

## Beginning Farmers in Wisconsin: 2014 Survey Summary

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August 2015

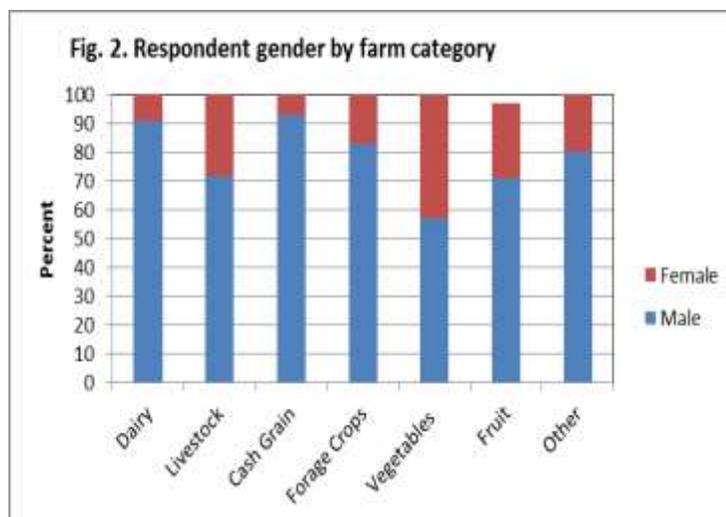
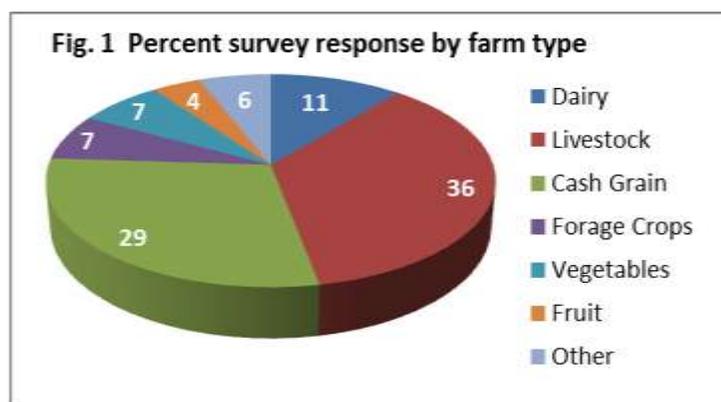
In 2014, a survey of beginning farmers in Wisconsin was conducted by the WI Department of Agriculture, Trade, and Consumer Protection. The survey was mailed out to 2726 beginning farmers identified as having farmed for 5 years or less at the time of the 2012 Census of Agriculture. All respondents who started farming between 2008 and 2012 were sampled. A total of 1084 surveys were returned (39.8%).

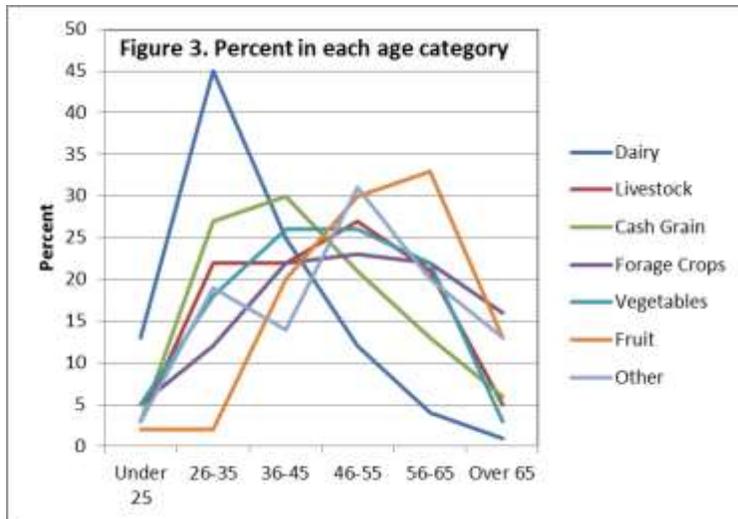
We provide a general summary of the results below, including comparisons among farm types. Following this summary, you will find profiles of several categories of beginning farmers. We categorized farmers based on the enterprise they identified as providing the majority of their farm income. Categories included dairy, livestock, cash grain, forages, vegetables, fruit and 'other'. Livestock included any non-dairy livestock. 'Other' included farms with Conservation Reserve Program acreage (18 farms); maple syrup (13 farms); Christmas trees (9 farms); horticulture, flowers, greenhouse, and nursery (7 farms); bee/honey (5 farms); tobacco (1 farm); mushrooms (2 farms); popcorn (1 farm); hops (2 farms); ginseng (1 farm).

Among respondents, the largest proportions were livestock farmers (36%) and cash grain farmers (29%) (Fig. 1). Livestock farmers included 313 beef operations, 56 sheep farms, 54 meat poultry operations, 45 hog farms, 150 egg production farms, and 142 'others'. Other livestock categories identified by respondents are listed in the livestock farmer profile.

### Demographics

The vast majority of beginning farmers who responded to our survey were white (99%), male (81%), and married (80%), although these demographics varied somewhat by farmer category. The largest proportion of female farmers (43%) occurred in the vegetable





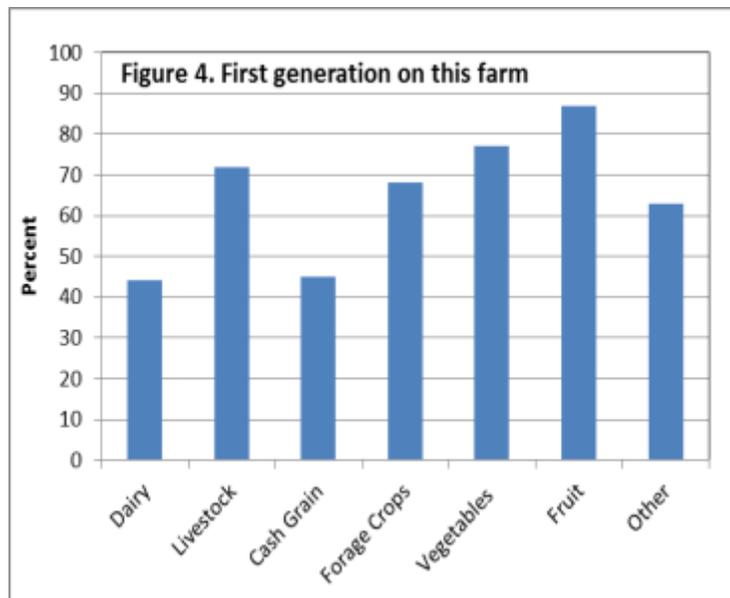
farm category (Fig. 2) and the largest proportion of non-married respondents occurred in the dairy category (21%). More than half of respondents had some level of post-secondary education including Associate's degrees (21%), Bachelor's degrees (23%), and Master's degrees (12%). Level of education also varied with type of farm, as detailed in the farm category profiles.

Respondents were asked to place themselves within one of several 10-year age ranges. Over 70% of beginning farmers in the survey were fairly evenly spread between 26 and 55 years of age, with 24% between 26 and 35, 24% between 36 and 45, and 23% between 46 and 55. Eighteen percent were between 56 and 65. Six percent of beginning farmers were over 65, and only 5% were under 25 years of age.

Average age varied among farm types (Fig. 3), with the largest proportion of dairy farmers falling in the 26 to 35 age category (45%). The cash grain category also tended to skew younger, with 57% falling between 26 and 45 years of age. Beginning fruit growers tended to skew older with the largest number falling in the 56 to 65 age category (33%). The largest proportion (31%) of the 'other' category fell in the 46 to 55 age group.

### Why farming?

We asked survey respondents what their previous occupation was and why they started farming. The largest proportion (26%) reported being in the service sector including various white collar occupations such as accounting, insurance, child care, human resources, banking, etc. The second largest category was construction (21%). Manufacturing (11%) and agriculture related fields (9.5%) were next largest categories. Other prior careers (each under 5%) included education, engineering, government, medicine, retail, skilled trades, trucking, and the military.

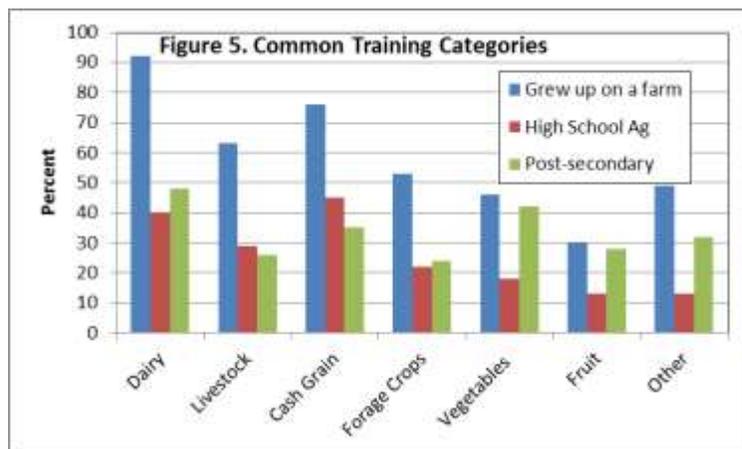


Overwhelmingly, the response to our question regarding what inspired them to start farming, was family. Nearly 200 out of 300 respondents who answered the question said

they either grew up on a farm or had family who farmed, especially fathers and grandfathers. Other respondents were motivated by lifestyle interests. Several said they enjoyed the independence of farming—being their own boss. Others expressed a connection to the land and working outdoors. A number of respondents shared the sentiment of wanting to take care of the land by farming sustainably or growing healthy food for themselves and society.

