



# JOURNAL OF THE NACAA

ISSN 2158-9459

VOLUME 15, ISSUE 2 – DECEMBER, 2022

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## Survey Increases Understanding of Iowa Women Farmland Owners

### Abstract

To increase understanding of Iowa's women farmland owners, our team conducted a literature review and then designed a survey instrument. The survey was mailed to 728 women and 358 women responded. Results show 92.0% of women farmland owners are in a decision-making role. Women can be effective change agents for more equitable farmland leasing, adoption of conservation practices, and greater efficiencies in land transition to next generation farmers. The research helps guide extension professionals in developing resources and programs that extend knowledge and empower women farmland owners. All citizens benefit when extension supports women in improving agricultural sustainability through the farmland management decisions they make.

## Introduction

“I am blessed with the opportunity to live on the land and help care for it...I am very happy that our daughter has chosen to return to the farm,” shared a woman farmland owner and respondent to the Iowa State University Extension and Outreach Women Farmland Owner Survey.

The survey is part of a multi-year project to better understand and meet the educational needs of women farmland owners. The project is called “Enhancing Conservation, Access and Generational Transition of Iowa Farmland through Women.” Specifically, our project goals are to research the needs of women farmland owners and develop educational resources around three interwoven farm management tasks:

1. Use of equitable leases and other legal or economic incentives to increase conservation and land access to beginning farmers.
2. Adoption of soil and water conservation practices.
3. Implementation of efficient plans to transition farmland to next generation owners.

The project goals fit well into the overall mission of the ISU Extension and Outreach Women in Ag Program. Our mission is to improve the quality of life in Iowa by providing research-based educational resources and programs that: a) expand agricultural business, b) improve natural resource management, and c) support the community of women in agriculture.

The project team completed a literature review and then designed the Iowa Women Farmland Owner Survey. The survey results give us a better understanding of Iowa’s women farmland owners and how we can better meet their educational interests. This paper provides a summary of our research findings.

For more information on our research or programs, visit the Women in Ag Program website at <https://www.extension.iastate.edu/womeninag>.

## **Review of the literature**

Women farmland owners have significant and increasing roles in U.S. agriculture. Key characteristics identified in the research demonstrate the importance of their decisions. The 2017 Iowa Farmland Ownership and Tenure Survey shows 47% of all acres and 55% of all leased acres in Iowa are owned by women (Zhang et al., 2018a). In addition, 30% of all acres and 39% of all leased acres in Iowa were owned by women 65 years and older and 13% were owned by women 80 years and older. Nationally, the U.S. Farmland Ownership Tenure and Transfer report indicated 37% of non-operator principal farmland owners are women and on average, they own more acres to rent out than their male counterparts. In addition, 76% of land with a female non-operator farmland owner is controlled by someone older than 65 (Bigelow et al., 2016). These data indicate women's succession and transition decisions are of considerable importance to the farming community and the future structure of the agricultural sector.

Women farmland owners face particular challenges in land management decisions, especially regarding land leasing, conservation, and ownership transitions. Research finds women feel uncomfortable talking to family members or tenants about making changes in farm management practices. Women often "inherit" a tenant along with farmland (Carolan 2005), who may be a neighbor, friend, or family member and is part of her community. Women farmland owners, especially those who are non-operator farmland owners, are less likely to have met Cooperative Extension and USDA Natural Resource Conservation Service staff, resulting in lower knowledge levels regarding resource management (Petrzelka et al., 2009). Land owned by women farmland owners in Iowa is more likely to be held in trusts, and less likely to be sold to others outside the family. This often results in additional social pressures and transition obstacles faced by women farmland owners (Zhang et al., 2018b).

Women farmland owners represent a significantly overlooked group in U.S. agriculture because federal and state data collection efforts often target producers rather than farmland owners. As a result, we lack knowledge about women farmland owners regarding their educational needs, decision-making processes, and existing farm management strategies related to leasing, conservation, and land transitions. Recent

efforts have collected information about farmland owners such as the 2018 American Farmland Trust Non-Operator Landowner survey, yet we still lack targeted information on the educational needs of women farmland owners, best delivery systems for this audience, and how knowledge gaps vary by age, gender, ownership type and region.

Educational materials may not appeal to women farmland owners. Conservation guidance often assumes a producer background. Materials explaining legal considerations for farmland leases or transition planning often target producers or retired farmers. Research finds that educational materials may not appeal effectively to women because few of the photos in brochures used by the conservation agencies are of women and the language tends to be technical and filled with unfamiliar terms and acronyms (Eells, 2008). Furthermore, many existing extension and outreach efforts, including women in agriculture programs, focus on farm operators, agricultural lenders, and other agricultural professionals, as opposed to farmland owners.

## **Methods**

In spring 2021, Iowa State University's Center for Survey Statistics and Methodology Survey Research Services (CSSM-SRS) was contracted to conduct a web/mail survey of Iowa women farmland owners. The survey's purpose was to understand more about women farmland owners and designing educational programs to extend knowledge and empower women regarding farmland leasing, conservation, and transition.

A sample of 404 women farmland owners was selected from recent participants in farm management courses for women offered through the ISU Extension and Outreach Farm Management Team. This was supplemented with 324 women farmland owners from the quinquennial 2017 Iowa Farmland Ownership and Tenure Study sample. The total survey sample was 728 contacts.

CSSM-SRS staff drafted an invitation letter to the online survey, cover letter, and reminder postcard in collaboration with the project team. The invitation letter was mailed on July 28, 2021, with a \$2 bill as an incentive to complete the survey. An email

invitation was sent on August 2, 2021, to 268 women in the sample for whom there were email addresses and who had not yet completed the online survey. A complete survey packet was sent to 541 non-responders with deliverable addresses on August 10, 2021. An email reminder was sent on August 11, 2021, to 179 women in the sample with deliverable email addresses who had not completed the online survey.

A reminder postcard was mailed to 391 non-responders on August 25, 2021. A second complete packet of the survey was mailed to 364 non-responders on September 2, 2021. There were no incentives included in mailings after the initial invitation letter. Due to changes or mistakes in status of those contacted, a total of 40 cases (5.5% of 728) were classified as Not Eligible because the sampled person was deceased, not female, or did not own land in Iowa. This resulted in an eligible sample of 688 Iowans.

A total of 358 completed surveys were received. Response rates are calculated as a ratio of the completed surveys to the eligible sample. The response rate for this study is 52.0% (358/688). The survey was conducted from July through October 2021.

The survey included sections on farmland ownership, leasing, conservation, transition, educational preferences, and owner characteristics. Respondents were asked to reply based on the single largest parcel of Iowa farmland they own. Multiple choice and check all that apply questions were commonly used, along with opportunities to write in their own 'other' choice or select 'none.' Likert scales were frequently used. In questions to gauge interest in a list of management topics, the choices were 'not at all interested', 'slightly interested', 'somewhat interested' and 'very interested.' The data were initially analyzed and reported by Dr. Zhang and Ph.D. student, Jingyi Tong. The farm management team requested further segmented analyses and correlations.

