



2021 Summary Report  
**Iowa Learning Farms**  
**Virtual and In-Person Field Days**

## **2021 Iowa Learning Farms Virtual Field Days**

Iowa Learning Farms continues to build a Culture of Conservation as we bring together farmers, landowners, agribusiness professionals, researchers, and state and federal agency partners. Based on the success of the 2020 virtual field days, Iowa Learning Farms continued to offer virtual field days in order to stay connected while in-person events restarted in the fall.

Virtual field days were one-hour events hosted in Zoom that featured a video from a field site and a live question and answer session with the presenters. An Iowa Learning Farms staff member hosted the event, providing background on Iowa Learning Farms and the virtual field day topic, and relaying questions from the Zoom chat to the presenters. This format allowed attendees to see the field site and practices discussed during the recorded video, and to ask specific questions after viewing the recording. The virtual format also allowed us to show multiple field sites during one virtual field day, which may have been difficult or impossible to do at an in-person field day, due to the distance between them and accessibility to groups. The virtual field days were recorded and uploaded to YouTube following the event.

Virtual field days were evaluated using a follow-up Qualtrics survey after each event, which combined elements of the demographic cards and follow-up mailed evaluations that we used for traditional in-person field days. Evaluations were sent within 2-3 hours of the event, with a follow-up reminder sent a few days later.

Average live attendance for the 11 virtual field days held in 2021 was slightly higher at 78 attendees than the 19 events held in 2020 that averaged 74 live attendees. Even with fewer events, archival views were outstanding with 2,237 views of 2021 events and 2,367 new views of 2020 events for a total of 7,265 lifetime views of virtual field days as of January 4, 2022.

The 2021 individual virtual field day reports can be found on the following pages.

## 2021 Iowa Learning Farms Virtual Field Days

Virtual Field Day	Total Attendees	Archive Views <sup>1</sup>	Follow Up Evaluations Sent <sup>2</sup>	Returned <sup>3</sup>
January 14: Miscanthus: What is the value for Iowa farmers?	82	619	74	33
January 21: Returning Oxbows to Iowa's Landscape	124	630	111	49
February 4: Improving Water Quality and Quantity in the Karst Topography of the Upper Iowa Watershed	100	104	86	34
February 18: C-CHANGE - Utilizing Perennial Biomass and Prairie For Renewable Natural Gas	73	185	66	18
March 4: Water Quality and Quantity Improvements in the Clear Creek Watershed	73	152	66	25
March 18: Improving Water Quality Through Stream Stabilization in the East and West Nishnabotna Watersheds	80	118	70	23
April 15: Conservation Learning Labs - Exploring the Impact of Cover Crops on Water Quality	64	50	58	17
June 17: Improving Bioreactor Design and Performance	69	80	48	16
September 23: What's the Buzz? Exploring the Impact of Prairie Strips and Pollinators	63	76	57	19
October 21: Increasing Water Quality Enhancement Wetlands and Oxbows	56	174	45	16
December 16: Cover Crop Dos and Don'ts - Lessons Learned About Cover Crops, Corn Growth, Diseases and Pests	69	49	69	22
<b>Total</b>	<b>853</b>	<b>2,237</b>	<b>750</b>	<b>272</b>

<sup>1</sup> – Views of the archived virtual field day and related videos on YouTube, as of 1/4/2022

<sup>2</sup> – Qualtrics surveys were emailed to attendees following the live event, with reminder emails sent a few days later. Virtual field day presenters, ILF staff, and attendees who viewed less than 10 minutes of the virtual field day did not receive a survey.

<sup>3</sup> – This is a 36% response rate and is excellent for an online survey format.

# January 14: Miscanthus: What is the value for Iowa farmers?

## Event Summary & Demographics

### Speakers

- ✓ Emily Heaton (ISU)
- ✓ Steve Schomberg (Famer)
- ✓ Eric Rund (Farmer)

### Virtual Field Day Attendees\*

Total Attendees: 82  
Average age: 54  
States represented (besides Iowa): Alabama, Illinois, Virginia, Pennsylvania, Minnesota, North Carolina

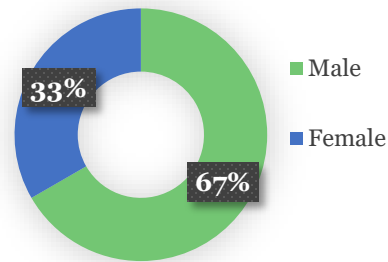
- Farmer/operator: 9
- Landowner: 15
- New to farming: 1
- Would like to farm: 1
- Government agency staff: 8
- Student/educator: 8
- Agriculture Business Professional: 6
- Other: 3

74 Evaluations Sent  
33 Evaluations Returned

4.5 / 5 = Overall quality of the virtual field day

4.6 / 5 = Effectiveness of the speaker(s)

4.6 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

I have heard that there are different clones of Miscanthus and some have better overwintering ability. If so, which clones would these be?

When was Miscanthus introduced to US?

Any concerns it can become invasive?

Is Miscanthus appropriate for land that is frequently flooded, such as beside a river or creek?

What does that come to if you take out the subsidies for corn and soybeans?

What would be Eric's corn and soybean yields be on his \$220/ac land?

Do you need storage space for the harvested Miscanthus before it is moved to market and how is it handled?

Do you lose any value by harvesting in March or April?

Does Miscanthus sequester CO<sub>2</sub>? If so, how much?

Is there a pellet fuel market developing anywhere?

What is the moisture content when you chop it?

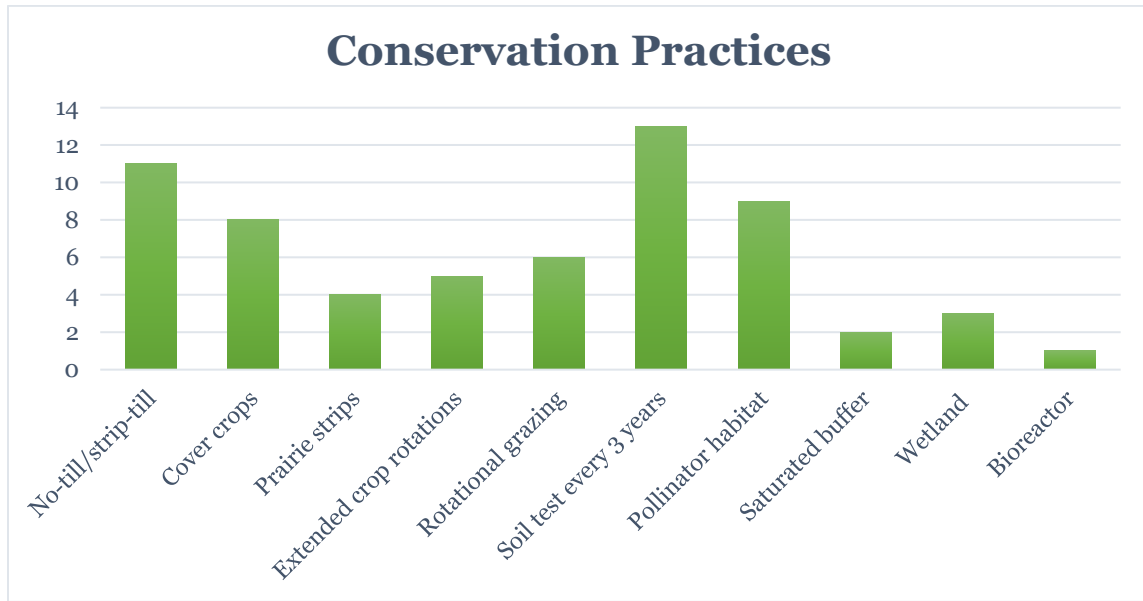
Would it be economical to bale the chopped material into big square bales for storage and handling purposes?

Does a late harvest vs an early harvest affect N that will be needed in the future? In terms of the nutrient movement back to the rhizome?

Would it be possible to get the contact information for the speakers?

## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	11	3	10	7
<i>Total acres</i>	3,294	1000	1,247	NA



Respondents reported a total of 2,454 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 15 years. Respondents reported a total of 1,129 cover crop acres.

# January 21: Returning Oxbows to Iowa's Landscape

## Event Summary & Demographics

### Speakers

- ✓ Karen Wilke (The Nature Conservancy)
- ✓ Jeff Pudenz (Landowner)
- ✓ Darrick Weissenfluh, (U.S. Fish and Wildlife Service)
- ✓ Dylan Osterhaus (Iowa State University)
- ✓ Sam Leberg (Iowa State University)

111 Evaluations Sent

49 Evaluations Returned

4.6 / 5 = Overall quality of the virtual field day

4.6 / 5 = Effectiveness of the speaker(s)

4.6 / 5 = Effectiveness of the technology used

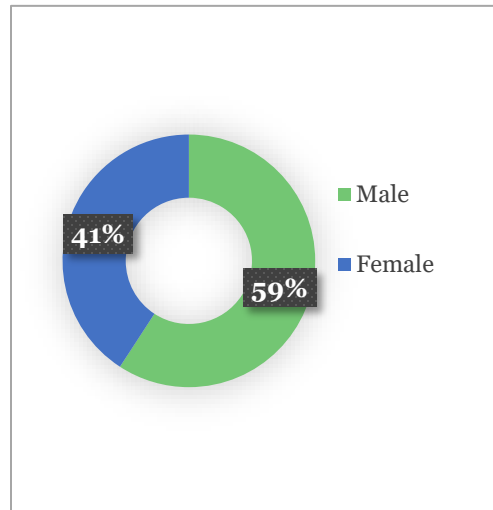
### Virtual Field Day Attendees\*

Total Attendees: 124

Average age: 47

States represented (besides Iowa): Minnesota, South Dakota, Kansas, Nebraska

- Farmer/operator: 4
- Landowner: 17
- New to farming: 0
- Would like to farm: 1
- Government agency staff: 21
- Student/educator: 4
- Agriculture Business Professional: 8
- Other: 9



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

How are manmade oxbows different from typical scrapes done for wetland restorations?

Is it mainly the fact that they have a surface connection to streams/rivers?

What is a good "normal pool" for Topeka Shiner that allows them to thrive while keeping predatory fish at bay?

What are the major sources of funding for these restorations?

Any special considerations for an oxbow created by creek straightening? And, does the Army Corps need to be involved if the oxbow is adjacent to a perennial stream?

After excavation, is the bottom of the oxbow typically still black dirt?

Does the amount of nitrate being fed into the oxbow have any negative effect on the Topeka Shiner? Or are they adapted to the higher level of nitrite/nitrate?

Any comparisons of the water quality with the nearby oxbows and these newly constructed oxbows?

Any idea how many restoration opportunities there are in Iowa?

