

### Introduction

Despite the challenges posed by the COVID-19 pandemic in 2020, lowa Learning Farms continues to build a Culture of Conservation as we bring together farmers, landowners, agribusiness professionals, researchers, and state and federal agency partners. In 2020, lowa Learning Farms offered virtual field days and weekly webinars in order to stay connected while in-person events were limited.

**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 lowa Learning Farms staff member acted as the host of the event, providing background information on lowa Learning Farms and the topic of the virtual field day, and relaying questions from the Zoom chat feature to the presenters. This format allowed attendees to still see a field site as they would during an in-person field day and ask questions. 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. The virtual field days were recorded and uploaded to YouTube following the event, which allowed us to also track archive views.

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.

The lowa Learning Farms **CONSERVATION WEBINAR SERIES** started in 2011, with webinars offered on a monthly basis. In March 2020, we began to host weekly webinars in order to stay connected to our audience while in-person events were limited. Due to the increased popularity of the webinars, we decided to evaluate the 2020 webinar attendees. We sent out a Qualtrics survey via email to the 2020 webinar attendees in late January 2021, which allowed us to gain a better understanding of our webinar audience and how effective the weekly webinars are.

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## 2020 Iowa Learning Farms Virtual Field Days

We adapted our field day programming to be delivered virtually in 2020, due to the limits placed on in-person events by the COVID-19 pandemic. 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 lowa Learning Farms staff member acted as the host of the event, providing background information on lowa Learning Farms and the topic of the virtual field day, and relaying questions from the Zoom chat feature to the presenters. This format allowed attendees to see the field site and practices discussed during the recorded video, and also to ask specific questions after they had viewed the recording. This 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. The virtual field days were recorded and uploaded to YouTube following the event.

We hosted 19 virtual field days in 2020, with 1,404 total live event attendees (an average of 74 attendees per live event) and 2,884 archive views (as of 1/4/21). We don't have demographic information for the archive viewers and therefore don't know how many of them identify as farmers.

In 2019, we hosted 20 field days with 957 total attendees (an average of 48 attendees per event). The virtual format of the events in 2020 allowed us to reach a larger audience during the live events and through the archive 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. The virtual field day is also promoted on the ILF website, through a blog post on the ILF blog a week before the field day, and as a boosted Facebook event. A reminder about the field day is sent out to the ILF email list as a special notice the week of the field day.

### **Virtual Field Day Evaluation**

The virtual field day evaluations were created using Qualtrics and designed to be similar to both the cards that in-person field day attendees would fill out at the event and the mailed 2 Week evaluation. A link to the Qualtrics survey is emailed to the virtual field day usage list, provided by Zoom. The surveys are sent out on the day of the virtual field day, shortly after it ends, and then a reminder is sent out again 2-3 days later (typically on the following Monday for a Thursday virtual field day). If the response rate is low, a second reminder may be sent out. The evaluation email also contains a link to the recorded field day.

# Virtual Field Day Certified Crop Adviser (CCA) Continuing Education Units (CEU)

Board-approved CEUs for CCAs were applied for to allow virtual field day attendees to earn from attending the live event. The field day attendees who were seeking credit emailed their name and CCA number after the field day. Their attendance was checked against the Zoomgenerated usage list and they were added to the CEU sign-in sheet that was sent to the CCA board.

Seventy-four Certified Crop Advisor continuing education units were awarded to 50 virtual field day attendees in 2020.

