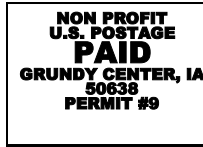


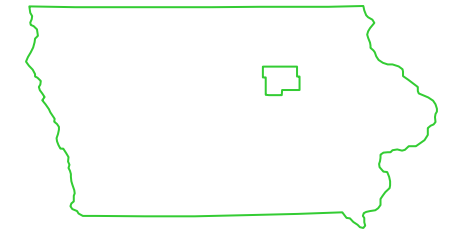
**Grundy County  
Soil & Water Conservation District**

805 West Fourth Street STE 2  
Grundy Center, Iowa 50638-1069  
Phone: (319) 824-3634, ext. 3

Forward Service Requested



Visit our website at:  
[www.grundyiaswcd.com](http://www.grundyiaswcd.com)



A Newsletter provided by the Grundy County Soil and Water Conservation District



**Soil Health and Water Quality, Rural and Urban**

**Spring 2019**

The Grundy Soil & Water Conservation District is planning another workshop on Wednesday, July 17th, at the Grundy County Fairgrounds. This workshop will start at 9 am following the Tri-County Marketing Club meeting with ISU Economist Steve Johnson which starts at 7:30 am. These two meetings are being held during the Grundy County Fair at the east end of the fairgrounds. Speakers for this year's event include:

Mark Thompson is farmer from Badger, IA. He farms 900 acres, and is the manager of Sunderman Farm Management. He will share his experience building soil health practices into farm leases, and his work with relay cropping.

Brian Dougherty, ISU Extension Engineer for Northeast Iowa, will talk about Edge-of-Field Practices.

Lisa Schulte Moore, ISU Professor, will talk about Prairie Strips.

Paul Miller is an Urban Conservationist for the Iowa Dept. of Ag & Land Stewardship. He will give us some ideas of conservation practices for people who live in towns and cities.

Michael Luebbers, NRCS Soil Conservation Technician in Butler County, will have a soil health talk with some hands on learning.

**Inside this issue:**  
**Conservation Club Members Pg. 2**  
**Kurt Simon, NRCS State Conservationist Pg. 3**  
**10 yr Cover Crop Study, Liz Juchems Pg. 4-7**  
**Heather's Back! Pg. 8**  
**Need a Windbreak? Pg. 8**

**The staff in Grundy Center urges you to call first before you come in. There may be times when no one is in the office due to field work or meetings.**

A meal will be served to all attendees following the workshop. Please RSVP to Denise Freeseaman, Conservation Assistant, at [denise.freeseaman@ia.nacdnet.net](mailto:denise.freeseaman@ia.nacdnet.net) or call the office @ (319) 824-3634 Ext. 3, so we know how many to serve for the meal. Deadline to RSVP is July 10, 2019.

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.

All programs, services and information in "Partners in Resource Management" are offered on a non-discriminatory basis, without regard to race, color, national origin, religion, sex, age, disability, political beliefs, and marital or family status.

Periodically the newsletter will publish guest articles and editorials regarding resource management topics. The Grundy

County SWCD does not accept any liability from the use of the views, services and/or products expressed in these articles.

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

**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.

**WEBSITE**

[www.grundyiaswcd.com](http://www.grundyiaswcd.com)

**COMMISSIONERS**

Fred Abels (Chair)  
James Kadner (Vice Chair)  
Donald Davidson (Treas.)  
James Everts  
Steve Henze

**ASSISTANT COMMISSIONERS**

Harvin Meyer  
John Oltman

**STAFF**

Nicky Williams (DC)  
Jim Allen (SC)  
Heather Kitzman (SC)  
Denise Freeseaman (Cons. Asst.)  
Michael Pittman (State & Dist. Tech)

**WELCOME BACK,  
HEATHER KITZMAN**



Heather came back to the Grundy NRCS office in January, 2019, as a Soil Conservationist. She was hired as a NRCS Soil Conservationist in Sac City in January, 2018. She currently shares her time with the Hardin NRCS office three days a week. Our staff is glad to have her back in Grundy County! Stop by to visit with Heather for all of your conservation needs.

**NEED A WINDBREAK?**

Old Man Winter dealt us a lot of snow and wind this past winter along with a lot of drifting and cold. Windbreaks can help against prevailing winds and manage snow and reduce snow removal costs. They can also establish wildlife habitat and control erosion. Cost share assistance is available. Our staff will help you design your windbreak and suggest suitable trees and shrubs based on your location and soil type. Contact our office if you would like us to help you.