Why is it so hard to get permits from the government if they are so good?

If the land is available, would it make more sense to restore the original meander vs just the oxbow?

Do you have a ballpark figure that contractors are charging to remove spoils off-site? Has anyone had luck selling large quantities of spoils?

Is there a minimum depth you shoot for to prevent takeover by aquatic invasive vegetative species such as narrowleaf cattail, etc.?

How do you use LIDAR to identify a potential site?

Have you been successful at vegetation establishment other than reed canary grass?

What sort of control structures are used to allow water in and out?

I have been informed that IDALS cannot offer cost-share unless the oxbow can filter tile water. If we have to connect tile to it, any advice?

Have you done many urban restorations?

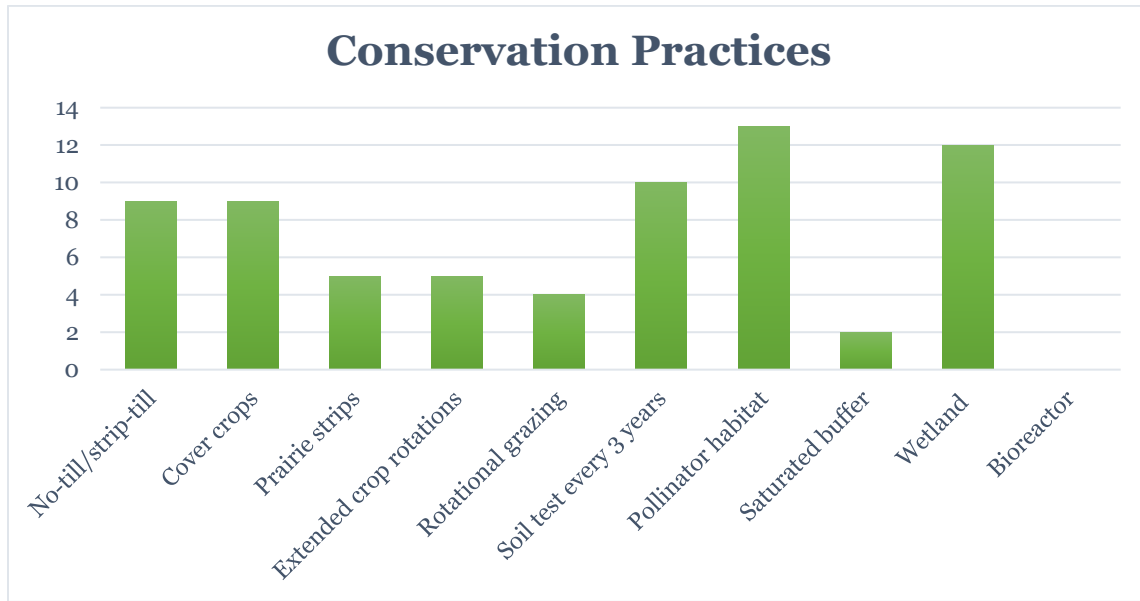
Are there instances in which there are regulations that prevent livestock from accessing the oxbows?

How often do you "need" flooding of the oxbow? Every 3-5 years? 10 years? More?

Dylan, have you documented common carp reproduction in these habitats?

## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	4	3	11	5
<i>Total acres</i>	1,961	1,346	1,052	NA



Respondents reported a total of 2,575 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 14 years. Respondents reported a total of 1,582 cover crop acres.

# February 4: Improving Water Quality and Quantity in the Karst Topography of the Upper Iowa Watershed

## Event Summary & Demographics

### Speakers

- ✓ Matt Frana (Upper Iowa Watershed Project)
- ✓ Tom and Maren Beard (Landowners)

### Virtual Field Day Attendees\*

Total Attendees: 100  
Average age: 46  
States represented (besides Iowa): Texas, Minnesota, Illinois

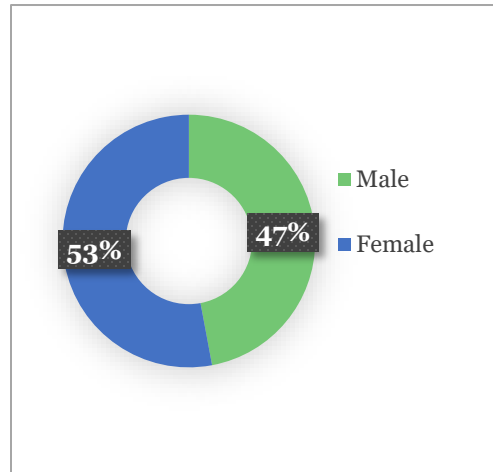
- Farmer/operator: 3
- Landowner: 7
- New to farming: 0
- Would like to farm: 0
- Government agency staff: 15
- Student/educator: 5
- Agriculture Business Professional: 0
- Other: 11

86 Evaluations Sent  
34 Evaluations Returned

4.5 / 5 = Overall quality of the virtual field day

4.3 / 5 = Effectiveness of the speaker(s)

4.4 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

When using a road as a dam, how successful are the ponds? The road doesn't have a packed clay core.

With the amount of sinkholes, which practice is more likely to work, ponds or wetlands? Which of these practices occur in the watershed?

Knowing the benefits of wetlands in reducing nutrients can you support wetlands as well as ponds?

How long has monitoring gone on in the watershed?

How many structures have been installed? What is the success-to-failure ratio?

With some of the sinkhole detection methods discussed, are they used for location planning of manure storage lagoons in the watershed too?

What considerations go into calculating how large the pond will be to avoid it from being overrun with a large rain? And how large are the sedimentary basins in relationship to the main pond?

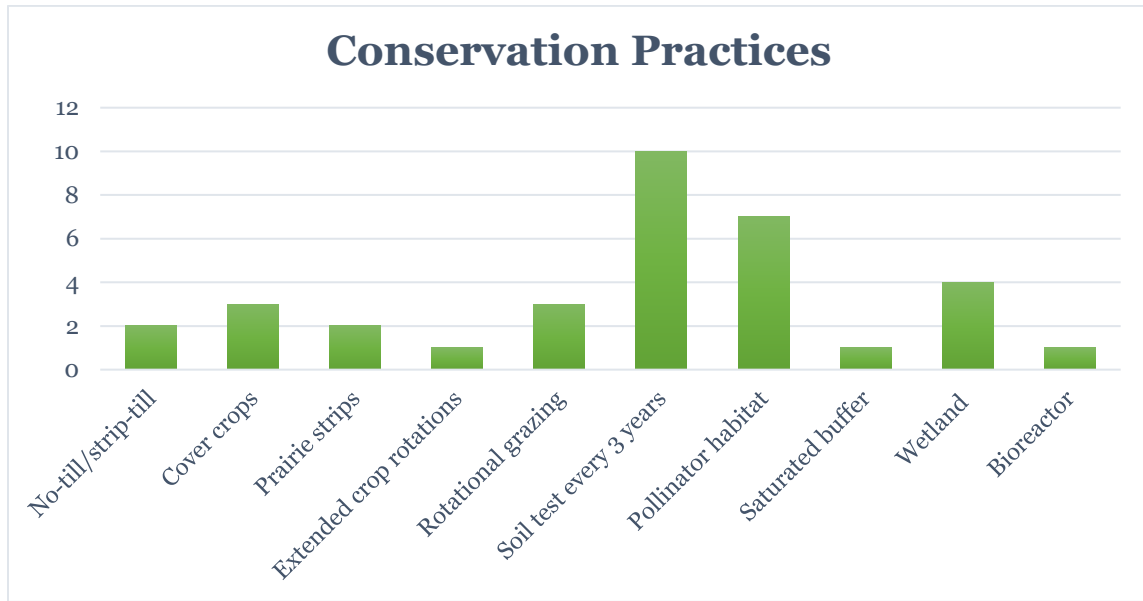
Any factors to consider to protect trout streams?

Are sink holes still being used as trash sites?



## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	3	2	3	2
<i>Total acres</i>	340	30	653	NA



Respondents reported a total of 420 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 20 years. Respondents reported a total of 120 cover crop acres.

# February 18: C-CHANGE - Utilizing Perennial Biomass and Prairie For Renewable Natural Gas

## Event Summary & Demographics

### Speakers

- ✓ Matt Helmers (Iowa Nutrient Research Center)
- ✓ Dan Ciolkosz (Penn State)

### Virtual Field Day Attendees\*

Total Attendees: 73  
Average age: 50  
States represented (besides Iowa): California, Nebraska, Minnesota

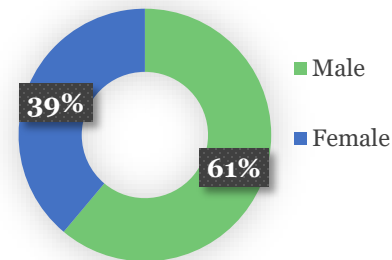
- Farmer/operator: 3
- Landowner: 5
- New to farming: 0
- Would like to farm: 1
- Government agency staff: 9
- Student/educator: 2
- Agriculture Business Professional: 2
- Other: 3

66 Evaluations Sent  
18 Evaluations Returned

4.5 / 5 = Overall quality of the virtual field day

4.6 / 5 = Effectiveness of the speaker(s)