### **2020 Iowa Learning Farms Virtual Field Days**

	Total	Evaluations	Evaluations	Archive
Virtual Field Day	Attendees	Sent¹	Returned	Views <sup>2</sup>
4/16: Managing Cereal Rye Ahead of Corn	100	26 <sup>3</sup>	16	186
4/24: Farming for the Future With Wade Dooley	60	51	22	696
5/14: Riparian Forest & Wildlife Habitat	94	73	37	153
5/28: Celebrating lowa's Wetlands	55	51	23	187
6/11: Exploring Bear Creek Saturated Buffer	77	79 <sup>4</sup>	35	198
6/18: Digging into Soil Health	79	74	31	93
6/25: Farmer Partners Share Experiences as part of 10 Year Cover Crop Project	66	57	21	140
7/9: Prairie Strips: Small Footprint, Big Impact	90	84	48	148
7/23: Urban Stream & Riparian Conservation Management	78	73	35	61
8/6: Increasing Wetland Opportunities with Iowa Department of Agriculture and Land Stewardship	78	67	36	135
8/25: Utilizing No-Till as a Moisture Management Tool	67	56	34	173
9/10: Redefining the Field Edge	52	42	20	56
9/24: Manure Application Considerations in Dry Conditions	57	50	21	53
10/15: Mitigating Flooding and Improving Water Quality in the Upper Wapsipinicon Watershed	49	39	17	60
10/20: Incorporating Biomass Sorghum into the Iowa Crop Rotation	31	22	11	111
10/29: Touring Iowa's Forests	82	82	42	221
11/5: Exploring Impacts of Cover Crops, Tillage and N-Inhibitors on Crop Performance and Water Quality	74	67	24	76
11/24: Making Cover Crops and Strip-Till Work in the Des Moines Lobe	144	131	60	137
12/10: Wetlands Key to Middle Cedar Watershed and State Goals	71	66	22	56
Total	1,404	1,085	555 <sup>5</sup>	2,884

<sup>1 —</sup> Qualtrics surveys were emailed to virtual field day 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>2 -</sup> Views of the archived virtual field day and related videos on YouTube, as of 1/4/2021.

<sup>3 –</sup> There was an issue with the registration setup for the first virtual field day. For that field day there were 100 attendees, but we were only able to email the evaluation to 26 of them.

<sup>4 —</sup> Initially, the survey was sent to the registration list and included people who may have registered, but not attended the virtual field day, which is why the number of evaluations sent for this field day was higher than the number of total attendees. This was corrected, and starting in late June, we began using the Zoom-generated "usage report," which allowed us to send the evaluations only to those who had watched 10 minutes or more of the live virtual field day.

<sup>5 - 51%</sup> response rate.

### 2020 Iowa Learning Farms Virtual Field Day Evaluation Summary

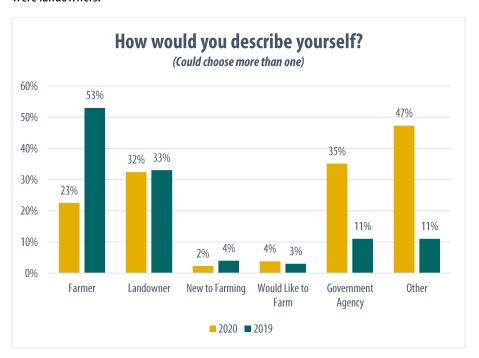
The results of the lowa Learning Farms virtual field day evaluations are summarized below, and comparisons to 2019 in-person field days are included, where appropriate. We had a **51% response rate** to our emailed surveys, which is excellent. Out of 1,542¹ attendees who provided an email address during the registration process, 878 were unique (57%). Because these summary data are compiled from the individual virtual field day surveys that were sent after each event, 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 2019, when there were fewer people who attended multiple field days.



### Who attended the virtual field days?

The virtual field days of 2020 drew a slightly different audience than the in-person field days of previous years. These virtual offerings drew a more diverse audience, attracting more female attendees and a younger audience than our traditional in-person events.

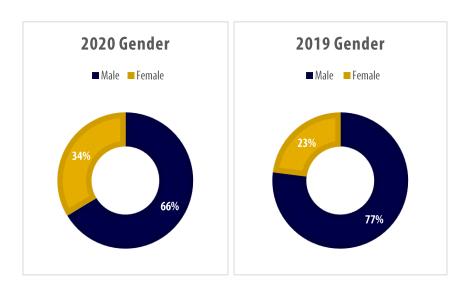
More government agency staff and those who identified as "other" (students, educators, media, agricultural business or industry, and unspecified) attended the virtual field days. Fewer of those who identified as a farmer or operator attended the virtual field days, but approximately the same percentage of the audience for both virtual and in-person field days were landowners.