**Black Hawk Creek Watershed**

The Grundy Soil and Water Conservation District was recently awarded a grant from the Iowa Department of Agriculture and Land Stewardship as part of the Water Quality Initiative. The project focus is three smaller watersheds within the Black Hawk Creek watershed: Wilson Creek, Village of Reinbeck, and Holland Creek watersheds. Other areas of the Black Hawk Creek will also be included. The Water Quality Initiative Program was established in order to assess and reduce nutrients in the state's watersheds, with the goal of establishing and administering projects to reduce nutrients in surface waters from nonpoint sources in a scientific, reasonable, and cost-effective manner.

With the funds received, the SWCD looks to hire a Watershed Project Coordinator to enhance existing efforts of the Nutrient Reduction Strategy. The project goal is to work with local farm leaders and partners to target outreach to landowners and producers within the watersheds. Technical assistance will be provided by the Grundy County NRCS to plan, design, and implement edge-of-field practices, as well as in-field soil health management practices to improve water quality.

If you are interested in participating in this project or would like more information, please contact the NRCS office in Grundy Center.



**2018 Conservation Club Members**

Larry & Peggy Daniels	Mike & Karen Freed	Frazer Farms
Roger & Marcia Dudden	Phil & Diane Schildroth	Noel & Dottie Rewerts
Dick Lynch Inc.	Jim & Melinda Smoldt	Ron & Charlene Bloxham
Wayne & Judy Eilers	Marcia Heronimus	John & Karen Oltman
Don & Sharon Davidson	Jack & Joan Fogt	Laura Brown
Leon & Sharon Harms	Goodman Agri-Co. Inc.	Mark & Nancy Buskohl
Cindy & Jim Richtsmeier	Freese Farms	Darwin & Janet Heltibridle
Marilyn DeLange	Calvin Staudt	Fairview Farms 78 LLC
Donald Heikens	Storjohann Farms	Shawn & Rhonda Samo
Bob & Pat Abels	Merle & Mary Lynch	Gerald & Carol Wheelock
Owen Corporation	Rodney Hartman	Foxdale Farms
Harvin & Esther Meyer	Harlyn & Karen Riekena	Jim & Brenda Everts
Darrell & Kristie Sents	Brickman Farm Co.	Dr. Robert & Anne Morrison
Mark & Dixie Schildroth	James Ahrenholz	Melvin & Janet Schildroth
Zern Farm Corp.	Gallentine Land Co.	Jon Keninger
Grain Farms Inc.	Mary Katzer	Jim Allen
Triple E Farms Ltd.	Wayne & Carol Aukes	Ron & Barbara Hupman
Rosemary Sicard	Jerry & Sue Green	

*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*

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

2019	MEMBERSHIP	2019
<b>GRUNDY COUNTY SOIL AND WATER CONSERVATION CONSERVATION CLUB</b>		
Name _____	Donation Amount _____	
CONSERVATION CLUB MEMBER		
Address _____		



**10 Year Cover Crop Study cont...**

and retains nutrients that are eventually returned to the soil during the next growing season. This absorption and holding helps to prevent nutrient runoff and leaching. And during the cash crop growing season, the cover crop residue can act as a mulch which helps to reduce weed pressure.

**What's Next?**

This cover crop research project has reached a milestone, but we anticipate that the cooperators have experienced the benefits and will continue to implement cover crops on their farms. PFI and Iowa Learning Farms will continue to study and report on advances in conservation techniques and best practices that farmers can make a difference for farmers.

**Learn more about this and other studies.**

For more detailed information on the project, see "Winter Cereal Rye Cover Crop Effect on Cash Crop Yield" on these websites:

ILF: <https://www.iowalearningfarms.org/content/cover-crop-research>

PFI: <https://practicalfarmers.org/research/winter-cereal-rye-cover-crop-effect-of-cash-crop-yield/>

While visiting these sites, you will also find links to related studies, research, and educational materials regarding best practices for water quality improvement, conservation techniques and biodiversity.