## **Results**

### **Farmland ownership**

A survey respondent shared her personal goal for owning Iowa farmland, "Land ownership has been a major goal for my husband and me. Our farming operation is our

livelihood. We own some ground, we sharecrop, and we rent. We farm 2000 acres and owning our own ground has helped us to grow our operation and ensure a legacy for our 4 children.” The survey results indicated many different ownership situations.

Most (92.0%) survey respondents are in a decision-making role. Among these, 51.0% indicated their level of decision-making power on a Likert scale as ‘a great deal.’ Nearly half (47.77%) of the owners live in the same county their farm is located and only 7.1% live out-of-state. Respondent’s ownership interest ranges from three acres to 3,000 acres with a median size of 300 acres. Table 1 summarizes 336 responses on the types of ownership, among which nearly a quarter (23.51%) of respondents are sole owners. Most co-owners are joint tenants with right of survivorship; commonly with a spouse (44.4%).

Table 1. Number of respondents across types of ownership and co-owner. Respondents selected one owner type for largest parcel, and all that apply for co-owners.

<b>Co-owner Ownership</b>	<b>Spouse/ partner</b>	<b>Parents</b>	<b>Children</b>	<b>Sibling</b>	<b>Other relatives</b>	<b>Non- relative</b>	<b>Total</b>
Sole Owner							23.51%
Joint Tenancy	44.35%	0.89%	1.79%	2.08%	0.30%	0%	49.41%
Tenancy in Common	1.19%	0%	0%	1.19%	0%	0%	2.23%
Partnership	1.49%	0.89%	0.30%	1.79%	0.89%	0.30%	3.63%
Corporation	3.27%	1.49%	0.60%	1.49%	0.89%	0%	4.47%
LLC	2.98%	0.30%	0.60%	3.27%	0.30%	0%	6.98%
Living Trust	7.14%	0%	0.30%	1.49%	0.60%	0.30%	9.78%
Irrevocable Trust	1.19%	0.30%	1.19%	0.60%	0%	0.30%	3.63%
Other	0%	0%	0.30%	0.60%	0.60%	0%	1.40%
Total	59.50%	3.63%	5.03%	12.01%	3.63%	0.84%	

Women farmland owners acquire land in multiple ways. Of the 355 responses received, the most typical way is to purchase farmland from non-family (57.5%) or family (36.6%) (Figure 1). Responses indicated 42.5% of women inherited at least some of their farmland after someone passed away and 6.2% received at least some farmland as a gift from a living person.

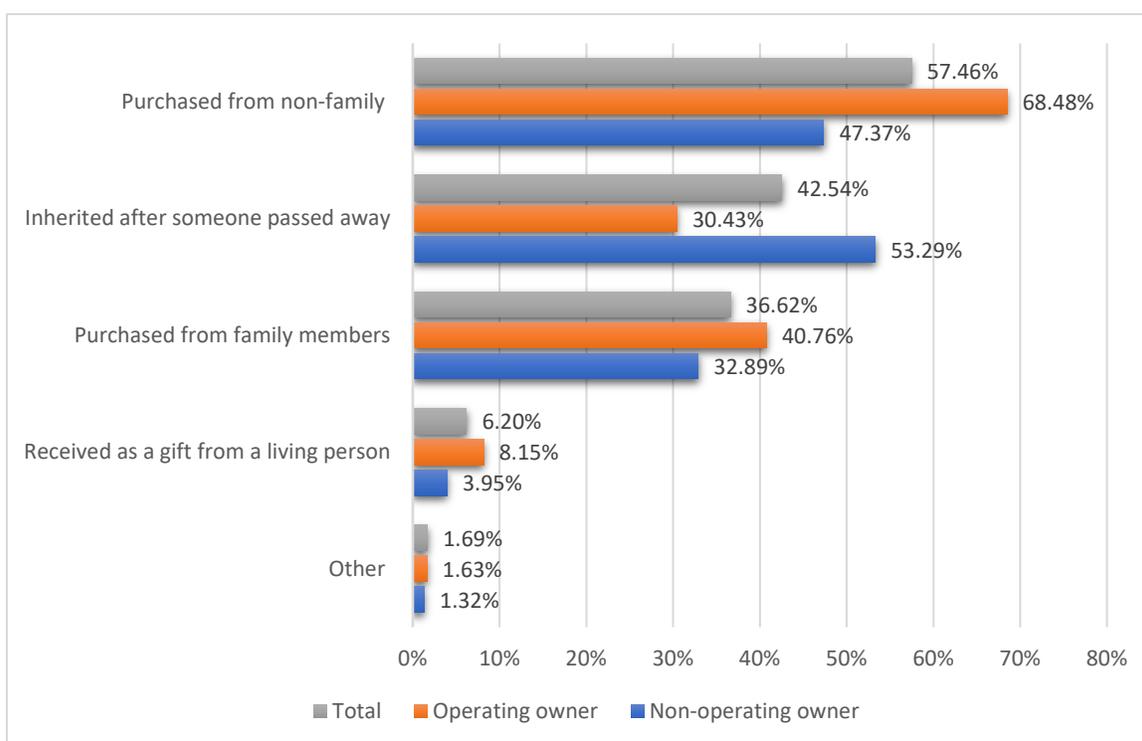


Figure 1. Ways owners acquired farmland. Respondents selected all that apply.

Economic reasons were forefront on women’s minds as they selected top reasons for owning farmland:

- As a source of current income (58.0%)
- As a source of retirement income (49.0%)
- As a long-term investment (39.1%)

Family or sentimental reasons was selected by almost half (44.2%) of the respondents, while preserving land for agriculture was selected by more than one-quarter (28.6%).

More than half (54.9%) of respondents operate their farmland on a full-time (22.3%) or part-time (32.7%) basis. There are twice as many non-operator farmland owners who retired from farming or have at least some farming experiences (29.7%) than those who have no farming experience (15.4%).

Characteristics of farms were most often selected as 'row crop only' (53.3%). We asked respondents to select only one description for their farms.

Other common characteristics included:

- Row crop and livestock (21.2%)
- Row crop and pasture (13.3%)
- Conservation Reserve Program (3.7%)

### **Leasing practices**

One survey respondent wrote about her experiences learning more about leasing, "Glad ISU offers great workshops and materials on leases! Attended one and it was very informational!" Leasing is one of the most challenging decisions women farmland owners face.

There are 183 (51.1%) owners leasing out at least some of their farmland to farm operators and 168 (46.9%) owners not doing so. Among the owners who lease the farmland, most lease to one (73.2%) or two (18.6%) tenants. Sixty-nine owners (40.0%) lease out all the farmland they own; and on average, 76.8% of farmland acres are rented out. The distributions for operator owners and non-operator owners are quite different. For operator owners, 12.8% lease out all the farmland they own, and on average, 48.6% of farmland acres are rented out. For non-operator owners, 48.7% lease out all the farmland they own, and on average 86.9% of farmland acres are rented out.

