weak structure of the soil on the left.



# 2023 Conservation Club Members

Triple E Farms
Grundy Center Garden Club
Richard & Yvonne Bertram
Jon & Theresa Keninger
James Everts
Rosemary Sicard
Clark Porter
Harlen Persinger
Karl Strohbehn Farms
Russell Proffit

**Jeff Freshwater** 

Jon Keninger

**Kevin & Marie Fiscus** 

**D&K Sents** Joe Walton **Mike Lovell Russ Miller Neher Acres Inc Tama SWCD Justin & Kimberly Lynch K&A Acres** Dave & Sara Riley **August & Rita Geisinger Kevin & Marie Fiscus Jack Zern Diane Husak Brian Kirkdorffer** 

The SWCD Commissioners would like to thank everyone who donated to the district. Your funds are used to help with the district's activities and programs in education, classroom activities, WaterRocks, scholarship, field days, and Stewardship Week, etc. Remember all donations are tax deductible. The SWCD commissioners are elected officials but to not receive any compensation for their duties.

MEMBERSHIP FORM (CLIP AND RETURN TO OUR OFFICE TO MAKE A DONATION)

2024	MEMBERSHIP	2024
GRUNDY COUNTY SOIL AND WATER CONSERVATION		
CONSERVATION CLUB		
Name		Donation
Amount		
	CONSERVATION CLUB MEMBER	
Please make checks payable to Grundy SWCD		

# \*Women Land And Legacy\*

Its your land. We'd love to hear your voice!

Grundy County along with Black Hawk, Bremer, and Butler County hosted the first set of listening sessions for our Women Land and Legacy Chapter on March 19th and 26th. In these sessions we gathered feedback on what the women in agriculture in our communities are wanting to learn more about. We are excited to collaborate with our resources to be able to bring new learning opportunities to the women in our communities.



















Black Hawk Soil and Water







# Wildlife Habitat Workshop



On Wednesday, February 21, 2024 the Grundy County Soil and Water Conservation District in collaboration with Grundy County Conservation Board and Pheasants Forever hosted a wildlife habitat workshop. Justin Clark from IA DNR talked about chronic wasting disease and how it is effecting our area. Shane Wulf (IDALS), Matt Wang (NRCS), and Jeff Lutz (NRCS) talked about Wetlands and the benefits and cost share opportunities available to producers.



Now that spring is here we would like to highlight the importance of the grass habitat for our wildlife. A reminder it is illegal to mow roadside vegetation during nesting season, unless the situation falls into one of the approved exceptions. The nesting season runs from March 15th - to July 15th in Iowa. Did you know on July 15th roughly 21 percent of the pheasant nests are still active? According to the DNR, studies show that if you wait to mow until August 1st that number drops to 7 percent! We would like to challenge you to do the same in your waterways! With Grundy County having some of the best dirt around we do not have much ground cover for our wildlife. One small change can make a huge impact!

The "Partners in Resource Management" newsletter is provided free to owners and operators of land in Grundy County, Iowa, and others interested with issues involving resource management.

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Send questions or comments to: Grundy County Soil and Water Conservation District

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Grundy Center, IA 50638-1069

Phone: (319) 824-3634, ext. 3

Office Hours: 8:00 to 4:30, M-F

### **Commissioners**

### **Assistant Commissioners**

Fred Abels: Chair Crystal Davis

John Oltman: Vice Chair Hartley Meyer

Don Davidson: Treasurer

James Everts: Co treasurer

#### Staff

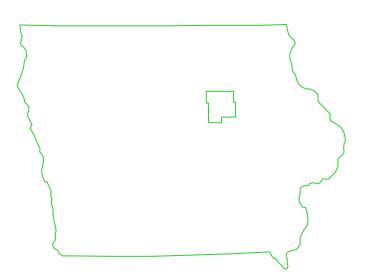
Courtney Myers (District Conservationist)

Meghan Koch (Conservation Assistant)

Hunter Filloon (Soil Conservation technician)

Heather Kitzman (Team Resource Conservationist)

Faith Luce (BHCWS Project Coordinator)



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### **MISSION STATEMENT**

The mission of the Grundy County Soil and Water Conservation District is to provide leadership to people regarding technical, educational, and financial assistance that conserves natural resources.