## Getting started

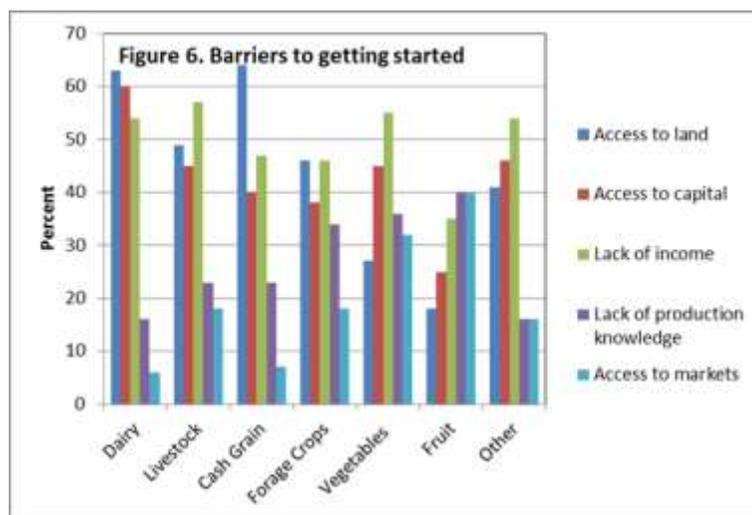
Across all farm types, a significant proportion (42%) of beginning farmers had been farming for 3 to 4 years when they filled out the survey. Seventy eight percent were farming alone or with their spouse, and an average of 61% across all categories were the first generation on their farm. Figure 4 shows a breakdown of first generation farmers by farm type. An average of 66% grew up on a farm, but this varied significantly among farm types, from a high of 92% of beginning dairy farmers to a low of 30% of beginning fruit growers (Fig. 5).



We asked beginning farmers what training or preparation they had made prior to starting farming. Averaged across all farmer types, the top categories included having grown up on a farm (66%), high school agriculture classes (32%) and internships or work on another farm (27%). Post-secondary education in agriculture including technical college, four-year college coursework, bachelors and

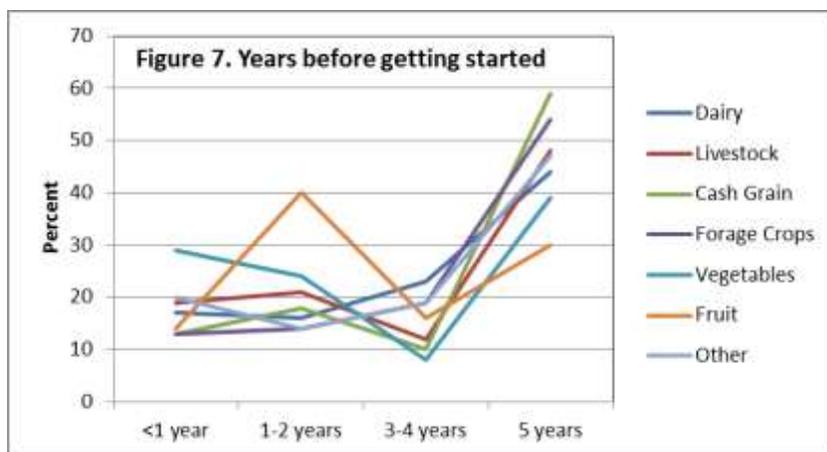
master's degrees were reported by 32% of respondents. Sixteen percent reported having had no training.

Figure 5 compares common training categories across the farm types. Dairy and cash grain farmers were most likely to have grown up on a farm and to have taken high school agriculture classes. Beginning fruit farmers were least likely to have grown up on a farm (30%) or to have taken high school agriculture classes (13%). Dairy farmers and vegetable farmers were most likely to have taken post-secondary agriculture coursework.



## Barriers to getting started farming

The most common barrier to getting started was lack of income, with 52% of respondents selecting it. Access to land was second at 44% and access to capital was third at 43%. Fruit farmers differed from the other categories with access to markets and lack of production knowledge topping their list of barriers at 40% for each. Access to land was less important to both fruit (18%) and vegetable farmers (27%), and most important to dairy (63%) and cash grain farmers (64%). Access to capital was most important to beginning dairy farmers (60%). Barriers to getting started are summarized in Figure 6.



For approximately half of respondents across all categories, it took five or more years to get started farming (Fig. 7). The exceptions were vegetable and fruit farmers, for whom relatively high proportions were able to get started within the first year (29% for vegetable farmers) or from one to two years (40% of fruit farmers).

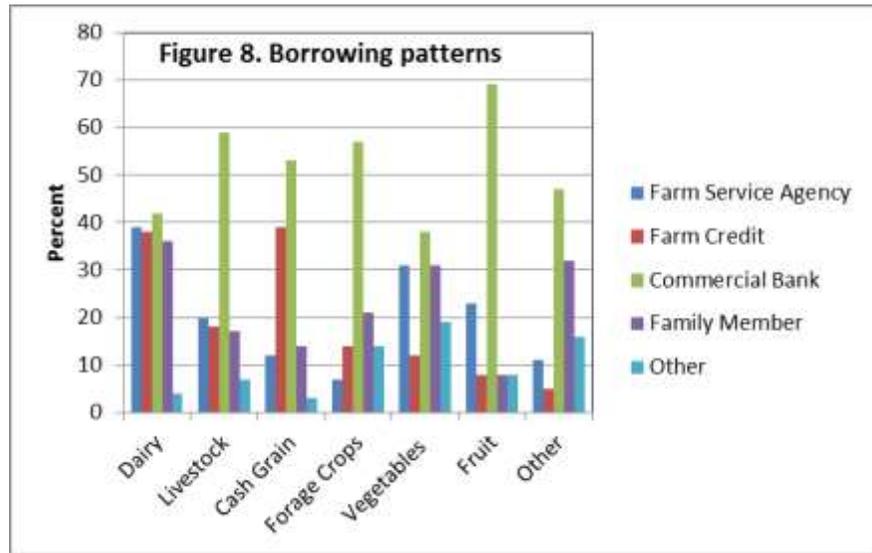
**Mentors.** Mentors were important to all categories of beginning farmers with an average of 60% reporting they had a mentor to help them get started. Fruit farmers reported the lowest level of mentoring (40%), with the highest proportion (68%) reported by both dairy and cash grain producers. For all categories, family members were, by far, the largest proportion of mentors reported (61%), with dairy farmers reporting the highest proportion of family mentors (79%). For forage crop farmers, neighbors were the second highest category of mentors (36%) after family members (47%). For fruit farmers, the highest category of mentors was friends (35%).

Respondents were asked what they gained from having a mentor that they couldn't have gotten anywhere else. Forty percent referred to the value of the overall farming experience the mentor brought to the relationship, including experience with the land, with livestock, with financial aspects, or with integrating all of these into the farm business. Sixteen percent valued their mentors for specific advice that they gave and 11% referred to having a training situation where they had the opportunity to work alongside their mentor. Nearly 12% reported receiving resources from their mentors such as equipment and building use or affordable land rent. Two percent reported mentors providing them with labor. Inspiration and moral support were listed as important mentor roles by 18% of respondents.

**Access to capital.** Nearly half (49%) of beginning farmers reported having borrowed money to get started. The proportion of beginning farmers borrowing money varied by farm type with 86% of beginning dairy farmers borrowing money down to only 24% for beginning fruit farmers. Cash grain farmers were the second highest category (60%), with

livestock farmers averaging 43%. Forage crop, vegetable, and 'other' farmer categories all had just over 30% reporting borrowing to get started.

Figure 8 breaks down borrowing among several financing sources. Across all categories, commercial banks were the most commonly reported source of farm loans. Dairy (39%) and vegetable farmers (31%) were more likely than other categories to borrow from Farm Service Agency, and dairy (38%) and cash grain farmers (39%) were more likely to borrow from Farm Credit Services.



### Land ownership and rental among beginning farmers

Land ownership among beginning farmers in comparison to established farms is shown in Table 1. On average, beginning dairy farmers reported owning 133 acres, more land than any other category. In comparison, the average established dairy farm in Wisconsin is 407 acres. The second highest acreages were reported by cash grain farmers with 92 acres owned, with established cash grain farms averaging 294 acres owned. Beef farmers reported the third highest acreages with 70 acres owned, compared to 120 acres for established beef operations. Across all farm types, 14% reported having purchased land in the last two years at an average \$3336/acre.

Category	Beginning farmer	Established farmer <sup>1</sup>
	<i>Acres owned</i>	
Dairy	133	407
Cash grain	92	294
Beef	70	120
Multi-species beef	47	n/a
Non-beef livestock	45	72
Forage crops	64	116
Vegetables	38	267
Fruit	35	171
Other	66	n/a

<sup>1</sup>Data from 2012 Census of Agriculture

Land rentals varied among beginning farmers as well. Overall, forty-one percent of respondents reported having rented land in the last two years with an average rental rate of \$105/acre. The beginning farmer types reporting renting the most land included dairy farmers (134 acres), cash grain farmers (88 acres), and vegetable farmers (77 acres).

## Common practices

We asked respondents about their use of a number of common practices among established farmers in Wisconsin (Table 2). Practices are listed in descending order of utilization across all farmer categories (see ‘Average’ column). Practices included no-till cropping, cover cropping, integrated pest management, soil testing, nutrient management planning, irrigation, continuous or rotational grazing, and organic practices (either certified or not).

