

Building a Culture of
CONSERVATION



**IOWA LEARNING
FARMS**

2022 Evaluation Report

Compiled and submitted by Jacqueline Comito, Liz Ripley, Alena Whitaker and Nathan Stevenson

INTRODUCTION

Iowa Learning Farms continues to build a Culture of Conservation as we bring together and build community among farmers, landowners, agribusiness, researchers and agency partners. Through a multi-faceted approach to outreach including **in-person field days**, **virtual field days** and **weekly webinars**, we have grown and improved the variety of ways we are providing timely conservation information.

Iowa Learning Farms' diverse offerings of both traditional in-person and virtual events have proven to successfully connect with participants. The success of the virtual programs compliments the need for in-person engagement, by offering a tremendous opportunity to expand the Culture of Conservation reach to a more diverse group of farmers, landowners and conservation influencers across Iowa and beyond.

In 2022, Iowa Learning Farms hosted 26 in-person field days/workshops, 7 virtual field days, and 51 webinars that were attended by 9,220 total live and archive participants. We reached an additional 7,401 people through 77 outreach events ranging from guest presentations to Conservation Station trailer appearances at such events as county fairs and community festivals.

2022 HIGHLIGHTS

IN-PERSON FIELD DAYS



26

in-person
field days
held

929

total
participants

82%

of participants
were farmers or
landowners

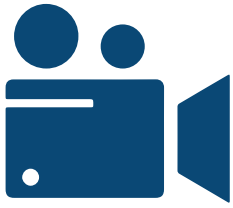
67%

are currently using
cover crops and 78%
reported using
strip-till or no-till

JUMP TO [PAGE 4](#) FOR IN-PERSON FIELD DAYS



VIRTUAL FIELD DAYS



7
virtual field
days

1,116
combined virtual
field day participants
(live and archive)

92%
percent of
participants rated
overall quality
as “excellent” or
“good”

49%
of participants
were women

JUMP TO [PAGE 20](#) FOR VIRTUAL FIELD DAYS

WEBINARS



51
webinars

7,175
combined webinar
participants (live and
archive)

97%
of participants
rated the overall
quality as
“excellent” or
“good”

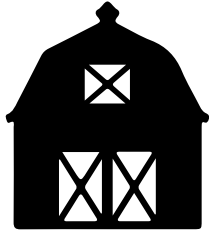
94%
of viewers reported
gaining new
information

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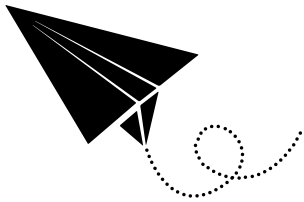
2022 IOWA LEARNING FARMS IN-PERSON FIELD DAYS

2022 had the Iowa Learning Farms returning to its pre-pandemic level of in-person field days. **ILF hosted 26 in-person field days/workshops across the state with 929 participants**, with 82% describing themselves as farmer/landowner and 32% of participants were female. The events covered a variety of topics including cover crops, no-till/strip-till, perennial vegetation, soil health, grazing, wetlands, nutrient management, bioreactors and saturated buffers.



IN-PERSON FIELD DAY FORMAT

ILF's in-person field days are two-hour events including a meal and a diversity of speakers, integrating local farmers utilizing the featured conservation practices. These in-person field days provide localized opportunities for education, networking and idea sharing among neighbors. Audio accessibility—ensuring participants can clearly hear presenters—has been a priority for years with amplification equipment an integral part of the ILF field day toolkit, including a new wireless headset amplifier for use in the field.



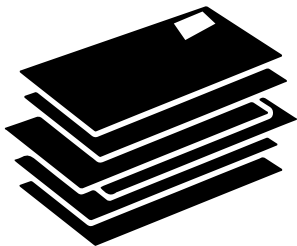
IN-PERSON FIELD DAY PROMOTION

We promote each field day the same way, utilizing a multi-faceted approach. A press release and flyer are sent out three weeks before the event to a compiled list of local newspapers, county Farm Bureau offices, radio stations, ISU Extension and Outreach offices, Natural Resources Conservation Service offices, our statewide media contact list and ISU Extension and Outreach communications team. A “save the date” postcard invitation is mailed to farmers and landowners in the area using either a partner-provided mailing list or plat map-developed mailing list. All field days are also promoted on our website, blog, social media, and e-newsletter.

IN-PERSON FIELD DAY EVALUATION METHODOLOGY

Our multi-step approach to evaluation is described below.

- **Comment and demographic cards** are filled out by participants at ILF-sponsored field days/workshops in order to gain a better understanding of who they are and why they are there. Demographic cards provide a snapshot of participants in terms of their age, gender, role in agriculture and information about their farming operation.
- **Follow-up evaluations** are mailed to participants of field days that happen before November within three 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. A summary of the collective data gathered from follow-up evaluations is included in the pages that follow. Data from individual field day evaluations are available in a separate report.
- **January evaluations** are mailed in late December to only farmer and landowner participants to see what conservation practices these field day participants are implementing.



2022 ILF IN-PERSON FIELD DAYS

In-Person Field Day	Total Attendees
January 19: Tron Scott Edge-of-Field Workshop, Slater	26
January 25: Jordans Grove Farm Edge-of-Field Workshop, Marion	31
February 1: Perennial Vegetation Workshop, Washington	24
February 2: ILF Leadership Circle, Ames	41
February 15: Perennial Vegetation Workshop, Lewis	17
March 8: Perennial Vegetation Workshop, Prairie City	13
March 15: Perennial Vegetation Workshop, Calmar	15
March 23: Cover Crop and Soil Health Field Day, Grand Mound	44
May 24: Conservation On Tap, Coralville	16
May 25: Conservation On Tap, Waukee	15
June 1: Brent Johnson Perennial Vegetation Field Day, Manson	25
July 6: Soil Health and Grazing Field Day, Traer	42
July 8: Soil Health and Grazing Field Day, Epworth	71
July 27: Perennial Vegetation/STRIPS Field Day, Zwingle	20
August 4: Perennial Vegetation and Cover Crop Field Day, Des Moines	41
August 9: Luke Bayer Cover Crop Field Day, Guernsey	65
August 24: Mark Kenney Perennial Vegetation Field Day, Nevada	28
August 25: Cover Crop and Soil Health Field Day, Melbourne	36
September 7: Dordt C-CHANGE Field Day, Sioux Center	165
September 21: Cover Crop Field Day, Center Junction	30
November 15: John Kielkopf Cover Crop and No-Till Field Day, Fremont	27
November 17: Tom Vaske Cover Crop and Strip-Till Field Day, Masonville	30
November 22: Wetland and Cover Crop Field Day, Keota	27
November 29: Randy Caviness Cover Crop and No-Till Field Day, Greenfield	26
November 30: Conservation On Tap, Cumming	29
December 1: Cover Crop Workshop, Winterset	25
Total	929

IN-PERSON FIELD DAY EVALUATION RESULTS

Field Day Participants

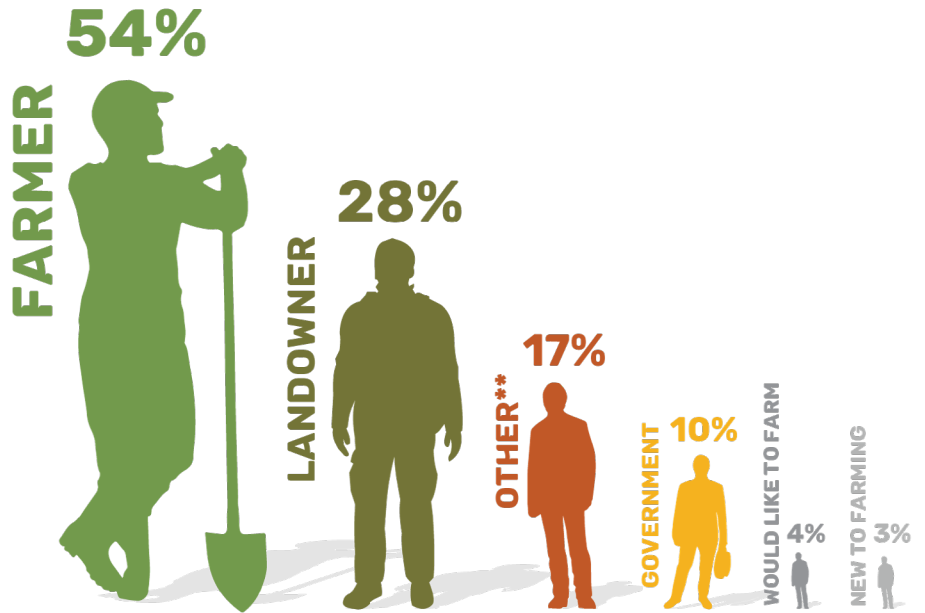
All participants (excluding speakers and partners) at a field day are asked to complete demographic cards at the beginning of the field day. We ask each participant to fill out a demographic card and we ask each household to fill out a comment card. Filling out the cards is voluntary. In 2022, 63% of field day participants filled out demographic cards.

82%

of field day participants identified themselves as either farmers or landowners.

Farmers made up 54% of ILF in-person field day participants, up from 43% in 2021. Landowners made up 28% of ILF in-person field day participants, but were more likely to attend a virtual field day than farmers, showing the need for a diversified outreach approach. Three percent of participants were new to farming and an additional 4% noted they would like to farm.

Description of Field Day Participants based on Demographic Cards (n=589)



*Respondents could choose more than one category

**Other includes: student or educator, media, agricultural business or industry, or unspecified



On average, farmers attending ILF field days in 2022 operate on 909 total acres (range of 2-11,000 acres) and have 831 acres (range 0-11,000 acres) in row crops. **About half (51%) of respondents indicate they own over 75% of their land. However, when looking at respondents aged 50 and under, that changes dramatically to just 28% of respondents reporting that they own 75% or more of their acres, with about half owning 20% or less.** Faced with many acres changing hands in the next decade, it is important to continue to develop outreach materials and plan events accessible to landowners, farmers and emerging farmers (those with ties to farming who want to farm).

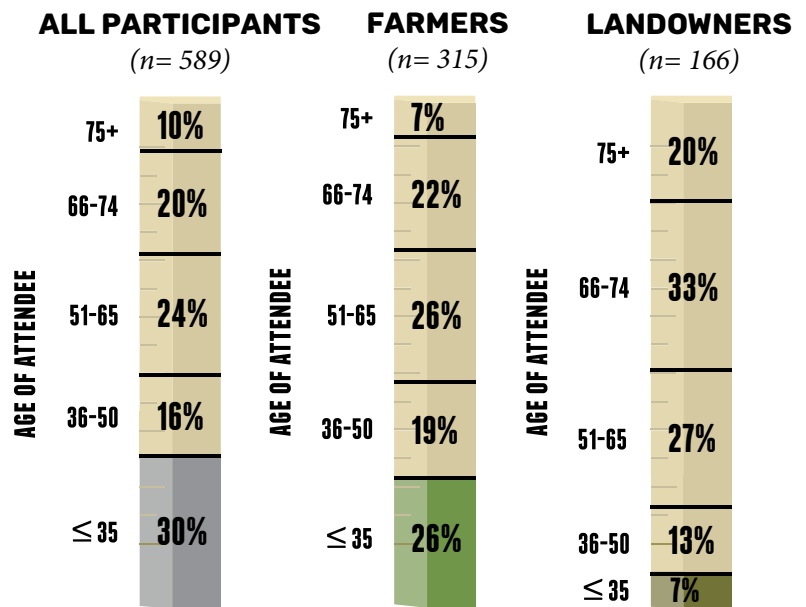
The average age of farmers participating in 2022 ILF field days was 55 years, which is slightly younger than the average age of farmers in Iowa at 57.1 years (2021 USDA Census of Agriculture). While slightly younger, the average age of ILF field day participants is still close to the statewide average age of farmers in Iowa, indicating that, in terms of age, our participants are a representative sample of Iowa farmers. The average age of landowner participants was 63 years, down from 65 years in 2021.

FARMERS 35 AND YOUNGER

Thirty percent of ILF field day participants were 35 years or younger, with 49% of that age range indicating they are farmers and/or landowners. Forty percent of respondents aged 35 or younger were women, up from 28% in 2021. On average, this age group farms 946 acres of row crop land (range of 0–11,000 acres) and owns 28% of their farmland, down from 37% in 2021. **Forty-five percent of respondents in this category reported that they do not own any of the acres that they currently farm.**

GENDER

While 32% of field day participants were female based on event attendance, only 25% of the participants who filled out demographic cards were women. Since Iowa Learning Farms first started hosting field days, the number of women attending field days has increased even if the number filling out demographic cards has not. It is our observation that even when we ask couples to both fill out their own demographic cards, the woman does not always do it. One area we have also seen an increase in female participants is that there are more women serving as Extension Specialists, agronomists and government employees, and this is reflected in our data.