Most owners (60.0%) have written leases with tenants and another 35.0% have a mixed written and verbal agreement. Almost as many respondents charged a discounted rental rate (39.0%) as compared to a market rental rate (43.0%). There were 18.0% of respondents who were unsure how their rental rate compared to the market.

Nearly two-thirds (64.6%) of respondents use fixed cash rental leases (Figure 2). Flexible cash rental leases were used by 19.1% of women, and crop share agreements were used by 16.3%. More than one-third (36.1%) of the respondents lease farmland to relatives, 27.2% lease to someone else, 21.1% lease to a neighbor, and 15.6% lease to a friend.

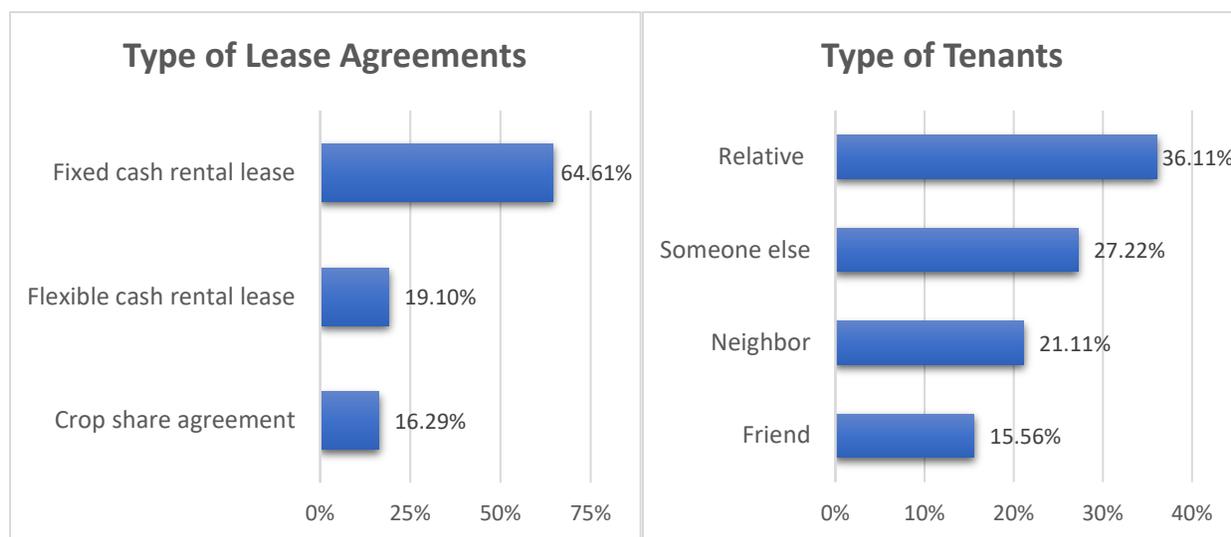


Figure 2. Types of lease agreements and tenants. Respondents chose lease and tenant type on the largest parcel.

Figure 3 compares operators' (indicated by blue), non-operators' (indicated by green), and total owners' (indicated by yellow) ranks of interest in receiving information about key farmland issues. Farmland owner responsibilities was most often (75.3%) selected by survey respondents. The financial topics rated highly overall. More than half (54.9%) of respondents are interested in information on effective communication with a tenant.

The interests of operator owners and non-operator owners were examined separately. A notable difference is that 62.6% of operator owners and only 41.8% of non-operator owners were interested in receiving information about leasing to a beginning farmer.

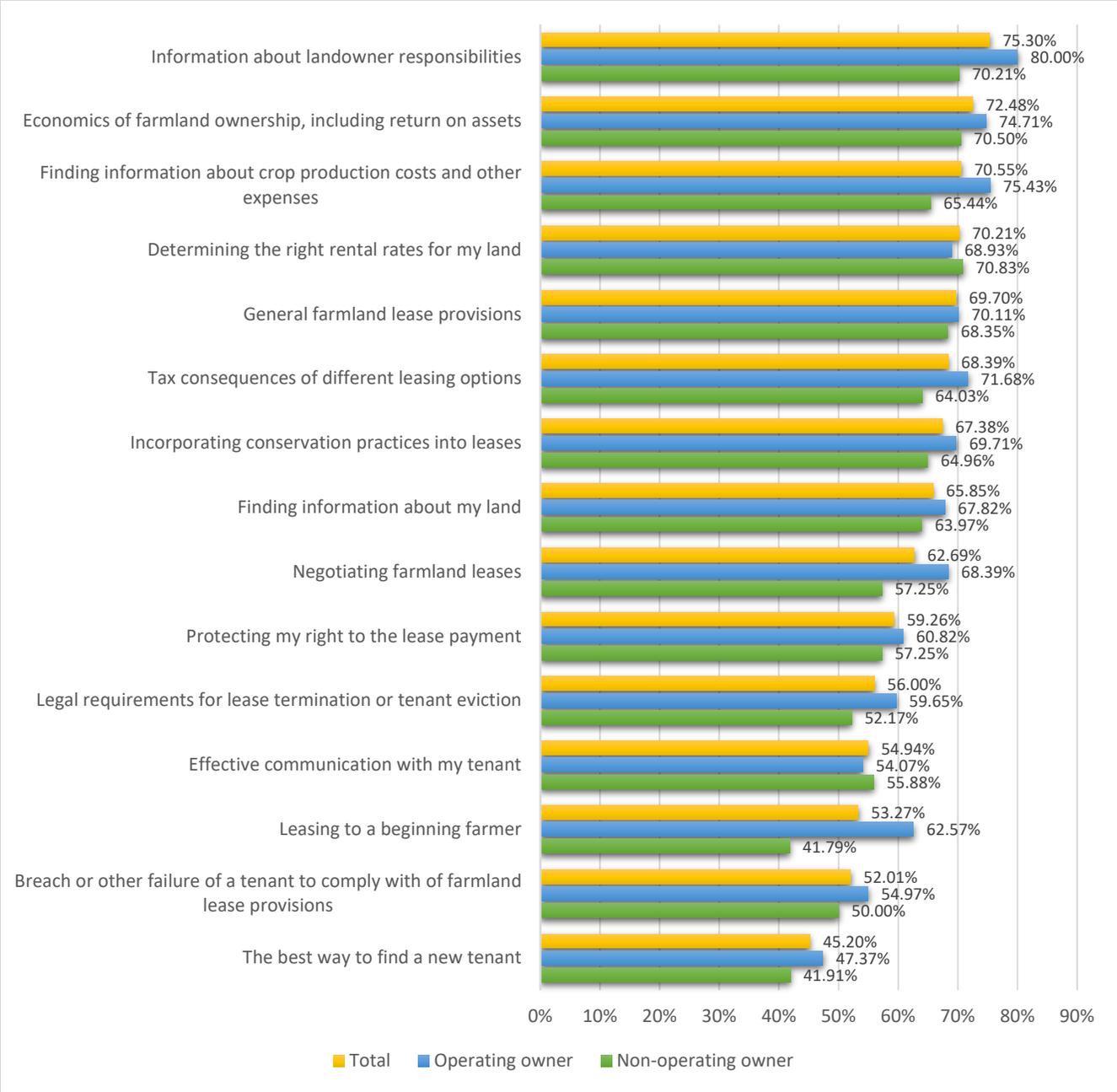


Figure 3. Interest in receiving information about leasing practices by operators and non-operators.