Soil testing was used by the highest percentage of farmers across the categories, averaging 53%. Soil testing was most widely used by cash grain farmers (73%), dairy farmers (71%), and vegetable farmers (65%). Nutrient management planning, which should follow from soil testing, was used most often by dairy farmers (61%) and cash grain farmers (49%). No-till cropping was most frequently used by cash grain farmers (58%), while cover cropping was most widely used by vegetable farmers (61%) and dairy farmers (55%). Integrated pest management was most commonly used by fruit farmers (45%) and vegetable farmers (37%). Irrigation was uncommon among beginning farmers in our survey, except among vegetable farmers (59%) and fruit farmers (38%).

	Average	Dairy	Grain	Livestock	Forage	Vegetables	Fruit	Other
	<i>Percent</i>							
Soil Testing	53	71	73	31	38	65	53	36
No-till cropping	35	33	58	21	35	14	17	38
Nutrient management planning	34	61	49	18	18	31	24	13
Rotational grazing	32	28	13	61	18	31	7	7
Cover Cropping	30	55	24	21	31	61	21	38
Organic	19	12	3	20	25	77	36	24
Certified Organic (% of organic)	(27)	(93)	(67)	(17)	(20)	(22)	(13)	(10)
Integrated pest management	19	21	21	12	8	37	45	24
Continuous grazing/set stocking	12	13	4	24	11	4	0	0
Irrigation	9	2	3	2	2	59	38	13

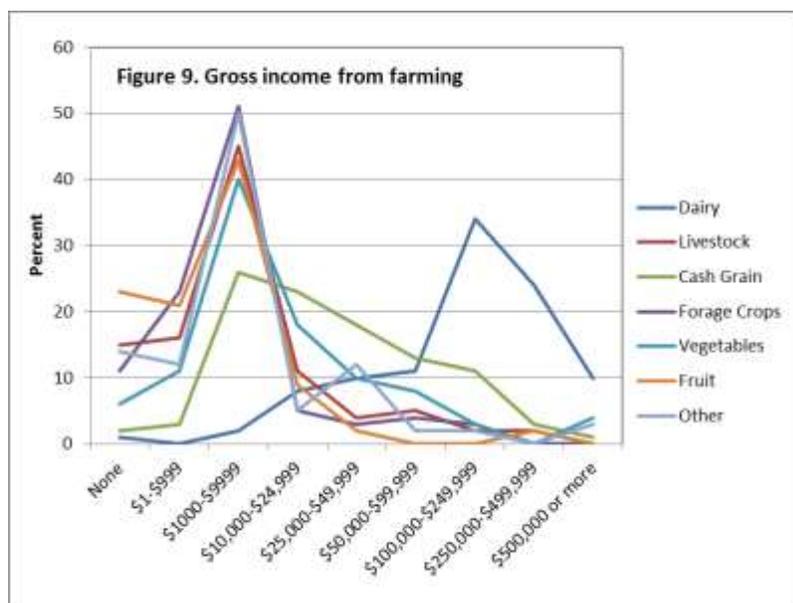
Overall, 19% of beginning farmers reported using organic practices, with 27% of those farmers reporting that they were certified through the USDA National Organic Program. The proportion varied among farmer types. Vegetable farmers reported the highest percentage using organic practices (77%), however only 22% of those using organic practices reported being certified. The highest proportions of certification were reported by dairy farmers with 12% reporting using organic practices and 93% of those farmers reporting certification. The second highest percentage was among cash grain farmers. Only 3% of cash grain farmers reported using organic practices, but of those, 67% were

certified. Among dairy and livestock producers, rotational grazing was reported more often than continuous grazing, with 28% of dairy farmers and 61% of livestock farmers getting started using rotational grazing.

Eighty two percent of beginning farmers reported having access to high speed internet. Levels varied significantly among farm types, with only 59% of dairy farmers reporting high speed internet access versus percentages in the 80s for other livestock, forage crops, vegetables and 'other' farmers, and percentages in the 90s reported by cash grain farmers and fruit farmers. The most commonly reported use of high speed internet across the categories was 'accessing farming information' (68%). Vegetable farmers (63%) were most likely to report using the internet for marketing. Vegetable and fruit farmers were most likely to use the internet for networking (46% for each), and vegetable (56%) and fruit (51%) farmers were most likely to use the internet for purchasing inputs.

### Financial performance

**Marketing.** Market outlets for beginning farmers varied both within and between categories. Dairy farmers (52%) and cash grain farmers (51%) were most likely to sell at the local feed mill or sale barn. Selling through a cooperative was also common among dairy farmers (58%) and cash grain farmers (44%). Vegetable farmers (83%) and fruit farmers (79%) were most likely to sell direct to consumers, as well as direct to restaurants or grocery stores with 38% reported for vegetable farmer and 31% for fruit farmers. Forage producers were most likely to report selling direct to customers (45%) or through private sales (42%).



**Farm Income.** Across all categories except dairy and cash grain farmers, more than three quarters of respondents reported between zero and \$25,000 in gross income from farming (Fig. 9-lowest four categories on X-axis). For cash grain farmer, only 54% reported gross farm income below \$25,000 (green line). For dairy farmers (dark blue line), the percentage was only 11%, and in contrast, 68% reported gross income greater than \$100,000 (Fig. 9-highest three categories).

The percent of household income from farming followed a converse pattern to income from farming. Dairy farmers, with higher farm income overall, reported lower proportions of off-farm income. Only 14% reported less than one-fourth of their household income from farming. Thirty six percent reported all of their income from farming. In contrast, all other farm types averaged 72% to 93% of total household income from off-farm sources.

Survey responses indicate that beginning farmers recognized that some of the most important barriers to getting started were financial ones. Lack of income was identified as a barrier by 52% of respondents, and, with the exception of beginning dairy farmers, more than half of respondents across all farm types reported their gross income as less than \$25,000. While lack of financial management skills was identified as a barrier by only 8% of respondents across all farm types, only 18% reported having a written business plan. Beginning vegetable farmers were most likely to have a business plan (34%), followed by dairy farmers (31%). Less than 20% of each of the other farmer categories reported having a business plan. None of the forage crop farmer reported having a business plan.

### Prospects for the future: Resources and barriers to long-term viability

The top three categories of resources respondents felt would be most helpful to continue farming successfully were 1) further education, workshops, and classes; 2) more availability of grants and low-interest loans; and 3) more production knowledge. A close fourth was more networking with other farmers. When asked what sources of information they had accessed recently, only 51% reported having attended conferences and workshops within the last year. Other farmers (90%), neighbors and friends (86%), and books and other written materials (84%) were the most commonly reported resources accessed across all categories of beginning farmers. Eighty percent reported accessing information on the internet. Detailed information source data are provided in the following farm category profiles.

When asked how long they expected to be farming, 40% of beginning farmers reported thirty years or more and 30% reported 20 years or more. Among beginning dairy farmers, 64% reported an expectation of farming for 30 years or more, by far the highest proportion. Next highest was cash grain farmers at 48%, followed by ‘other’ farmers at 40%.

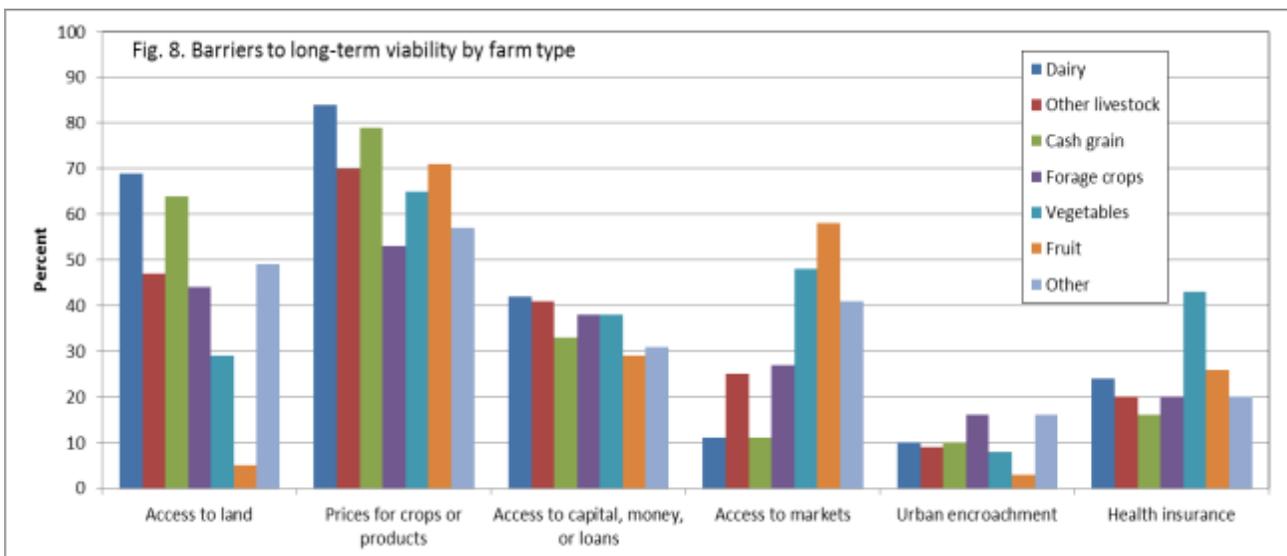


Figure 8 breaks down perceived barriers to long-term viability by farm type. The most significant barrier to long-term viability was prices for their product, reported by 72% of

respondents averaged across farm types. This issue was of most concern to dairy farmers (84%) and of least concern to forage producers (53%). Access to land was the second most commonly cited barrier at 52%, considered most significant by dairy farmers (69%) and cash grain farmers (64%), and of least concern to fruit farmers (5%). Access to markets was reported as a significant barrier by fruit farmers (58%), vegetable farmers (48%), and 'other' farmers (41%), but less so among other farmer categories. Health insurance was reported as an important barrier by 43% of vegetable farmers but averaged about 20% among other farmer types.