32%
OF ATTENDEES
WERE FEMALE

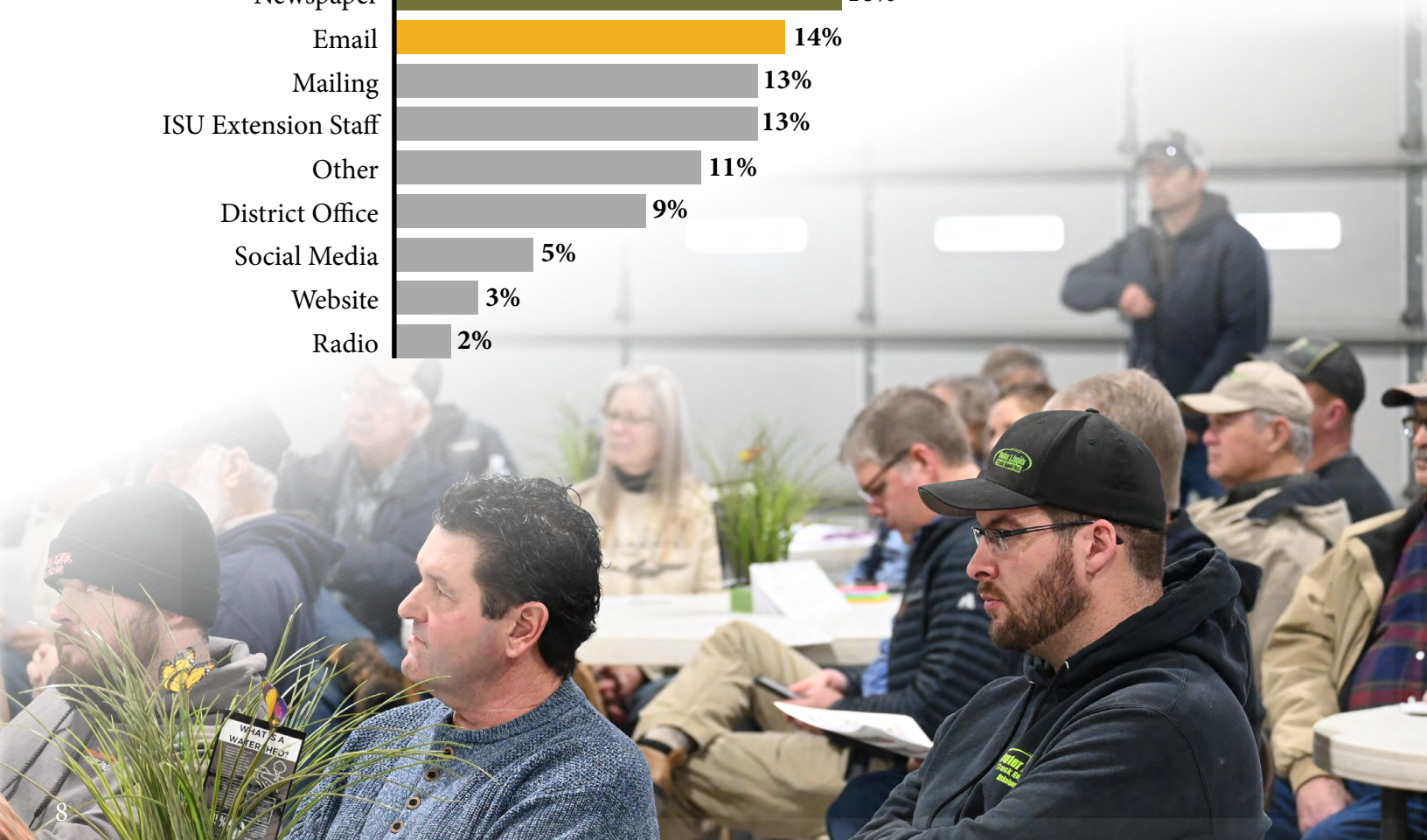
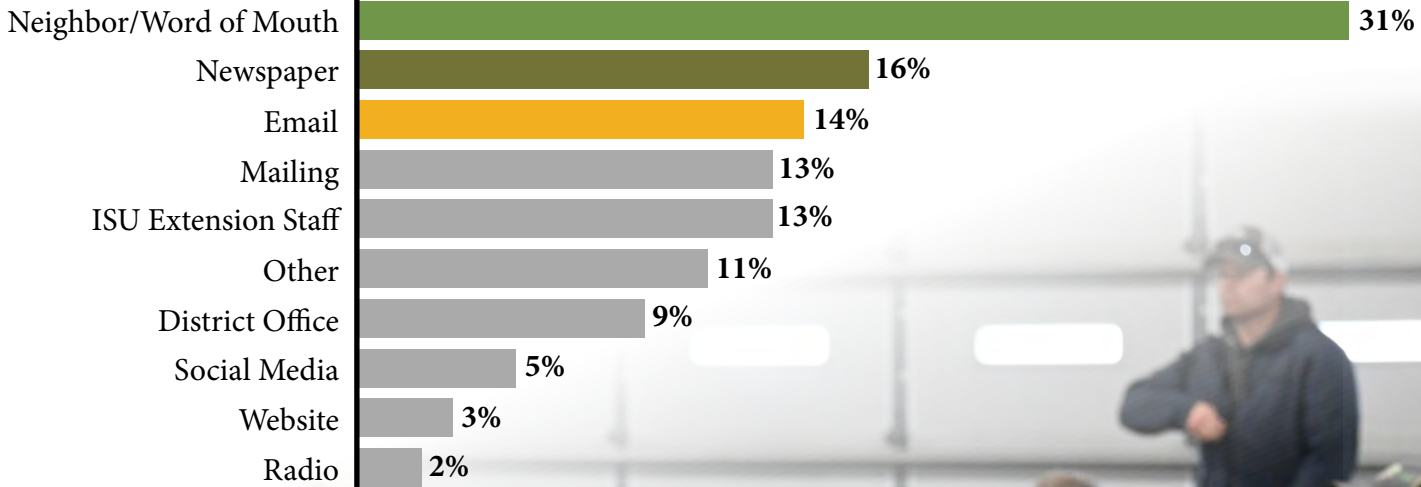
Twenty-three percent of women participants describe themselves as farmers, a slight increase from 22% in 2021. Additionally, 8% indicated they are new to farming and 9% noted they would like to farm, which is a large increase over last year. Thirty-two percent describe themselves as landowners. Fifty-two percent reported owning 75% or more of their land. This is consistent with the trend of increasing numbers of acres owned by female landowners. **Iowa Learning Farms continues to be a source of information for women, in-person and virtually, who are seeking information to advise farm management decisions.** It is encouraging to see these women taking an active role in the management of their land as farmer operator and/or landowner.

ILF will continue to seek ways to increase female attendance, especially female farmers and landowners, at in-person field days/workshops. Female participants indicated that they prefer weekday morning or afternoon events. In 2023, we plan to offer events at these times to see if we can increase the number of women attending our events and continue to partner with organizations that focus on women farmers and landowners.

HOW DID PARTICIPANTS HEAR ABOUT THE FIELD DAY?

Word of mouth (31%), newspapers (16%), email (14%), and mailings (13%) were the primary ways that field day participants found out about ILF field days/workshops in 2022. Email is still one of the top methods for hearing about ILF field days as more people are now connected digitally and we have seen continued growth in our e-news mailing list and blog subscribers, which are both used to send notifications of events as well as other conservation-related topics. We will continue to use a diversified communications approach to maximize the number of participants at our events.

How did you hear about the field day?
(Could choose more than one)



SUMMARY OF FOLLOW-UP EVALUATIONS FOR FIELD DAYS

Follow-up evaluations were mailed to participants at ILF field days that occurred before November. The one-page evaluation was mailed to each household within three weeks of the event and focused on event feedback and whether participants intended to change any land management practices. A total of 370 evaluations were mailed; 166 were returned for a 45% response rate (n=166).

	# Participants	# Comment Cards	# Returned Evaluations+	# Demographic Cards
January 19: Tron Scott Edge-of-Field Workshop, Slater	26	19	10	20
January 25: Jordans Grove Farm Edge-of-Field Workshop, Marion	31	23	10	23
February 1: Perennial Vegetation Workshop, Washington	24	15	8	18
February 2: ILF Leadership Circle, Ames	41	NA	NA	NA
February 15: Perennial Vegetation Workshop, Lewis	17	9	5	11
March 8: Perennial Vegetation Workshop, Prairie City	13	8	3	8
March 15: Perennial Vegetation Workshop, Calmar	15	11	5	12
March 23: Cover Crop and Soil Health Field Day, Grand Mound	44	28	15	25
May 24: Conservation On Tap, Coralville	16	9	2	9
May 25: Conservation On Tap, Waukee	15	7	3	8
June 1: Brent Johnson Perennial Vegetation Field Day, Manson	25	12	5	12
July 6: Soil Health and Grazing Field Day, Traer	42	25	8	27
July 8: Soil Health and Grazing Field Day, Epworth	71	45	20	55
July 27: Perennial Vegetation/STRIPS Field Day, Zwingle	20	9	6	11
August 4: Perennial Vegetation and Cover Crop Field Day, Des Moines	41	18	9	20
August 9: Luke Bayer Cover Crop Field Day, Guernsey	65	48	19	49
August 24: Mark Kenney Perennial Vegetation Field Day, Nevada	28	20	9	19
August 25: Cover Crop and Soil Health Field Day, Melbourne	36	21	8	21
September 7: Dordt C-CHANGE Field Day, Sioux Center	165	27*	9	119
September 21: Cover Crop Field Day, Center Junction	30	21	12	21
November 15: John Kielkopf Cover Crop and No-Till Field Day, Fremont	27	18	Not sent [†]	19
November 17: Tom Vaske Cover Crop and Strip-Till Field Day, Masonville	30	21	Not sent [†]	21

November 22: Wetland and Cover Crop Field Day, Keota	27	13	Not sent ⁺	13
November 29: Randy Caviness Cover Crop and No-Till Field Day, Greenfield	26	17	Not sent ⁺	18
November 30: Conservation On Tap, Cumming	29	16	Not sent ⁺	16
December 1: Cover Crop Workshop, Winterset	25	15	Not sent ⁺	14
Total	929	448	166	589

*2-week evaluation mailed to non-student participants only.

+Field days held in November are sent only the January evaluation.

Overall, the quality and effectiveness of field day presentations were rated very highly, **with 98% of respondents rating the quality of the field day as “excellent” or “good.”** The individual field day evaluations are available as a separate report.

	Excellent (5)	Good (4)	Average (3)	Fair (2)	Poor (1)	Average
Overall quality of field day or workshop (n=166)	57%	41%	2%	--	--	4.6
Effectiveness of farmer presentations (n=81)	58%	30%	7%	5%	--	4.4
Effectiveness of ISU presentations (n=69)	57%	39%	4%	--	--	4.5
Effectiveness of conservation professional presentations* (n=89)	51%	38%	10%	1%	--	4.4
Effectiveness of field portion (n=59)	53%	31%	17%	--	--	4.4
Effectiveness of Conservation Station demonstration (n = 80)	59%	23%	11%	4%		4.4
Engagement of participatory activity (n = 20)	40%	60%	--	--	--	4.4

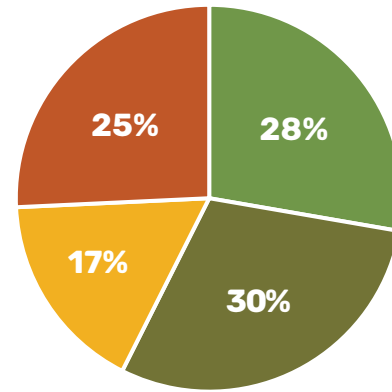
*Includes presenters from government agencies and non-governmental organizations

We also asked participants to rate the length of the field day as we use this information for planning future events. **Ninety percent indicated that the length was “just right,”** with 7% noting it was too short and 3% noting it was too long. After tracking the responses to these questions since 2018, we feel confident that our field days are an appropriate length for our audience.



NUMBER OF ACRES FARMED (N=100)

Seventy-two percent of respondents farmed 200 or more acres. Respondents reported an average of 839 acres per farmer (median 400 acres) with 93% of respondents reporting. These acreage numbers are similar to our demographic card data set (average of 831 acres), further validating both data sets. This shows that we are reaching farmers who have large enough operations that when they make changes, those changes will have an impact.



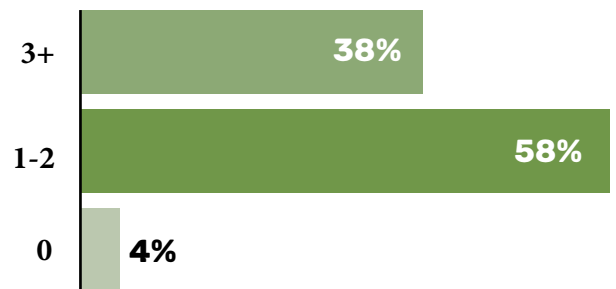
■ <200 ac ■ 200-500 ac ■ 501-1000 ac ■ 1001+ ac

CONSERVATION PRACTICES USED (N=139)

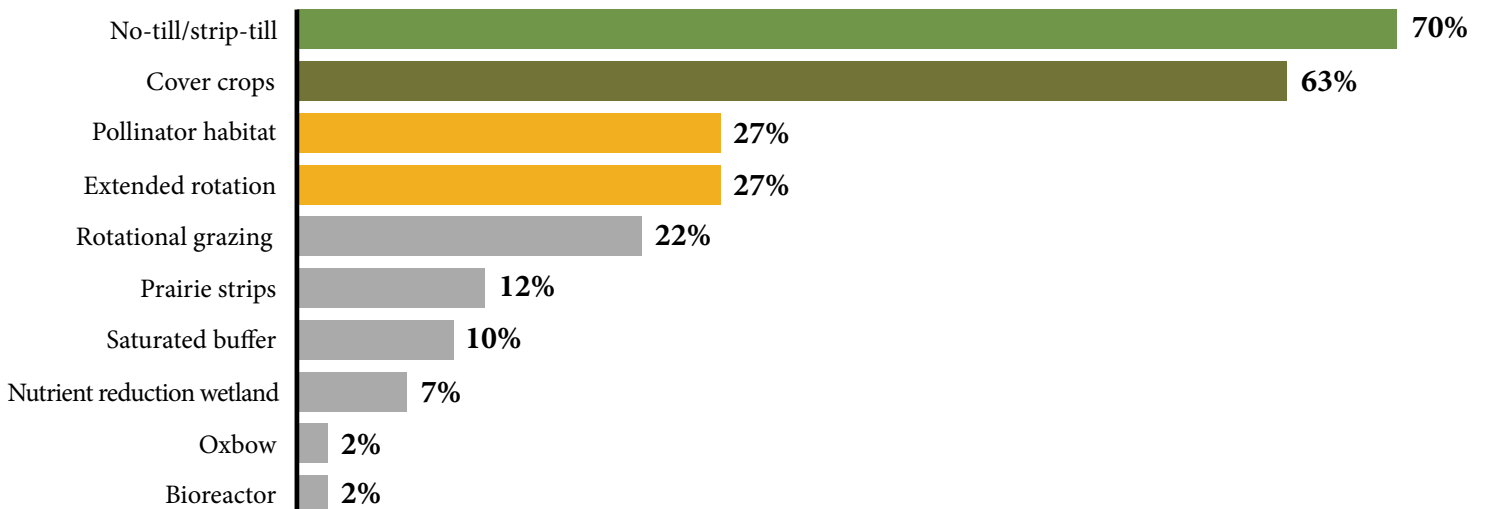
Respondents were asked what types of conservation practices they currently utilize and were given a list of the following practices: no-till/strip-till, cover crops, extended crop rotation, rotational grazing, prairie strips, pollinator habitat, saturated buffer and bioreactor.