4.4 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

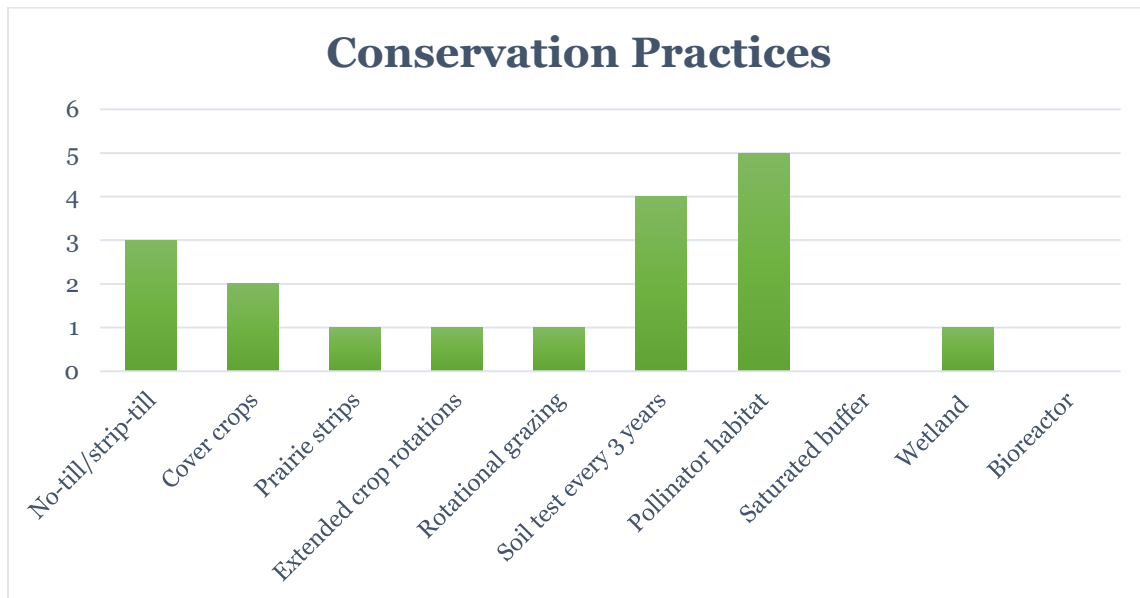
### Questions Asked

- Any modifications needed for processing hog manure vs dairy manure?
- Recommendations for how often prairie can be harvested without being out-competed by weeds?
- What is the biogas being used for at Penn State?
- Is there communication with USDA-NRCS on utilization of 10-year CRP prairie projects for biomass production, or are they against that?
- Do you have to shut the system down to get the remaining product(s) out of the fermenter or is it a continuous system?
- How challenging is it to convert the digester gas to transportable fuel for internal combustion engines?
- Do you see much digester end product marketed as dried, bagged fertilizer, or is most land spread?
- What kinds/amounts of credits should a grower get from the nutrients out of the digester?
- Any concerns about any unintended consequences in terms of toxins released from digesters?
- Can we use human 'manure' instead of only animal?
- Is the dairy farm using the byproducts of the digester for bedding?
- If the dairy uses sand bedding in their free stalls, has the sand accumulated in the digester?
- What are the barriers to adoption? Price tag is large — how long before it pays for itself?
- Any concerns to wildlife benefits when you harvest the prairie?
- What kind of exhaust is produced from the energy generation in a digester?
- Also barriers to prairie adoption in Iowa, and is prairie suited to PA?
- I came in late, but how were the prairies harvested, what equipment/machinery?
- How significant is the odor reduction?
- What size prairie is needed to supply a digester the size of what Penn State has?
- Prairies have grass and forbs typically. Is there a percentage of each you strive for in the final bypass product?
- What would the carbon balance be if you combined the prairie biomass with the digester?
- So, what environmental problem are we solving here? The need to get marginal land out of row crops? The need to do something with all our manure?
- Could the prairie grasses be used as bedding, then fed into the digester to give a bigger "bang for the buck"?
- Is anyone using Miscanthus as a feedstock for digestion?
- Can Dan talk about more specifically about USDA grants that can help fund digester construction?

From a greenhouse gas limiting perspective, how do these systems compare to just diversifying our rotations, getting livestock out of confinement, and reducing fossil fuel inputs into the ag system?  
 How scalable is the digester technology? How small is too small, how big is too big?  
 What can go wrong? We know we have had some failures with digesters in Iowa. What are the downsides?  
 Any problems or concerns with prairie establishment?

*Attendees' Farming and Conservation Practices*

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	3	1	3	3
<i>Total acres</i>	1,480	580	1,117	NA



Respondents reported a total of 417 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 7 years. Respondents reported a total of 300 cover crop acres.

# March 4: Water Quality and Quantity Improvements in the Clear Creek Watershed

## Event Summary & Demographics

### Speakers

- ✓ John Rathbun (Clear Creek Watershed)
- ✓ Pat and Burne Sippy (Landowners)

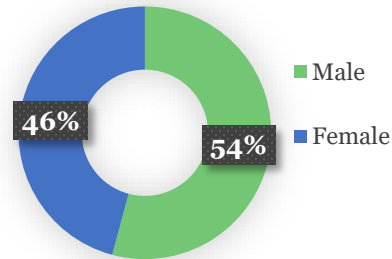
### Virtual Field Day Attendees\*

Total Attendees: 73  
 Average age: 53  
 States represented (besides Iowa): Illinois

- Farmer/operator: 4
- Landowner: 9
- New to farming: 0
- Would like to farm: 1
- Government agency staff: 7
- Student/educator: 2
- Agriculture Business Professional: 3
- Other: 6

66 Evaluations Sent  
 24 Evaluations Returned

4.2 / 5 = Overall quality of the virtual field day  
 4.3 / 5 = Effectiveness of the speaker(s)  
 4.0 / 5 = Effectiveness of the technology used



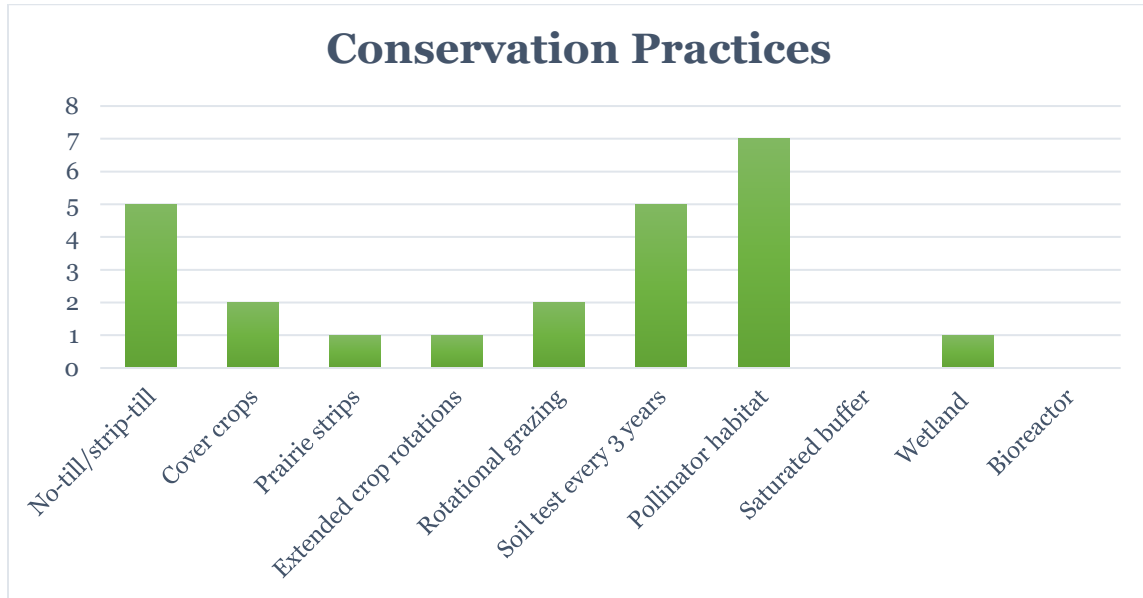
\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

- What are the barriers to expanding your watershed work?
- Are you successfully able to access state WQI money?
- What species are being planted in the fringe wetland?
- What kind of cost share is available to restore silted in ponds built in the 50s?
- What role have the downstream communities played in building your watershed community?
- How much, if any, of the costs are out-of-pocket for the Sippys?
- Besides IWA funding, has there been other funding sources involved with the implementation of practices?
- What have been some effective outreach/education strategies you have tried with clear creek watershed landowners?
- How did wildlife impact the construction timeline?
- Do the landowners sign maintenance agreements?
- What is the anticipated completion of the fringe wetland?
- What is happening with the trees being removed?
- Noticed some bee hives near the project, are you collecting honey?
- What happens with the excavated fill while creating these projects?
- What other projects are going in within the watershed?
- What have your neighbors been asking?
- Will there be assessment or evaluation of the effectiveness of these practices?
- How do the gravity water systems work?

## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	4	1	4	2
<i>Total acres</i>	1,283	600	8	NA



Respondents reported a total of 1,200 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 10 years. Respondents reported a total of 95 cover crop acres. Three planned to seed cover crops in fall 2021 (760 acres planned).

# March 18: Improving Water Quality Through Stream Stabilization in the East and West Nishnabotna Watersheds

## Event Summary & Demographics

### Speakers

- ✓ Cara Marker-Morgan (Golden Hills RC&D)
- ✓ Jake Miriovsky (JEO Consulting Group, Inc)

### Virtual Field Day Attendees\*

Total Attendees: 80  
Average age: 56  
States represented (besides Iowa): Indiana, Nebraska, Missouri, Wisconsin

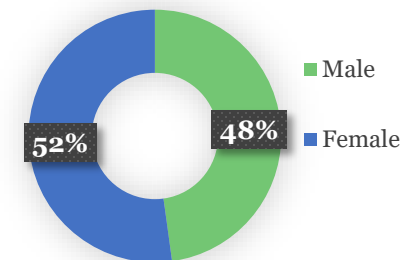
- Farmer/operator: 9
- Landowner: 10
- New to farming: 0
- Would like to farm: 1
- Government agency staff: 8
- Student/educator: 3
- Agriculture Business Professional: 4
- Other: 4

70 Evaluations Sent  
23 Evaluations Returned

4.3 / 5 = Overall quality of the virtual field day

4.3 / 5 = Effectiveness of the speaker(s)

3.7 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

Will these types of weirs work on smaller streams?

What was the flow of the river in 2019? Are gauges available to check flows?

One side is stabilized, what will happen to the other side now?

Does streambank stabilization just push the problem (high water volume / flow) downstream?

What permitting was required and who paid for it?

Why not just cut off the oxbow and change the entire flow of the river rather than keep the oxbow?

Who decides how much area should be stabilized and how to do so?

Did this program require associated conservation practices (buffers, no-till, etc.) to be implemented as part of the streambank stabilization project?

By narrowing the flow area of the water, wouldn't the water actually flow faster in the narrower channel and eat deeper into the center of the river channel?

What was the total cost of the two projects and what was the landowner share?

What issues other than obtaining permits was a struggle for this project?

What is the lifespan of the structure and how much volume can it hold?

What is the history of these types of weirs? How do we know this design will be effective and hold up to future "100 year" floods?

How wide is the buffer strip?

How long was the duration from initial meetings to construction?

Are the landowners adjacent to this bank stabilization project doing no-till and cover crops to keep erosion down?

Who is responsible for maintaining the structure? Are there any agreements between land owners, state or federal agency/partnerships?

Who would a landowner contact to assess bank stabilization?

Was there an estimated cost of inaction on the land?

Will this project help protect Hamburg in the future?

How many linear feet of bank were stabilized with these two combined projects?

Was it hard to convince the absentee landowner that the project was necessary since they hadn't seen the erosion in person?

Cost share on OM?

Do these projects require any post construction inspections to ensure they are performing as designed?

Are there any upper watershed projects in the plans?

Who will maintain the prairie grass on the buffer? The farmer?

