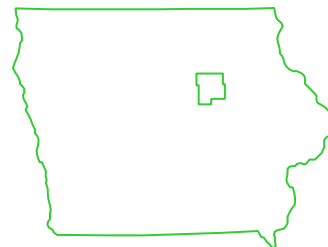




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www.grundyiaswcd.com



Newsletter provided by the Grundy County Soil Water Conservation District

40 Years of No-till

by Harvin Meyer

My interest in soil conservation can be traced to a small spot of clay in a water-way north of my home. When I was a teenager there was a small spot of yellow clay of approximately 20 square feet. When I was 30, this spot had grown to maybe 1000 square feet and I grew concerned. In 1966 I contacted SWCD and we laid out contour lines to help stop erosion. That really wasn't enough, so in the mid 70's I stopped plowing bean ground and just field cultivated. In 1979 I bought a new planter said to be able to plant without any tillage. That spring when we were field cultivating, we didn't till a triangle where we started and planted right in that. That was the beginning of my no-tillage.

We discovered that the corn stand was as good in the no-till area as in the tilled ground plus the planter pulled easier in the no-till than in the tilled ground. The winter of 1979~80 I attended a meeting on no-till in Grundy Center. As a result of that meeting I bought a set of no-till coulters for the planter. In the spring of 1980, I planted 40 acres of soybeans into cornstalk ground. To prepare the seedbed we used a spike tooth harrow. I sent my teenage son out and asked him how fast he could spike tooth harrow that field of stalks. He did a beautiful job of shattering the stalks. Then I converted a front mounted cultivator to a buffalo till with the addition of disc hillers and large sweeps. This was a backup plan if chemicals didn't work. The efficiency of chemicals improved over the years, so we stopped using the harrow and the cultivator.

For the last 30 years I strictly used no-till planting into the residue. I used a disc only to level tile lines. We run beef cattle and no matter how many tracks have been left in the fields by the cattle, I just plant right through them and have a good stand. The problem with no-tilling is that fox and badgers like to have their dens in the no-till ground. I have ignored them and their holes for 40 years. Most of their holes close up in time.

As far as I am concerned there are many benefits to no-till. The benefits include:

- (1) soil structure ~ My organic matter on the farm is 4.4.
- (2) very little erosion
- (3) economics
 - A. lack of equipment ~ All I need is a planter and a tractor with enough horsepower to pull it
 - B. fuel usage ~ planting and applying anhydrous only requires 2 gallons of fuel per acre
- (4) yield ~ beans are consistent or maybe even better than my neighbors who till. I believe my corn yields are as good as my neighbors. But if you disagree, at least I don't have all that money tied up in machinery.

For the last 4 years I have had a 73 acre field that was half beans and half corn where we flew on rye for a cover crop hoping for these results: (1) extra feed for the beef cows (2) to further cut down on erosion and (3) possible help in controlling weeds.

I am retired and my son is taking over the farming operation and continuing the operation as I have had it. My final goal is zero soil loss and less chemical usage.

I believe in KISS ~Keep It Simple Stupid.

Spring 2021

Inside this issue:

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The staff in Grundy Center urges you to call first before you come in. The office is currently open by appointment only.

Office updates—

Cover Crop sign-up is happening now. If you are planning on doing cover crops this fall, please call or stop by the office to sign up for cost share assistance, available on a first-come basis.

Water monitoring has begun on the Black Hawk Creek Watershed.

**2020 Conservation Club Members**

Dick Lynch Inc.
Fred & Vicki Abels
Don & Sharon Davidson
Mike & Karen Freed
Rollie & Bern Primus
Mark & Dixie Schildroth
Jack & Joan Fogt
Jim & Melinda Smoldt
Keith & Dorothy Sheller
Owen Corporation
Darrell & Kristie Sents
Gallentine Land Co.
Harvin & Esther Meyer
Rodney Hartman
Brickman Farm Co.
Bonnie Beving
Patricia Meinert
Marcia Heronimus
Rosemary Sicard