Of respondents that indicated they are actively farming or are leasing ground, 38% are utilizing three or more conservation practices, an increase from the 27% reported in 2021. The most common conservation practice reported was no-till/strip-till, with 70% of respondents indicating they use that practice in their operations. Sixty-three percent of respondents reported using cover crops.

Number of Conservation Practices



Types of Conservation Practices (n=139)



LEASED LAND

Starting in 2019, we asked field day participants about the farmland they lease to a tenant or rent from a landlord. A large portion of Iowa's farmland is under a lease agreement, as evidenced by our demographic card information and supported by the evaluation responses. Forty percent of respondents noted that they currently lease land to a tenant, with an average of 259 acres (range of 5-1,030 acres). Thirty-nine percent of respondents indicated that they currently rent land, at an average of 559 acres (range of 2-2,500 acres).

When land is leased to a tenant for agricultural production, land management decisions, like the amount of tillage and use of conservation practices, are determined by the lease agreement. Thirty-three percent of respondents reported that they have conservation practices built into the lease agreement they have for their land, an increase from 22% in 2021. Unfortunately, current leasing surveys with which we can compare our results do not ask about the use of conservation practice requirements in leasing.

Of those who indicated that they had conservation practices built into their leases (n=43), 72% reported using no-till or strip-till and 61% reported using cover crops. For respondents who said they did not have conservation practices built into their leases (n=89), 61% reported using no-till or strip-till and 56% reported using cover crops. Nineteen percent of those without conservation practices built into their leases indicated no conservation practices being used. This could indicate the importance of including conservation practices in lease agreements to increase adoption.

	Respondents with conservation built into leases (n=43)	Respondents without conservation built into leases (n=89)
Reported using no-till/strip-till	72%	61%
Report using cover crops	61%	56%
Report using 1 to 2 conservation practices	60%	48%
Report using 3 to 5 conservation practices	40%	33%



SUMMARY OF JANUARY EVALUATIONS FROM IN-PERSON FIELD DAYS

January evaluations were mailed to farmers and landowners in late December 2022. The goal of the January evaluation is to investigate whether respondents made changes to their farming practices. For events with initially low response rates, a second mailing was sent. This second mailing increased our response rate to 51%.

# Evaluations Sent	# Evaluations Returned	Response Rate
352	179	51%

	Field Day Season 2019 n=241	Field Day Season 2021 n=55	Field Day Season 2022 n=179
Used surface residue management (no-till or strip-till) on some of my acres	86%	77%	78%
Total acres of no-till/strip-till implemented by ILF field day participants	83,310 (5,158 new acres)	17,635 (258 new acres)	59,060 (1,319 new acres)
Average # of acres per respondent who said they were putting more acres into no-till or strip-till	207	65	88
I fall seeded cover crops on some of my acres in fall	58% (6,020 new acres)	62% (978 new acres)	67% (3,460 new acres)
Total acres of cover crops planted by ILF field day participants	36,918	12,336	25,399
Average # of acres per respondent who said they were putting more acres into cover crops	114	65	94
I discussed +/- of using no-till/strip-till/cover crops with my landowners/tenants	71%	69%	67%
I networked conservation ideas with other farmers or my farmer clients	65%	62%	64%
If yes, how successful were you? (Number of people you influenced)	One other: 39% Two or more: 35% No others: 26%	One other: 30% Two or more: 57% No others: 13%	One other: 32% Two or more: 36% No others: 32%
I did not make any changes	10%	42%	51%

ILF is reaching a variety of producers. Our target audience of those who farm 200 or more acres made up 74% of our January evaluation respondents. Respondents reported farming an average of 653 acres and collectively operated 79,635 total crop acres in Iowa. Respondents reported leasing an average of 253 acres with a total of 16,444 leased acres being reported.



74%
of attendees farm
200 acres or more

COVER CROPS

While cover crops continue to be an important tool in the conservation toolbox, the rate of new adoption appears to be slowing. Fourteen percent of cover crops reported were new acres. While an increase from the 8% new acres in 2021 (when fewer in-person field days were held resulting in a much smaller sample size), it is still below 2019 when 16% of the cover crops reported were new acres and a sizable decline from the 35% new acres reported in 2015.

The percentage of farmers who were trying cover crops for the first time in 2022 (7%) decreased from 2021 (18%). Farmers planting cover crops for the first time in 2022 accounted for 19% of the new acres, indicating that existing cover crop users are continuing to increase their new acres as they gain more experience.

Number of years with cover crops? (n=114)

	2019	2021	2022
1	10%	18%	7%
2	4%	6%	8%
3-5	28%	18%	22%
6+	58%	58%	64%

86%
HAVE BEEN USING
COVER CROPS FOR
THREE YEARS OR MORE

The majority of respondents (86%) started seeding cover crops at least three years ago. The average number of years of cover crop usage was nine, up from seven years in 2021, indicating those who use cover crops are maintaining or adding acres.

Those using cover crops reported an average of 43% of their row crop acres in cover crops. Respondents who planted cover crops for the first time in 2022 (n=7) planted an average of 134 acres (range of 40-380 acres).



The overall percentage of farmers who are using cost share to seed cover crops has decreased for the first time since 2016, with 62% of farmer respondents using cost share for cover crops in 2022. The decrease in cost share usage could be a reflection of years of experience with cover crops making them less eligible for current cost share programs.

We asked respondents what percentage of their reported cover crop acres they would maintain if cost share was not available. **Sixty-six percent stated they would maintain 100% of their cover crop acres and 19% would maintain at least half of their acres.** Six percent indicated they would no longer use cover crops.

The most common cover crops used were grasses (e.g., cereal rye, wheat and oats), with cereal rye continuing to be the most popular. Reported brassica and legume usage is similar to previous years, with brassicas more likely to be used than legume species. Eighty percent of first time cover crop users reported planting cereal rye and 20% planted oats.

Eighty-nine percent of respondents who have used cover crops for six or more years seeded a grass. Among grass types, cereal rye was used most commonly at 84%, while oat was used by 14% and wheat accounted for 9%. Radishes and turnips represented 17%, while 12% of “other” cover crops were planted by the more experienced users.

Was cost share used? (n=114)

	2019	2021	2022
Yes	68%	74%	62%
No	32%	26%	38%

2022 Cover Crop Planting by Species Type (n=114)

(Could choose more than one)

Species Type	Percent Planted
Grasses	90%
Brassicas	21%
Legumes	7%

Type of cover crops used? (n=114)

(Could list more than one)

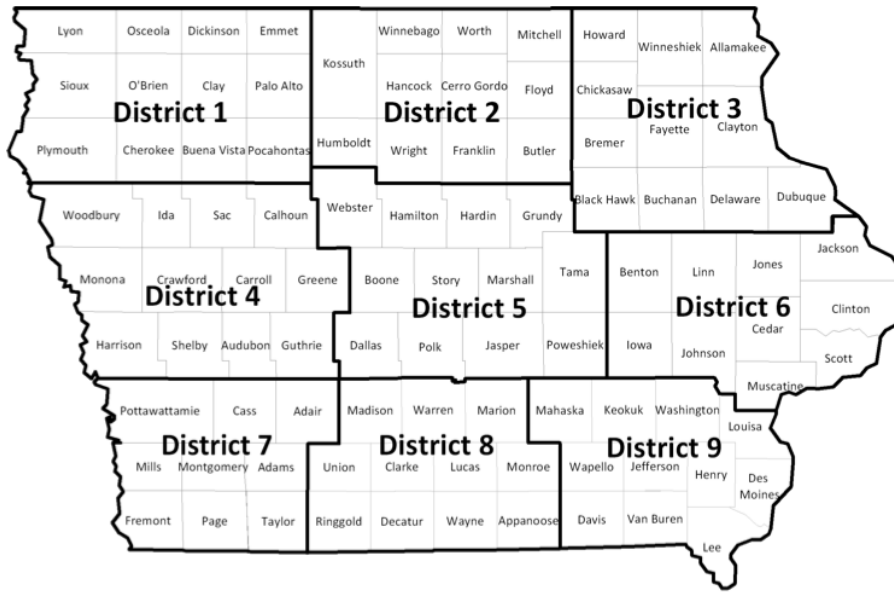


* Other includes: annual ryegrass, Austrian winter pea, balsana clover, barley, buckwheat, hairy vetch, rapeseed, red clover, sorghum sudangrass, sunflowers, sweet clover, triticale, and winter camelina.

EXPECTED COVER CROP GROWTH

A new pair of questions asked respondents using cover crops to provide their cover crop planting and termination dates. These dates enable us to determine how much biomass could be expected for each crop reporting district as a proxy for determining water quality benefits of cover crops. For those that provided date ranges or months, the middle date was selected as the data point for the analysis.

The statewide average cover crop planting date was October 10 and average cover crop termination date was April 30. The late April termination date is a reflection that long term cover crop users are more likely to let the cover crop grow longer. Cover crop users with just one year of experience had an average termination date of April 18, twelve days earlier.



	Average Planting Date	n =	Average Termination Rate	n =	Average Biomass (lb/ac)	Minimum Biomass (lb/ac)	Maximum Biomass (lb/ac)
District 1	9/22/2022	6	4/15/2023	2	795	652	939
District 2	10/10/2022	2	5/20/2023	2	4,526	4,241	4,810
District 3	10/12/2022	18	5/9/2023	13	3,184	3,016	3,352
District 4	10/1/2022	4	5/1/2023	4	2,876	2,731	3,021
District 5	10/5/2022	18	4/24/2023	17	1,976	1,874	2,079
District 6	10/16/2022	21	4/26/2023	17	2,329	2,216	2,443
District 7	11/7/2022	3	5/5/2023	5	4,152	3,902	4,403
District 8	9/3/2022	3	4/8/2023	2	1,234	1,117	1,351
District 9	10/14/2022	16	5/2/2023	14	3,674	3,466	3,882
Statewide	10/10/2022	93	4/30/2023	77	2,782*	2,643*	2,920*

* Statewide weighted average

Termination timing is a leading factor in influencing cover crop growth and accompanying water quality benefits. Using a biomass regression equation, we predicted average cover crop biomass and ranges for each district. For neighboring districts with similar temperature and precipitation, delaying termination one month (from April to May) led to over 3,700 more pounds of biomass for District 2 compared to District 1 and over 2,900 more pounds of biomass for District 7 compared to District 8. The additional pounds of biomass provided by later termination dates allows for larger reductions in nitrate loss.

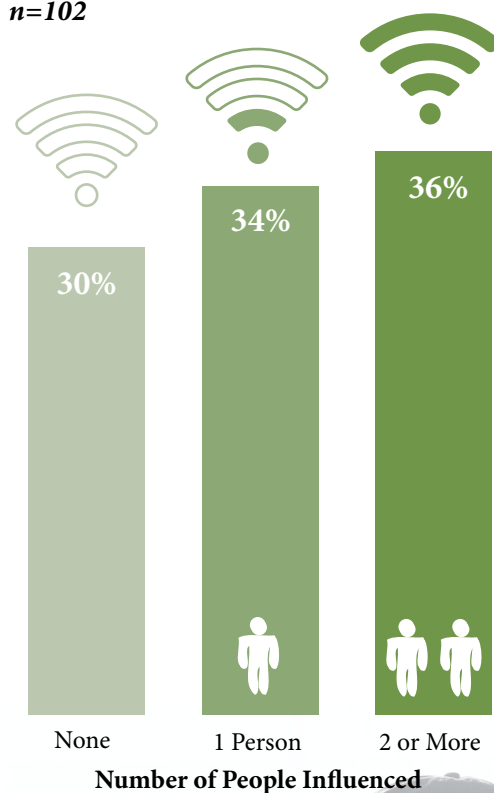
As we continue to work towards improving Iowa's water quality, it is important to recognize the importance of spring biomass growth of cereal rye. Iowa Learning Farms will continue to offer best management recommendations for using cereal rye as a cover crop, such as planting soybeans before terminating the cereal rye to allow for as much growth as possible to achieve water quality benefits, as well as additional benefits like weed suppression, improved soil health, and reduced soil erosion.

NETWORKING

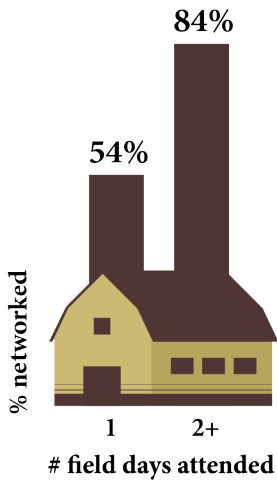
Networking by participants remains an important outreach method for Iowa Learning Farms as we host outreach events and provide valuable information to farmers, landowners, agricultural professionals and others. In 2022, networking by field day participants continued, with 64% of respondents reporting that they networked with others about conservation ideas.