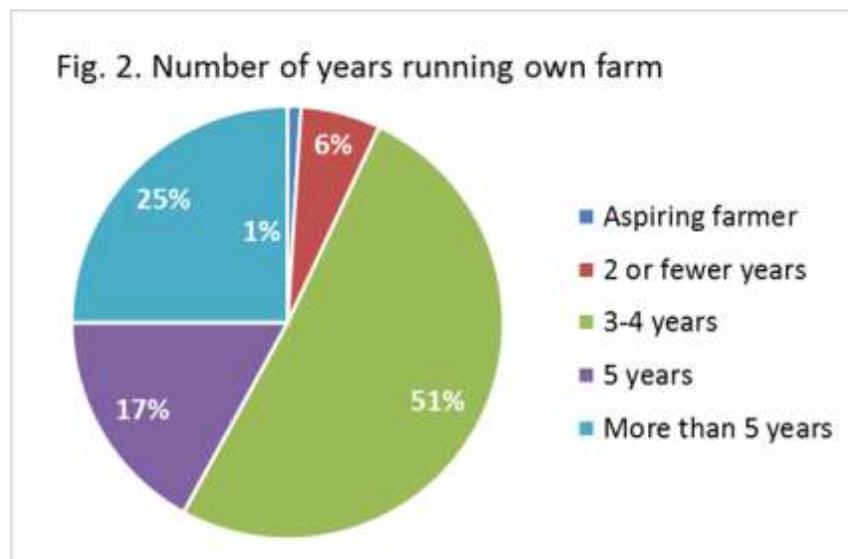
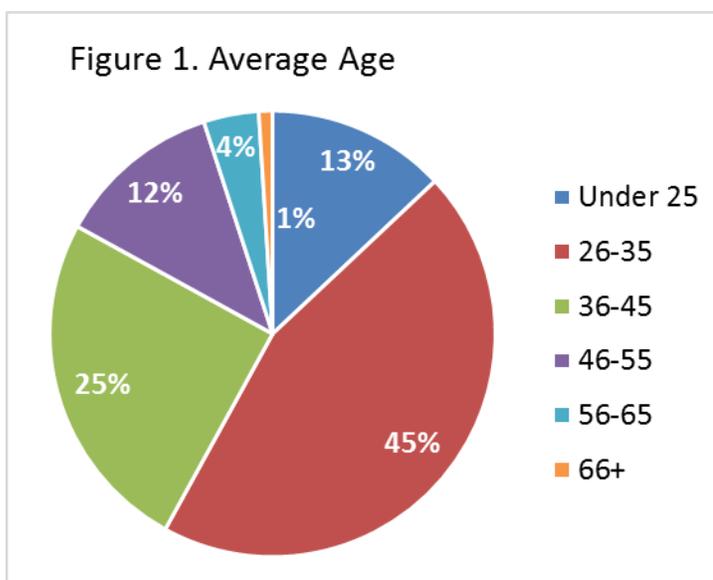
When asked what skills the respondents felt were the most important to being a successful farmer, money management and financial knowledge ranked highest, with production knowledge coming in second. A very close third was work ethic. Being able to work hard and for long hours was seen as an important attribute contributing to success in farming.

## Beginning Dairy Farmer Profile

Wisconsin was home to 10,407 dairy farms as of 2014, with an average herd size of 117 cows. Dairy farms in Wisconsin average 407 acres. We are second in the nation behind California for dairy cows and milk production, and first for the number of dairy farms and in production of cheese. For this survey, a beginning dairy farm was considered to be a farm with at least ten milk cows that had begun farming within the five years prior to the 2012 Census of Agriculture. Of the beginning farmers included in our 2014 survey, eleven percent or 121 respondents received the majority of their income from dairy farming, while 157 reported having dairy cattle on their farms.

### Demographics

Among survey respondents, 91% of beginning dairy farmers were male and 73% were married. Nearly half (45%) were between the ages of 26 and 35, with another 25% between 36 and 45 years of age. Thirteen percent were age 25 or younger (Fig. 1). Half of respondents had a high school education, while 34% had post-secondary degrees.



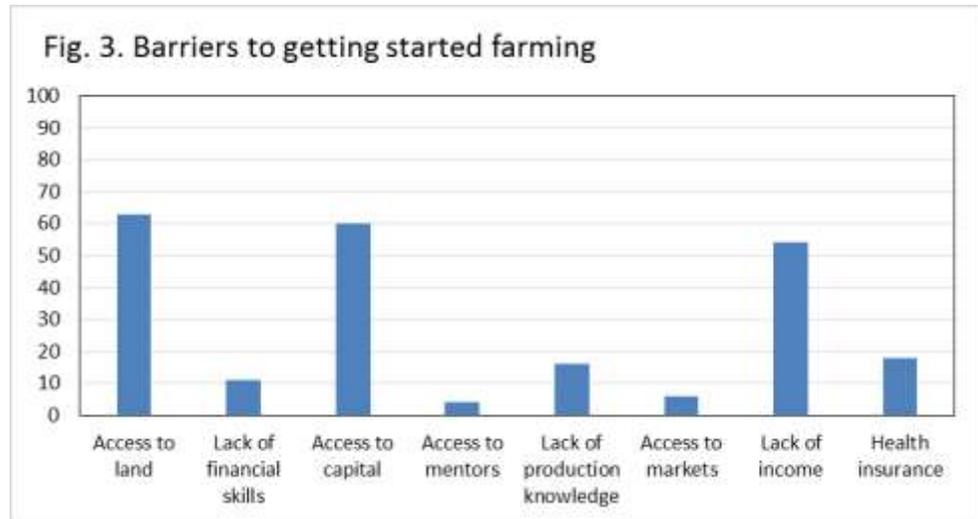
Seventy two percent farmed alone, with 12% farming with their parents, 5% with siblings, and 11% in other partnerships. Nearly half (44%) were the first generation dairy farming. Forty eight percent were second (19%), third (14%) and fourth (15%) generation dairy farmers.

### Getting started: barriers, training, and mentors

The majority of respondents had been farming at least three years with 51% for three to four years, 17% for five years, and 25% for more than five years when they filled out the survey (Fig. 2).

Forty-four percent of beginning dairy farmers indicated that it had taken them five or more years to get established after making the decision to dairy farm. For another 23%, it took three to four years, while 16% got started in one to two years, and 17% got started in less than one year.

The three top barriers identified by respondents were access to land (63%), access to capital (60%), and lack of income (54%). Figure 3 provides a breakdown of the importance of several barriers to getting started.



We asked survey respondents what training or preparation they made prior to starting farming. Only 2% indicated that they had had no training. Nearly all (92%) had grown up on a farm and considered that important experience for their own farming career. High school agriculture coursework was one of the more common types of training (40%). A total of 52% reported having some post-secondary education, including technical college coursework (24%), some college coursework (8%), a bachelor’s degree (18%), and a master’s degree (2%). Thirty four percent reported having done an internship or worked on a farm prior to starting their own farm, while 26% had attended field days. Six percent had attended a formal beginning farmer training and 3% had had a formal farming apprenticeship.

Nearly three quarters (68%) of respondents reported having a mentor to help them get started. The majority of these mentors were family members (79%), with smaller proportions relying on friends (5%), neighbors (13%), and others (3%).

Although 86% of respondents reported having borrowed money to get started, only 31% reported having a written business plan. Lenders included commercial banks (42%), Farm Credit (38%), Farm Service Agency (39%), family members (36%), and other (4%). Business structures used included 59% sole proprietorships, 13% limited liability corporations (LLC), 7% partnerships, 1% cooperatives, and 1% S or C corporations. Nineteen percent reported having no formal business structure.

### Snapshot of a beginning dairy farm

Beginning dairy farmers reported having an average herd size of 99 cows, owning an average of 103 acres of tillable land and renting an additional 122 acres of tillable land. Twenty four percent reporting having purchased land in the last two years, at an average

cost of \$3336 per acre. Seventy nine percent reported having rented land in the last two years at an average rate of \$105 per acre.