**Conservation practices**

“I have a very good tenant, a neighbor. I noticed a lot of erosion on the steeper portions of the rented land. The neighbor drove around with me...we agreed upon one third of the field would need to go into CRP. The tenant was fine with this although he ended up

with only two thirds of what he was farming,” shared a survey respondent. Her knowledge and communication resulted in enhanced land conservation.

Nearly all (98.0%) respondents selected one or more conservation practices being used on any farmland, owned or co-owned. Grass waterways (68.8%) and no-till or strip-till (50.6%) were selected from the list by over half of respondents.

Other popular practices included:

- low-till or conservation tillage (40.1%)
- terracing (36.6%)
- cover crops (32.4%)

More operator owners (40.0%) use livestock manure management practices than non-operator owners (15.1%).

For those respondents who lease out some or all their land, they indicated which conservation-related management decisions are being made primarily by their tenant:

- crop varieties (82.6%)
- crop inputs (82.6%)
- tillage practices (65.3%)
- conservation practices (41.1%)

Figure 4 ranks the conservation issues that women farmland owners worry about. Excess requirements, restrictions, and paperwork associated with government programs are of concern to more than two-thirds (68.7%) of respondents.

Other top concerns were:

- Interference with the ability to change land management practices as conditions warrant (57.6%,)
- Low cost-share payments (54.4%)
- True value or lack of value the conservation practices provide to the environment (51.5%)

Women who were past participants in extension farm management courses for women, were more concerned about leasing issues, than conservation issues.

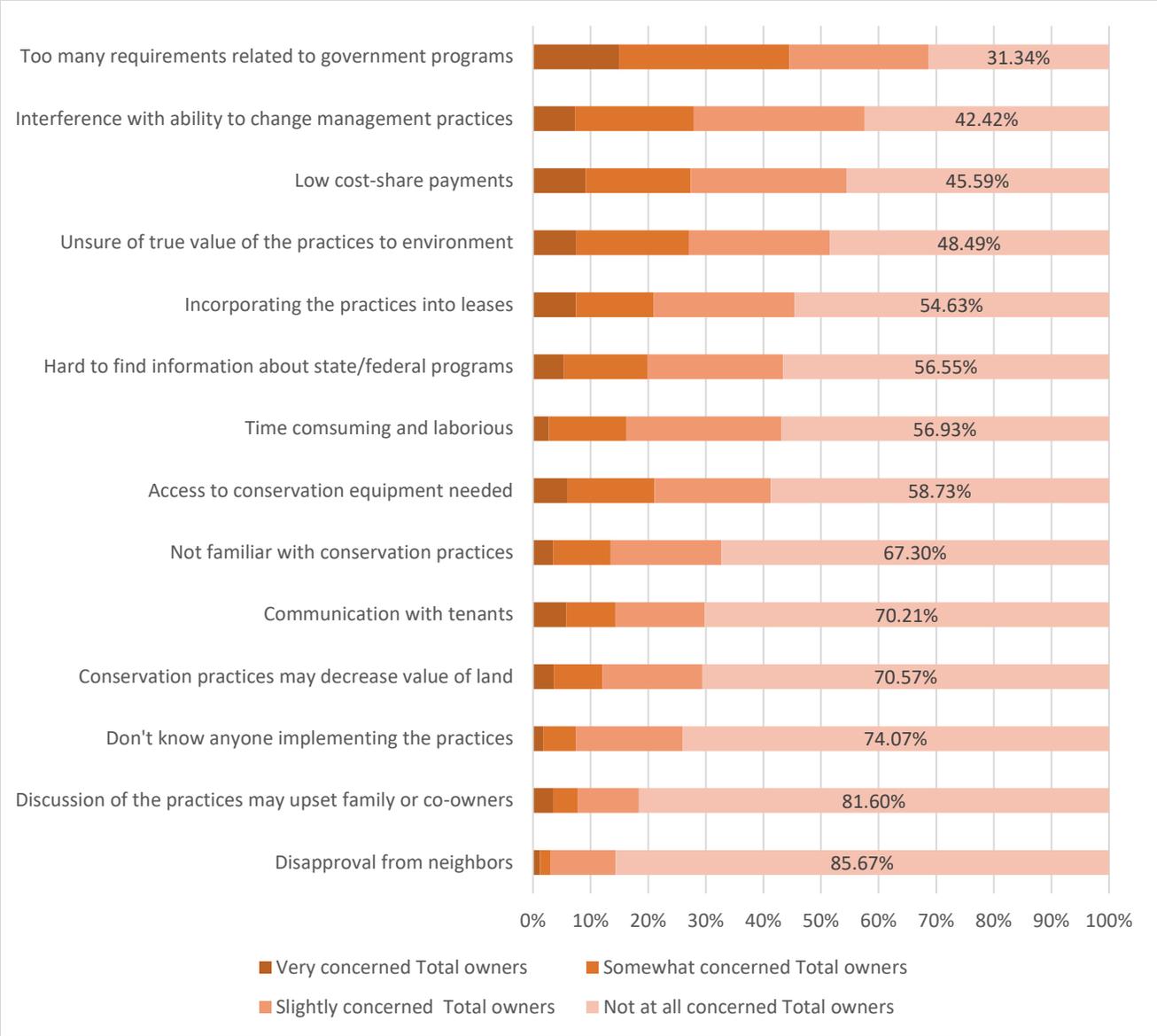


Figure 4. Degree of concern on conservation issues. Respondents ranked their level of concern from 1 (not concerned at all) to 4 (very concerned).

Figure 5 summarizes the topics women are interested in receiving more information about. Agricultural carbon credit programs were the top choice, selected by 31.8% of all operators. More than one-quarter of respondents are interested in receiving information about government conservation programs, soil erosion control, soil fertility improvement, and cover crops. Other topics of greatest interest were pasture and hay management, water quality improvement and wildlife habitat improvement.

The interests of operator owners and non-operator owners were examined separately. Notable differences are that 41.1% of operator owners and only 23.0% of non-operator owners were interested in carbon credits; and 33.0% of operator owners and only 21.0% of non-operator owners were interested in cover crops.