Zern Farm Corp.
Merle & Mary Lynch
John & Karen Oltman
Mel & Janet Schildroth
Storjohann Farms
Jim & Cindy Richtsmeier
Freese Farms
Mary Katzer
Jerry & Sue Green
Barbara Hupman
Wayne & Carol Aukes
Mark & Nancy Buskohl
Frazer Farms LLC
Jon Keninger
Shirley Dufel-Peterson
Fairview Farms 78 LLC
Marilyn DeLange
Gerald Wheelock

Kruger Farms
Ted & Kim Junker
Grundy Center
GardenClub
Twin Oaks Stock
Farms Ltd.
Robert & Darla
Whitmire
Roger & Ellen Brown
Jim & Brenda Everts
Elmaru Farms
TJ & Ava Haun
Harlan Persinger
Phil & Diane
Schildroth
Grain Farms Inc.
Dr. Robert & Anne
Morrison

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, scholarship, Envirothon, field days, and Stewardship Week, etc. Remember all donations are tax deductible.

Membership Form (clip and return to our office to make a donation)

2021	MEMBERSHIP	2021
GRUNDY COUNTY SOIL AND WATER CONSERVATION CONSERVATION CLUB		
Name _____		Donation Amount _____
CONSERVATION CLUB MEMBER		
Address _____		



Grundy Soil & Water Conservation District Celebrates 75th Anniversary.

The Charter for the Grundy Soil District was signed by Iowa's Governor on Feb. 6, 1946. Several articles were recently published in The Grundy Register about the history of the Grundy Soil & Water Conservation District. Below is a list of all the people who have served as commissioners or assistant commissioners since the beginning.

Harold Miller	William Mitchell	J. Petersen
Ralph Schildroth	Geo. Behrends, Jr.	Elmer Senning
Harvey Tapper	Joe Beving	Warren Bierber
Ralph Moore	Emery Riekema	Leland Bentley
Gordon Davidson	Roger Nederhoff	Herman Primus
Melvin Schildroth	Currie Waugh	Mark Buskohl
Hal Dielschneider	Larry Eslinger	Forrest Kruschwitz
Walter Miller	Jim Ross	Doug Stewart
Ron Engle	DeeGene McMartin	Don Davidson
Harvin Meyer	Russell Katzer	Richard Sicard
Sheila Harms	Mike Freed	Lois Stork
Betty Aswegen	Jim Kadner	Glen Draper
Kim Junker	Rosanne Girres	Linda Gibbs
Verne Eberline	Darrell Sents	Jolene Siebert
Fred Abels	Jim Everts	Steve Henze
John Oltman		

If we have missed someone, we sincerely apologize for the omission. We would like to thank everyone who has volunteered to be a commissioner or assistant commissioner. If anyone is interested in becoming a commissioner or assistant commissioner, please contact us at the NRCS office at (319) 824-3634 Ext. 3. The SWCD participates in several events throughout the year such as field days, stewardship, poster contest, scholarships, and more.



Getting More Out of Your Cover Crops

By Courtney Myers, District Conservationist

We all read fantastic stories about the wonders of cover crops- reduced herbicide costs, lower fertilizer needs, and higher organic matter. Those stories all have a common theme: the benefits take time. A report released by Cargill and the Soil Health Institute, had the average cost of implementing cover crops in Iowa at \$26 per acre. For many, this is a long-term investment.

In the fall of 2020, we tallied over 25,000 acres of cover crops planted in the county. This is over 8% of the entire cropland. This is a fantastic number and shows that Grundy County farmers are realizing some of the benefits of having cover crops on their land. I wanted to highlight farmers in Grundy County who are putting those dollars to work, to get even more out of their cover crop investment.

Feed Your Livestock

Cattleman and crop farmer, Bill Noteboom, of Grundy Center has been harvesting rylage for cattle feed for about the last five years. He plants rye following corn silage in September at a rate of 2 bushels/acre to ensure a good stand the following spring. By late May, he's able to harvest the rye and ensile it in a plastic bag for feeding later throughout the year. According to Bill, the rye doesn't dry very easily and he finds it hard to bale. Instead, he'll mow it down in the evening and then come back the next morning to harvest it. Throughout the rest of the year, he grinds it and adds it in with his feed ration, in a "total mixed ration (TMR)" for supplementing grass pastures. With this system, Bill gets to protect corn silage fields from erosion and gain extra feed for his cattle instead of having to find more hay.