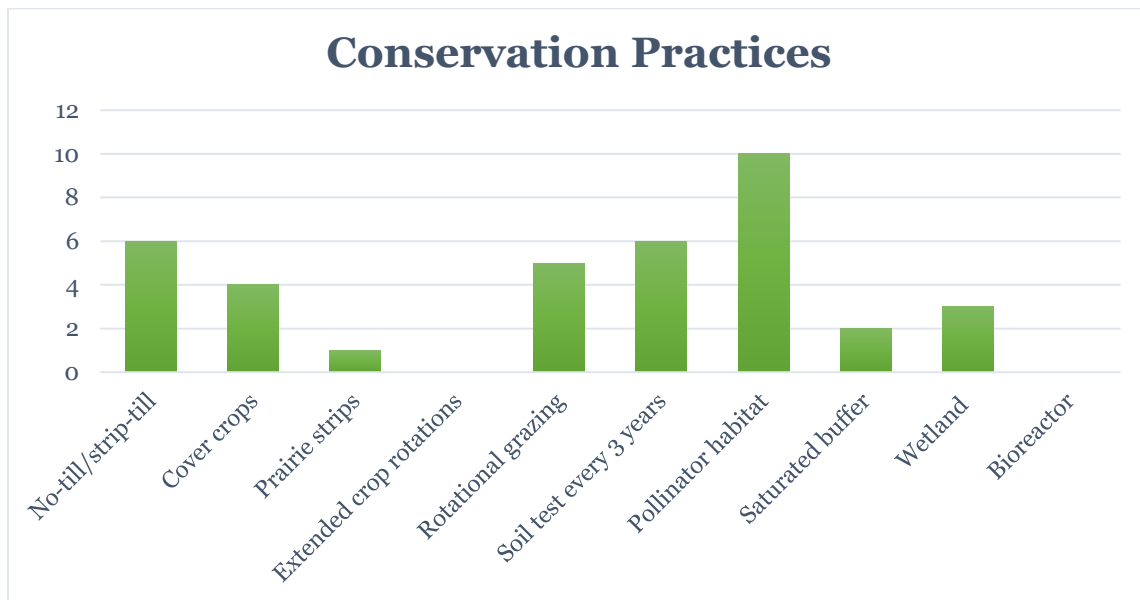
Why aren't the residents of Hamburg, whose homes were inundated by the 2019 flood, asked to locate on higher ground? Many have moved back into their homes?

Were they able to incorporate the landowners stockpiled concrete into the project?

Did the 2019 flood damage the progress that had been made to stabilize?

*Attendees' Farming and Conservation Practices*

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	9	3	5	2
<i>Total acres</i>	2,397	1,382	330	NA



Respondents reported a total of 1,865 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 15 years. Respondents reported a total of 725 cover crop acres. Five planned to seed cover crops in fall 2021 (600 acres planned).

# April 15: Conservation Learning Labs - Exploring the Impact of Cover Crops on Water Quality

## Event Summary & Demographics

### Speakers

- ✓ Matt Helmers (Iowa Nutrient Research Center)
- ✓ Mark Licht (ISU)

### Virtual Field Day Attendees\*

Total Attendees: 64  
Average age: 52  
States represented (besides Iowa): Illinois, Wisconsin

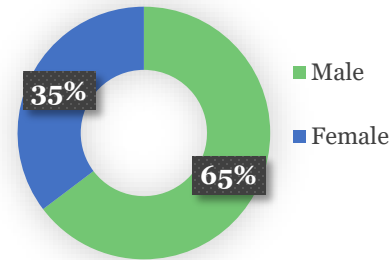
- Farmer/operator: 4
- Landowner: 7
- New to farming: 0
- Would like to farm: 0
- Government agency staff: 7
- Student/educator: 0
- Agriculture Business Professional: 3
- Other: 3

58 Evaluations Sent  
17 Evaluations Returned

4.3 / 5 = Overall quality of the virtual field day

4.4 / 5 = Effectiveness of the speaker(s)

4.5 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

Tips for terminating cover crops in colder weather, like we're seeing now?

What is the time or times of the water measurements during the growing season?

Are any soil health parameters being tracked at these sites, in addition to monitoring water quality?.

Were nutrient applications identical for control and treatment watersheds? If so, is it likely that in real world circumstances, you might reduce N application on fields with cover crops?

What research might be occurring in Iowa to capture nitrate reaching shallow aquifers as opposed to nitrate being intercepted by tile drains?

Is there a way to get a copy of the slides that Matt showed to look at  $\text{NO}_3\text{N}$  reduction?

What field practices would you stack with edge of field practices?

Could you assume in untilled soils, rooting would be shallower and not use or uptake less nitrate than under larger root masses in tilled soils?

How could the derecho affect the Story county results?

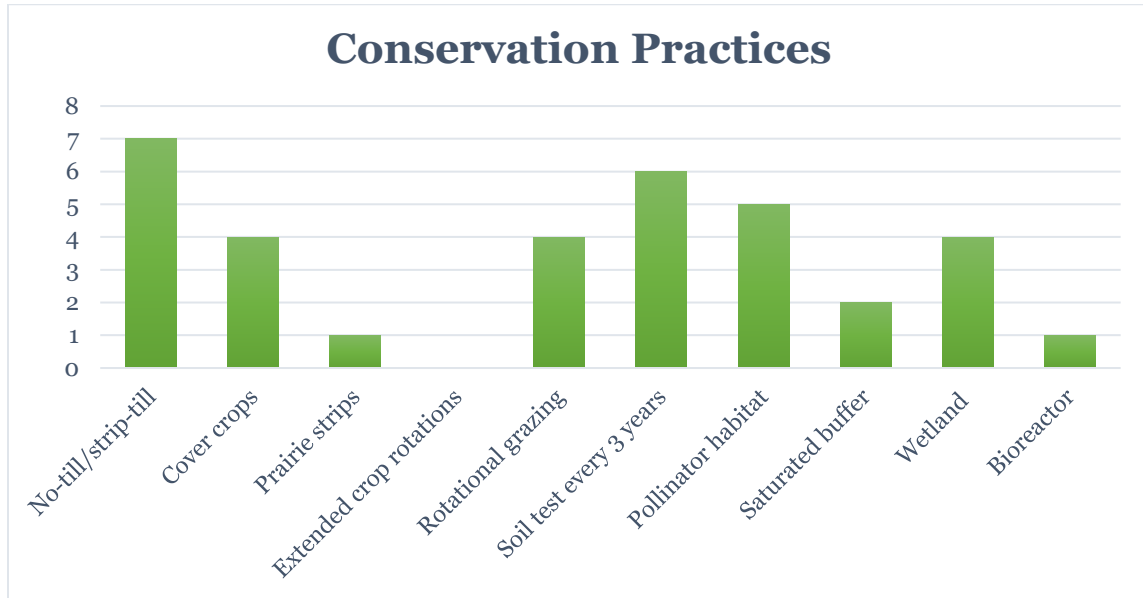
Do I go to an Iowa State football game this October or stay home and plant cover crops all day?

Is there a dis-economy of scale for cover crops when operations get significantly large (2,000+ acres)?



## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	6	5	6	2
<i>Total acres</i>	2,924	1,616	634	NA



Respondents reported a total of 2,517 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 21 years. Respondents reported a total of 774 cover crop acres. Four planned to seed cover crops in fall 2021 (1,260 acres planned).

# June 17: Improving Bioreactor Design and Performance

## Event Summary & Demographics

### Speakers

- ✓ Matt Helmers (Iowa Nutrient Research Center)
- ✓ Chris Hay (Iowa Soybean Association)

### Virtual Field Day Attendees\*

Total Attendees: 69  
Average age: 44  
States represented (besides Iowa): Illinois, Kansas, Wisconsin, South Carolina

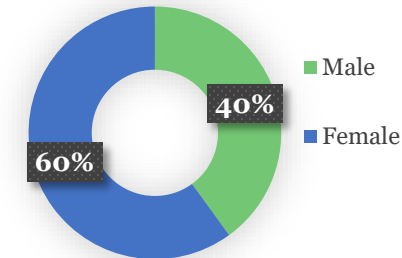
- Farmer/operator: 1
- Landowner: 1
- New to farming: 0
- Would like to farm: 1
- Government agency staff: 7
- Student/educator: 3
- Agriculture Business Professional: 2
- Other: 3

48 Evaluations Sent  
16 Evaluations Returned

4.3 / 5 = Overall quality of the virtual field day

4.4 / 5 = Effectiveness of the speaker(s)

4.5 / 5 = Effectiveness of the technology used



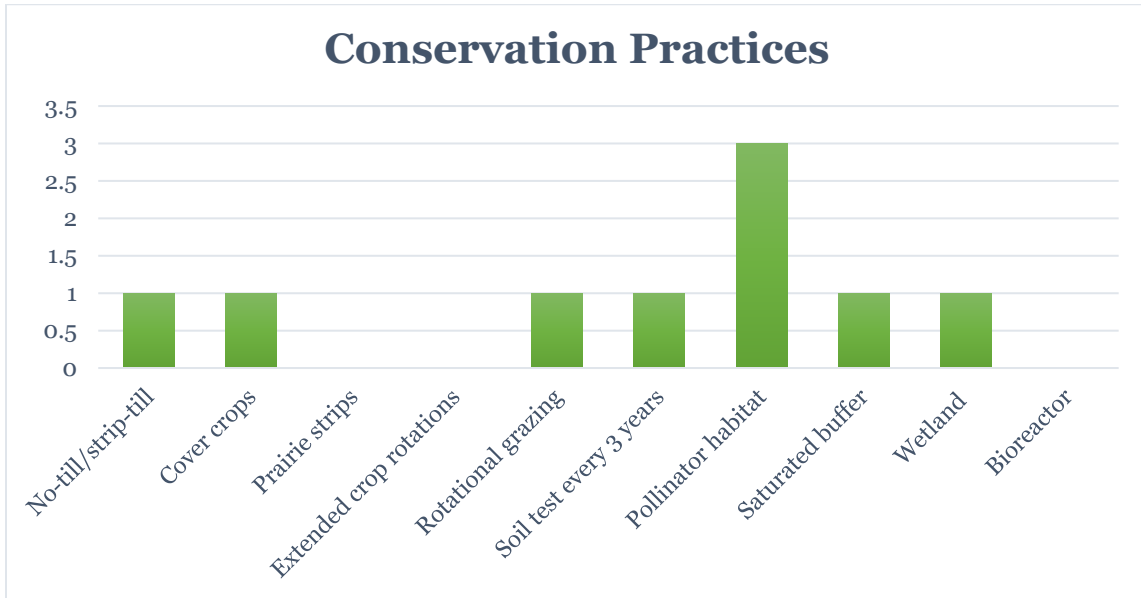
\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

- You said there's typically 1' of soil on the top—how deep would the layer of woodchips be?
- Do you farm over the top of the bioreactor?
- What does all this cost? Who pays for it?
- How was the blind inlet sized?
- How far is the blind inlet from the bioreactor?
- If it's aggregate to the surface, is it a blind or gravel inlet?
- Have you measured or estimated in situ bulk density of woodchips?
- Where and when were the cores taken?
- How long do the wood chips last?
- So, bioreactors only have a 10 year at best life before they need to be dug up and repaired? How much does it cost to do that? So how do the bioreactors compare to other edge of field practices that have more ecosystem services such as treatment wetlands and saturated buffers? In other words, are they worth the cost when there are other practices that offer more than water quality benefits?
- What would be optimal water retention time in a bioreactor?
- How do bioreactors work under low temperature conditions?
- What affects bioreactor woodchip degradation more, time spent dry or time in water?
- How much of a risk is methyl mercury? And how can we reduce it?
- What do they do with the old woodchips that are excavated out?
- What is the drainage area for a typical bioreactor?
- How many bioreactors are there in Iowa these days?
- If someone is interested in a bioreactor on their property, what does the timeline look like from start to finish, with design, installation, etc.?
- Is there an optimal time of year for the installation?