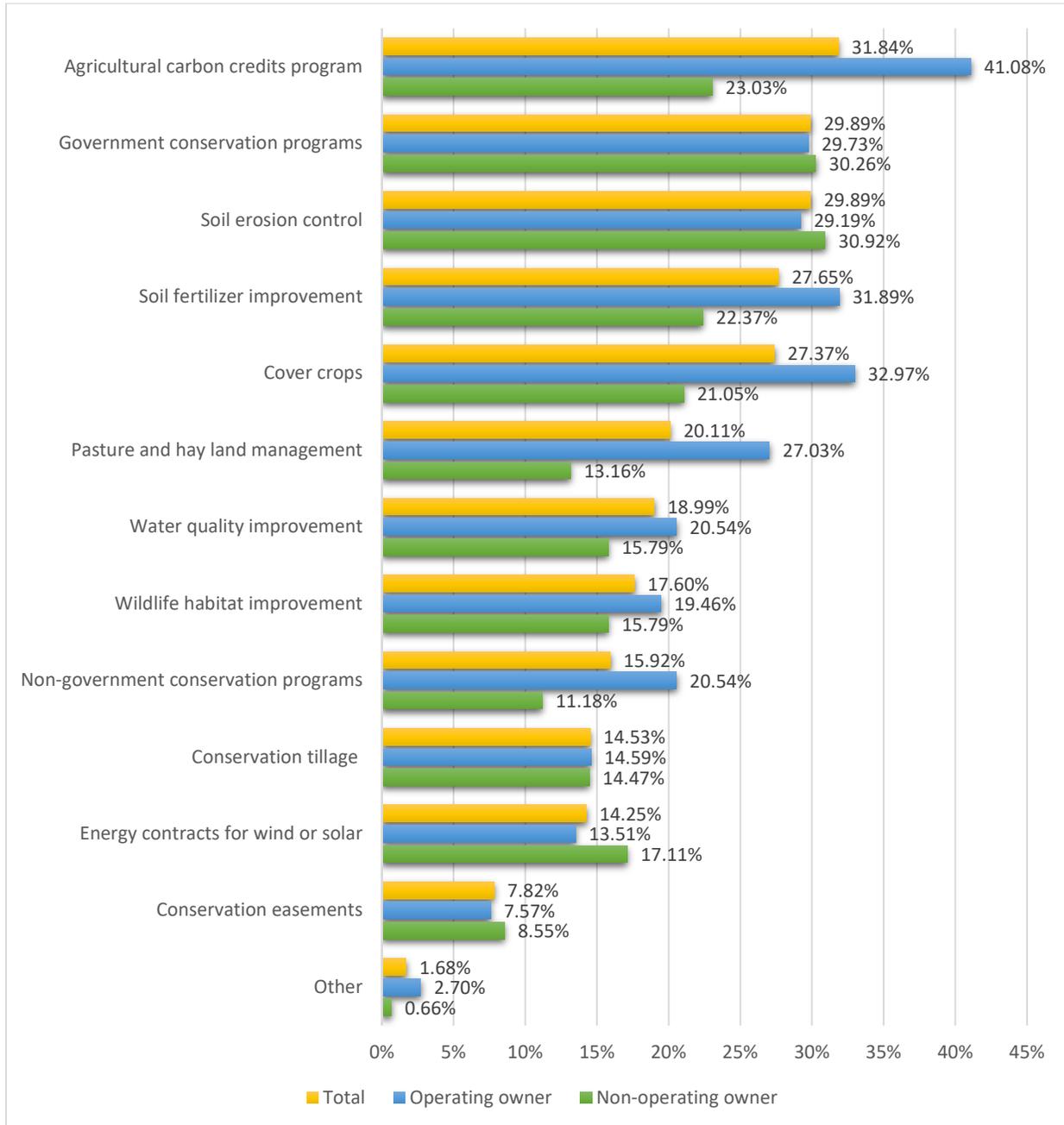


Figure 5. Interest in receiving information about conservation practices by operators and non-operators

## Transition practices

“Succession planning is interesting to me, and the best way to communicate with non-farming family members about succession planning for land,” commented one survey respondent. In general, women worry about how to and whether to transition the land and management to the next generation.

Most (88.4%) of the survey respondents have a will. Most also identified a potential individual who will eventually take over the management of their farmland (70.1%) and/or an individual who will eventually take over the ownership of their farmland (85.2%). Among owners having a will, the percentage of the owners who have a written transition plan (44.8%) and who do not (43.6%) are similar.

Women farmland owners who identified a successor were twice as likely to choose a son (33.5%) as a daughter (15.9%). There were 12.0% of respondents who chose a spouse. The age of the chosen successors ranged from 1 to 96, with an average age of 41. For 285 (72.6%) respondents, the successors were ages 26 to 57 (Figure 6).

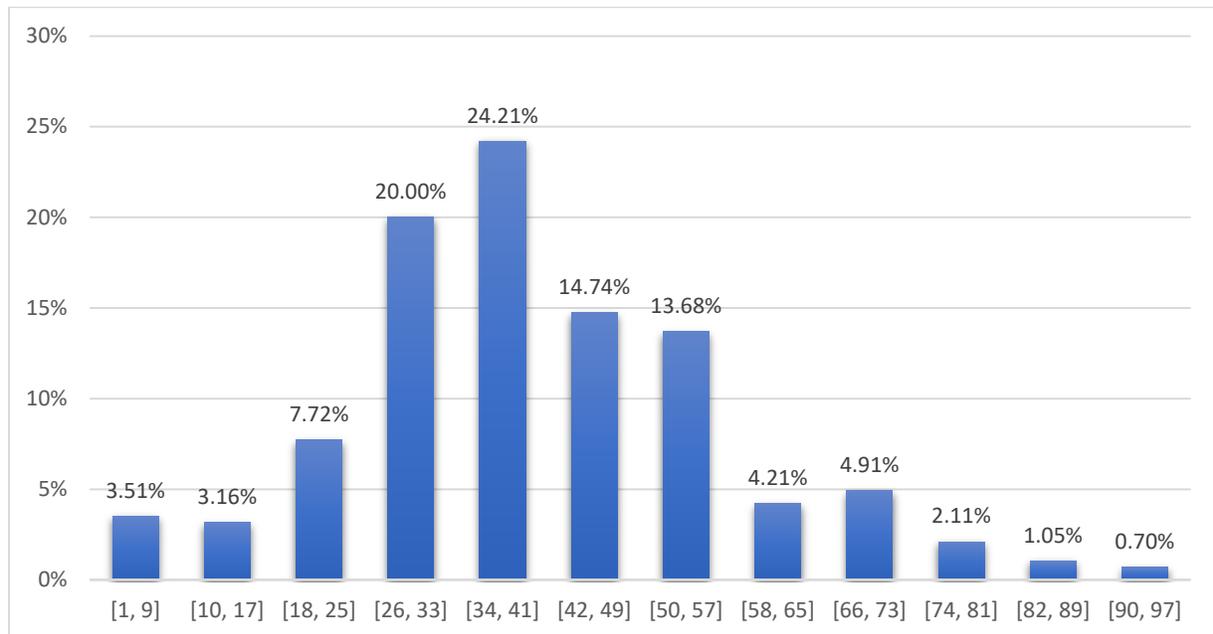


Figure 6. Distribution of successors' ages. Respondents gave the age of the most likely successor.