Hartley Meyer, of Wellsburg, and his family have been grazing his cows for over ten years on rye cover crops. He thinks it's good for his cows to get a nutritious diet of fresh growing vegetation. Every fall when the time is right, he has 100 pounds/acre of cereal rye flown on with an airplane. Then, the cows are turned out to graze crop stubble in the fall and they help incorporate the seeds. In the spring, they are allowed to lightly graze as well. If it gets wet, the cows get pulled off the crop ground, so as not to cause compaction. When it comes time to plant, the cows are taken to pasture and the cover crop is sprayed one week before planting. Due to their no-till system, the Meyer family often plants a week



later than their neighbors as they let the ground warm up and get fit for planting. As for some small areas of compaction, Hartley just plants right through those and hasn't noticed any concerns on a yield map. He is also seeing improvements in soil health and water absorption, because grazing cover crops is in addition to the no-till they've been doing for 40 years. When plants are grazed, the roots go into overdrive in an effort to survive. More sugary root exudates are made and the roots go deeper.

Meyer's cows graze cereal rye in April 2021

Control Soil Moisture for Soybeans

An accidental experiment occurred in spring of 2020 for Ben Fogt, who farms near Reinbeck with his dad, Mike, and uncle, Randy. Ben rents a farm near Grundy Center that had planned to be developed. (continued on page 5)

**Getting more out of your cover crops continued...****Control Soil Moisture for Soybeans** *Picture submitted by Ben Fogt during bean planting in May 2020*

By the end of May that didn't look like it was going to happen so, he decided to no-till drill beans into five foot tall rye cover crops. He planted the beans, even though the ground seemed really wet, and then killed the rye afterwards. He let the rye die instead of baling it, which turned out to be a good decision. The ground retained the moisture in a dry summer and fall, and the situation taught Ben not to be too worried about when to kill the rye.

Not by accident, Jason and Tyler Schildroth of Gen 3 Farms near Reinbeck, have been using cover crops after seed corn harvest for several years. This helps them replace some biomass that was removed during seed corn harvest. They mix cereal rye seed with fertilizer and have it broadcast in the fall, then they lightly vertical-till to incorporate the seed. They get two activities done with one pass, reducing their seeding costs. In the spring, before planting beans, they let the rye grow quite tall. They plant into the rye while it's still growing and kill

it later. One benefit they weren't expecting is that planting into the green rye creates tracks that the sprayer operator can use to guide himself around the outside of the field. Jason and Tyler have even noticed they can get in the fields to plant earlier than their fields with no cover crops. Even though the ground looks wet, it's a nice even moisture that gives a good pop to the emerging soybean seedlings. The tall rye also delays a second herbicide pass, and could possibly eliminate it, based on how well the residual is working.

Schildroth's planting "green" into growing covers.

**Growing Cover Crop Seed**

Although not considered a cover crop, growing cereal rye and oats to be harvested for seed is becoming more popular in the county. A handful of area farmers have begun to add a few acres of oats and rye to their crop systems. This works well in seed corn isolation areas or areas with some resistant weed pressure. With the use of cover crops growing in the area, there is an increased demand for seed. Just think- if the 25,000 acres each planted one bushel of cereal rye, we would need 25,000 bushels of seed. If an acre can reliably yield 30 bushels of cereal rye grain, we'd need 833 acres to grow rye every year. When seed can be purchased locally, it is much cheaper than trucking it in from the Dakotas. In addition to the grain, the straw can also be baled and sold for extra revenue. As for the environment, those acres aren't receiving a lot of fertilizer and are preventing soil erosion.

Stout-area farmer Dave Freese has discovered he can do away with some smaller waterways by implementing no-till and cover crops.





Winter Camelina & Cover Crop Rule Updates

By Courtney Myers, NRCS DC

The Natural Resources Conservation Service recently updated the requirements for cover crops in March, 2021. One update adds winter camelina to the list of “winter hardy” cover crops. Winter camelina is in the mustard family and has a cold tolerance to -5 degrees, making it a possible substitute for cereal rye in cover crop mixes. The seed is extremely tiny, about the same size as purple top turnips, and is seeded at a rate of 4 pounds/acre. We grew some in a planter at the office last fall and it germinated in 4-5 days and successfully overwintered. Winter camelina has many promising qualities- it won’t tie up nitrogen like cereal rye, it overwinters, it’s less attractive to army worms, and it’s easily killed with chemicals. There are also studies underway for it’s potential as a third crop in the region.