**Sidebar**

**Cooperators in the Study**

- Bill Buman, Harlan, Iowa
- Randy Caviness, Greenfield, Iowa
- Jim Funcke, Jefferson, Iowa
- Devan Green, Conrad, Iowa
- Rick Juchems, Plainfield, Iowa
- Rob Davis & Darwin Pierce, Whiterock Conservancy, Coon Rapids, Iowa
- Mark Pokorny, Clutier, Iowa
- George Schaefer, Kalona, Iowa
- Jerry Sindt, Holstein, Iowa
- Rob Stout, West Chester, Iowa
- Gary & Dave Nelson, Fort Dodge, Iowa
- Kelly Tobin, New Market, Iowa

**Funding Partners:**

- State Soil Conservation Committee
- Iowa Department of Agriculture and Land Stewardship
- Leopold Center for Sustainable Agriculture
- NCRSARE grant
- Walton Family Foundation
- Iowa Learning Farms
- Practical Farmers of Iowa
- Iowa State University Extension and Outreach
- USDA-Agricultural Research Service, National Laboratory for Agriculture and the Environment
- USDA-Natural Resources Conservation Service
- Midwest Cover Crops Council

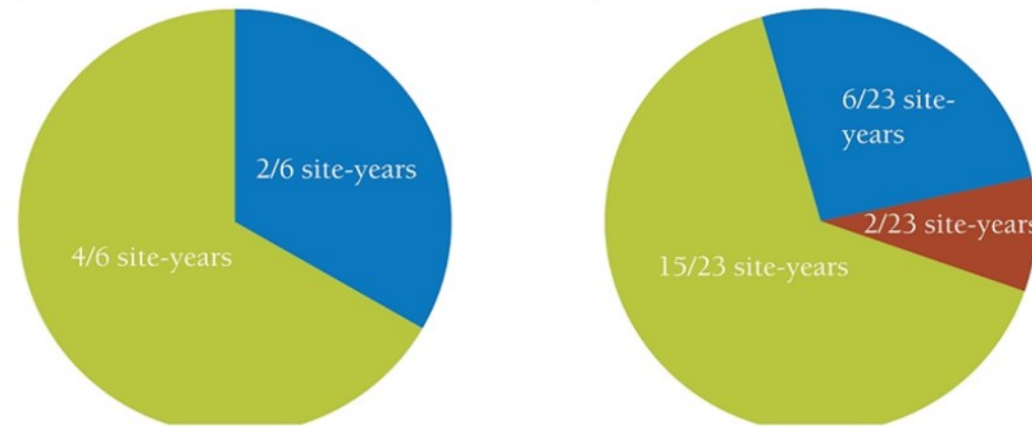




**10 Year Cover Crop Study cont...**

Figure 2. Trends with respect to cover crop effect on soybean yields at 6 site-years from 2009 to 2010 and 23 site-years from 2011 to 2018.

Soybean Yields 2009-2010    Soybean Yields 2011-2018



While we don't claim huge yield gains, it's becoming quite clear that when done consistently and is well managed, cover crops don't substantially impact yields. And there are substantial benefits beyond yield that help to offset the upfront investment in cover crops.

### So where do we find the financial upside?

While we cannot argue with the logic that cover crops take investment to plant in the fall, and terminate in the spring, reaching the no yield impact determination allows us to start at zero instead of in -the-hole when assessing return on investment.

Farmers with an inherent values-based desire to improve water quality and conserve soil will have an easier time deciding to utilize cover crops. The costs may be considered as a long-term investment in the environment that will bear fruit in many different ways. This isn't saying that they aren't concerned with the operational costs, just that they tend to roll it into the overall cost of doing business.

For those that are more focused on the exact economic impacts, we have seen a number of innovative farmers find ways such as grazing cover crops to offset expenses and claw-back value. In addition, we suggest a longer-term viewpoint. Soil erosion may take years, but with the loss of each fraction of an inch from the fertile topsoil, the production capacity of a field will go down. Prevention through cover crop planting can eliminate or vastly reduce these losses. In addition, the biomass and root structures of the cover crops have shown to improve soil drainage and improve the physical characteristics of the soil. Both can improve plant health and robustness, leading to improved production.

### Why does Biomass Matter?

Biomass, or the plant material above the soil, from cover crops serves several important functions. Biomass helps retain topsoil by shielding it from wind and rain impacts. The biomass also draws

Cont. on Page 7



### Another Record Year for Conservation

By Kurt Simon, State Conservationist



#### Another Record Year for Conservation

For the second consecutive year, Iowa farmers and landowners substantially stepped up their commitment to conservation through Farm Bill programs. In fiscal year 2018, USDA's Natural Resources Conservation Service (NRCS) obligated more than \$63 million to Iowa farmers and landowners, a 35 percent increase from FY 2017.

Last year, Iowa farmers received \$46.4 million in USDA assistance to implement conservation practices on their land through Farm Bill programs administered by NRCS. This was a 20 percent, or \$10 million, increase.