Women consulted multiple people about a transition plan for their farmland or farm business. Nearly two-thirds (62.9%) of respondents consulted an attorney about a transition plan. Half that many women (33.2%) consulted an accountant or CPA. Just over one-fourth (26.0%) consulted a financial advisor. However, one in five respondents have not discussed a transition plan with anyone (Figure 7).

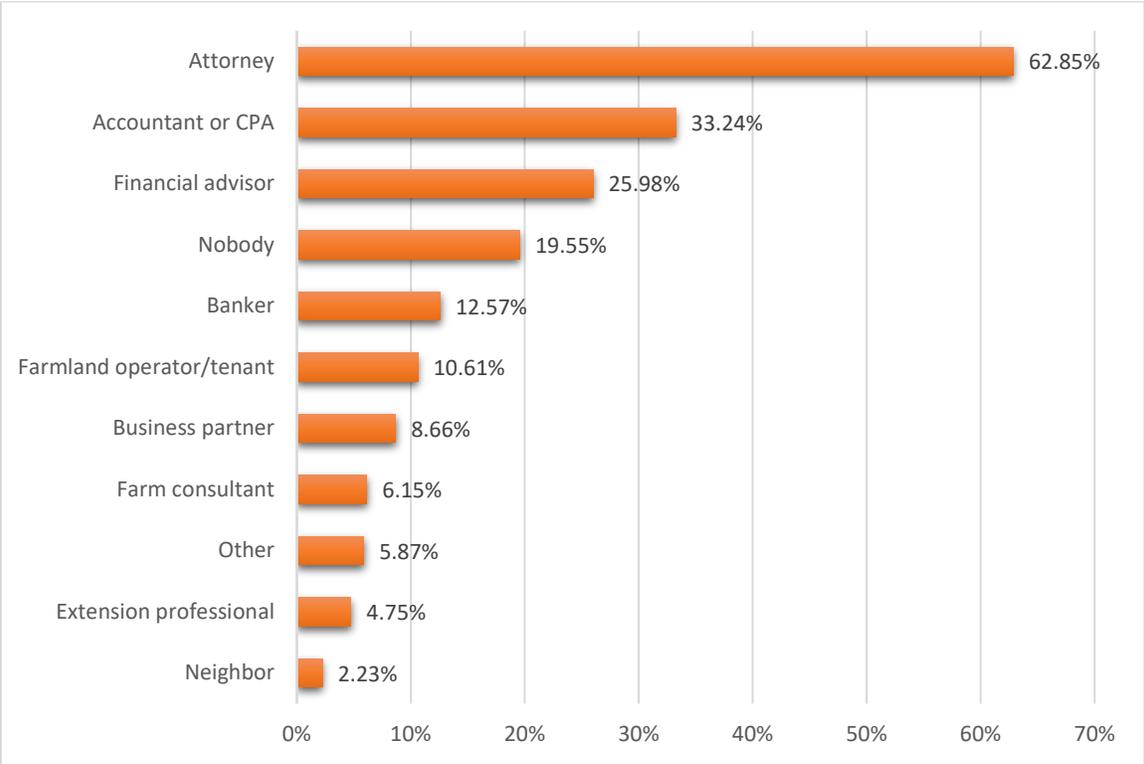


Figure 7. People consulted by owners about transition plan for farmland or farm business. Respondents selected all that apply.

For those respondents who expect their farmland will eventually be inherited by a family member and kept in the family, they expect roughly equal possibilities that the family will operate the farmland (38.6%) or lease out the farmland (37.9%). Interestingly, among the operator owners, 50.0% of them expect their family members will lease out the land to a tenant, rather than operate it.

The tax consequences of different transition options was selected by 43.3% of the survey respondents (Figure 8). About one-third (36.6%) of respondents are interested in the topics of estate and gift tax matters, and farmland and farm business management

succession options (31.3%). Just under one-quarter of respondents (23.7%) selected estate planning tools such as wills and trusts, and 20.7% selected lifetime transfers by sale to family members.

The interests of operator owners and non-operator owners were examined separately. A notable difference is that 27.0% of operator owners are interested in lifetime transfers by sale to family members and only 13.2% of non-operator owners are interested.