Of those participants who networked, 70% reported that they were successful in influencing at least one other person. Ultimately, these farmers extended ILF's influence to 68% more farmers than those who attended ILF events in 2022. **That's a \$1.68 value for every dollar invested in ILF.**

How Successful Were You in Networking?
n=102



FIELD DAY SUCCESS LOOP



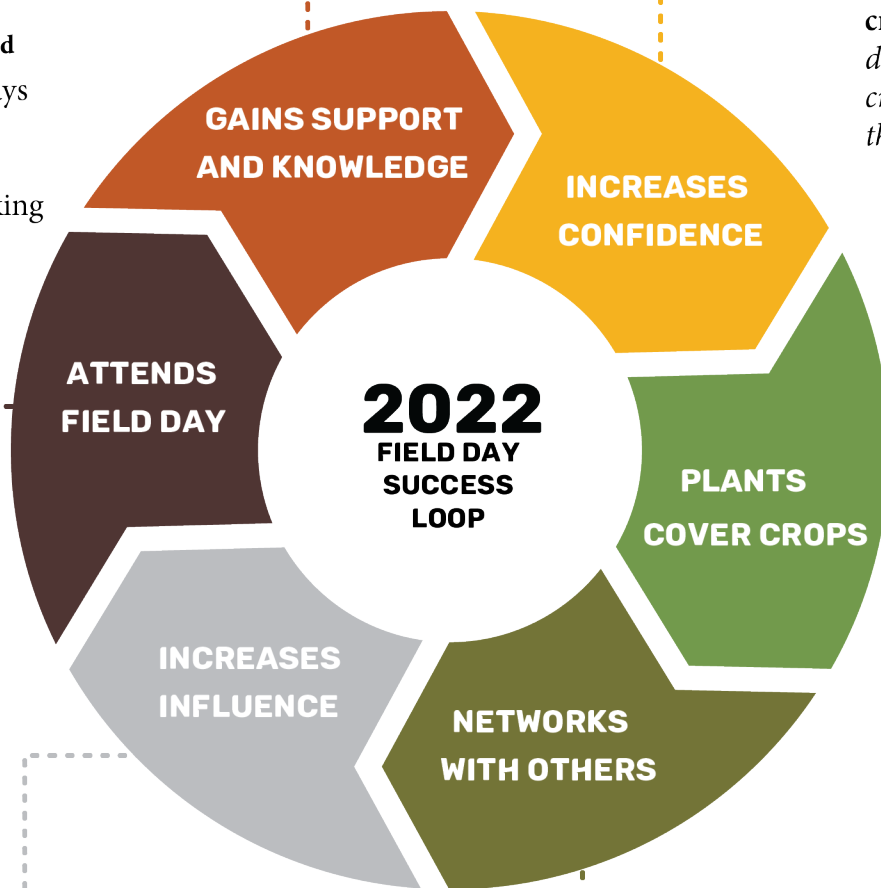
The more field days one attends, the more likely they reported networking and influencing others.

88%

of field day attendees found the farmer presentations to be excellent or good.



The more field days one attends, the more likely they are to plant cover crops (average = 2 field days for those using cover crops vs. 1 field day for those that do not)



14%

of cover crops were new acres.

FARMERS ARE EXTENDING ILF'S INFLUENCE TO **68%** MORE FARMERS THAN ATTENDED THE EVENT



That's a \$1.68 return for every dollar spent on an ILF event. ILF makes sense!

64% OF FARMERS AT ILF EVENTS NETWORKED

REASON FOR IMPLEMENTING CONSERVATION PRACTICES

We asked respondents to identify their top reason for implementing conservation practices from this list: variable weather, soil health, water quality, wildlife habitat, landlord stipulation and reduce soil erosion. **Eighty-eight percent of respondents chose soil health or reduce soil erosion as their top reason for implementing conservation practices.** It is not a surprise that variable weather was not a factor, as we have been in drought or near drought conditions since early 2020. Understanding the reason that farmers are choosing to implement conservation practices will allow for education and outreach efforts to include information tailored to these reasons.

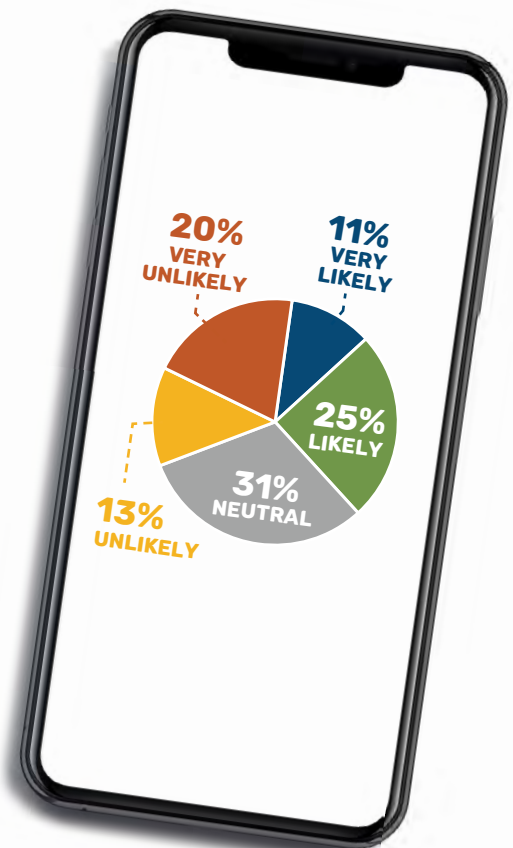
2022 Top Reasons for Implementing Conservation Practices (n=179)



Many respondents (n=58) selected more than one answer to the question and are not included in the responses above because we have no way of determining what their top reason would have been. Among the 76% of respondents who selected water quality as one of multiple reasons, 77% also chose soil health and 83% also chose reduce soil erosion. This shows that respondents are aware of the interconnected nature of soil health, erosion and water quality. While not many chose water quality as their top reason for implementing conservation practices, it was associated with soil health and reducing soil erosion for many respondents.

INTEREST IN USING AGRICULTURE-RELATED APPS

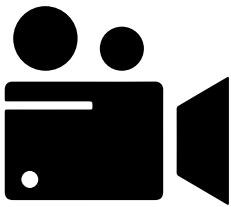
The discussion of app development is common among many agriculture and conservation organizations and requires substantial investments to develop and maintain. As technology becomes more prevalent in all aspects of life, it is valuable to see if farmers and landowners are interested in utilizing apps for agricultural purposes. A new question was added to this year's evaluation to determine farmers' and landowners' likelihood of using agriculture-related apps for smartphones and tablets, to determine if this is a worthwhile pursuit. While 36% of respondents indicated they would likely use an agriculture-related app, only 11% were very likely to use an app and 33% noted they were unlikely to use an app.



2022 IOWA LEARNING FARMS VIRTUAL FIELD DAYS

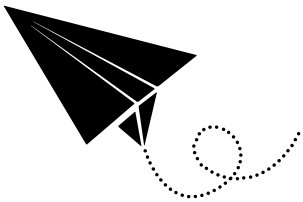
In 2022, Iowa Learning Farms hosted 7 **virtual field days with 378 event participants tuning in (an average of 54 participants, compared to an average of 36 participants for in-person field days)**. The virtual format allowed us to reach more individuals both during the events and through the archival views. All of our virtual field days continue to get viewed long after the live events: 738 archive views for the 2022 series, as well as 2,312 new archive views of 2021 events and 2,742 new archive views of 2020 events. Overall, there are 12,898 archive views of ILF virtual field days as of January 3, 2023.

Virtual field days are a valuable outreach tool that provides an opportunity for participants to attend multiple events without the travel requirement. Past [work](#)¹ has supported the idea that attending multiple field days increases the likelihood of adoption of conservation practices. Based on a separate survey of previous in-person and virtual field day participants,² we explored additional differences and preferences between the groups. Participants that attended both in-person and virtual events were likely to serve as opinion leaders and are actively engaged in seeking and sharing information with others. Virtual field day participants also tended to be younger and more diverse. Both in-person and virtual field days will continue to be offered every year as we work to expand the conservation information across Iowa to more farmers and landowners.



VIRTUAL FIELD DAY FORMAT

Virtual field days are one-hour events hosted in Zoom that feature a video from a field site and a live question-and-answer session with the presenters. Participants are asked to either unmute to ask their question or type their question directly to the host. An ILF staff member acts as the host of the event, providing background information on the Iowa Learning Farms program and the topic of the virtual field day, and relaying questions from the chat to the presenters. Virtual field days are recorded and uploaded to YouTube following the event, which allows us to track archival views.



VIRTUAL FIELD DAY PROMOTION

We promote each virtual field day the same way, utilizing a multi-faceted approach. A press release is sent out two weeks before the event to our statewide media contact list and ISU Extension and Outreach communications team. It is also promoted on our website and posted on our blog one week before the event. A reminder about the field day is sent out to the ILF email list as a special notice within 10 days of the field day.



VIRTUAL FIELD DAY CERTIFIED CROP ADVISER (CCA) CONTINUING EDUCATION UNITS (CEUs)

Board-approved CEUs for CCAs are available for attending ILF virtual field days. Participants who are seeking credit send an email with their name and CCA number by 5pm the day of the event. Their attendance is checked against the Zoom-generated usage list and added to the sign-in sheet that is submitted to the CCA board. Thirteen CEUs were awarded to twelve participants in 2022.

¹Comito, J., Haub, B. C., & Stevenson, N. (2017). Field Day Success Loop. *The Journal of Extension*, 55(6), Article 29. <https://tigerprints.clemson.edu/joe/vol55/iss6/29>

²Witzling, L., Williams, E., Wald, D.E., Comito, J. and Ripley, E., 2021, Virtually the same? Understanding virtual and F2F farmer audiences for conservation outreach. Submitted to *Journal of Extension*.

VIRTUAL FIELD DAY EVALUATION METHODOLOGY

The virtual field day evaluations are created using Qualtrics and are similar to evaluation questionnaires sent to in-person field day participants. A link to the evaluation is emailed to the Zoom-generated list 2-3 hours after the event and a reminder is sent out again 2-3 days later. If the response rate is low, additional reminders are sent out. The evaluation email also contains a link to the virtual field day archive.

In 2022, we sent a year-end evaluation to participants who identified as a farmer or landowner during registration within Zoom. This evaluation was identical to the mailed evaluation that in-person event participants received. We sent six reminder emails to encourage participants to respond. The email also contained a link to the entire virtual field day archive.

2022 ILF VIRTUAL FIELD DAYS

Virtual Field Day	Total Attendees	Archive Views ¹	Follow Up Evaluations Sent ²	Returned Evaluations
January 13: Road Detention Structures: Adapting Current Infrastructure for Flood Resiliency and Nutrient Reduction	55	134	54	14
February 3: Redefining the Field Edge to Improve Profitability, Wildlife Habitat and Water Quality	80	134	74	34
February 24: A Vision for Change: Farmers' Perspectives for Diversifying Iowa's Landscape	58	104	45	15
March 15: Creating Peace of Mind with Flood Mitigation in the Bee Branch Watershed	23	91	17	5
October 20: Exploring a Pumped Bioreactor System for Improved Water Quality	46	61	39	13
December 8: Utilizing Drainage Water Recycling to Improve Water Quality and Manage Weather Risk	62	77	52	18
December 15: From Nuisance to Asset – Establishing Saturated Riparian Forest Buffers on the Landscape	54	137	44	12
Total	378	738	325	111³

1 – Views of the archived virtual field days and related videos on YouTube, as of 1/3/2023

2 – Qualtrics evaluations were emailed to participants following the live events, with reminder emails sent a few days later. Virtual field day presenters, ILF staff, and participants who viewed less than 10 minutes of the virtual field days did not receive evaluations.

3 – This is a 34% response rate and is excellent for an online evaluation format.

VIRTUAL FIELD DAY EVALUATION RESULTS

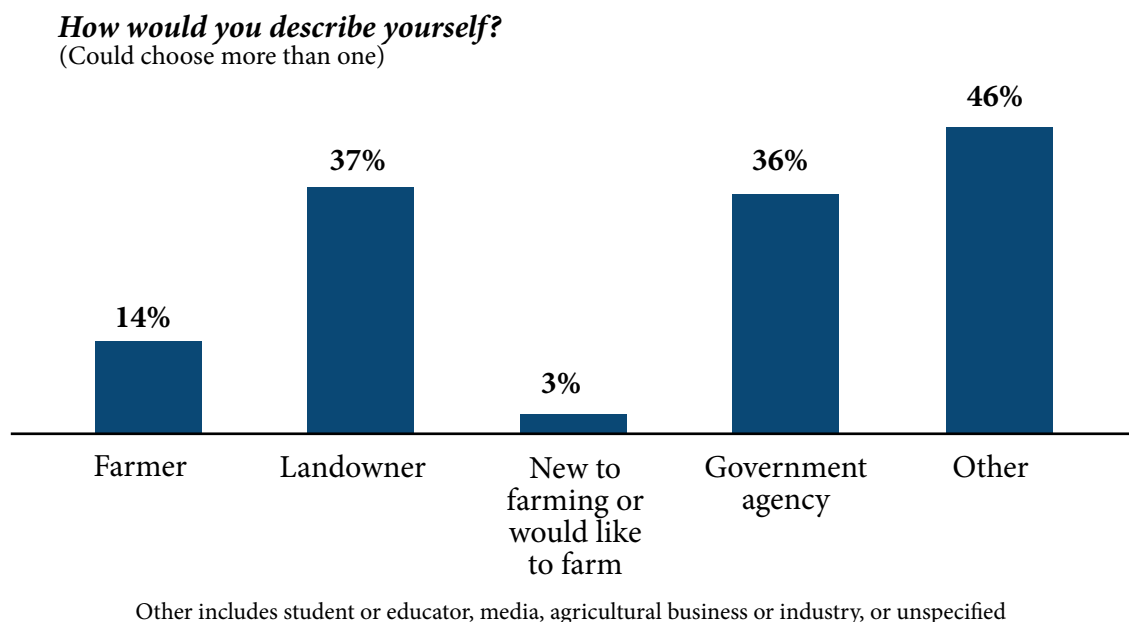
The results of the 2022 Iowa Learning Farms virtual field day evaluations are summarized below, and comparisons to 2020 and 2021 virtual field days are provided where appropriate. We had an overall **34% response rate** to our post-event emailed evaluations, which is very good for an online survey.