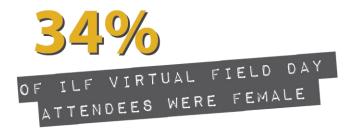


<sup>&</sup>lt;sup>1</sup> — This number of attendees is higher than the total number reported above due to the use of registration reports for several of the first virtual field days, which may have included some registrants who did not actually attend the live event. Once Zoom-generated usage reports were identified as the most accurate representation of actual attendance, those data were used in place of the registration report. Because usage reports were not available for the first few events, the registration reports were used to identify unique attendees, based on the provided email.

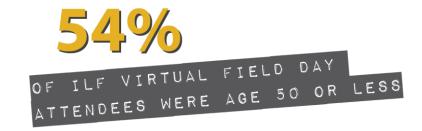
Seventy-five percent of virtual field day attendees reported that they live or farm in Iowa. Others live in 18 states, including California, Connecticut, Idaho, Illinois, Indiana, Kansas, Louisiana, Maryland, Minnesota, Missouri, Nebraska, New York, Ohio, Oklahoma, Pennsylvania, Texas, Virginia, and Wisconsin, and Canada.

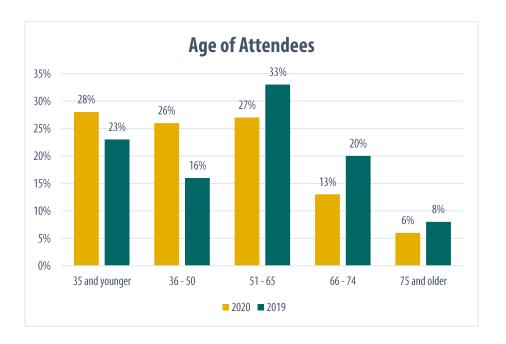
Attracting more female attendees to field days has been a long-term goal of lowa Learning Farms. The virtual field days saw an increase of over 10% in female participants compared to the 2019 in-person field days.





Attracting a younger audience to field days has also been a long-term goal of lowa Learning Farms. **The virtual field day format did attract younger attendees, with a greater proportion (54%) being age 50 or younger**, compared to 2019 in-person events (39% were age 50 or younger). The average age of 2020 virtual field day attendees was 48 years old, compared to 54 years old for the 2019 in-person field days.





### How was the overall quality of the virtual field days?

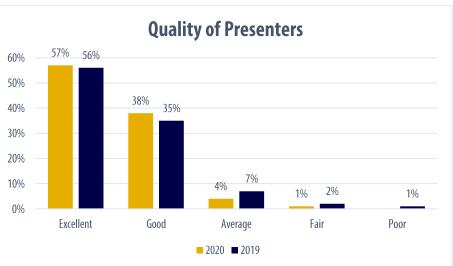
The overall quality of the events remained high during 2020, indicating that the virtual events met the high standard of quality set by lowa Learning Farms' in-person field days.

Ninety-six percent of virtual field day attendees rated the event's overall quality as "excellent" or "good."

OF ILF VIRTUAL FIELD DAY ATTENDEES RATED THE EVENT QUALITY AS EXCELLENT/GOOD

Due to the new format of the virtual field days, we also asked attendees to rate the **technology used** and **92% rated it as "excellent" or "good."** 





### **Summary of Attendees' Farming Practices**

There were 569¹ virtual field day attendees who indicated during registration that they were a farmer or a landowner. Of those, 388 (68%) were unique registrations (based on email address). Because these summary data are compiled from the individual virtual field day surveys that were sent after each event, 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 2019, when we did send a separate year-end survey to just farmer and landowner attendees.

The Qualtrics surveys were set up so that if a respondent indicated that they were actively farming, rent tillable acres from a landlord, own tillable acres, or lease tillable acres to a tenant, they were asked how many acres of each they were farming, renting, owned, or leased. If a respondent indicated that they either rented tillable acres from a landlord or leased tillable acres to a tenant, they were asked if they had conservation measures built into their lease.