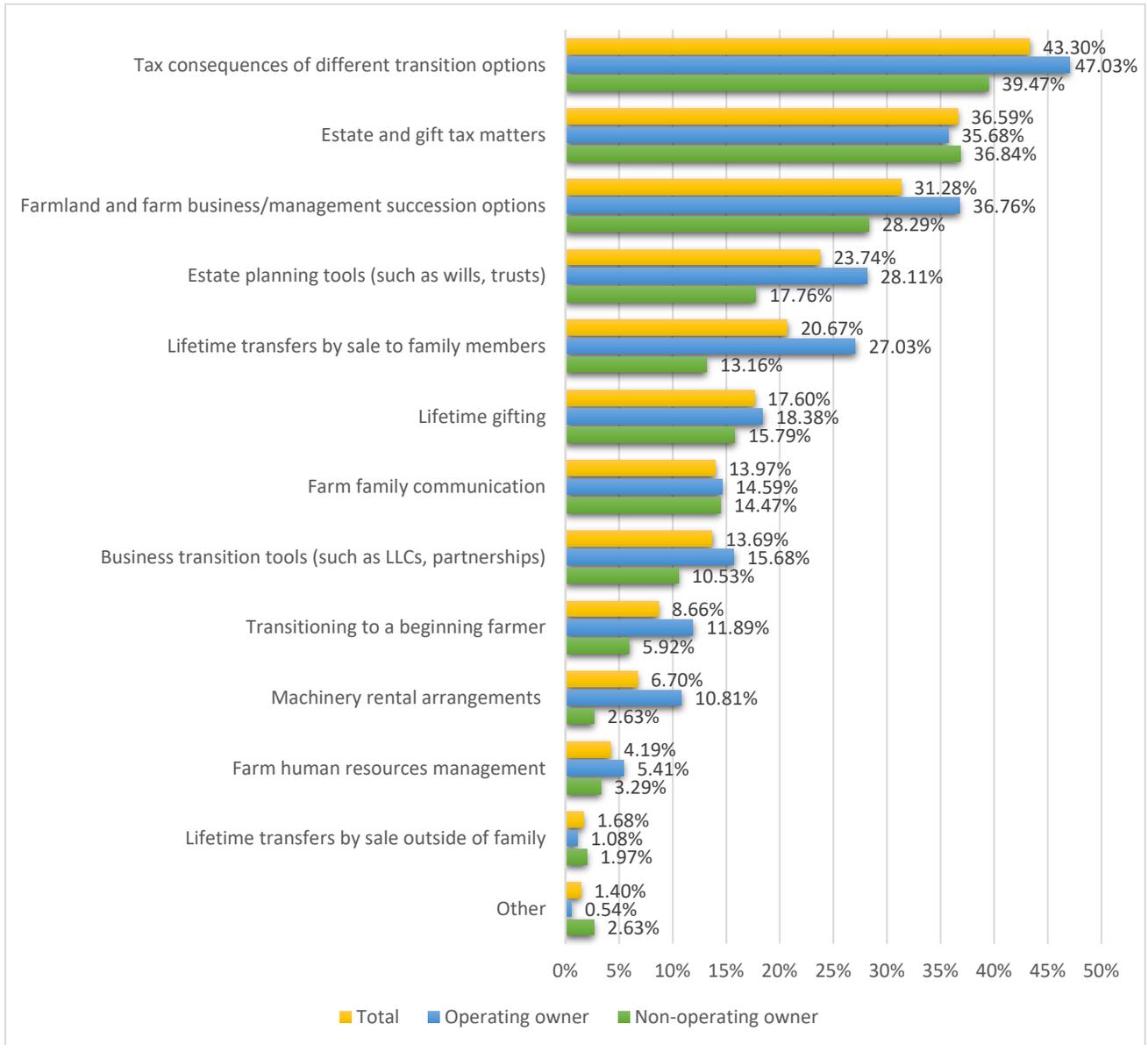


Figure 8. Interest in receiving information about transition practices by operators and non-operators.

## Educational preferences

The top five ways women farmland owners would like to receive information is newsletters (48.3%), webinars (33.5%), fact sheets (31.3%), half-day in-person educational meetings (27.9%), and women farmland owner learning circles (20.67%) (Figure 9).

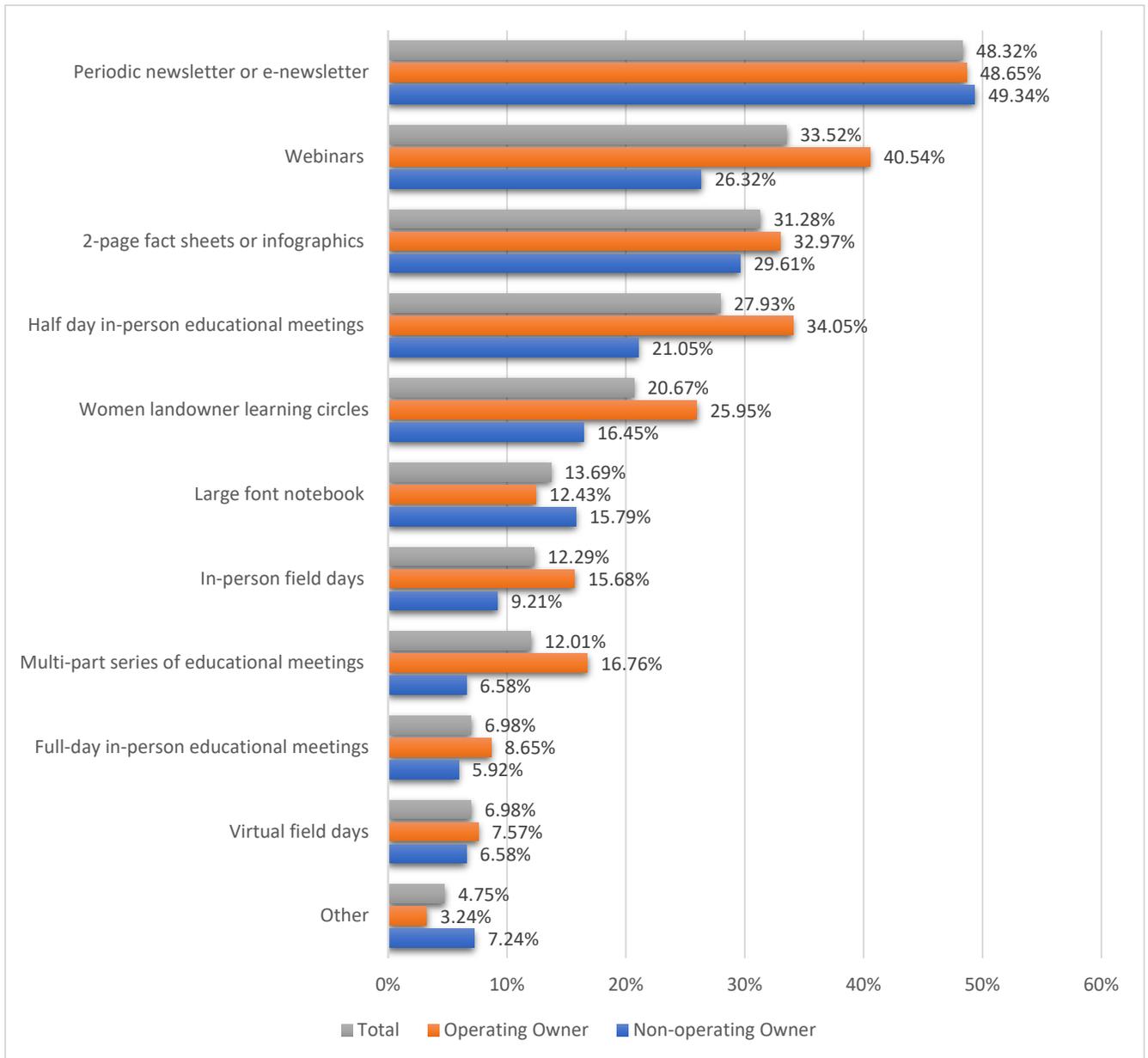


Figure 9. Preferred ways to receive information and educational programming

Operators interested in receiving educational information are overall younger than interested non-operators. For operators, the most interest came from those 30 to 60 years old; while for non-operators, the most interest came from those above 50, including women in their 80's and 90's. The older owners showed a strong preference for newsletters and large font notebooks, while younger owners preferred learning circles and field days. More operator-owners expressed interest in webinars (40.5%), half-day meetings (34.1%), and learning circles (26.0%) than did non-operator owners.

"I'm going to be retiring in a couple of years...[I need] information about estate planning without having to buy a "product" to get advice that can be trusted," wrote a survey respondent. Her comments suggest extension has an important role in delivering unbiased, research-based information that can be trusted.

**Owner characteristics**

The ages of the 348 respondents range from 21 to 98, with 72% of the ages being between 51 and 80 (Figure 10). The average age of the respondents was 63.