Beginning dairy farmers used a variety of common management practices on their farms. Seventy one percent of respondents reported using soil testing to determine fertility levels and 61% percent reported having a nutrient management plan. Cover cropping was used by 55% of respondents and 33% reported using no-till for their

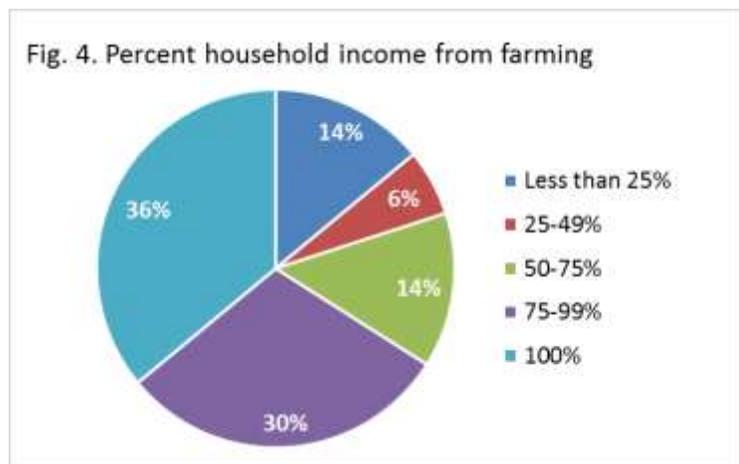
<i>Practice</i>	<i>Percent using</i>
Soil testing	71
Nutrient management planning	61
Cover cropping	55
No-till cropping	33
Rotational or managed grazing	28
Integrated pest management	21
Continuous grazing/set stocking	13
Organic	12
Certified organic	(93)
Irrigation	2

field cropping. Twenty eight percent reported using rotational grazing while 13% said they used set stocking of pastures. Use of integrated pest management was reported by 21%, and 12% reported using organic practices. Of the latter, 93% were certified organic, reflecting the multiple options dairy farmers have for selling into the organic market and the significant and relatively stable premium received for organic milk. Two percent of respondents reported using irrigation on their farms. Table 1 shows a breakdown of farm management practices from the survey respondents.

Fifty nine percent of beginning dairy farmers reported having access to high speed internet. Accessing farming information was the primary use of the internet, with 77% using it for this purpose. Smaller proportions used it for marketing (41%), purchasing inputs (37%), and networking with other producers (35%). Fifty three percent reported utilizing the internet within the last month. Social media use was reported by 33% of beginning dairy farmers.

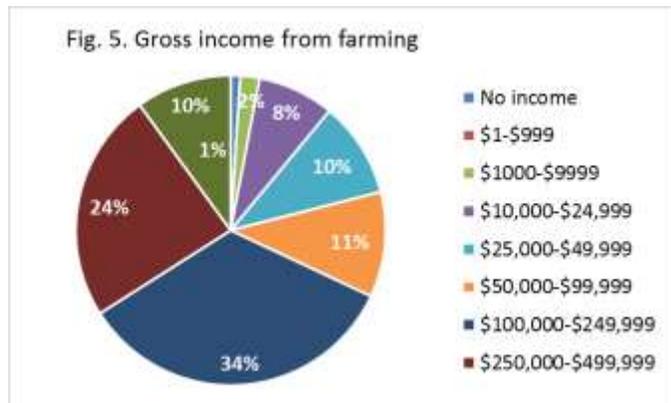
### Financial performance

A majority of respondents sold their milk and crops through cooperatives (58%), and local mills and auction houses (52%). Brokers (11%), private sales (16%), and 'other' (12%) were secondary markets for their products.



Thirty-six percent of beginning dairy farmers reported receiving all of their income from farming. Thirty percent reported being in the 75-99% range, with 14% reported receiving between 50-74% of their income from dairy and 6% in the 25-49% category. Fourteen percent receiving less than 25% of their household income from farming.

A majority of respondents reported their gross income as being greater than \$100,000, with 34% in the \$100,000-\$249,999 range, 24% in the \$250,000 to \$499,999 range, and 10% reporting over \$500,000 in gross income annually. These proportions were far higher than any other beginning farmer category.



**Table 2. Information sources**

Source	Percent using
Other farmers	97
Neighbors, friends	95
Books, magazines, newspapers	93
Local ag supplier	85
Tax consultant	83
Crop consultant	83
Lender	73
Conferences, field days, workshops	73
USDA Farm Service Agency	70
Internet	69
Coop or product marketing association	55
USDA Natural Resources Conservation Service	43
University Extension Service	41
County Land Conservation	34
Social media	33
Technical college	24
University System colleges	19
Non-profit educational groups	10

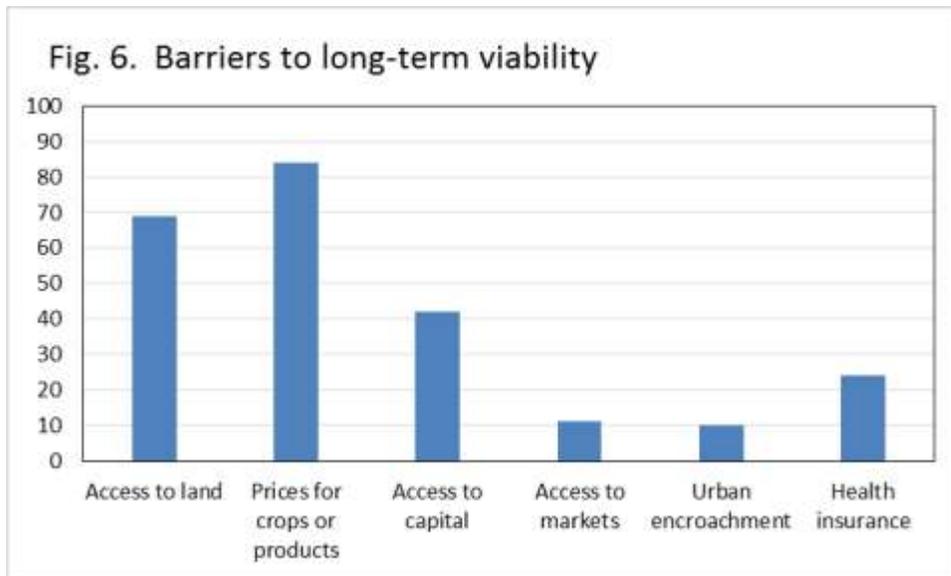
### Information sources

Primary sources of information that beginning dairy farmers relied on include other farmers (98%), neighbors and friends (95%), and books, magazines, and newspapers (93%). Other information sources that ranked high with beginning dairy farmers were local agricultural suppliers (85%), tax consultants (83%) and crop consultants (83%). Table 2 shows a breakdown of all the information sources respondents listed from highest to lowest percentage.

### Long-term viability

When asked how long they expected to be farming, a majority of beginning dairy farmers (64%) said they planned to be farming 30

years or more. Twenty six percent planned to farm at least 20 years.



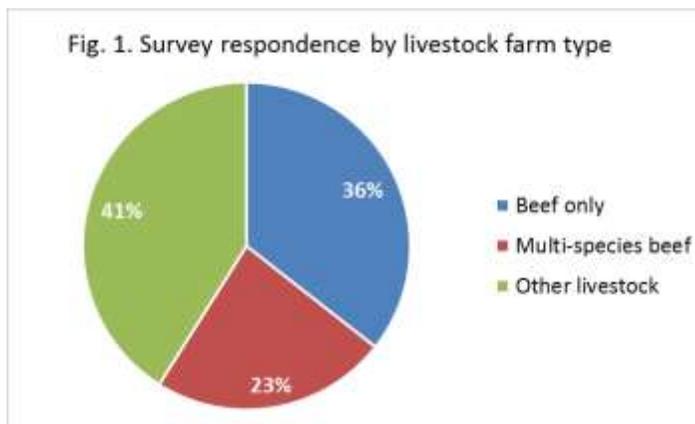
Although the majority planned to remain dairy farming for the long haul, they foresaw barriers to their viability (Fig. 6). By far, the most prominent barrier identified by respondents was prices for their product (84%). While less important than prices, more respondents listed access to land as a barrier for long-term viability (69%) than it was for getting started. Health insurance was also viewed as more of a barrier for long-term viability (24%) than for getting started (18%). We asked respondents what resources would be most helpful to them going forward. The top three responses were education/classes/workshops, grants/loans/finances, and production knowledge/assistance.

## Beginning Livestock Farmer Profile

In 2012, Wisconsin was home to 10,241 established beef operations and approximately 200,000 head of cattle. Beef operations averaged 19 head and 120 acres per farm. Hog farms numbered 475 with an average of 83 acres per farm. Another 1555 farms reported raising sheep or goats, with 48 acres per farm. Poultry and egg production were reported on 1591 farms. These farms averaged 85 acres.

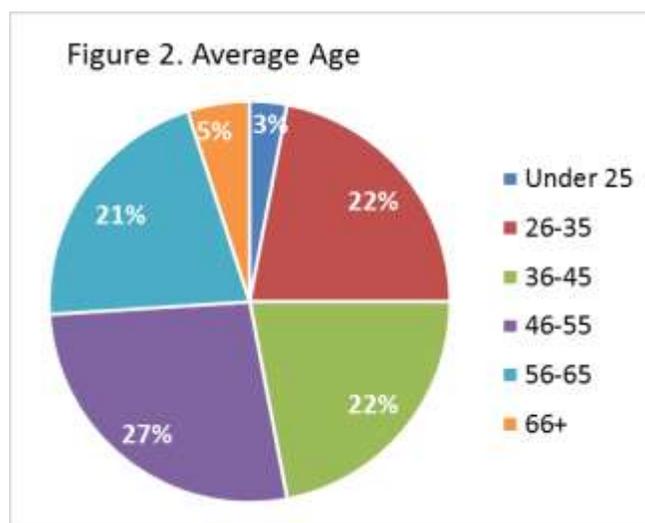
A total of 385 beginning farmers, or 36% of survey respondents, identified themselves as livestock producers. For this survey, livestock farms included beef (30% of livestock producers), sheep other than dairy sheep (5%), hogs (5%), meat poultry (5%), egg production (14%) and 'other' livestock (14%). Farmers identifying themselves in the 'other' category reported raising horses (both working and recreational) (54 farms), alpacas (for meat, fiber, and manure) (23 farms), llamas (6 farms), meat goats (14 farms), bee colonies (for both honey and pollination) (12 farms), donkeys/mules (4 farms), rabbits (5 farms), deer (6 farms), elk (2 farms), yaks (2 farms), homing racing pigeons (2 farms), fish (2 farms), ducks (2 farms), emu (1 farm), mink (1 farm).