These financial investments help support ag community economies because more dollars are spent at local coops, paid to contractors and invested in fencing, trees and seed. But more importantly it also reflects the growing investment in private lands conservation by Iowa's farmers and landowners.

More than 450,000 acres, an area the size of Webster County, will be treated by Iowa landowners and farmers through FY 2018 Farm Bill contracts. To put this in perspective, this area is equal to all the cropland acres in Connecticut, Massachusetts and New Hampshire combined.

#### Record-Setting Year for EQIP

Through EQIP, NRCS obligated a record \$30 million through 1,414 contracts. Nearly one-third of Iowa's EQIP funding went to grassland-based practices such as watering facilities, fence, and pipeline to support livestock grazing systems. In July, NRCS announced special EQIP funding to support livestock grazing systems in drought-stricken areas of southeast Iowa. Through the special funding, livestock producers signed 362 EQIP contracts totaling more than \$3.6 million that will treat natural resource concerns on about 38,800 pasture acres.

This funding came at a crucial time for southern Iowa livestock producers. Ponds were drying up and grazing conditions were worsening after consecutive years of low rainfall in that part of the state. We felt if we could provide extra assistance for water well access and rotational grazing, it would help to improve forages and natural resource issues.

#### Expanding Conservation Assistance

According to the 2017 Ag Census, there are about 88,000 farmers in this state. That is about 300 farmers for each NRCS field office staff person. Even with 100 field offices across the state, and our team of dedicated conservation professionals, we know we can't fully support conservation efforts with NRCS staff alone. To help bridge this gap, Iowa NRCS annually invests in the Iowa Partners for Conservation (IPC) Awards to encourage collaboration in addressing some of Iowa's most pressing natural resource concerns. NRCS identifies potential projects for leveraging NRCS and partner resources to build conservation technical capacity to develop and implement effective project outcomes. This year up to \$5 million will be awarded to conservation partners through IPC. Projects may be farm-based, multicounty, small watershed, or Statewide in scope. Collaborative projects that provide on-the ground support for Iowa NRCS Field Offices are highly encouraged.

#### A New Farm Bill

After many months of hard work, Congress passed a new Farm Bill which was signed by President Trump on December 20, 2018. According to USDA Secretary, Sonny Purdue, this Farm Bill is "more evolutionary, rather than revolutionary." It bolsters farm safety net programs, protects federal crop insurance, and maintains strong rural development and research initiatives.

As with all new Farm Bills, there will be much more info in the weeks and months to come as rules are developed and programs are rolled out. We look forward to working together with Iowa farmers and conservation partners as we strive towards another record breaking year in 2019.



## Ten-year cover crop study challenges negative yield perceptions

By Elizabeth Juchems, Iowa Learning Farms

This is the only study of its kind in the Midwest that has spanned 10 years and includes working farmers and their farms.

Farmers and researchers seem to hold the strongest opinions about cover crops – and these opinions are not always the same. Back in 2008 before anyone was really talking about cover crops, Iowa Learning Farms (ILF) and Practical Farmers of Iowa (PFI) got together to undertake a long-term on-farm field research study to help understand the impacts of planting cover crops on soil health, yields and nutrient/soil leaching. At the end of the 2018 harvest season, the team tabulated the results of the unprecedented ten-year field-scale study.

The PFI project lead, Stefan Gailans, noted that research studies such as this are often designed and conducted in response to requests and questions from working farmers looking to improve or change how they operate. The goal of this project is to address the question, “How do cover crops affect cash crop yields?”

This is the only study of its kind in the Midwest that has spanned 10 years and includes working farmers and their farms, not research plots under the close supervision of researchers and scientists. One challenge for this kind of study is that these farms are run by real people making real-life decisions every day and every year. Operating a farm business sometimes leads to actions and decisions that are not what the researchers would prefer, but sometimes lead to learning by all parties.

Working with farmer-partners in conducting research at field scale, lends weight to the outcomes reported. Farm operators do read studies and do look for anything that will give them a performance edge. But, many also like to share tips and tricks with each other, and experiment on their own. And while those in the study complied with the strict guidelines for the test strips, once they started seeing the benefits of the cover crops on a small scale, most converted some or all of their fields to cover crops.

These farmer-partners were not content to only participate in the research project, they have also become some of the strongest thought leaders on cover crop implementation, traveling all over the state to talk at field days and conferences, as well as hosting field days. Both ILF and PFI take the farmer-to-farmer approach to outreach and education. Farmers like to learn from farmers who cooperate in studies, preferring to learn from the early adopters’ mistakes to ensure success. This is indicative of the trust farmers have in peers, and the broad-based desire to share knowledge and learn from each other.