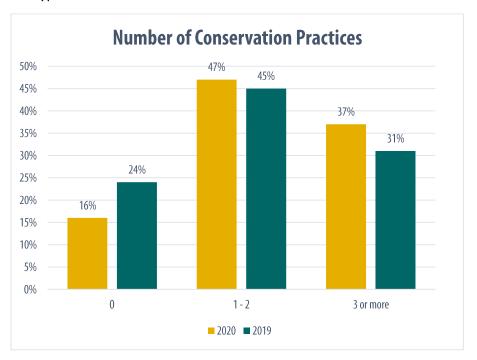
	Actively Farming	Rent Tillable Acres from a Landlord	Own Tillable Acres	Lease Tillable Acres to a Tenant
Percent of respondents who identified as a farmer or landowner (n = 230)	54%	27%	58%	31%
Average acres	661	478	311	265

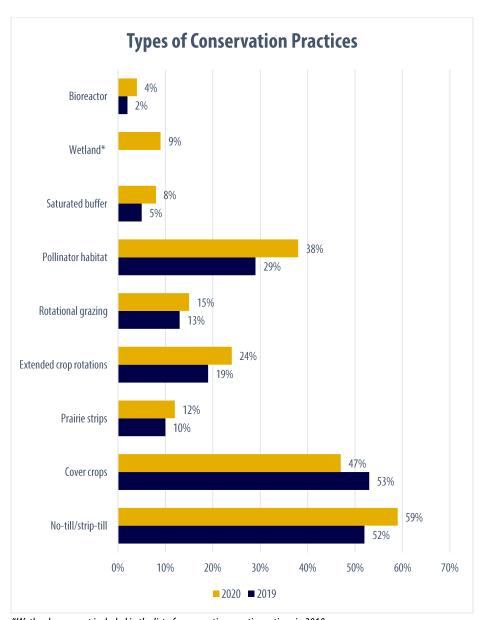
<sup>&</sup>lt;sup>1</sup> — This number is based off of the registration lists of each virtual field day, since participants were asked if they were a farmer or landowner during the registration process. As described above, the registration lists may include people who registered, but did not actually attend the virtual field day.

Attendees who identified as farmers or landowners reported owning an average of 66% of the land they farmed and 22% reported having conservation measures built into their lease (as either the tenant or landlord).

We also asked virtual field day attendees who identified as a farmer or landowner 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, pollinator habitat, saturated buffer, wetland, and bioreactor.

Thirty-seven percent of farmer/landowner respondents indicated that they utilize three or more conservation practices. The most common practices used were notill/strip-till (59%), cover crops (47%), and pollinator habitat (38%). This is in keeping with the numbers from 2019, when the same conservation practices were the most commonly used types.





\*Wetlands were not included in the list of conservation practice options in 2019

## **2020 Iowa Learning Farms Webinars**

In March 2020, we began hosting weekly lowa Learning Farms conservation webinars. Previously, the webinars had been held monthly. Webinars were held on Wednesdays at noon. **The weekly webinars in 2020 drew an average audience of 93 attendees per live webinar**, while the monthly webinars in 2019 drew an average audience of 49 attendees per live webinar.



### **Weekly 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. On the Tuesday before a webinar, there is a promotional post done on the lowa Learning Farms blog. On the morning of the webinar, information about the webinar is sent out to the ILF email list as a special notice. On the Friday after the webinar, a recap is posted on the blog along with a link to the recording.

Webinars were also added as events to the ILF website and ILF Facebook page.

# Webinar Certified Crop Adviser (CCA) Continuing Education Units (CEU)

When the topic was relevant, we applied for a CCA CEU. Once approved, these webinars were added to the CCA CEU calendar. Webinar attendees who were seeking credit for watching the live webinar emailed their name and CCA number after the webinar. These attendees were checked against the Zoom-generated usage list and added to the CEU sign-in sheet, which was then submitted to the CCA board.

One hundred and forty-one Certified Crop Advisor continuing education units were awarded to 72 webinar attendees in 2020.