Out of 378 participants who provided an email address during registration, **276 were unique participants (73%)**. Because these summary data are compiled from the anonymous individual virtual field day evaluations, it is possible that we are counting some of the same people more than once if they attended and evaluated more than one virtual field day. It's important to keep that in mind while comparing the results of this evaluation to the results from 2022 in-person field days.

The virtual nature of these field days allows for individuals to participate in events without the travel commitment, which is also reflected in the **average of seven field days attended by farmers and landowners**. Our field day success loop has demonstrated that the more field days attended, the more likely they are to implement conservation practices.

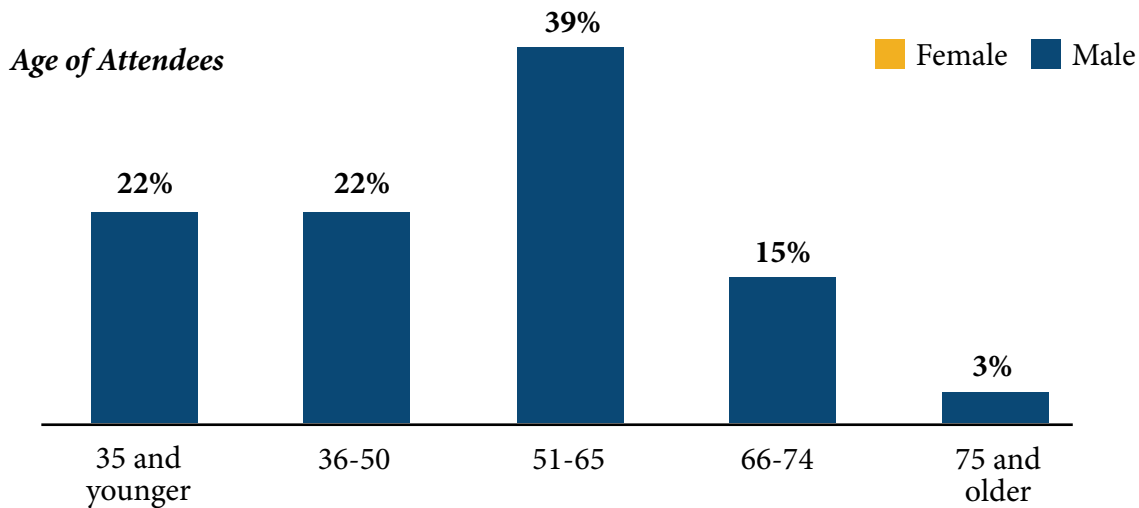
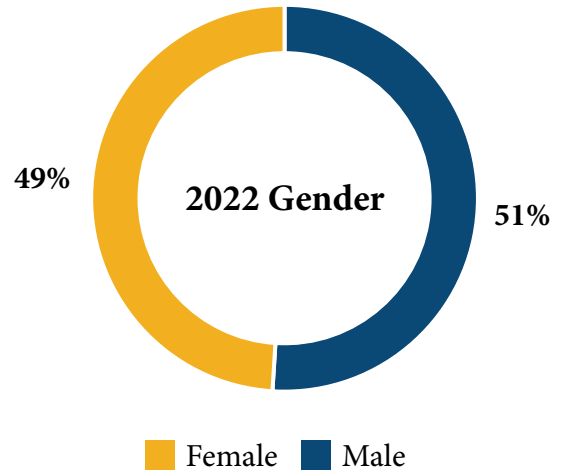
WHO ATTENDED ILF VIRTUAL FIELD DAYS? (N=111)

ILF's 2022 virtual field days continued to draw a diverse audience, attracting more females and a younger audience than our traditional in-person events. The virtual field day platform offers a training opportunity for conservation professionals, government agency staff and others working with farmers to provide them with the latest science and research surrounding these conservation practices. Fifty-one percent of the participants identified as farmers or landowners. While fewer participants identified as a farmer for the virtual field days compared to in-person events, a large percentage of the audience for virtual field days were landowners.



Sixty-eight percent of virtual field day participants reported that they live or farm in Iowa. Participants include individuals from 12 other states and one Canadian province: Colorado, Illinois, Indiana, Kansas, Maryland, Minnesota, Missouri, Nebraska, New York, Ohio, South Dakota and Wisconsin, plus Ontario, Canada.

Attracting more female participants to field days has been a long-term goal of Iowa Learning Farms. **Females represented 49% of participants at ILF virtual field days in 2022, a 15% increase from 2020 and 6% increase from 2021.** Forty-eight percent of female attendees indicated they were a farmer and/or landowner. The online format of virtual field days may help women farmers and landowners feel more comfortable attending and asking questions via the chat.

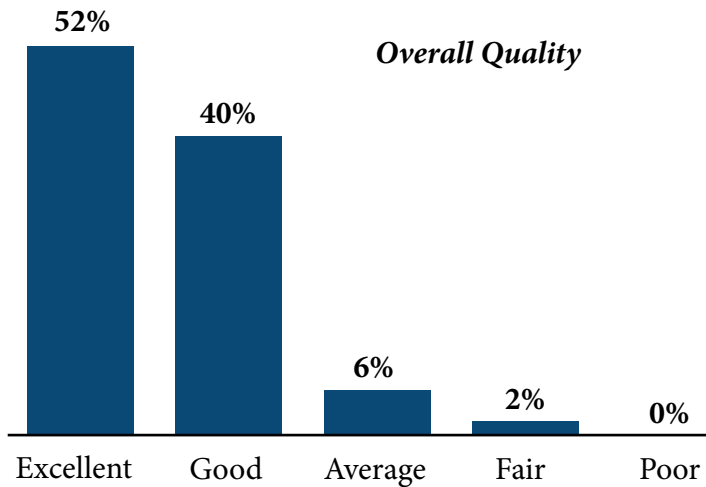


Attracting a younger audience to field days has also been a goal of Iowa Learning Farms. **The virtual field day format continues to attract younger participants with 44% age 50 or younger.** The average age of 2022 virtual field day participants was slightly at 52 years, compared to 50 years in 2021, but is still lower than in-person field days (average of 55 years). The slight increase in age is likely caused by the increased attendance of landowners who tend to be older.

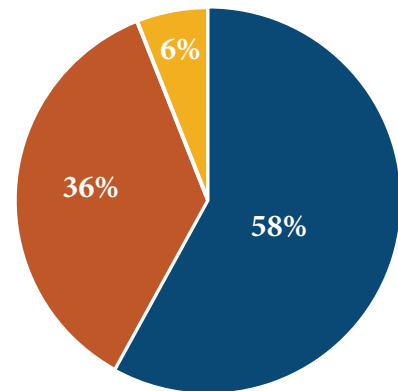


HOW WAS THE OVERALL QUALITY OF THE VIRTUAL FIELD DAYS?

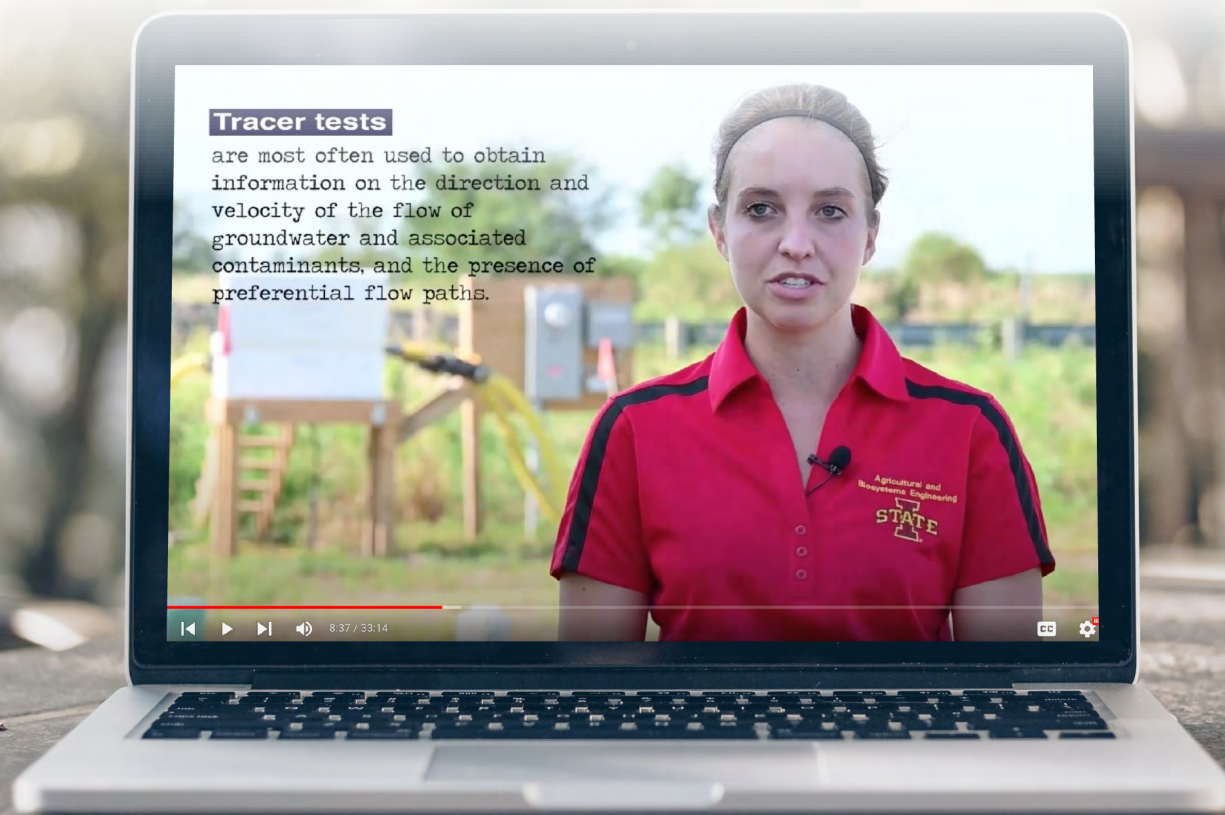
The overall quality of virtual field days remained high during 2022, indicating that they meet the high standard set by Iowa Learning Farms' in-person field days. **Ninety-two percent of virtual field day participants rated the event's overall quality as "excellent" or "good" and presenters received "excellent" or "good" ratings from 94% of participants, consistent with 2021.** We also asked participants to rate the technology used and 91% rated it as "excellent" or "good."



Quality of Presenters in 2022



■ Excellent ■ Good ■ Average



SUMMARY OF PARTICIPANTS' FARMING PRACTICES

In early January 2023, a Qualtrics version of our year-end evaluation was sent to the unique virtual field day participants that indicated they were a farmer or landowner. There were 121 participants who indicated they were a farmer or landowner during the registration process, with 92 valid and unique email addresses (76%). Following multiple reminder emails, we reached a **36% response rate (n=33)**, which is well above the 10% average response for emailed surveys.

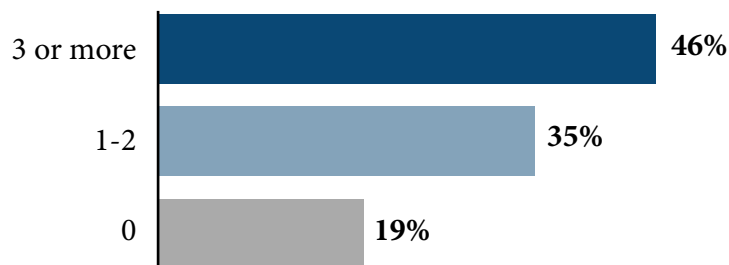
Virtual field days are able to draw a geographically diverse audience. Of the respondents to the year-end evaluation, 70% live or farm in Iowa. Additional locations represented in the data include Illinois, Kansas, Minnesota, Missouri, Nebraska and Wisconsin.

	Acres Operated (average)	Acres Leased (average)	Field Days Attended (average)
<i>Iowa respondents</i> (n = 23)	271	92	4
<i>Total respondents</i> (n = 33)	308	175	7

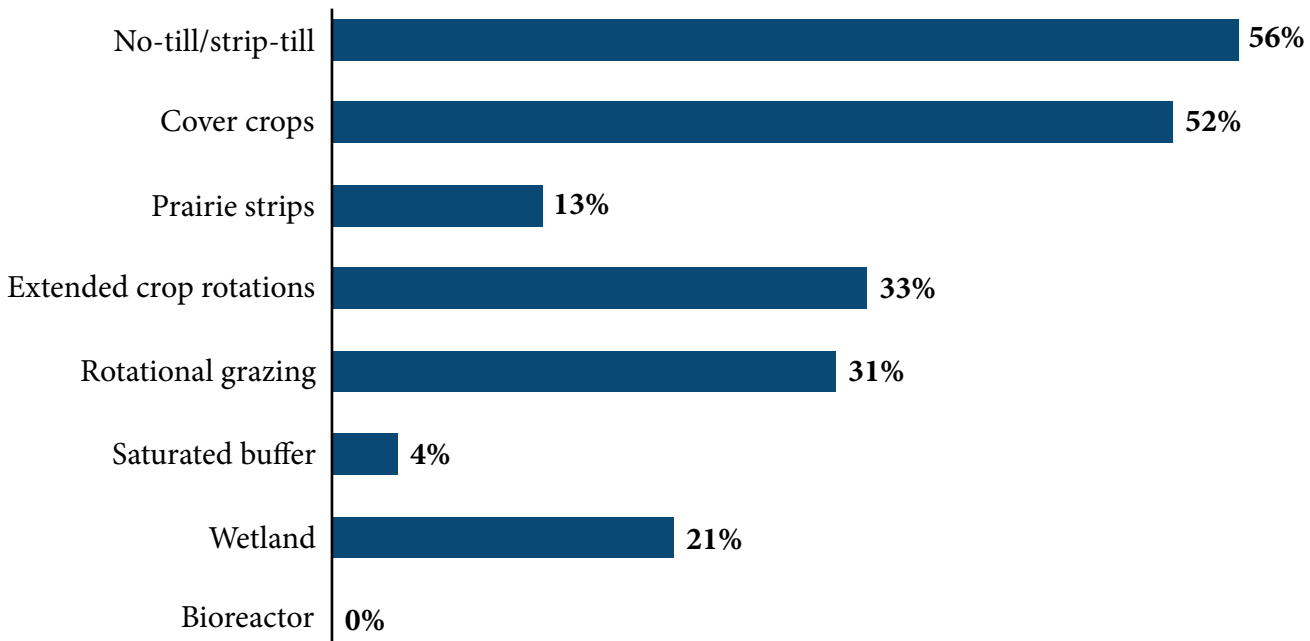
We asked field day participants about the conservation practices that are used on the land they farm or own, and they were given a list of the following practices: no-till/strip-till, cover crops, extended crop rotation, prairie strips, rotational grazing, saturated buffer, nutrient reduction wetland, and bioreactor.