*Attendees' Farming and Conservation Practices*

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	1	1	1	0
<i>Total acres</i>	NA	NA	NA	NA



# September 23: What's the Buzz? Exploring the Impact of Prairie Strips and Pollinators

## Event Summary & Demographics

### Speakers

- ✓ Kate Borchardt (ISU)

### Virtual Field Day Attendees\*

Total Attendees: 64  
Average age: 45  
States represented (besides Iowa): California, Illinois, Indiana, Nebraska, Wisconsin

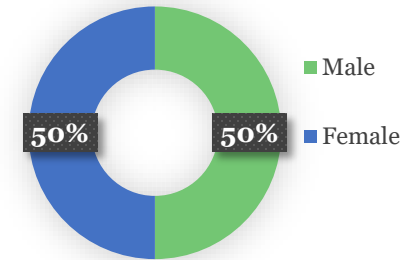
- Farmer/operator: 3
- Landowner: 4
- New to farming: 2
- Would like to farm: 1
- Government agency staff: 9
- Student/educator: 2
- Agriculture Business Professional: 1
- Other: 4

57 Evaluations Sent  
19 Evaluations Returned

4.7 / 5 = Overall quality of the virtual field day

4.7 / 5 = Effectiveness of the speaker(s)

4.5 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

How do you evaluate that a bee is stressed, or determine how stressed it is?

How does drought affect apiary production?

Was the corn on either side of the prairie strips sprayed for insects this summer?

Are neonic coated seeds used in the field around the STRIPS? Does this seem to impact the bee colony?

In Minnesota, the University of Minnesota has a bumblebee ID class and a citizen science survey program. Does Iowa State do that? I was our southern Iowa family farm manager for many years, now owned by my nephew, and I would love to survey for bumblebees there also to add to information about how they are doing in some areas. I'll tell my nephew about the prairie strip CRP program.

What measures are in place to prevent pesticide drift to the prairie strips? How do you make sure that the prairie strips aren't acting as a sink for pollinators that then become affected by pesticides?

Have you found any rare, threatened/ endangered, or specialist bee species in the strips? Or are most of the bees you're finding more common generalists?

Has there been research on cool season grasses and legumes in strips? Clover or alfalfa

Do you have a link or resource you can share with the results of the neonic study you referenced?

Could insecticides in pollen/nectar have chemically broken down before you tested for their presence?

Are there any plans to have some recommended IPM strategies that go along with prairie strips management?

That sounds interesting that you haven't found any effects of pesticide drift yet, but it is somewhat contrary to other studies and management recommendations that do recommend IPM strategies for best management of native bee or honeybee populations.

Roadside plantings - seem to be very helpful for monarch butterflies. Do we have any knowledge of the benefits of roadside plantings to honey bees and/or native bees, also?

I should clarify from the above question... IPM that goes along with pesticide management of the pests. Any plans to make recommendations that limit possible pesticide drift?

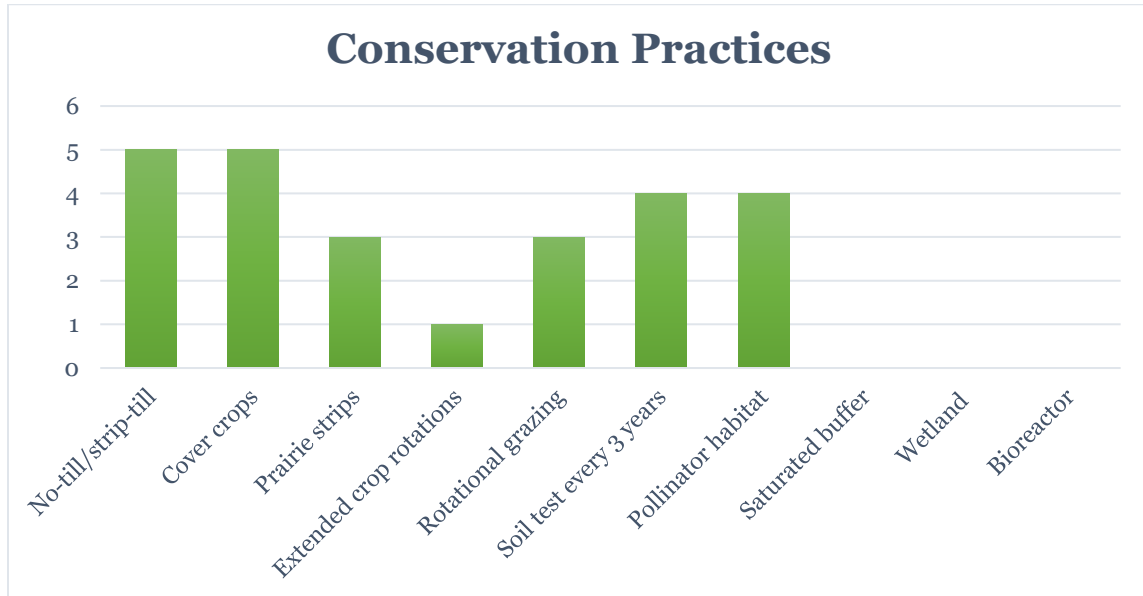
How old were the strips/how long does it take native bees to move in?

How do the plant communities differ between strips? Are they all seeded with the same mix, or is it site specific?

What's the best resource for more info on how to implement prairie strips, and which ag fields would be the best fit?

## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	4	2	4	3
<i>Total acres</i>	1,452	650	3,760	NA



Respondents reported a total of 4,680 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 9 years. Respondents reported a total of 740 cover crop acres. Five planned to seed cover crops in fall 2021 (837 acres planned).

# October 21: Increased Water Quality Enhancement Wetlands and Oxbows = Improved Water Quality and More Wildlife Virtual Field Day

## Event Summary & Demographics

### Speakers

- ✓ Matt Helmers (Iowa Nutrient Research Center)
- ✓ Kay Stefanik (Iowa Nutrient Research Center)
- ✓ Adam Janke (ISU)
- ✓ Casey Judge (Iowa Department of Agriculture and Land Stewardship)

45 Evaluations Sent  
16 Evaluations Returned

4.6 / 5 = Overall quality of the virtual field day

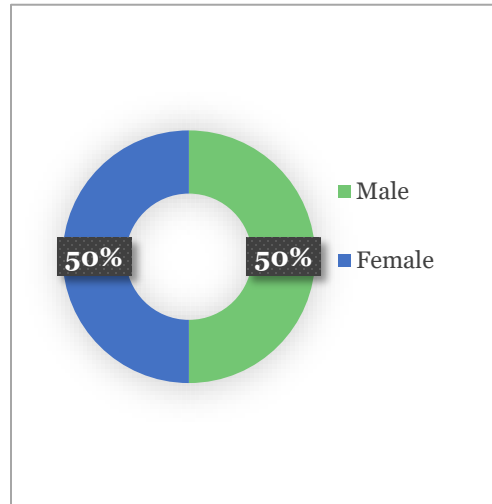
4.6 / 5 = Effectiveness of the speaker(s)

4.4 / 5 = Effectiveness of the technology used

### Virtual Field Day Attendees\*

Total Attendees: 56  
Average age: 50  
States represented (besides Iowa): Illinois, Kansas, Michigan, Minnesota, Missouri

- Farmer/operator: 2
- Landowner: 3
- New to farming: 0
- Would like to farm: 0
- Government agency staff: 5
- Student/educator: 1
- Agriculture Business Professional: 3
- Other: 5



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

Do the oxbows fill up quickly with soil during flood events?

What is the effectiveness of the oxbows at reducing nitrate?

Are all oxbows suitable to be engineered to enhance their water quality benefit?

How far must the land be from the river course to create an oxbow?

It's great that Iowa has added this to their nutrient strategy! Do you have a good count of how many "creditable" oxbows you have in the state?

Why was there so much green vegetation on the water surface?

What is the role of vegetation in nitrate removal?

After nitrate has been removed from the wetland and cleaner water flows downstream, what happens to the nitrate left upstream?

How many of these wetlands will we need to make a difference in terms of water quality?

The monitoring being done on Iowa's wetlands is wonderful. Thank you all for supporting those efforts. Are there state-level goals for implementation of wetlands?

Is there funding for oxbow restoration?

If one is not in the 37 counties for CREP, what options are available and where should they go for help?

Is there government funding to implement an oxbow?

What benefits do priority watersheds receive?

Has anybody thought about using floating vegetation mats used in urban stormwater ponds for P removal, especially dissolved P?

Where can someone find the list of creatures of conservation concern?

Are there things that landowners can do to promote certain wetland creatures?

Are there issues with beavers in constructed wetlands?

Can we work with the beavers?