# **2020 Iowa Learning Farms Conservation Webinar Series**

Webinar	Live Views	Archive Views (as of 1/4/21)
1/15: Update from the Iowa Nutrient Research Center (Kay Stefanik)	47	71
2/5: A Water Quality Chat with Mike Naig	59	129
3/18: Embracing the Call to Abundance: The Value of Environmental Service on Iowa Farms (Matt Russell)	64	45
Start of Weekly Webinars:		
3/25: Carbonate Research and the Potential for Carbon Storage in Iowa Soils (Mark Rasmussen)	59	61
4/1: The Effect of Stream Channel Incision on Groundwater Depth in Riparian Corridors (Hilary Pierce)	70	57
4/8: Succeeding with Cover Crops & No-Till: A Guide for Spring 2020 (Liz Ripley & Mark Licht)	73	90
4/15: Finding Mutual Opportunities for Soil, Water, and Wildlife by Redefining the Field Edge (Adam Janke)	87	63
4/22: Trees, Forests, and Forestry: Benefits to Water Quality and On-Farm Income in Iowa (Billy Beck)	120	72
4/29: Iowa's Water Quality Challenge: Efforts and Progress in Reducing Agricultural Nitrogen and Phosphorus Loss (Laurie Nowatzke)	133	56
5/6: Multi-Cropping as a Profitable Soil Health Solution (Ross Evelsizer)	88	69
5/13: Exploring the Economic, Ecological, and Aesthetic Case for Retiring (Or at Least Down-Sizing) the Mower on Farms and City Lots (Adam Janke)	80	58
5/20: Wetland Ecosystem Services: How Wetlands Can Benefit Iowans (Kay Stefanik)	97	57
5/27: The Importance of Urban Conservation and Useful Stormwater Management Practices for Homeowners (Paul Miller)	88	51
6/3: A Paired Watershed Study of the Impact of Stacked BMPs on Water Quality (Michelle Soupir)	96	55
6/10: Making Nutrient Reducing Prairie Strips More Predictably Successful, Multi-Functional, and Cost Effective (Justin Meissen)	132	44
6/17: A Resource for Successful Adoption of Conservation Practices (Mark Licht)	74	56
6/24: Environmental Performance of Wetlands Receiving Non-Point Source Nutrient Loads: Benefits and Limitations of Targeted Wetland Restorations (William Crumpton)	97	53
7/1: Optimizing Yields of Corn Planted After a Cereal Rye Cover Crop (Alison Robertson)	88	68
7/8: The Business of Cover Crops—Agronomist Bootcamp Session 1 (Matt Carstens & Lee Briese)	139	155
7/15: Setup and Logistics for Cover Crop Success — Agronomist Bootcamp Session 2 (Bert Strayer, James Holz, Dean Sponheim & Nate LeVan)	166	69

Webinar	Live Views	Archive Views (as of 1/4/21)
7/22: Conservation Agronomy of Cover Crops: Start to Finish — Agronomist Bootcamp Session 3 (Dave Schwartz, Eileen Kladivko & Meaghan Anderson)	110	120
7/29: Multiple On-Farm Improvements Provided by Prairie Strips (Tim Youngquist)	63	44
8/5: Scaling up Oxbow Wetland Restorations for Multiple Benefits (Karen Wilke)	91	78
8/12: SABR: ISU's New Sustainable Advanced Bioeconomy Research Farm (Emily Heaton)	74	27
8/19: Tradeoffs Between Greenhouse Gas Emissions, Nitrate Loss, and Soil Health in No-Till and Cover Crop Systems (Morgan Davis & Emily Waring)	72	53
8/26: Evaluating Annual Forages for Beef Cattle: ISU Forage Research Test Plots (Erika Lundy)	49	15
9/2: Long-Term Impacts of 4R Nitrogen Management Practices and Cover Crops on Nitrate-N Loss (Matt Helmers)	99	44
9/9: Lessons From the Derecho: Addressing Storm Damage and Working Towards Resilient Forest and Tree Resources (Billy Beck)	100	68
9/16: Enhancing Monarch Butterfly Conservation in Iowa (Steven Bradbury)	82	40
9/23: Iowa Flood Center Floodplain Mapping Programs (Witold (Witek) Krajewski)	57	40
9/30: Iowa's Wild Weather Year: From Drought to Derecho (Justin Glisan)	87	23
10/7: Choosing an Edge-of-Field Practice: Decision Trees Can Help (Chris Hay)	69	54
10/14: The Halo Effect: Do Short-Term Watershed Project Successes Lead to Long-Term Continued Successes? (Jacqueline Comito & Jamie Benning)	83	52
10/21: Sustainable Weed Management Solutions for Iowa Corn and Soybean (Prashant Jha)	79	47
10/28: Cover Crops for Better Corn and Soybeans (Sarah Carlson)	123	80
11/4: Nutrient Reduction Progress at Iowa Wastewater Treatment Facilities (Adam Schnieders)	59	44
11/11: Finding the Right Fit for Soil Health Practices (Abbey Wick)	116	79
11/18: Don't Run Off!—Managing Stormwater in the Urban Landscape (John McMaine)	59	28
11/25: Can Moments of Awe and Gratitude Improve the Environment? (Jacqueline Comito)	81	21
12/2: Mapping Tile Drain Systems: Using Technology to Find Grandpa's Tile (Kevin Erb)	207	145
12/9: The Cost and Benefits of Agricultural Water Conservation: An Economist's Perspective (Wendong Zhang)	89	43
12/16: Perennial Groundcovers for Achieving Soil and Water Conservation with Large-Scale, High-Yield, Row Crop Production (Cynthia Bartel)	108	40
Total Views	3,814	2,564