Forty-six percent of respondents indicated that they utilize three or more conservation practices. The most common practices used were no-till/strip-till (56%) and cover crops (52%). Compared to previous years, there was an increase in the number of respondents indicating they utilize cover crops, rotational grazing and extended rotations. No-till/strip-till usage declined compared to previous years, but may be connected to increased use of rotational grazing (where tillage is not applicable) and extended rotations (where tillage is used for the incorporation of alfalfa or other similar crops).

Number of Conservation Practices



Types of Conservation Practices



We asked additional questions about the use of cover crops and no-till/strip-till. Eleven respondents seeded cover crops in 2022 on a combined 2,537 acres, including 710 new acres. Twenty-one respondents used no-till/strip-till on a combined 3,678 acres, with 632 new acres in 2022.

Experience with cover crops ranged from 1 to 15 years, for an **average of seven years of experience**. All were using at least one grass species and cereal rye was the most popular (used by 91% of respondents), followed by radishes/turnips (36%), oats (27%), and wheat (9%).

Forty-six percent of respondents who planted cover crops used cost share in 2022. **Sixty percent of respondents reported that they would maintain their cover crop acres in the absence of cost share.**

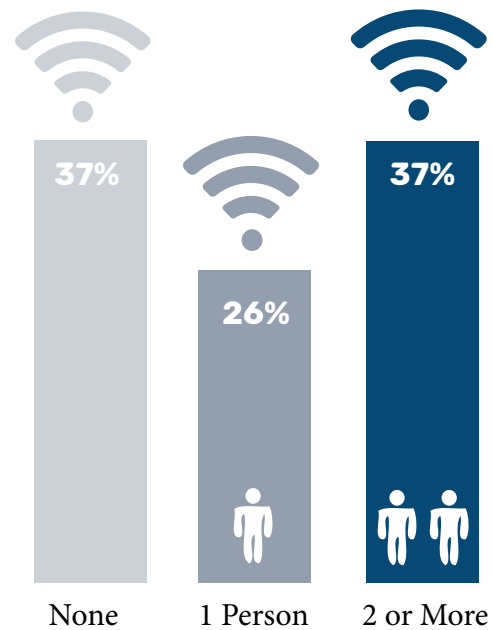


NETWORKING

Networking by field day participants remains an important outreach method for Iowa Learning Farms. It is even more important for virtual events when participants are not able to communicate with each other directly. In 2022, 69% of respondents reported that they networked with others about conservation ideas. This is supported by the 738 archival views of ILF virtual field days, over 195% more than had attended. The link to the recorded virtual field day is shared out to participants in the evaluation email, making it easy to share with others that were not able to attend.

Of those participants who networked, 63% reported that they were successful in influencing at least one other person. Given this, farmers attending virtual field days are extending ILF’s influence to 67% more farmers than attended virtual field days in 2022. That’s a \$1.67 value for every dollar invested in ILF.

*How Successful Were You in Networking?
n= 20*



REASON FOR IMPLEMENTING CONSERVATION PRACTICES

We asked participants to identify their top reason for implementing conservation practices from a provided list. **Eighty-one percent of respondents chose soil health or reduce soil erosion as their top reason for implementing conservation practices, which is similar to our in-person field day responses.** This year saw increases in water quality, variable weather and wildlife habitat from the 2021 responses, while soil health decreased (down from 57% in 2021). Again, this change could be due to the increase in female participants as well as the increase in landowners over farmers. Landowners might have other priorities for their land than those who are farming the land.

Reason	2022 (n= 33)
Variable Weather	4%
Soil Health	44%
Water Quality	11%
Wildlife Habitat	4%
Landlord Stipulation	0%
Reduce Soil Erosion	37%



2022 ILF CONSERVATION WEBINAR SERIES

The Iowa Learning Farms **Conservation Webinar Series** started in 2011 on a monthly basis and in March 2020 we began to host weekly webinars. Due to its popularity, we continued the weekly series and hosted 51 webinars featuring 57 different presenters in 2022, covering topics such as cover crops, wetlands, bioreactors, soil health, manure fertilizer and runoff, urban conservation, perennial groundcover, wildlife, trees and more.

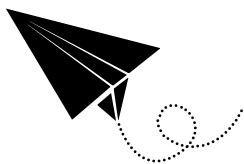
The 51 weekly webinars drew an average audience of 91 participants, an increase from the 2021 average of 86 participants. The recordings of the webinars continue to provide flexibility to those that cannot join live and average 50 views per webinar recording. While “live” participation increased in 2022, archival views slightly decreased over the same period. The increase in “live” participation made up for the decrease in archival views and we still finished the year with more participants than in 2020 and 2021.

WEBINAR FORMAT



Webinars are hosted each Wednesday at 12pm CT using Zoom. A set of first and last slides is provided to the speaker the Monday before their scheduled presentation to provide a uniform look for the series, as well as including information for submitting CCA credit requests and promotion of the upcoming webinar. Following a brief introduction by an ILF moderator, the speakers share a 25-30 minute presentation on the requested topic. Participants are encouraged to submit questions via the chat box to the moderator. After the speaker has concluded their presentation, the moderator reviews the questions and then shares them with the presenter to be answered. This method provides the archive viewers an opportunity to hear the questions as they do not have access to the chat feature to view submitted questions. Captions are added to each recorded webinar when posting to Vimeo. Each recorded webinar is then linked to the ILF website so that webinars can be easily found and searched.

WEBINAR PROMOTION



We have the same promotion routine in place for every webinar, utilizing a multi-faceted approach. A week before the webinar, a press release is sent out to our statewide media contact list and ISU Extension and Outreach communications. The Tuesday before a webinar, a promotional post is published on our blog. The morning of the webinar, information is sent out to the ILF email list as a special notice. For most of 2022, a recap blog of the webinar, along with a link to the recording, was posted on Fridays. Looking at WordPress analytics for when people were viewing blogs, we switched the recap blog posting date to the following Monday.

WEBINAR CERTIFIED CROP ADVISER (CCA) CONTINUING EDUCATION UNITS (CEUs)



For each webinar we apply for a CCA CEU. Once approved, these webinars are added to the CCA CEU calendar. Webinar participants who are seeking credit for watching the live webinar email their name and CCA number after the webinar. These participants are checked against the Zoom-generated usage list and added to the sign-in sheet, which is then submitted to the CCA board. In 2022, there were 271 CCA continuing education units awarded to webinar participants, an increase of 56% from 2021, when 173 were issued.

WEBINAR EVALUATION METHODOLOGY



To gain an understanding of our webinar audience and the effectiveness of our weekly webinar series, we sent out a Qualtrics evaluation via email to all 2022 webinar participants in early January 2023, with six reminder emails sent to those who had not yet completed the evaluation. **The evaluation was sent to 1,218 people, and 386 responded (32%).** While we typically have a response rate of over 40% for our mailed evaluations, this is a very good response rate for an emailed survey where the typical response rate is closer to 10%.

2022 ILF CONSERVATION WEBINAR SERIES

Webinar	Live Views	Archive Views*	Total
January 5: Kevin Erb Root Causes of Manure Spills: 15 Years of Oops, Oh Crap!, and 'How the Heck Did That Happen???'	134	82	216
January 12: Matt Helmers Better Utilizing the Field Edge: Saturated Buffers and Bioreactors	120	98	218
January 19: Amy Toth Can Prairie Habitat in the Farm-Dominated Landscape of Iowa Benefit Bees and Beekeepers?	138	49	187
January 26: Adam Janke and Kaycie Waters The Iowa Master Conservationist Program: Planting Seeds of Conservation	95	64	159
February 2: Chris Morris The Conservation Practitioner Poll: Giving Conservation Professionals a Voice	91	35	126
February 9: Dana Kolpin A Comprehensive Statewide Spatiotemporal Assessments of PFAs in an Agricultural Region of the U.S.	99	35	134
February 16: Mark Licht Redefining the Field Edge Case Studies	84	38	122
February 23: Andrea Basche Treating Cover Crops Like Cash Crops: Strategies and Opportunities	125	73	198
March 2: Angie Carter Women's Farm Organizations: Protecting Status Quo or Transforming Agriculture?	75	50	125
March 9: Ann Johanns Farmland Leasing Considerations in Conservation Systems Adoption	79	46	125
March 16: Jill Kostel Tile Flows, Backhoes and Microbes: Constructed Wetlands for Subsurface Drainage Treatment	103	93	196
March 23: Jennifer Tank The Two-Stage Ditch: Improving Water Quality in Agricultural Waterways via Floodplain Construction	125	73	198
March 30: Peter Levi Discovering Variation in Water Quality Across an Otherwise Uniform Landscape	92	37	129
April 6: Gabriel Lade The Iowa State Rural Drinking Water Survey: Results and Insights	80	38	118
April 13: Mark Mitchell Habitat Implications of Agricultural Drainage Improvements and Wetland Restoration in Iowa	116	48	164
April 20: Keith Schilling Contribution of Streambanks to Phosphorus Export in Iowa	161	70	231
April 27: Aria McLaughlan and Harley Cross Valuing Soil Health to De-Risk Adoption and Develop Incentives for Producers Through Lending and Insurance	76	38	114

Webinar	Live Views	Archive Views*	Total
May 4: Andrew DiAllesandro Strategic Habitat Conservation for Threatened and Endangered Species	77	40	117
May 11: William Crumpton Integrating Drainage Improvements and Wetland Restoration in Iowa: Environmental Impacts of Improved Drainage and Targeted Wetland Restoration	92	84	176
May 18: Emily Zimmerman The Agricultural Conservation Planning Framework (ACPF): Applications and Recent Updates to Enhance Conservation Planning	64	55	119
May 25: Chumki Banik and Santanu Bakshi Using Biochar and Zeolite to Recycle Phosphorus and Nitrogen from Swine Manure: An Integrative Approach	55	38	93
June 1: Lindsey Hartfiel Pumped Denitrification Bioreactor System for Treatment Beyond Subsurface Drainage	90	55	145
June 8: Peter Kyverga Interactive Cover Crop Economic Simulator	78	36	114
June 15: Matt Ruark and Abigail Augarten Soil Health Management and Measurement Across Agricultural Systems in the Midwest	88	46	134
June 22: Chad Penn Phosphorus Removal Structures: An Overview of Utility and Limitations	83	59	142
June 29: Vince Sitzmann Iowa's Abandoned Mine Land Program	97	52	149
July 6: Jane Frankenberger Transforming Drainage: Working Together Across the Midwest to Increase Resiliency of Drained Agricultural Land	113	30	143
July 13: Mike Castellano Improving On-Farm Nitrogen Use Efficiency Through the Iowa Nitrogen Initiative	76	58	134
July 20: Chuck Burr Using Farm Management Competitions to Improve Efficiency and Profitability	41	22	63
July 27: Kay Stefanik Improving Flexibility of the Iowa Nutrient Reduction Strategy N-Load Model: Use at the Watershed Scale	75	44	119
August 3: Michael Burchell II An Overview of Carbon Sequestration in Ecosystems	103	54	157
August 10: Daniel Andersen Manure: Ancient Fertilizer in a Digital Age	76	87	163
August 17: Jorgen Rose Making Space for Wildlife on Working Farms	65	64	129
August 24: Peter O'Brien Cover Cropping and Tillage Show Mixed Results on Nitrogen Losses	112	61	173
August 31: Billy Beck Woodchips and Water Quality: Can Select Tree Species Enhance Performance of Denitrifying Woodchip Bioreactors?	72	59	131