We summarized survey data by three livestock categories (Fig. 1): beef cattle only (137 responses), beef with other livestock, which we designate as 'Multi-species beef' (90 responses), and non-beef or other livestock producers (158 responses). When there were significant differences in responses among the three categories, we report them. If there were no differences, averages are for all livestock producers.



## Demographics

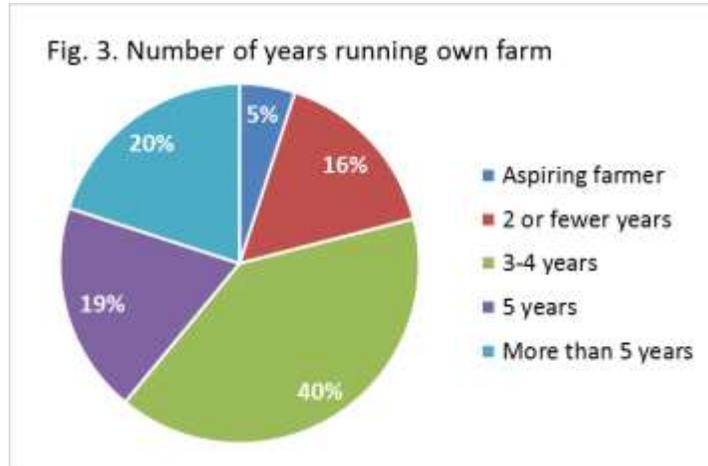
Among respondents to the 2014 survey, 72% of beginning livestock farmers were male and 82% were married. The largest proportion (27%) were in the 46 to 55 year age range (Fig. 2). The remainder were fairly uniformly distributed among the 26-35 (22%), 36-45 (22%), and 56-65 (21%) year age ranges. Three percent were under 25 years of age and 5% were over 65.



Among beef cattle only farmers, the largest age category was 26-35 (27%), relatively young compared to the other two groups. Among multi-species beef operations and non-beef livestock operations, the largest category was 46-55, with 32% and 29%, respectively.

Eighty four percent of beginning livestock farmers farmed alone, with 6% farming with their parents, 4% with siblings, and 6% in other partnerships. These arrangements varied among livestock types, with a smaller proportion of beginning beef only farmers farming alone (77%). Eighty four percent of multi-species beef and 89% of other livestock operators reported farming alone.

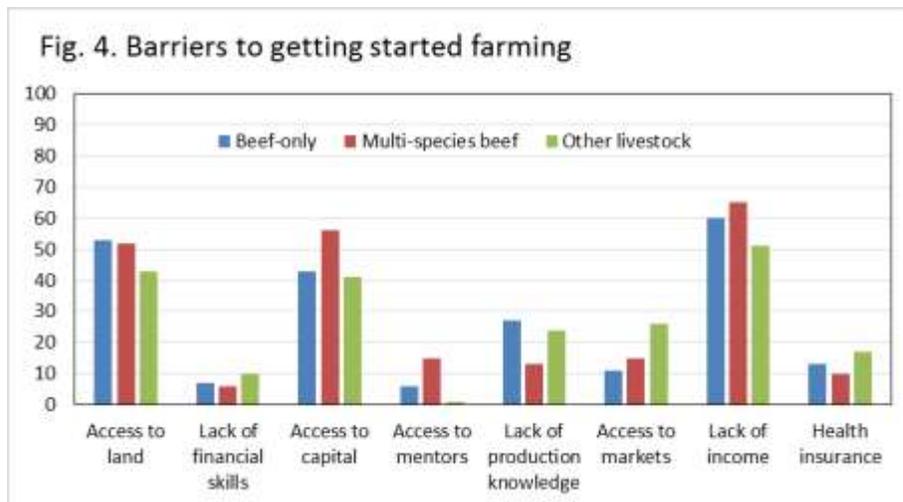
A majority of respondents (72%) were the first generation livestock farming. Thirty six percent were second (15%), third (6%) and fourth (15%) generation livestock farmers. This also varied with livestock category, with only 63% of beef only producers reporting being the first generation, and 71% and 81% of multi-species beef and non-beef livestock farmers reporting being the first generation respectively. Forty five percent of respondents had a high school education, while 53% had post-secondary degrees.



### Getting started: barriers, training, and mentors

When they filled out the survey in 2014, the majority of respondents had been farming at least three years with 40% for three to four years, 19% for five years, and 20% for more than five years (Fig. 3).

Forty-eight percent of beginning livestock farmers indicated that it had taken them five or more years to get established after making the decision to livestock farm. For another 12%, it took three to four years, while 21% got started in one to two years, and 19% got started in less than one year.



The three top barriers identified by respondents averaged across livestock categories were lack of income (57%), access to land (49%), and access to capital (45%). Importance of barriers varied among livestock farmer categories (Fig. 4).

We asked farmers what training or preparation they had had prior to starting farming. A majority (63%) had

grown up on a farm. This proportion was higher for beef-only farmers (68%) and multi-species beef (67%), than it was for non-beef livestock producers (55%). Nineteen percent indicated that they had had no training prior to starting farming, with the proportion being higher for non-beef (25%) than for beef (14%) and multi-species beef (16%). High school agriculture coursework (29%) and internships/working on other farms (29%) were among the more common types of training. Far fewer non-beef livestock producers (15%) had had high school agriculture classes than beef (42%) and multi-species beef (31%) farmers. Eighteen percent had attended field days. Four percent had attended a formal beginning farmer training and 1% had had a formal farming apprenticeship.

Fifty seven percent of respondents reported having a mentor to help them get started, with more beef-only farmers having mentors (64%) than multi-species beef (52%) and non-beef livestock farmers (53%). The majority of these mentors were family members (57%), with smaller numbers relying on friends (21%), neighbors (16%), and others (6%).

Although 43% of respondents reported having borrowed money to get started, only 16% reported having a written business plan. More beef-only farmers reported borrowing money (53%) while fewer reported having a business plan (13%). Forty one percent of multi-species beef farmers reported borrowing money, with 16% reporting a business plan. For non-beef livestock producers borrowing was reported by 36% of respondents, and a larger proportion of these producers (19%) reported having a business plan. Lenders included commercial banks (59%), Farm Credit (18%), Farm Service Agency (20%), family members (17%), and other (7%). After commercial banks, Farm Service Agency was the second highest for beef-only farmers (27%); for multi-species beef farmers, it was Farm Credit (29%); and for non-beef livestock farmers, the second highest lender was family members (24%). Business structures used included 36% sole proprietorships, 17% limited liability corporations (LLC), 3% partnerships, and 1% S or C corporations. Forty three percent reported having no formal business structure.

### **Snapshot of a beginning livestock farm**

About 40% of the respondents to our survey were beef farmers. Their average herd size was 32 cows. Sheep operations (5%) averaged 19 head and hog farms (5%) averaged 21 head. Among poultry producers, those raising meat birds (5%) averaged 1368 birds and egg producers (14%) averaged 112 birds. Farmers listing 'other' as their type of livestock (14%) averaged 248 head, but since this category included everything from horses to bees to fish, the average is not very meaningful.

Across all three categories, beginning livestock farmers reported owning an average of 41 acres and renting an additional 23 acres of land. Beef only farmers reported significantly more acres owned (78) than multi-species beef (54) and non-beef livestock (37). Both categories of beef had similar rental acres (19 for beef-only and 24 for multi-species beef), while non-beef livestock operations reported renting an average of only 3 acres. Ten percent of respondents reporting having purchased land in the last two years at an average of \$3336 per acre. Larger proportions of beef-only (14%) and multi-species beef (12%) than non-beef livestock (5%) reported land purchases. Twenty eight percent reported having rented land in the last two years at an average rate of \$105 per acre. A similar

pattern was reported for renting land, with larger proportions of beef-only (39%) and multi-species beef (31%) than non-beef livestock (16%) reporting renting land.

### Common Practices

Table 1 summarizes the use of common practices across the three livestock categories. Thirty one percent of respondents reported using soil testing to determine fertility levels and 18% percent reported having a nutrient management plan. Cover cropping was used by 21% of respondents and 21% reported using no-till for their field cropping. Sixty one percent reported using rotational grazing while 24% said they used set stocking of pastures. Use of integrated pest management was reported by 12%, and 2% of respondents reported using irrigation on their farms. An average of 20% reported using organic practices. Of the latter, 17% were certified organic. More non-beef livestock producers reported using organic practices (29%), than multi-species beef (18%) and beef-only (12%) farmers.