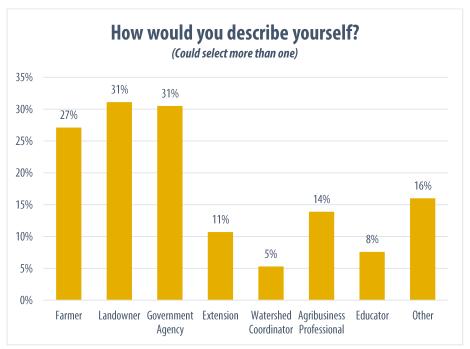
### 2020 Iowa Learning Farms Webinar Series Evaluation Summary

The lowa Learning Farms Conservation Webinar Series started in 2011 on a monthly basis. The webinars feature presenters who discuss conservation-related topics. The monthly webinar series was not previously evaluated, but the number of attendees for each webinar was tracked.

In March 2020, we began to host weekly webinars in order to stay connected to our audience while in-person events were limited. Due to the increased popularity of the webinars (average attendance nearly doubled from 49 in 2019 to 93 in 2020), we decided to evaluate the 2020 webinar attendees. This allowed us to gain a better understanding of our webinar audience and the effectiveness of our weekly webinar series. We sent out a Qualtrics survey via email to 2020 webinar attendees in late January 2021. The results of the survey are summarized below.

The survey was sent to 1,426 people and 488 responded (34%). While we typically have a response rate of over 40% for our mailed evaluations, 34% is a good response rate for an emailed survey.

#### Who attended the webinar series?



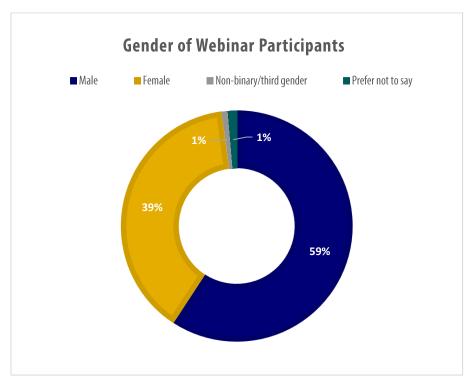
Government agency includes city and county, Department of Natural Resources, IDALS, USDA, US EPA, state agency, and SWCD staff.

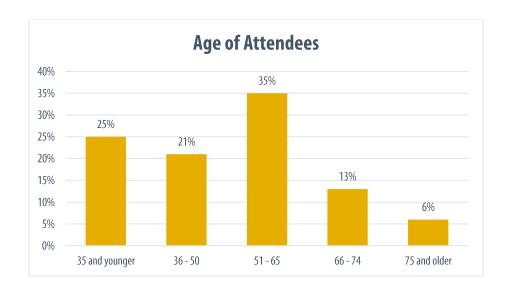
Other includes media, engineers, NGO and non-profit staff, interested residents, researchers, and students.

The webinar series is not necessarily targeted to reach 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.

Seventy-seven percent of the survey respondents live in Iowa. **Attendees from 20 states, Puerto Rico, and Canada also tuned in.** Attendees indicated they lived in the following states: Arizona, California, Colorado, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Nebraska, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Virginia, and Wisconsin.