The group of cooperating farmers has varied over the study term, comprising 12 operating farms in Iowa, with three completing their 10th year in 2018, and two additional farms looking to complete 10 years in the 2019 growing season. Taken as a whole, the data collected covers 68 site-years with cereal rye cover crops planted before both corn and soybean cash crops.

Continued on Page 5



### 10 Year Cover Crop Study cont...

## Study Structure

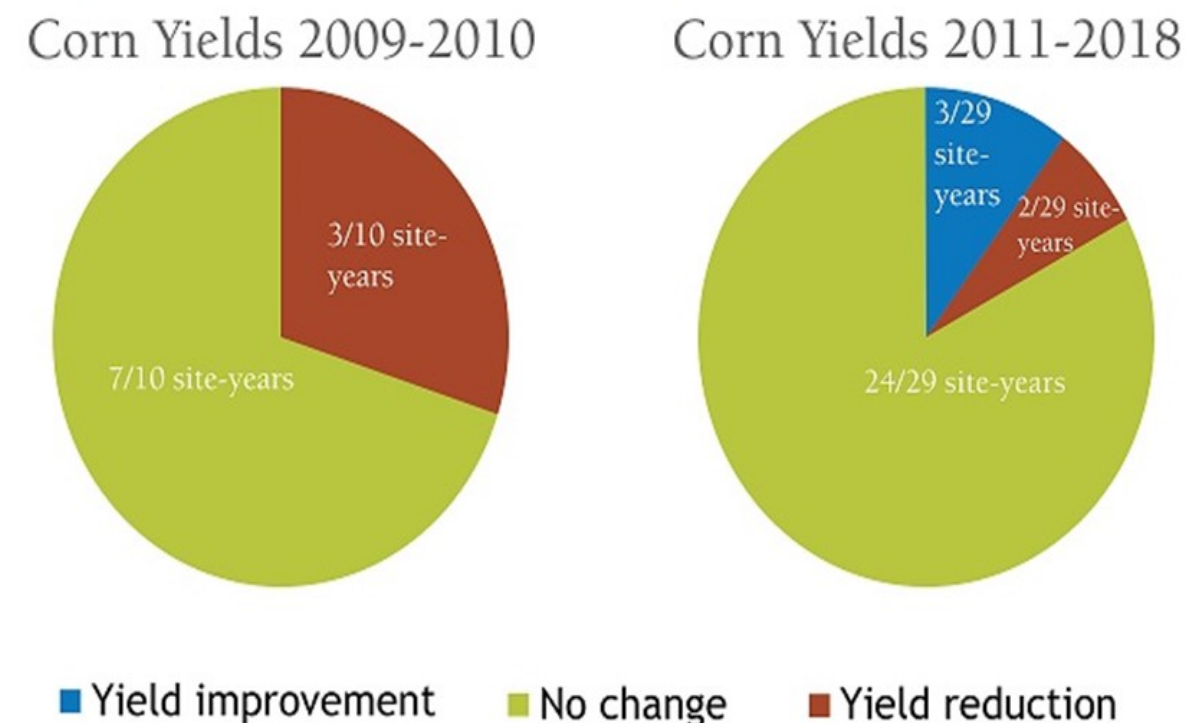
All sites are operated with corn-soybean rotation, with the majority utilizing a no-tillage management system. Farmer-partners maintained replicated strips running the entire length of a field for the duration of the study. Each replication has one strip with cover crops and one without cover crops. The adjacency of the strips provides a strong correlation of the results, with similar soil, drainage, and topography down the length of the field.

Cover crop strips are seeded with cereal rye either by drill or airplane with rates ranging from 56-60 lbs/acre. Cover crops are typically terminated with herbicide between seven and 10 days before cash crop planting in the spring. Throughout the study term, farmers have adjusted planter settings and seeding rates to fine-tune the process based on experience. In addition, the period between termination of the cover crop and planting of cash crops has been lengthened to prevent unwanted impacts on cash crop yields.

## The number one negative perception we hear: Cover crops reduce yield.

Since 2008, cooperators in the study have reported that in 61 of 68 site-years properly managed cover crops had little to no negative effects on corn and soybean yield, and there were improvements in soybean yield in eight site-years and corn yield in three site-years.

Figure 1. Trends with respect to cover crop effect on corn yields at 10 site-years from 2009 to 2010 and 29 site-years from 2011 to 2018.



Cont. on Page 6...