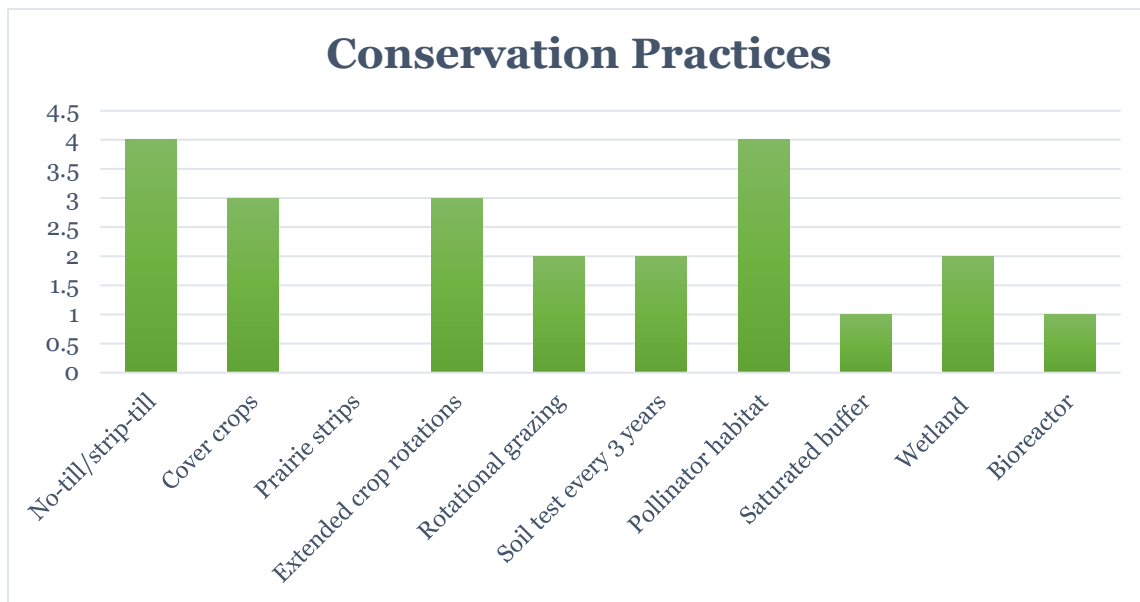
Should there be design considerations for the constructed wetlands to include ephemeral wetland areas to help support diverse wetland wildlife?

Are the habitat needs being factored into wetland design? How do these needs "compare" to other goals like water quality?

When CREP type wetlands were first introduced, wildlife folks weren't so happy about them. Have the wildlife specialist community learned to embrace these wetlands more fully?

*Attendees' Farming and Conservation Practices*

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	1	1	4	2
<i>Total acres</i>	1,700	NA	1,880	NA



Respondents reported a total of 310 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 12 years. Respondents reported a total of 150 cover crop acres. Three seeded cover crops in fall 2021 (220 acres).

# December 16: Cover Crop Dos and Don'ts - Lessons Learned About Cover Crops, Corn Growth, Diseases and Pests

## Event Summary & Demographics

### Speakers

- ✓ Mark Licht (ISU)
- ✓ Alison Robertson (ISU)

### Virtual Field Day Attendees\*

Total Attendees: 69  
Average age: 50  
States represented (besides Iowa): Kansas, Minnesota, Missouri, South Dakota, Wisconsin, Alberta Canada

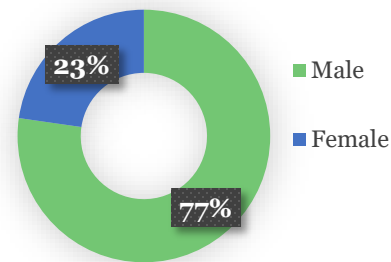
- Farmer/operator: 7
- Landowner: 8
- New to farming: 3
- Would like to farm: 2
- Government agency staff: 4
- Student/educator: 0
- Agriculture Business Professional: 6
- Other: 4

69 Evaluations Sent  
22 Evaluations Returned

4.2 / 5 = Overall quality of the virtual field day

4.4 / 5 = Effectiveness of the speaker(s)

4.0 / 5 = Effectiveness of the technology used



\*Attendees could select multiple categories to describe themselves when completing the evaluation.

### Questions Asked

Where are the other trials in the other 15 states?

Could you please put the project website in the chat?

Ahead of corn, would there be an advantage to plant a clover or other legume as the cover crop to lessen the pathogen effect of cereal rye?

Any suggested resources to learn more on the balance between pests to predator insect populations in field crops?

Other than the environmental and soil health benefits from cover crops, are there any economic benefits to the landowner from planting cover crops? Have we done any studies on the economics of it? Return on Investment?

Do either Alison or Mark have trials or thoughts on seeding cereal rye directly after soybean harvest, followed by a strip till pass with fertilizer about 5-6 weeks after harvest? Would the strip till be beneficial in keeping rye out of the furrow and lessen problems with corn planting green?

Why don't you switch to Winter Wheat... much less Allelopathy?

Has N rate been studied for corn following a rye cover crop at different biomass levels?

What was the seeding rate and date?

Is 60lb a typical seeding rate?

If planting cover crops for spring cover, could we get enough growth from clover or camelina?

Can you share the pests results?

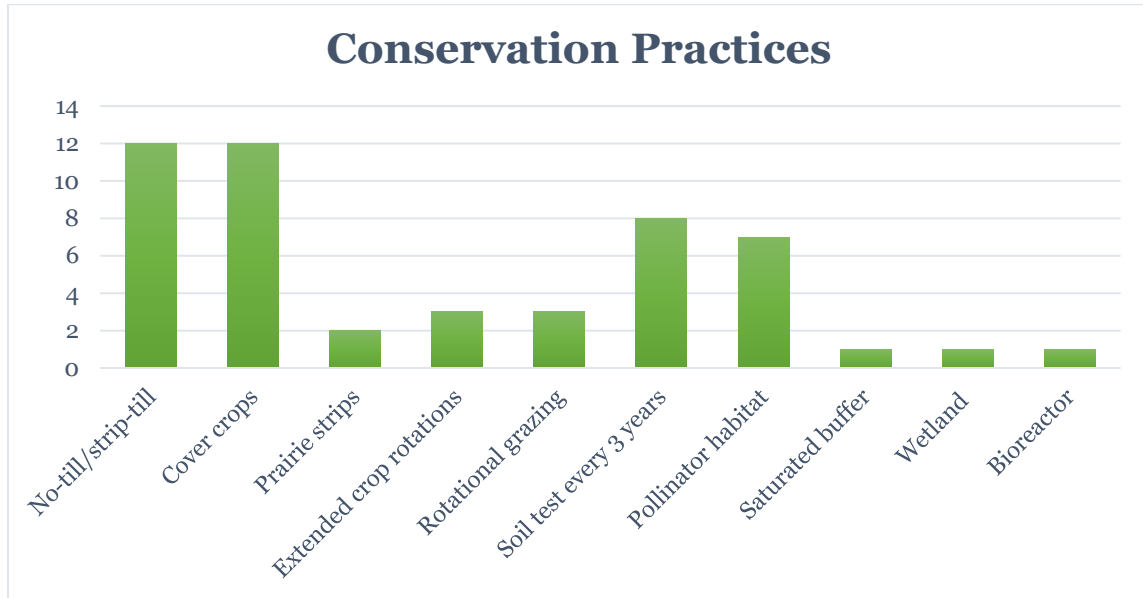
Didn't trials show that different rates create similar biomass?

Overall nutrient management recommendations for using cereal rye with corn?



## Attendees' Farming and Conservation Practices

	<i>Actively Farming</i>	<i>Rent Tillable Acres from a Landlord</i>	<i>Lease Tillable Acres to a Tenant</i>	<i>Conservation Measures Built into Leases</i>
<i>Number of respondents</i>	9	5	4	4
<i>Total acres</i>	3,163	1,955	267	NA



Respondents reported a total of 48,180 no-till/strip-till acres on which they have been using no-till/strip-till for an average of 8 years. Respondents reported a total of 7,389 cover crop acres. Ten seeded cover crops in fall 2021 (2,418 acres).

# 2021 Iowa Learning Farms In-Person Field Days

In September, Iowa Learning Farms returned to holding in-person events and hosted seven farmer-focused field days. Through a multi-faceted approach to evaluation, Iowa Learning Farms collects information at each farmer-focused event.

This report summarizes each event, providing a snapshot of participant questions, quality of the event, a summary of participant demographic data and the status of conservation practice planning and implementation by participants. We hope that this report will help readers gain a better understanding about each event, and the associated participants of those events.

Evaluation of Iowa Learning Farms outreach events occurs in five stages:

- **Event Evaluations** for every event in which ILF team members participated. These forms, completed by ILF team members, help us to understand the audience's level of engagement, document the questions that were asked by participants and help us to improve future outreach activities.
- **Comment Cards** filled out by all participants at ILF-sponsored field days and workshops in order to gain a better understanding of who they are and why they are there.
- **Demographic Cards** filled out by all participants at ILF-sponsored field days and workshops. Demographic cards provide a snapshot of attendees in terms of their age, gender, role in agriculture and information about their farming operation. The cards also capture preferences on timing and topic of future outreach events.
- **Follow-up Evaluations** mailed to participants at ILF-sponsored field days and workshops that happened before November 10. These questionnaires were sent within two weeks following the event. The questions focused on the clarity and accessibility of the information received and inquired whether participants planned to make any changes in their land management as a result of the event. The individual field day evaluation results are summarized in this report.
- **January Evaluations** mailed to only farmers/operators and landowners at all ILF-sponsored field days and workshops. These questionnaires were sent in late December 2021 and the results are also summarized in this report.

## 2021 Iowa Learning Farms In-Person Field Days

Field Day/Workshop Description	Total Attendees	Comment Cards <sup>1</sup>	Demo Cards <sup>2</sup>	Follow-Up Evaluations Returned <sup>3</sup>	January Evaluations Returned <sup>4</sup>
September 8: Cover Crop, Nutrient Management and Wetland Field Day, Gilmore City	32	22	23	12	6
September 14: Cover Crop Field Day, Grinnell	53	42	43	25	12
September 29: Buffalo Creek Wildlife Management Area Wetland Field Day, Coggon	27	17	18	6	5
November 10: Oxbow Field Day, Lu Verne	26	19	20	Not sent	3
November 11: Cover Crop Field Day, Nashua	30	20	20	Not sent	14
November 16: Cover Crop Field Day, Kanawha	22	11	11	Not sent	4
November 17: Cover Crop and Saturated Buffer Field Day, Walcott	42	34	32	Not sent	11
<b>Total</b>	<b>232</b>	<b>165</b>	<b>167</b>	<b>43</b>	<b>55</b>

1 - Comment cards were filled out by all participants (per household) at ILF-sponsored field days and workshops in order to gain a better understanding of who they are and why they are there.

2 - Demographic cards were filled out by all participants at ILF-sponsored field days and workshops. Demographic cards provide a snapshot of attendees in terms of their age, gender, role in agriculture and information about their farming operation.

3 - Follow-up evaluations were mailed to participants at ILF-sponsored field days and workshops that happened before November 10. Questions focused on the clarity and accessibility of the information received, helpfulness of materials provided and asked what conservation practices attendees were currently using. Overall response rate was 53%.

4 - January evaluations were mailed to only farmers and landowners attending ILF-sponsored field days and workshops. These questionnaires were sent in late December 2021. Overall response rate was 52%.