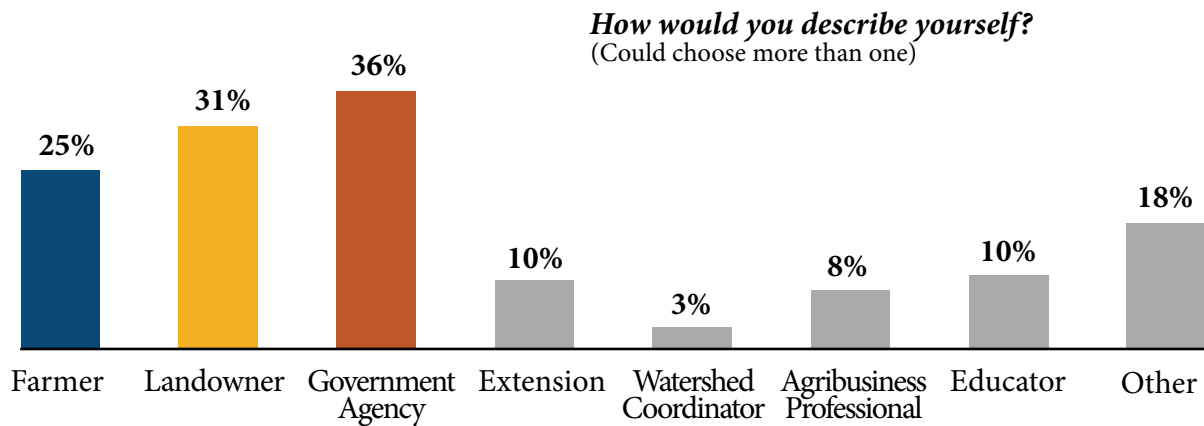
Webinar	Live Views	Archive Views*	Total
September 7: Emily Waring Influence of Fertilizer Timing on Nitrate Loss and Crop Yield	89	48	137
September 14: Brian Dougherty Improving Manure Management to Maximize Agronomic and Environmental Outcomes	77	70	147
September 21: Trisha Moore A River Runs Through It: Linking Urban and Rural Communities Through Watershed Management	70	38	108
September 28: D. Raj Raman Developing Large-Scale, Reliable Perennial Groundcover Systems – Challenges & Approaches from RegenPGC	68	51	119
October 5: Vinayak Shedekar and Will Osterholz Can Long-Term Soil Health Practices Improve Water Quality?	135	66	201
October 12: Laura Alt From Rump to Runoff: The Transport of Antimicrobial Resistance in Agricultural Ecosystems	88	31	119
October 19: Prashant Jha Cereal Rye Cover Crop: An Ecological Tactic to Manage Herbicide-Resistant Weed Seed Banks in Soybeans	95	46	141
October 26: Matt Nowatzke Designing Decision-Support Systems to Facilitate Farmland Diversification: Opportunities and Barriers	73	22	95
November 2: Jason Palmer and Claire Hrubby Moving Towards a Better Understanding of Bacterial Impairments at Public Beaches in Iowa	86	30	116
November 9: John McMaine Building South Dakota's Roadmap to Water Resilience	73	32	105
November 16: Sarah Noggle Sometimes the Shield is Not Enough	56	32	88
November 23: Jacqueline Comito Can we Imagine a Healthy River in Iowa?	47	70	117
November 30: Lauren Salvato Water Quality Trends on the Upper Mississippi River, 1989-2018	137	0+	137
December 7: Wendong Zhang What Women Landowners Want to Know about Conservation?	107	38	145
December 14: Lisa Schulte Moore Understanding the Opportunities and Challenges of Grass-to-Gas: An Integrated Modeling Study from the Grand River Watershed of Iowa and Missouri	82	27	109
December 21: Etienne Sutton Embracing Real-World Variability to Improve Cover Crop Outcomes	101	29	130
Total	4,634	2,541	7,175

*Archive views as of 1/3/2023

+There was a technical issue with the live recording; archive recording added 12/31/2022

WEBINAR EVALUATION RESULTS

WHO PARTICIPATED IN THE WEBINAR SERIES? (N=386)

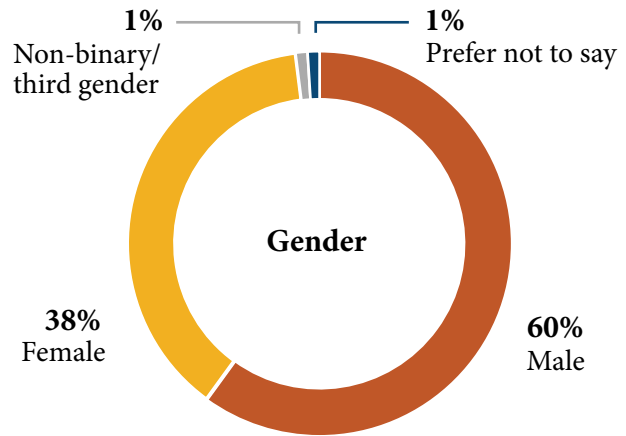
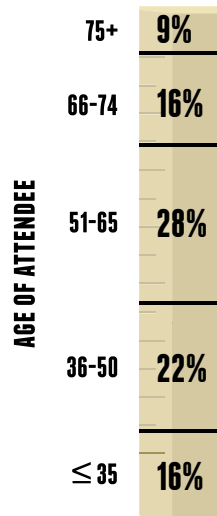


Government agency includes city, county, state and federal agency partners and SWCD staff.

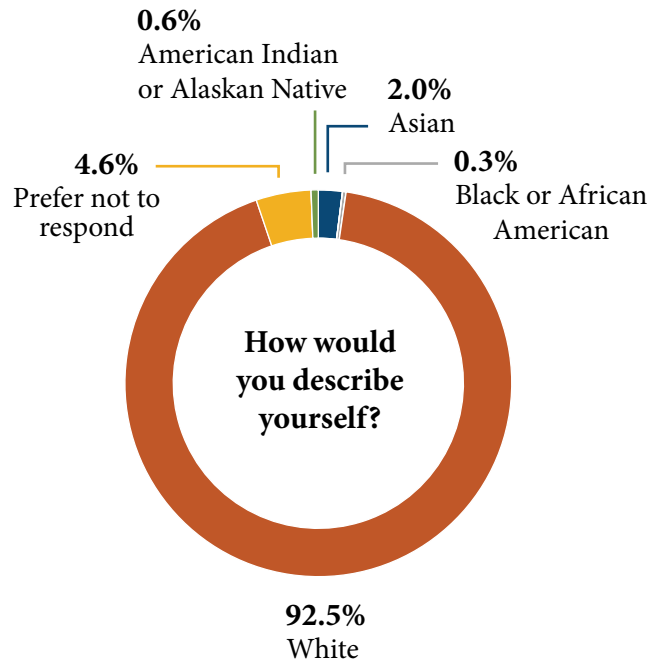
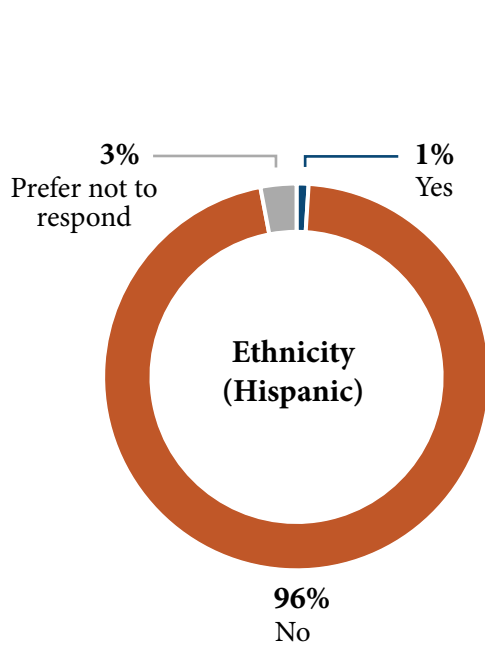
Other includes students, media, engineers, NGO and non-profit staff, interested residents and researchers.

Webinar participants have remained quite consistent over the three years we have been tracking this metric. The webinar series is not necessarily targeted to farmers and landowners, but the demographic information we collected showed that **a large percentage of our webinar audience identifies as either a farmer or landowner.** This indicates that our webinar series is another effective way to reach farmers and landowners, in addition to our farmer-focused field day events.

In 2022, 72% of the respondents live in Iowa, which is the same number reported in 2021. **Participants from 20 other states and 3 Canadian provinces tuned in.** Participants indicated they lived in the following states: California, Colorado, Illinois, Indiana, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas and Wisconsin, plus Alberta, Ontario, and Saskatchewan, Canada.

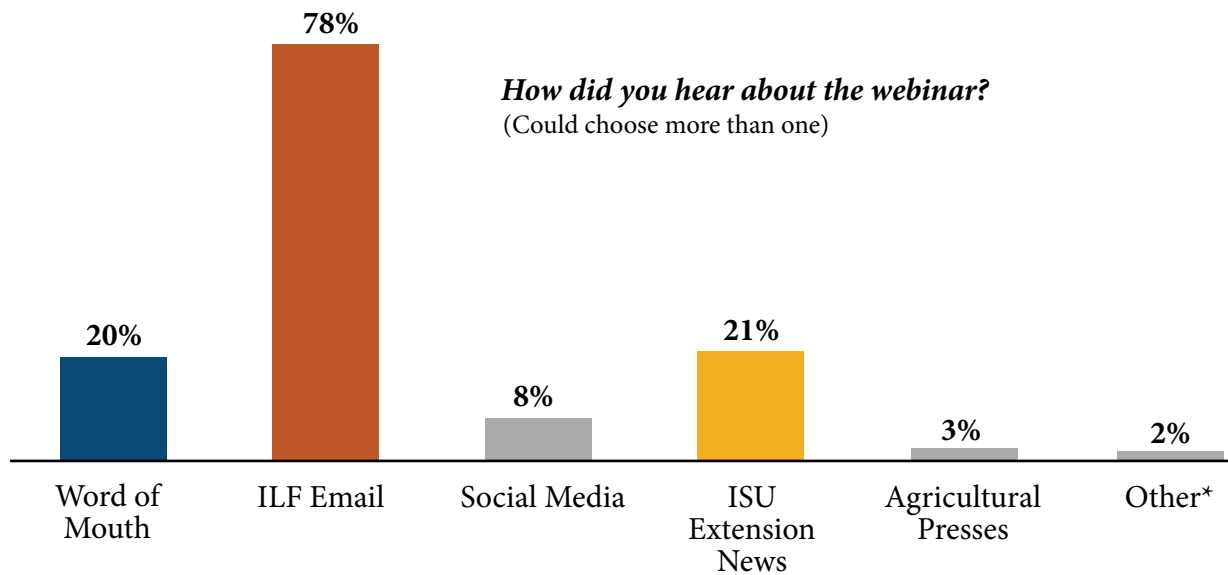


Similar to virtual field days, we see a good participation of females in our webinars, further indicating the need to offer a variety of outreach options. The average age of 2022 webinar participants was slightly up at 53 years old, compared to 50 years for 2021 participants. This could be due to increased outreach to women landowners about the webinars and encouraging their participation.



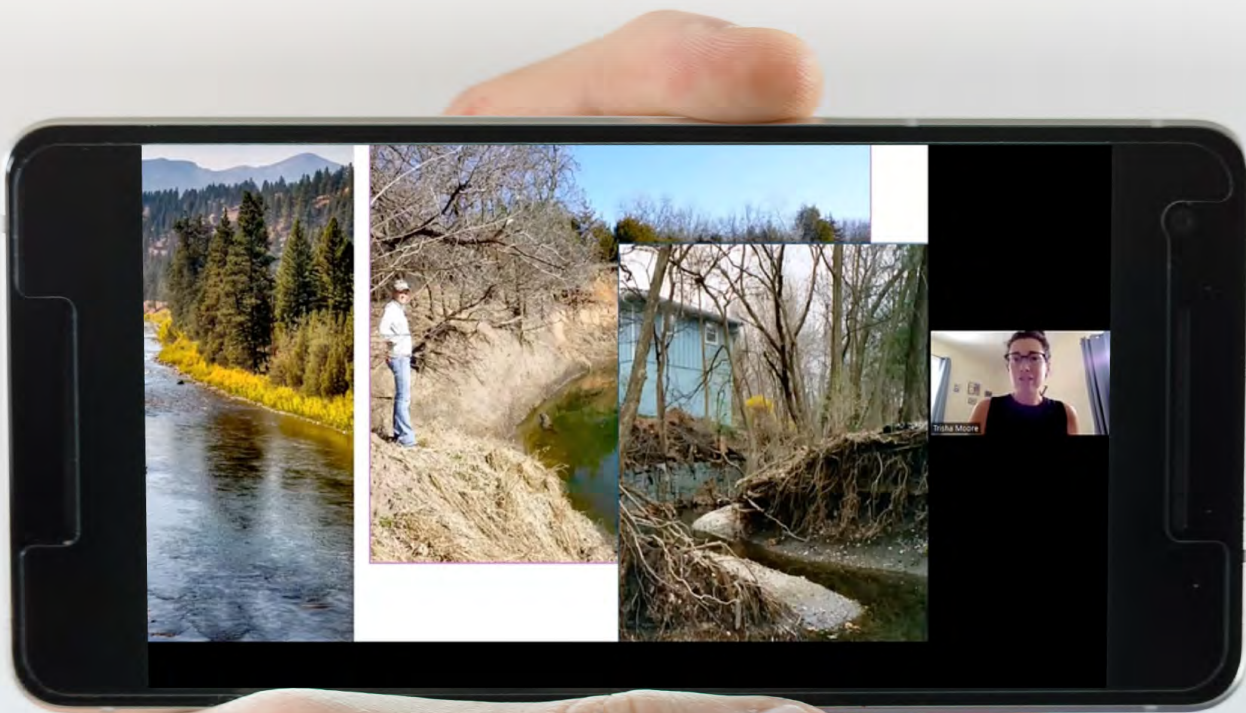
We added a new section to our webinar evaluation asking people to volunteer their ethnicity and how they would describe themselves. The majority of participants are white and not Hispanic.

HOW DID PARTICIPANTS HEAR ABOUT THE WEBINARS?