Since this is the first time that we are evaluating the webinar series, we can't say how this compares to previous years, but it does show that we are not only reaching people across lowa with our webinar series, but also across the United States and even in other countries.







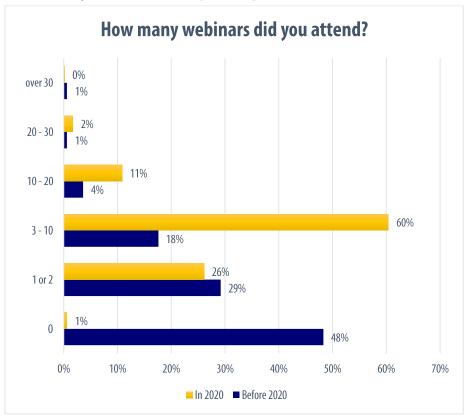
### How did participants hear about the webinars?



Other includes from non-agricultural presses and other organizations like the Department of Natural Resources, Practical Farmers of Iowa, Wisconsin Land and Water Association, watershed management authorities, and Farm Bureau.

Following each webinar, attendee email addresses were added to our ILF email service. This allowed previous attendees to receive the weekly notifications to tune in and continues to serve as an effective communication tool for promoting our online events.

### How many webinars did participants attend?

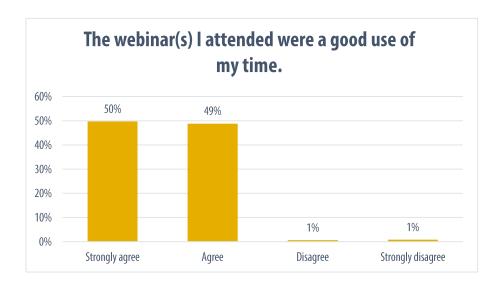


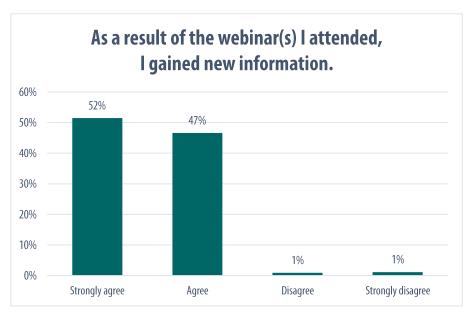
**Prior to 2020, nearly 50% of the people surveyed had never attended an lowa Learning Farms webinar.** In 2020, just over 60% of the people surveyed attended between 3 and 10 lowa Learning Farms webinars. When we evaluate the 2021 webinar series, we will be able to compare the number of webinars attended and see if people continue to attend multiple webinars.

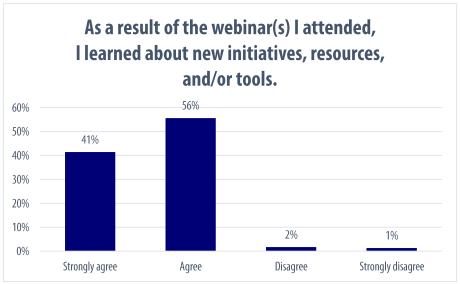
#### How effective was the webinar series?

**Over 98% of webinar attendees rated the overall quality of the webinar(s) they attended as "good" or "excellent."** Attendees 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.









#### What were the audience's favorite webinars?

We asked webinar attendees which of the webinars were their favorite and provided them with a link to the 2020 webinar list on the lowa Learning Farms website. The webinars that were listed as favorites show the breadth of topics that are of interest to our audience.

- 1. "Mapping Tile Drain Systems: Using Technology to Find Grandpa's Tile" Kevin Erb
- 2. "Scaling up Oxbow Wetland Restorations for Multiple Benefits" Karen Wilke
- 3. "Finding the Right Fit for Soil Health Practices" Abbey Wick
- 4. (TIE) "Cover Crops for Better Corn and Soybeans" Sarah Carlson
  "Long-Term Impacts of 4R Nitrogen Management Practices and Cover Crops on
  Nitrate-N Loss" Matt Helmers
- 5. (TIE) "Enhancing Monarch Butterfly Conservation in Iowa" Steven Bradbury
  "Can Moments of Awe and Gratitude Improve the Environment?" Jacqueline Comito