<b>Practice</b>	<b>Percent using</b>
Rotational or managed grazing	61
Soil testing	31
Continuous grazing/set stocking	24
No-till cropping	21
Cover Cropping	21
Organic Practices	20
Certified organic	(17)
Nutrient Management Planning	18
Integrated pest management	12
Irrigation	2

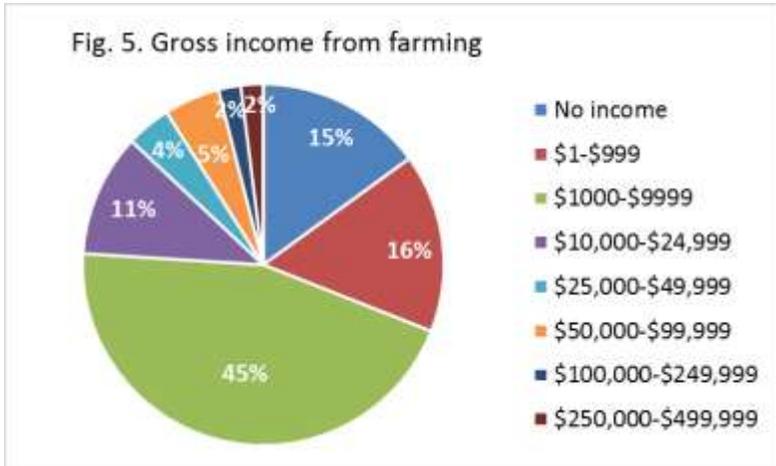
Eighty one percent of beginning livestock farmers reported having access to high speed internet. Accessing farming information was the primary use of the internet, with 70% using it for this purpose. Smaller proportion used it for marketing (37%), purchasing inputs (30%), and networking with other producers (33%). Non-beef livestock producers were significantly more likely than beef-only and multi-species beef farmers to use the internet for purchasing inputs and networking.

Fifty three percent reported utilizing the internet within the last month. Social media use was reported by 36% of beginning livestock farmers with non-beef livestock producers more likely to use it (32%) than multi-species beef (22%) and beef-only (18%) farmers.

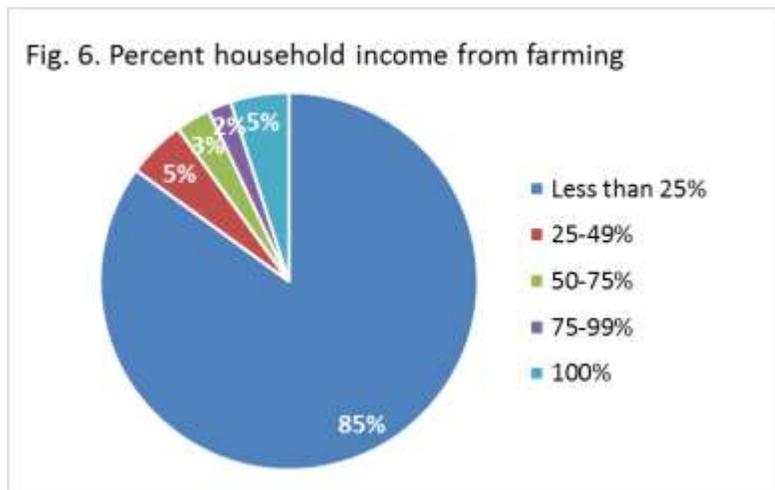
### Financial performance

A majority of respondents sold their products direct to consumers (58%), with higher proportions reported among non-beef livestock (69%) and multi-species beef (61%) than among beef-only farmers (42%). Thirty four percent listed local mills and auction houses, with higher proportions reported among beef-only (44%) and multi-species beef (39%) than among non-beef livestock (22%). Private sales were reported by 27% of respondents. Cooperatives (15%), brokers (5%), restaurants (4%), and 'other' (3%) were less important markets for their products.

A majority of respondents reported their gross income from farming as being less than \$10,000, with 45% in the \$1,000-\$9,999 range, 16% in the \$1 to \$999 range, and 15% reporting no income (Fig. 5). Eleven percent of livestock producers reported gross income between \$10,000 and \$24,999. Eleven percent reported gross income between \$25,000 and \$500,000. Beef-only farmers fared slightly better with 19% reporting income greater than \$25,000, with multi-species beef farmers at 8% and 12% for non-beef livestock farmers.



Farming was clearly a secondary income stream for most of these beginning farmers (Fig. 6). Eighty five percent of respondents reported that less than 25% of their income came from farming and only 5% reported all of their household income coming from farming. Slightly fewer beef-only producers reported less than 25% of their income from farming



(83%) than multi-species beef (86%) and non-beef livestock (87%), but more multi-species beef (6%) and non-beef livestock (5%) farmers reported all of their income from farming than did beef-only producers (3%).

### Information sources

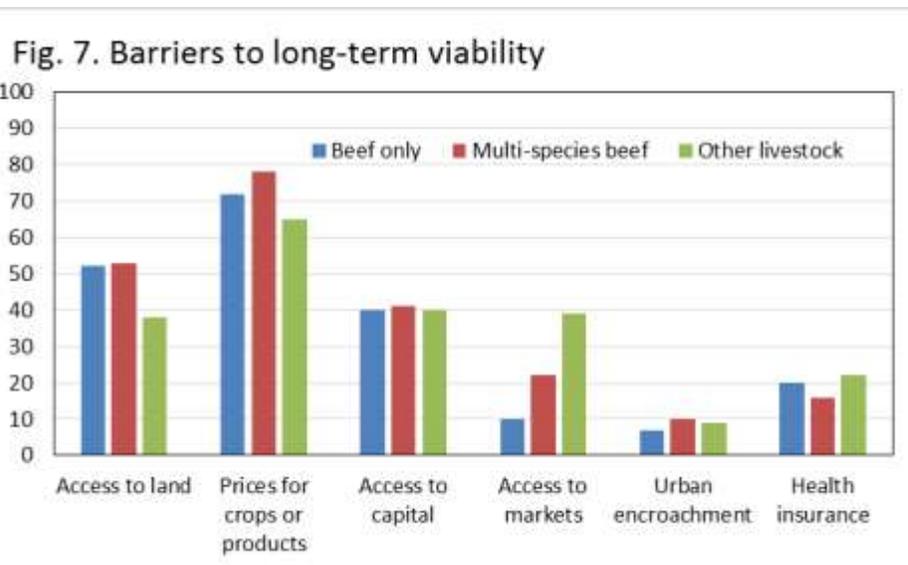
Primary sources of information that beginning livestock farmers relied on included other farmers (88%), neighbors and friends (87%), and books, magazines, and newspapers (86%). Utilization of the internet was also high across all three categories (81%). Sixty three percent reported relying on their input suppliers for information and 62% reported using their tax consultant (Table 2). Beef-only farmers were more likely to rely on crop consultants (47%) than multi-species beef (33%) and non-beef livestock farmers (30%).

Among agencies, Farm Service Agency was listed most often (34%) as a source of information, with beef-only farmers more likely to use this sources (43%) than multi-

species beef (39%) or non-beef livestock farmers (24%). Next most important were University Extension (31%) and Natural Resources Conservation Service (27%). Land Conservation offices (20%), University System Schools (11%), and technical colleges (5%), were also utilized. Forty one percent of respondents reported having attended conferences, field days or workshops within the last year. More non-beef livestock (46%) and multi-species beef farmers (42%) than beef-only farmers (33%) reported attending educational events. For financial and marketing information, respondents used their tax consultant (61%), their lender (30%), and product marketing associations (23%).

### Long-term viability

When asked how long they expected to be farming, the largest proportion of beginning livestock farmers (34%) said they planned to be farming 30 years or more. Thirty percent planned to farm at least 20 years. Although the majority planned to remain livestock farming for the long haul, they foresaw barriers to their viability. By far, the most prominent barrier identified by respondents was prices for their product (70%). While less important than prices, respondents also listed access to land (47%) and access to capital (41%) as important barriers for long-term viability. Access to land was reported as a barrier by fewer non-beef livestock farmers (38%) than beef-only (52%) or multi-species beef farmers (53%).



Access to markets was reported as important by 39% of non-beef livestock producers, while fewer multi-species beef (22%) and beef-only farmers (10%) reported market access as a barrier. Health insurance was viewed as more of a barrier for long-term viability (20%) than for getting started (14%).

**Table 2. Information sources (averaged over all beginning livestock farmers).**

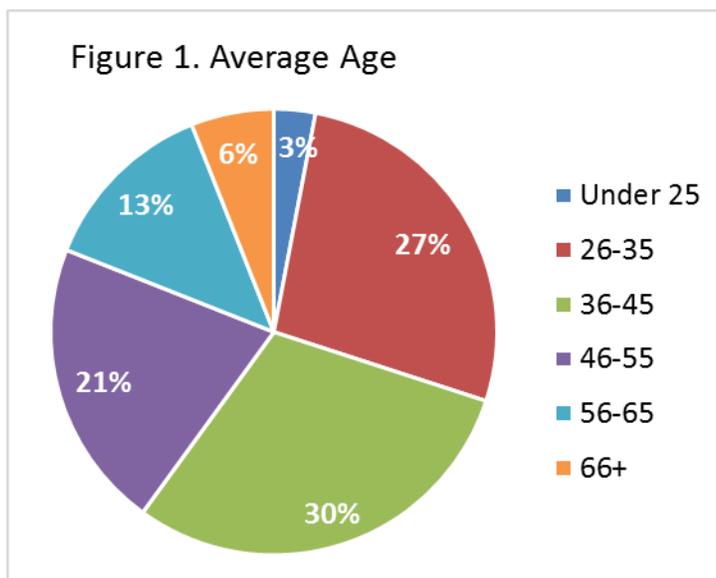
Source	Percent
Other farmers	88
Neighbors, friends	87
Books, magazines, newspapers	86
Internet	81
Local ag supplier	63
Tax consultant	62
Conferences, field days, workshops	41
Social media	36
Crop consultant	36
USDA Farm Service Agency	34
University Extension Service	31
Lender	30
Coop or product marketing association	23
USDA Natural Resources Conservation Service	27
County Land Conservation	20
Non-profit educational groups	12
University System colleges	11
Technical college	5

## Beginning Cash Grain Farmer Profile

In 2014, 19,730 Wisconsin farms were classified as cash grain farms, raising a combination of corn, soybeans, wheat and other annual crops as their primary products. These farms averaged 294 acres in size. With 314 surveys returned, cash grain farmers were the second largest category of respondents (29%) to the beginning farmer survey.