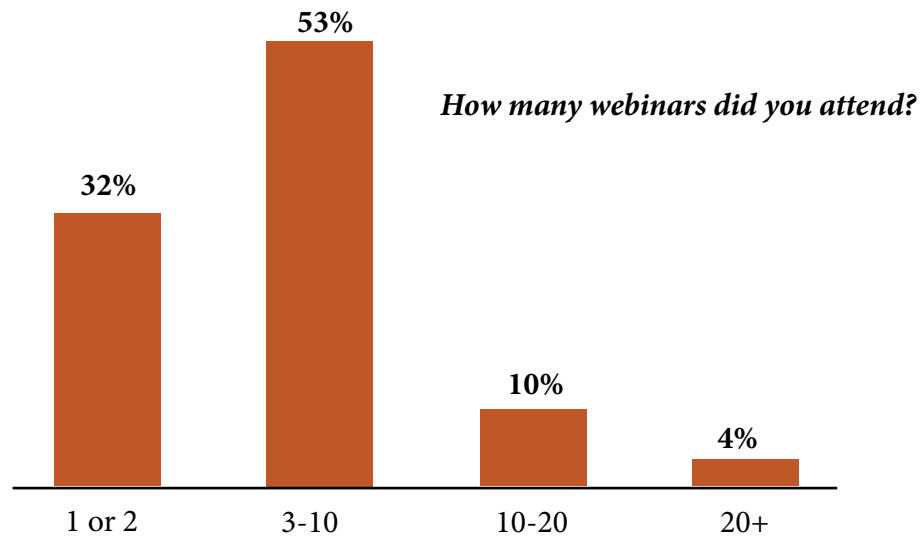


*Other includes from non-agricultural presses and other organizations like the Soil and Water Conservation Society, Practical Farmers of Iowa, Wisconsin Land and Water Association and Farm Bureau.

Following each webinar, attendee email addresses are added to our ILF email service. This allows previous participants to receive the weekly notifications to tune in and continues to serve as an effective communication tool for promoting our online events. In 2022, we saw an increase in how participants hear about the webinar via word of mouth, indicating that participants saw value in the webinar series and have encouraged others to attend.



HOW MANY WEBINARS DID PEOPLE ATTEND BEFORE AND DURING 2022?

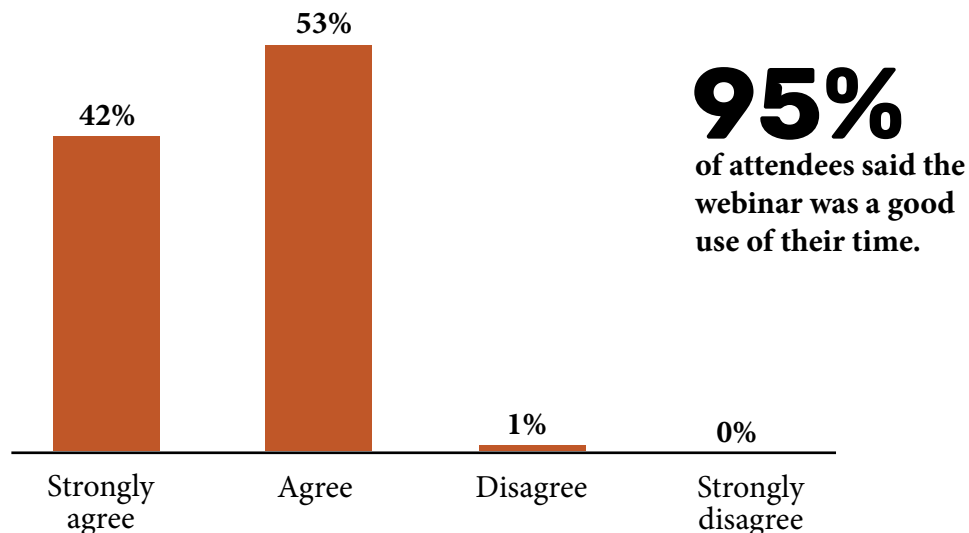


Prior to starting the weekly series in 2020, nearly half of the respondents had never attended an Iowa Learning Farms webinar. In 2022, 53% of respondents attended between 3 and 10 webinars, down slightly from 2021. However, the total number of live webinar participants increased by over 400 views in 2022. In 2022, 26% of respondents said they had never attended an Iowa Learning Farms webinar previously. **We continue to draw new participants, and the majority are tuning in to multiple webinars throughout the year.**

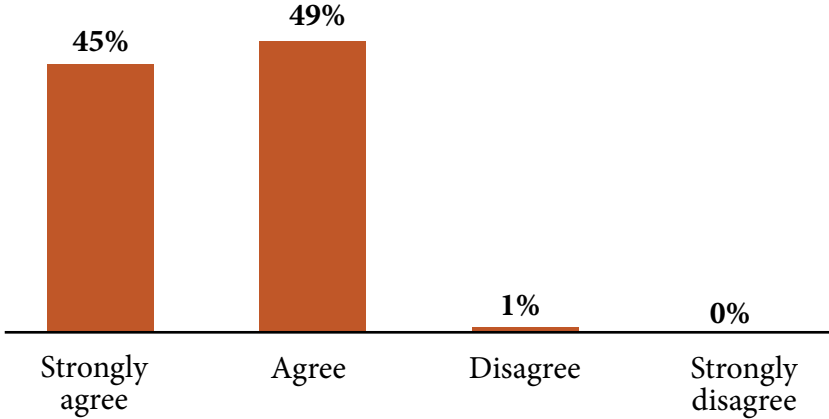
HOW EFFECTIVE WAS THE WEBINAR SERIES?

Over 97% of webinar participants rated the overall quality of the webinar(s) they attended as “excellent” or “good.” Participants also overwhelmingly stated that the webinars were a good use of their time, that they learned new information, and that they learned about new initiatives, resources, and/or tools.

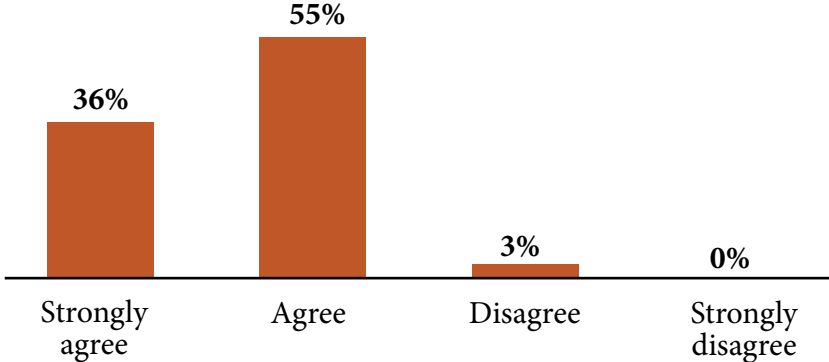
The webinar(s) I attended were a good use of time.



As a result of the webinar(s) I attended, I gained new information.



As a result of the webinar(s) I attended, I learned about new initiatives, resources and/or tools.



WHAT WERE SOME OF THE AUDIENCE’S FAVORITE WEBINARS?

We asked participants which of the webinars were their favorite and provided them with a link to the 2022 webinar list on the ILF website. The webinars that were listed as favorites show the breadth of topics that are of interest to our audience.

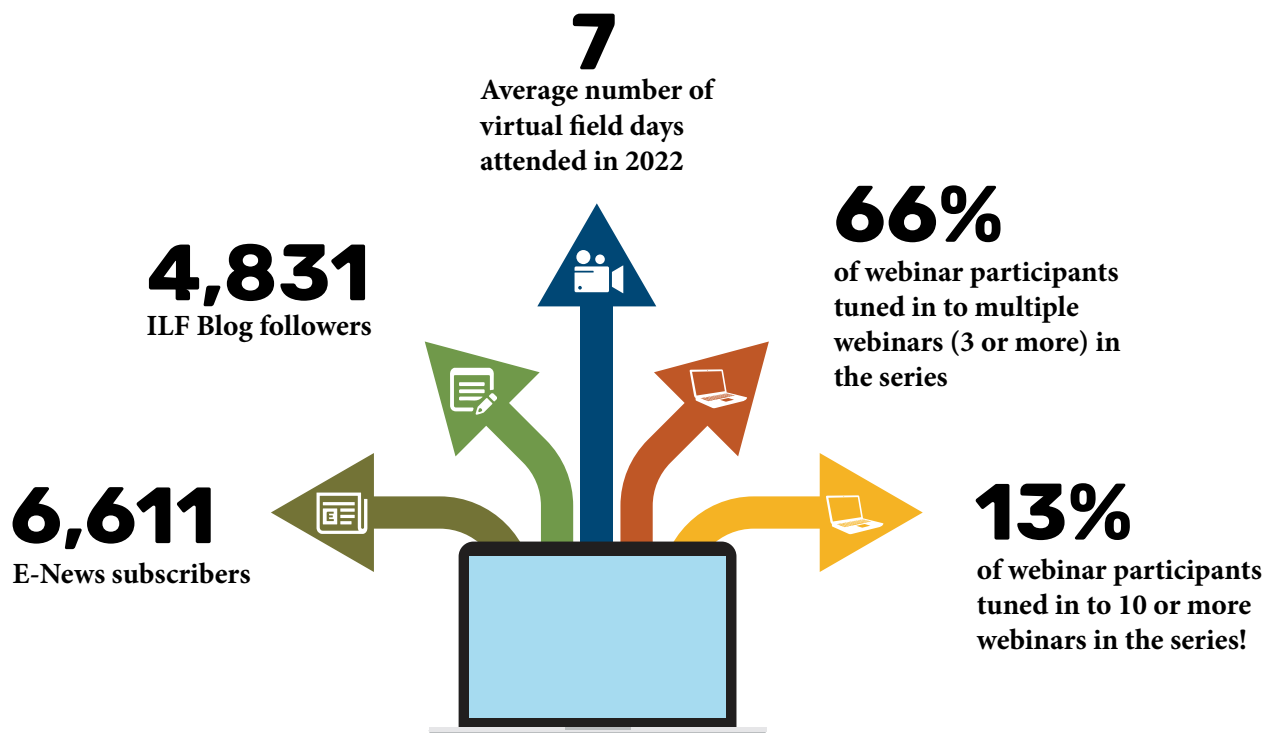
1. October 5: Vinayak Shedekar and Will Osterholz | Can Long-Term Soil Health Practices Improve Water Quality?
2. November 30: Lauren Salvato | Water Quality Trends on the Upper Mississippi River, 1989-2018
3. October 19: Prashant Jha | Cereal Rye Cover Crop: An Ecological Tactic to Manage Herbicide-Resistant Weed Seed Banks in Soybeans
4. August 31: Billy Beck | Woodchips and Water Quality: Can Select Tree Species Enhance Performance of Denitrifying Woodchip Bioreactors?
5. December 21: Etienne Sutton | Embracing Real-World Variability to Improve Cover Crop Outcomes
6. November 23: Jacqueline Comito | Can We Imagine a Healthy River in Iowa?

CONCLUSIONS

Influencing human behavior in relationship to environmental issues such as conservation and clean water is one of the most difficult challenges faced by our state. It is important to understand how much farmers are exposed to conservation and water quality messaging and how often the status quo is reinforced by what they read and hear. The challenge isn't the farmers who are coming to our field days. The challenge is the vast number of farmers who are staying home and having their beliefs reinforced that high yields trump conservation. Science demonstrates that when people are exposed to limited messaging (less than 40% of the messages they hear), it is more likely that they will double down on their beliefs. It is only when they reach 50% or higher, will they start to rethink ideas and beliefs and search out information in order to do something differently.³ Right now, it is fair to say that conservation and clean water appeals do not make up that much in terms of overall agricultural messaging.

Research and ideas can change hearts, minds and behavior, but only when coupled with strategic influence. Bringing together a cohort of conservation and water quality influencers into a robust influence strategy focused on broader recognition of issues and effective corrective actions, we can productively move toward better water quality in Iowa. Through its unique blend of in-person and online activities, Iowa Learning Farms has vigorously pursued its mission of building a Culture of Conservation in Iowa and making science- and research-based best practices in agriculture, land management and environmental science available to all. As indicated in this report, program elements such as virtual field days and an increased cadence of weekly webinars, have all proven to successfully connect with audiences—albeit somewhat differently—and have now gained permanence in the ILF menu of program offerings. The success of these programs does not replace the need for in-person engagement, but does offer a tremendous opportunity to expand the Culture of Conservation reach to a more diverse group of conservation influencers (e.g. farmers, landowners, policy makers and conservation professionals) across Iowa and well beyond.

BUILDING A CULTURE OF CONSERVATION THROUGH AN ONLINE COMMUNITY OF CONSERVATION AND WATER QUALITY INFLUENCERS



³ McRaney, D. 2022. *How Minds Change: The Surprising Science of Belief, Opinion, and Persuasion*. Penguin Random House: New York, NY.

Feedback from field day participants continues to show that these diverse offerings are valuable ways to reach farmers, landowners and conservation professionals advising their clients.



“I really appreciate the opportunity to get CCA credits on current topics easily and at no cost.”
~ October 20 Virtual Field Day



“Good to be on-site for these and explain some not well-known practices that are very noticeable on the landscape due to being just off major highways.”
~ January 12 Virtual Field Day



“If a picture is worth a thousand words, video must be worth a million.”
~ December 8 Virtual Field Day



“I have a nephew that bought a farm near Galena that I am talking to about implementing the things I learned about at the field day.”
~ July 27 In-Person Field Day, Zwingle



“Very convenient to join in virtually and learn about conservation throughout the state without having to drive several hours, especially in winter.”
~ February 24 Virtual Field Day



“This was a great and informative field day. All the stories from experienced farmers were also very great!”
June 1 In-Person Field Day, Manson



“One of the best programs!”
~ August 9 In-Person Field Day, Guernsey



Established in 2004, Iowa Learning Farms is building a Culture of Conservation by encouraging adoption of conservation practices. Farmers, researchers and ILF team members are working together to identify and implement the best management practices that improve water quality and soil health while remaining profitable. Partners of Iowa Learning Farms include the Iowa Department of Agriculture and Land Stewardship, Iowa State University Extension and Outreach, Leopold Center for Sustainable Agriculture, USDA Natural Resources Conservation Service, Iowa Department of Natural Resources (EPA Section 319 Grant Program) and GROWMARK, Inc.