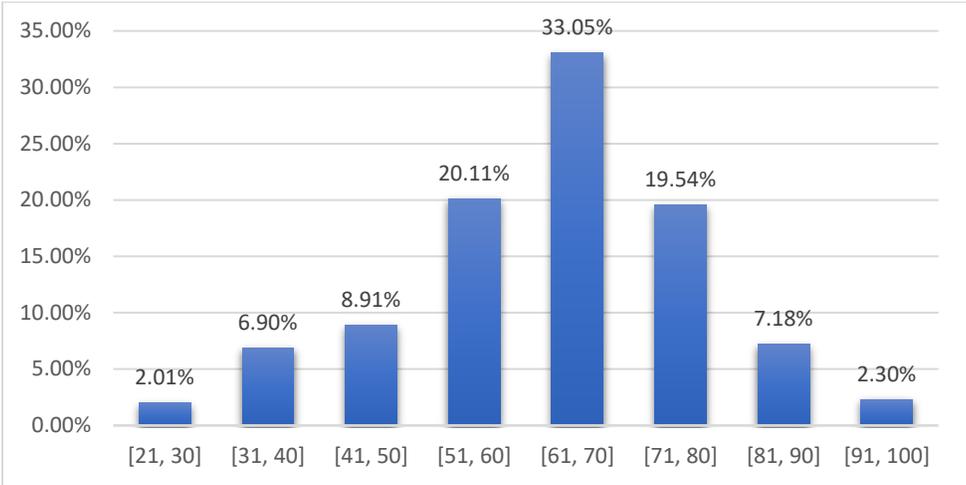


Figure 10. Distribution of owners' ages

Most respondents (98.0%) had been married at least once. About one in five respondents (22.8%) were widowed, divorced or separated, or never married.

Nearly one-third (30.4%) of respondents are first generation farmland owners of the parcel they have owned the longest. Second (25.4%) and third (24.5%) generation owners each account for one-quarter of the respondents, while fourth generation or more owners accounted for 19.7% of survey respondents.

Most women (92.4%) do not feel burdened by farmland ownership. For those that do, difficulty finding a good operator, lack of relevant knowledge, and worries about risk or debt were key concerns. One survey respondent shared the sacrifices made to own farmland: “My husband and I worked hard to pay for our farmland, so [we could] make owning the land cost effective. Being leveraged is a huge burden to people. We always chose to live below our means. The borrower is slave to the lender no matter what the purchase.”

Most survey respondents (83.5%) have off-farm income and nearly half (43.0%) receive at least 70.0% of their gross household income from off-farm activities.

Among 295 respondents (Figure 11) approximate gross cash farm income before deducting expenses and taxes in 2020 mostly lies below \$350,000 (81.7%), with the percentage slightly lower than the national level (89%) reported by USDA.

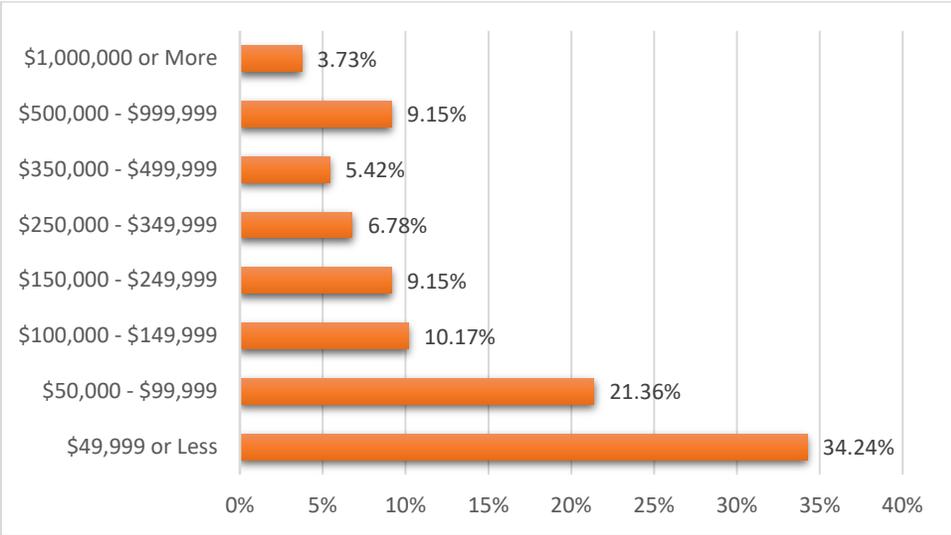


Figure 11. Approximate gross cash farm income in 2020

## Discussion

Women own a large percentage of farmland and have a significant impact on how farmland leases are designed, what conservation practices are utilized, and how farmland will be transitioned to the next generation. Yet, the literature review shows managing farmland is challenging for many women. Extension has an important role in developing new resources and providing access to high quality educational materials and programs specifically designed for women farmland owners.

The survey results are significant in that they show women have foundational knowledge on which to build, share common farming experiences, and are keenly interested in learning about farmland management strategies that can help them meet their individual goals.

Most women are managing their land assets as for-profit businesses, while many also report owning land for sentimental purposes. Curiously, almost as many survey respondents charged a discounted rental rate as compared to a market rental rate. Iowa's market rental rates are reported each year on [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm), however, one in five women were unsure how their rental rate compared to the market. Despite current gaps in knowledge, three out of four women are interested in learning more about their farmland owner responsibilities, the economics of land ownership, rental rates, and lease agreements.

Most women farmland owners defer decisions about tillage practices and conservation measures to their tenants, and many say they are not familiar with the practices. Yet nearly all women reported using some conservation practices on the farmland they own. Women are particularly interested in the financial and conservation aspects of carbon sequestration credits as well as government conservation programs.

Tax consequences of transition options is a top concern for owners. However, only half of women farmland owners have a written transition plan and one in five have not consulted an advisor. There is a strong tendency for families to pass ownership to other family members, yet most current owners purchased their land from non-family. Women

often choose a son, rather than a daughter, to be the successor. This indicates patriarchal influences and a lack of strategies for developing the skills of successors.

The top five ways women want to receive information is newsletters, webinars, factsheets, half-day in-person meetings, and learning circles. Based on these results, the Iowa extension team is working to initiate a newsletter and webinar series, develop new materials, curate, and expand access to resources, and build on our partnerships to offer more face-to-face programs. To effectively reach the audience of women farmland owners, extension needs to design multiple channels of outreach for in state and out-of-state landowners.

### **Conclusions**

The survey results heighten the importance of extension in delivering the audience of women farmland owners information and tools they can use to develop long-term strategies to meet their goals. By combining strategies, women can be effective change agents for more equitable farmland leasing, adoption of enhanced conservation practices, and greater efficiencies in land and management transition to next generation farmers. All citizens benefit when extension supports women in improving agricultural sustainability through the farmland management decisions they make.

### **Acknowledgements**

The team would like to thank every woman who took the time to respond to the survey or personally share their stories or concerns.

This project was made possible by collaboration among the Iowa State University Extension and Outreach Women in Ag Program, Center for Agriculture Law and Taxation, Farm Management Team, and Water Quality Program; as well as the Iowa State University Department of Economics, Research Institute for Studies in Education, and Center for Survey Statistics and Measurement Survey Research Services.

The survey was financially supported by a USDA National Institute of Food and Agriculture - Critical Agriculture Research and Education grant (2021-68008-34180) and a Farm Credit Services of America gift.

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