We are looking for some volunteers to include winter camelina in their fall cover crops. Among the things we’d like to study: how easy is it to apply with an airplane, how well does it over-winter, how easy is it to kill, and is this a better cover crop than cereal rye before corn planting? Please let us know if you are interested in trying this emerging cover crop.



Other changes made to the cover crop rules allow for interseeding cover crops into corn at V4-V6 stage and extend the seeding date for winter-killed species in Grundy County to September 24th. This makes the summer interseeding of covers cost-sharable, but double check with your crop insurance agent before you get too excited. The benefits of this practice allow you to include many more species in a cover crop mix, which attract good insects and help regulate soil moisture before crops canopy.

Winter camelina planted in September 2020 in a planter outside of the USDA Service Center. Photo taken April 8, 2021.



Thinking Outside the Duck Box

by Dan Sears, NRCS Soil Conservationist

A couple weeks ago, I caught up with Jeff Heltibridle, local farmer, and Grundy Center resident, to talk wood duck nesting boxes. Jeff Heltibridle and Todd Hansen, assisted by Nick Hansen and Ross Peters, have been busy constructing and posting wood duck boxes around the county. They established 7 boxes just a couple days before we spoke, in addition to the 20 they set out over the course of 2020. This puts them at a total of 40 duck nesting boxes they maintain and monitor in their free time. These boxes are predominately posted on private wetlands and floodplain timber, but you can observe some of their handywork at publicly accessible places like Holland Marsh, Oakleaf Golf & Country Club, and the pond across from the Grundy Center USDA office.

When asked about his motivations, Jeff attributed his lifelong passion for hunting and a drive to give back to local waterfowl. He wants to do what he can to keep them in the area. For installation tips, Jeff prefers installing wood duck boxes in water to reduce predator access and make winter maintenance easier. He uses designs ranging from the classic pine/cedar boxes to modified, empty Freon canisters. If you are interested in maintaining a wood duck box on your property, you can find ideas and handy online resources through Iowa State Extension's Woodworking for Wildlife series, USDA-NRCS, Iowa DNR, or Ducks Unlimited. If you would like to reach out to Jeff and Todd on wood duck boxes, feel free to contact the Grundy Center USDA-NRCS office and your contact info can be passed along. If you are interested in cost share for wildlife structures, constructed wetlands, or floodplain timber restoration, check in with your local USDA-NRCS office for options.



Left: A successful clutch of wood duck eggs - photo provided by Jeff Heltibridle.

Right: Jeff and Todd with a new wood duck nesting box.



Grundy County Soil & Water Conservation District

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Cover Crop

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
805 West Fourth Street, STE 2
Grundy Center, IA 50638-1069
Phone: (319) 824-3634, ext. 3
Office Hours: 8:00 to 4:30, M-F

Reminder....

Please call the office to make sure someone is available before you come. Since some of the staff is shared with another county or may be in the field, there are times when staff is out of the office. Due to Covid-19 restrictions, please call the office to make an appointment.

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.

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Dan Sears (SC)
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Yolanda Butler, (SCT)
Denise Freeseaman
(Conservation Asst.)
Faith Luce,
(BHCWS Project Coordinator)

In honor of the Grundy SWCD's 75th anniversary, the commissioners donated books to each of the public libraries in the county. The "Soil Owner's Manual: How to Restore and Maintain Soil Health" by Jon Stika is a book about restoring the capacity of your soil to perform all the functions it was intended to perform. This book will allow you to assess and restore soils using basic guiding principles and biology. "Dirt to Soil" written by Gabe Brown is about a family's journey with weather related crop failures to making bold changes in how they farmed. Experimenting with new practices, he learned from reading and talking with innovative ranchers and researchers and these changes were incorporated into their farm operations. Brown dropped the use of most herbicides, insecticides and synthetic fertilizers that are now part of current farming practices. He started using diverse cover crop mixes, switched to no-till planting, and changed grazing practices. The family started a journey that ended in regenerative farming. Check out one or both of these books at your local library.