## September 8 | 10:30am-1:00pm

### Cover Crop, Nutrient Management and Wetland Field Day | Gilmore City

#### Event Summary

#### Topics

- ✓ Cover crops
- ✓ Nutrient Management
- ✓ Water Quality Enhancement Wetlands

#### Speakers

- ✓ Emily Waring (ISU)
- ✓ Carl Pederson (ISU)
- ✓ Matt Helmers (ISU)
- ✓ Bill Crumpton (ISU)

#### Quality of Field Day

4.6 / 5 = Overall quality of field day/workshop

4.5 / 5 = Effectiveness of ISU presentation(s)

4.1 / 5 = Effectiveness of field portion

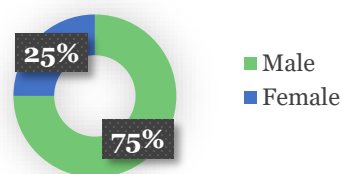
#### Description of Attendees

32 total attendees\*

- 6 farmers/operators
- 7 landowners
- 8 government agency staff
- 5 other (unspecified)

49 = average age of attendees

3 = number of attendees with livestock



\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count includes event presenters, organizers or other service providers.

#### Questions Asked

##### Emily:

When were the cover crops seeded?

So the beans hadn't turned yellow yet?

Was it all aerially applied?

At what rate were you seeding?

What percentage of the seed actually grew?

Are you dealing with any chemical carry-over?

Do you have a list of the chemicals used?

Do you have an idea of the costs of the different seed?

##### Carl:

Do you prefer to drill rye?

What is the earliest you have seeded?

##### Matt:

What is the latest date you can terminate rye without soybean yield loss?

What impact does relay cropping rye and soybeans have on organic matter?

##### Bill:

Did you seal the bottom of the wetland?

How deep is it?

What would the nitrate concentration on a grab sample from the wetland?

Are these sites able to remove phosphorus?

Is the original owner still involved with this property?

What is the future of this site?

Did they introduce the swans here?

On the DM lobe, if we took 8% of the land out of production for these, what is the reduction potential?

## September 8:

### Cover Crop, Nutrient Management and Wetland Field Day | Gilmore City

#### Responses to Two Week Follow-up Evaluation

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22 Evaluations Mailed  
12 Evaluations Returned  
4 Farmers responded, farming an average of 830 ac.

Helpfulness of take home materials  
▪ Research Report: 3.6 / 5

#### Attendees were asked to describe their current farming practices:

- 4 are actively farming and also rent land
- 4 lease land to a tenant
  - Total leased acres: 705
- 4 respondents have conservation measures built into their lease
- Conservation practices used on land owned/operated:
  - 4 no-till/strip-till
    - Total no-till/strip-till acres: 2,360
  - 3 use cover crops
    - Total cover crop acres: 1,680
  - 2 use pollinator habitat
  - 2 use prairie strips
  - 1 uses a bioreactor

## September 8:

### Cover Crop, Nutrient Management and Wetland Field Day | Gilmore City

#### Responses to Year-End Evaluation

---

11 Evaluations Mailed  
6 Evaluations Returned  
Farmers responded, farming an average of 1,348 ac.

#### When asked to describe the ways they integrated what they learned from the field day:

- 3 fall seeded cover crops in 2021 on 2,317 total cover crop acres (0 new acres)
- 4 discussed challenges/benefits of conservation practices with landowners/tenants
- 4 networked conservation ideas with other farmers or farmer clients
  - 2 successfully influenced one other farmer
  - 2 successfully influenced 2 or more farmers

# September 14 | 12:00-2:00pm Cover Crop Field Day | Grinnell

## Event Summary

### Topic

- ✓ Cover crops

### Speakers

- ✓ Rebecca Vittetoe (ISU)
- ✓ Roger Van Donselaar (Farmer)
- ✓ Mike Phillips (Farmer)
- ✓ Liz Ripley (ISU)

### Description of Attendees

53 total attendees\*

- 21 farmers/operators
- 14 landowners
- 4 government agency staff
- 9 other (unspecified)

57 = average age of attendees

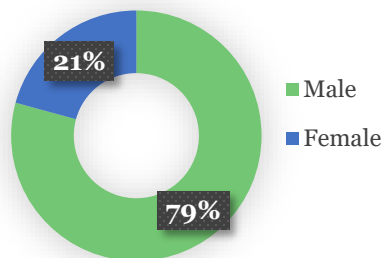
11 = number of attendees with livestock

### Quality of Field Day

4.0 / 5 = Overall quality of field day/workshop

4.0 / 5 = Effectiveness of ISU presentation(s)

4.4 / 5 = Effectiveness of farmer presentation(s)



\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count includes event presenters, organizers or other service providers.

### Questions Asked

#### **Rebecca:**

What are your herbicide concerns?

Can herbicide impact the cover crop establishment?

How deep is too deep for planting gasses?

Recommendations for perennial cover crop for an orchard?

If you flew on cover crops now and there is no rain for a month, will that seed still be out there to grow?

If we're dry again next year, is there concern with cover crops tying up moisture?

#### **Mike and Roger:**

How long have you been using no-till? Cover crops?

What weed suppression have you seen with rye?

Only one pass of herbicide? No pre-emerge?

Tips for putting nitrogen down into the rye ahead of corn?

Which is more important, no-till or cover crops?

#### **Liz:**

Impact of cover crops on biological activity?

Recommendations for cover crops in a garden?

What is frost seeding?

Can I take more than one copy of the manual?

## September 14

### Cover Crop Field Day | Grinnell

#### Responses to Two Week Follow-up Evaluation

---

42 Evaluations Mailed  
25 Evaluations Returned  
15 Farmers responded, farming an average of 634 ac.

#### Helpfulness of take home materials

- Two-Page Infographic: 3.7 / 5
- Four-Page Infographic: 3.8/5
- Extension Handout: 3.7/5

#### Attendees were asked to describe their current farming practices:

- 15 are actively farming and 7 reported renting land
- 5 lease land to a tenant
  - Total leased acres: 625
- 9 respondents have conservation measures built into their lease
- Conservation practices used on land owned/operated:
  - 14 no-till/strip-till
    - Total no-till/strip-till acres: 5,180
  - 13 use cover crops
    - Total cover crop acres: 2,443
  - 5 use extended rotations
  - 4 use rotational grazing
  - 7 use pollinator habitat
  - 2 use prairie strips
  - 1 uses a saturated buffer

## September 14

### Cover Crop Field Day | Grinnell

#### Responses to Year-End Evaluation

---

29 Evaluations Mailed  
12 Evaluations Returned  
Farmers responded, farming an average of 652 ac.

#### When asked to describe the ways they integrated what they learned from the field day:

- 10 fall seeded cover crops in 2021 on 3,823 total cover crop acres (238 new acres)
- 9 discussed challenges/benefits of conservation practices with landowners/tenants
- 7 networked conservation ideas with other farmers or farmer clients
  - 2 successfully influenced one other farmer
  - 3 successfully influenced 2 or more farmers
  - 2 influenced no farmers

## September 29 | 10:30am-12:30pm

### Buffalo Creek Wildlife Management Area Wetland Field Day | Coggon

#### Event Summary

##### Topic

- ✓ Wetlands

##### Speakers

- ✓ Ross Evelsizer (Upper Wapsi WMA)
- ✓ Tori Nimrod (Upper Wapsi WMA)
- ✓ Curt Kemmerer (Iowa DNR)
- ✓ Kay Stefanik (ISU)
- ✓ Dan Jensen (Shive Hattery Engineering)

##### Quality of Field Day

- 4.5 / 5 = Overall quality of field day/workshop
- 4.3 / 5 = Effectiveness of ISU presentation(s)
- 4.5 / 5 = Effectiveness of government presentation(s)
- 4.5 / 5 = Effectiveness of technical specialist presentation(s)
- 4.3 / 5 = Effectiveness of field portion

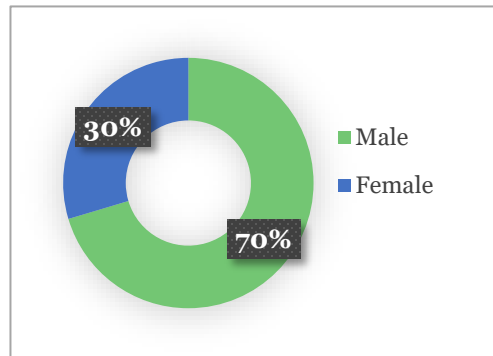
##### Description of Attendees

27 total attendees\*

- 3 farmers/operators
- 8 landowners
- 2 new to farming
- 7 government agency staff

51 = average age of attendees

4 = number of attendees with livestock



\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count includes event presenters, organizers or other service providers.

##### Questions Asked

###### Ross and Tori

Has this held water yet?

What can this one site do for the flooding?

Who owns this land?

So, even though this is owned by the DNR, who actually paid for it?

Where are the other projects in this county located?

###### Curt

With that torrent of water coming in & carrying pollutants, what happens to those pollutants when they enter the wetland?

What plants do you expect to see here in the future?

Will you be seeding the sunflowers in the area again?

Why are there a bunch of dead trees just north of here? Are you going to cut them down?

###### Kay

How did the 30% of phosphorus coming from the streambank get there?

Do sites like this help improve groundwater or well water?

###### Dan

Are your formulas for storage design changing due to climate change?

Does this capture all surface and tile water in the watershed?

Is the tile check valve automatic to prevent it from backing up?

How long was the process?

How long did the actual construction take?



## September 29

### Buffalo Creek Wildlife Management Area Wetland Field Day | Coggon

#### Responses to Two Week Follow-up Evaluation

---

15 Evaluations Mailed  
6 Evaluations Returned  
2 Farmers responded, farming an average of 65 ac.

Helpfulness of take home materials

- Two-Page Infographic: 3.7 / 5
- Four-Page Infographic: 3.8/5
- Extension Handout: 3.7/5

#### Attendees were asked to describe their current farming practices:

- 2 are actively farming and 2 reported renting land
- 2 lease land to a tenant
  - Total leased acres: 154
- 1 respondent has conservation measures built into their lease
- Conservation practices used on land owned/operated:
  - 1 no-till/strip-till
    - Total no-till/strip-till acres: 90
  - 2 use cover crops
    - Total cover crop acres: 92
  - 2 use extended rotations
  - 1 use pollinator habitat
  - 1 use prairie strips
  - 2 uses a saturated buffer

### Buffalo Creek Wildlife Management Area Wetland Field Day | Coggon

#### Responses to Year-End Evaluation

---

8 Evaluations Mailed  
5 Evaluations Returned  
Farmers responded, farming an average of 114 ac.

#### When asked to describe the ways they integrated what they learned from the field day:

- 2 fall seeded cover crops in 2021 on 96 total cover crop acres (90 new acres)
- 1 discussed challenges/benefits of conservation practices with landowners/tenants
- 1 networked conservation ideas with other farmers or farmer clients and successfully influenced 2 or more farmers

## November 10 | 12:00-2:00pm Oxbow Field Day | Lu Verne Event Summary

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### Topic

- ✓ Oxbows

### Speakers

- ✓ Karen Wilke (The Nature Conservancy/Boone River Watershed)
- ✓ Darrick Weissenfluh (U.S. Fish and Wildlife Service)

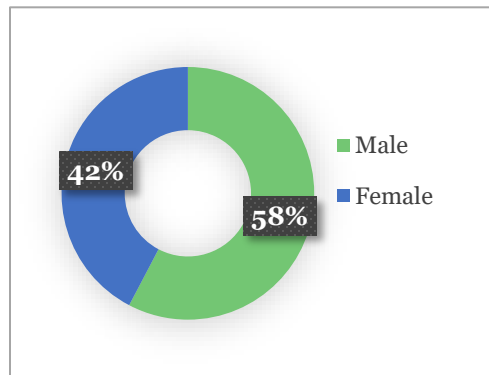
### Description of Attendees

26 total attendees\*

- 5 farmers/operators
- 6 landowners
- 9 government agency staff
- 7 other (unspecified)

48 = average age of attendees

3 = number of attendees with livestock



\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count does include event presenters, organizers or other service providers.

### Questions Asked

When you are talking about restoring oxbows for fish/wildlife, do you need to dig out the entire area?

Can you go back later and overseed a more diverse mix?

Prior to seeding, could you manipulate the oxbow water to minimize the flood risk and impact on the seeding?

Do any of the restoration programs require easements?

Why would oaks be more desirable to leave compared to other trees?

Is bur oak the one to focus on keeping and planting?

## November 10

### Oxbow Field Day | Lu Verne

#### Responses to Year-End Evaluation\*

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8 Evaluations Mailed

3 Evaluations Returned

Farmers responded, farming an average of 145 ac.

#### When asked to describe the ways they integrated what they learned from the field day:

- 2 discussed challenges/benefits of conservation practices with landowners/tenants
- 2 networked conservation ideas with other farmers or farmer clients
  - 1 successfully influenced one other farmer

\*Because the field day occurred in November 2021, event participants were not mailed a two-week follow-up evaluation.

# November 11 | 11:30am-1:30pm Cover Crop Field Day | Nashua Event Summary

## Topic

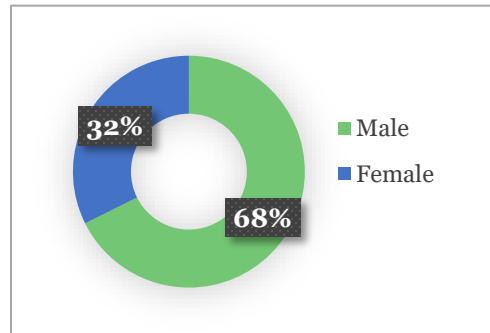
- ✓ Cover Crops

## Speakers

- ✓ Raj Raman (ISU)
- ✓ Dan Andersen (ISU)
- ✓ Brian Dougherty (ISU)

## Description of Attendees

- 30 total attendees\*
  - 10 farmers/operators
  - 11 landowners
  - 2 new to farming
  - 2 government agency staff
  - 3 other (unspecified)
- 63 = average age of attendees
- 3 = number of attendees with livestock



\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count does include event presenters, organizers or other service providers.

## Questions Asked

- Did you adequately suppress your bluegrass this year?
- Did you create some competition for the corn?
- When did you plant the bluegrass and did it germinate?
- Can you explain what it means to suppress the perennial ground cover?
- Could you foresee this method leading to decreasing fertilizer cost/amount applied in the future?
- Can you grow that bacteria that helps produce nutrients?
- Any soil changes between the treatments?
- So this process is creating a different microbial community than the cover crops?
- What about crop insurance?
- Where are you establishing the research plots?
- What is being done to help address pipeline compaction and yield loss?
- Would the 60 inch rows do better in a N/S set up?
- Couldn't button weeds be cover?
- What are the marks? (manure application)
- Seeing the rye now that wasn't here before harvest speaks to the benefits of mixes, doesn't it?

## Cover Crop Field Day, Nashua Responses to Year-End Evaluation\*

17 Evaluations Mailed  
14 Evaluations Returned  
Farmers responded, farming an average of 306 ac.

### When asked to describe the ways they integrated what they learned from the field day:

- 8 fall seeded cover crops in 2021 on 2,315 total cover crop acres (320 new acres)
- 10 discussed challenges/benefits of conservation practices with landowners/tenants
- 10 networked conservation ideas with other farmers or farmer clients
  - 1 successfully influenced one other farmer
  - 8 successfully influenced 2 or more farmers

\*Because the field day occurred in November 2021, event participants were not mailed a two-week follow-up evaluation.

**November 16 | 11:30am-1:45pm**  
**Cover Crop Field Day | Kanawha**  
*Event Summary*

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**Topic**

- ✓ Cover Crops

**Speakers**

- ✓ Mike Witt (ISU)
- ✓ Mark Licht (ISU)
- ✓ Nate Huntley (Farmer)

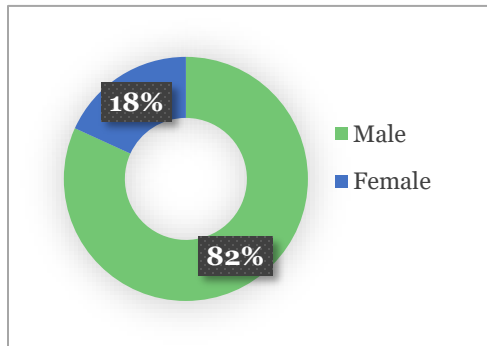
**Description of Attendees**

22 total attendees\*

- 8 farmers/operators
- 2 landowners
- 2 government agency staff
- 1 other (unspecified)

60 = average age of attendees

2 = number of attendees with livestock



*\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count does include event presenters, organizers or other service providers.*

**Questions Asked**

- What fertility program did you use with cover crops?
- Did you have to buy row units separate from the Gandy?
- Are you seeing benefits from cover crops?
- If you go south in Iowa do you see more cover crop growth?
- Will you continue to do this research work?
- Are their plants that don't require sunshine?
- What about bluegrass cover crops?
- Which seed to grow if you want to reduce N leaching?
- How many lbs./acre to seed?
- How many seeds per lb.?

**Cover Crop Field Day, Kanawha**

*Responses to Year-End Evaluation \**

9 Evaluations Mailed

4 Evaluations Returned

Farmers responded, farming an average of 1,033 ac.

**When asked to describe the ways they integrated what they learned from the field day:**

- 4 fall seeded cover crops in 2021 on 1,810 total cover crop acres (30 new acres)
- 4 discussed challenges/benefits of conservation practices with landowners/tenants
- 4 networked conservation ideas with other farmers or farmer clients
  - 1 successfully influenced one other farmer
  - 1 successfully influenced 2 or more farmers
  - 1 influenced no farmers

*\*Because the field day occurred in November 2021, event participants were not mailed a two-week follow-up evaluation.*

**November 17 | 12:00-2:00pm**  
**Cover Crop and Saturated Buffer Field Day | Walcott**  
*Event Summary*

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**Topics**

- ✓ Cover Crops
- ✓ Saturated Buffers

**Speakers**

- ✓ Kay Stefanik (ISU)
- ✓ Mike Paustian (Farmer)
- ✓ Keith Schilling (Iowa Geological Survey)
- ✓ Matthew Streeter (Iowa Geological Survey)

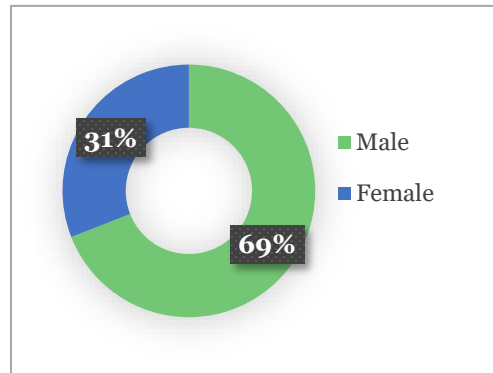
**Description of Attendees**

42 total attendees\*

- 16 farmers/operators
- 12 landowners
- 1 new to farming
- 1 government agency staff
- 7 other (unspecified)

60 = average age of attendees

8 = number of attendees with livestock



*\*Total number of attendees at this field day/workshop – attendees could select multiple categories to describe themselves when completing the demographic card at sign-in. Count does include event presenters, organizers or other service providers.*

**Questions Asked**

**Cover Crops**

- What seeding rate do you use with the rye?
- While planting into the rye, are you using row cleaners or any other equipment modifications?
- Are you applying insecticides?
- Does rye introduce any fungus into the soybeans?
- Are you putting on manure and other sources of nitrogen?
- Any issues with voles?
- What are your recommendations for getting started—both ahead of soybeans and ahead of corn?

**Saturated Buffer**

- What determines the length of the tile?
- What is the depth of the native soil here?
- Where does the nitrate go?
- Is the carbon from the cover crop enough to run the system?
- In place of grass, are there any other things that can be grown here?
- What does the management look like?
- What does the timeline look like from start to finish?

**Miscellaneous Questions**

- Are you a part of ISU Extension? What is your job?
- Are you going to recycle these lunch boxes? Tell the truth.
- Do you know any soil scientists that could help out with soil samples on my farm, as a second opinion on the CSR ratings that my land was assigned?
- What is a bioreactor, saturated buffer, oxbow? (Asked in regards to question on sign-in card)
- Are oxbows something historic that's always been there?—That's what you're making it sound like.

**November 17**

**Cover Crop and Saturated Buffer Field Day | Walcott**

*Responses to Year-End Evaluation\**

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23 Evaluations Mailed

11 Evaluations Returned

Farmers responded, farming an average of 484 ac.

**When farmers/landowners were asked to describe the ways they integrated what they learned from the field day/workshop into their farming operation:**

- 7 fall seeded cover crops in 2021 on 1,975 total cover crop acres (300 new acres)
- 6 discussed challenges/benefits of conservation practices with landowners/tenants
- 6 networked conservation ideas with other farmers or farmer clients
  - 2 successfully influenced one other farmer
  - 2 successfully influenced 2 or more farmers
  - 2 influenced no farmers

*\*Because the field day occurred in November 2021, event participants were not mailed a two-week follow-up evaluation.*