### Demographics

Among respondents to the 2014 survey, 93% of beginning cash grain farmers were male and 80% were married. Nearly a third (30%) were between the ages of 36 and 45, with another 27% between 26 and 35 years of age and 21% between ages 46 and 55. Thirteen percent were between 56 and 65. Only 3% were age 25 or younger. Six percent were over 65 (Fig. 1). Forty three percent of respondents had a high school education. A total of 57% reported having some post-secondary education, including Associate's degree (27%), a bachelor's degree (22%), or a master's degree (8%).

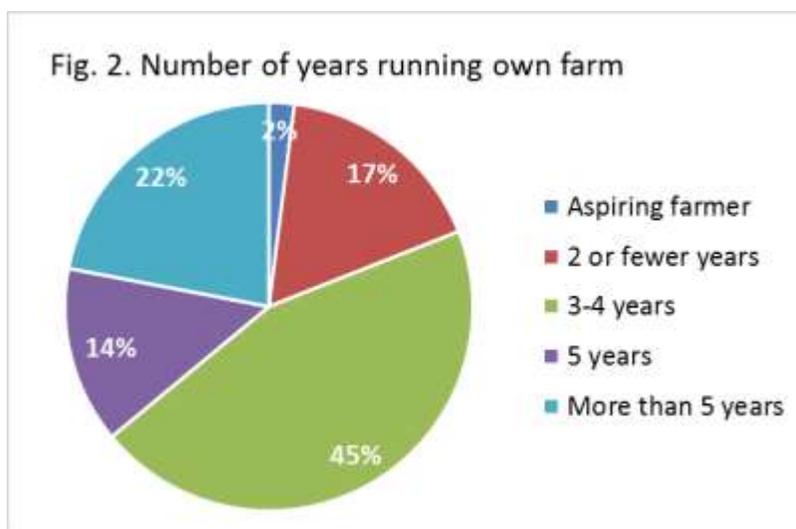


Seventy percent of beginning cash grain farmers farmed alone, with 12% farming with their parents, 10% with siblings, and 8% in other partnerships. Nearly half (45%) were first generation cash grain farmers. Fifty percent were second (18%), third (19%) and fourth (13%) generation cash grain farmers.

### Getting Started: barriers, training, and mentors

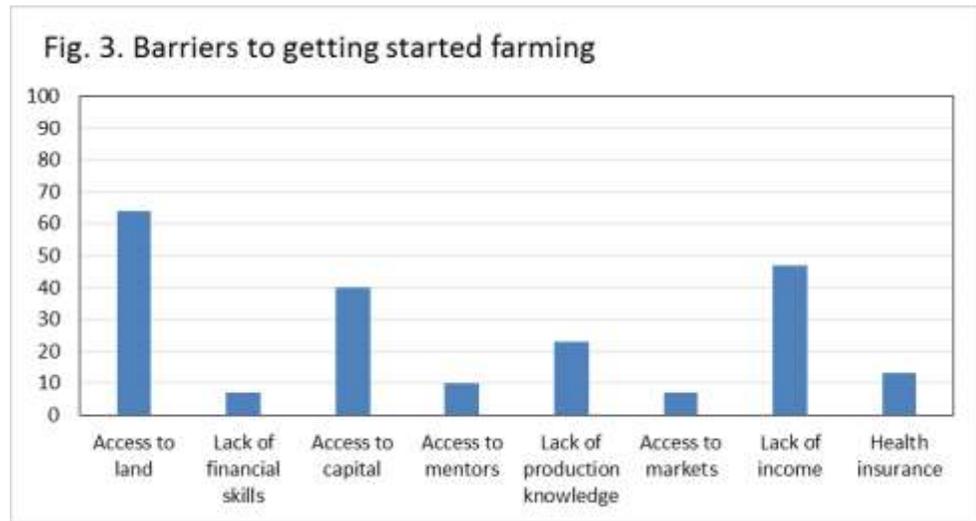
The majority of respondents had been farming at least three years with 45% for three to four years, 14% for five years, and 22% for more than five years when they filled out the survey (Fig. 2).

Fifty nine percent of beginning cash grain farmers indicated that it had taken them five or more years to get established after making the decision to farm. For another 10%, it took three to



four years, while 18% got started in one to two years, and 13% got started in less than one year.

By far, the top barrier to getting started was access to land (64%). Other barriers included lack of income (47%) and access to capital (40%). Twenty three percent cited lack of production knowledge as a barrier (Fig 3).



We asked farmers what training or preparation they had made prior to starting farming. Most (76%) had grown up on a farm. High school agriculture coursework was one of the more common types of training (45%). Twenty seven percent reported having done an internship, while 18% had attended field days. Three percent had attended a formal beginning farmer training course. Eleven percent listed that they had had no training prior to starting farming.

Nearly three quarters (68%) of respondents reported having a mentor to help them get started. The majority of these mentors were family members (68%), with smaller numbers relying on friends (14%), neighbors (15%), and others (3%).

Although 60% of respondents reported having borrowed money to get started, only 16% reported having a written business plan. Lenders included commercial banks (53%), Farm Credit (39%), Farm Service Agency (12%), family members (14%), and other (3%). Business structures used included 43% sole proprietorships, 17% limited liability corporations (LLC), 3% partnerships, and 1% S or C corporations. Thirty six percent reported having no formal business structure.

### Snapshot of a beginning cash grain farm

Beginning cash grain farmers reported owning 92 acres, and renting an additional 87 acres of land. Twenty percent reporting having purchased land in the last two years at an average cost of \$3336 per acre. Fifty seven percent reported having rented land in the last two years at an average rate of \$105 per acre.

Beginning cash grain farmers used a variety of common management practices on their farms. Seventy three percent of respondents reported using soil testing to determine fertility levels and 49% percent reported having a nutrient management plan. Cover cropping was used by 24% of respondents and 58% reported using no-till for their

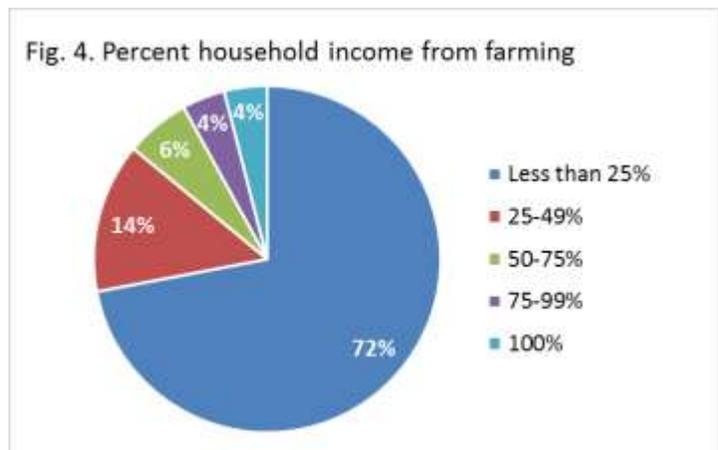
field cropping. Use of integrated pest management was reported by 21%, and 3% reported using organic practices. Of the latter, 67% were certified organic. Three percent of respondents reported using irrigation on their farms. Table 1 shows a breakdown of farm management practices from the survey respondents.

Practice	Percent using
Soil testing	73
No-till cropping	58
Nutrient Management Planning	49
Cover Cropping	24
Integrated pest management	21
Rotational or managed grazing	13
Continuous grazing/set stocking	4
Organic Practices	3
Certified organic	(67)
Irrigation	3

Ninety percent of respondents reported having access to high speed internet. Accessing farming information was the primary use of the internet, with 67% using it for this purpose. Smaller proportion used it for marketing (47%), purchasing inputs (21%), and networking with other producers (14%). Fifty three percent reported utilizing the internet within the last month. Social media use was reported by 20% of beginning cash grain farmers.

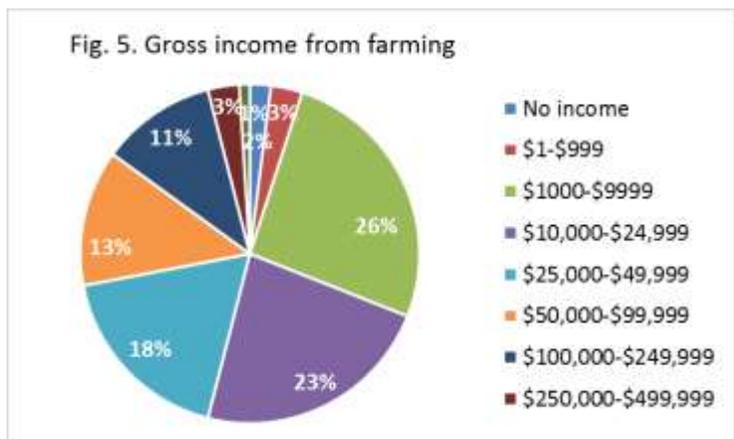
### Financial performance

A majority of respondents sold their crops at the local mill (51%) or through cooperatives (44%). Brokers (12%), private sales (13%), and 'other' (3%) were secondary markets for their products.



Seventy-two percent of beginning cash grain farmers reported receiving less than 25% of their household income from farming (Fig. 4). Fourteen percent said they received 25-49% of their income from farming, 6% fell in the 50-74% range with 4% reporting 75-99% and 4% said they received all of their income from the farm.

Half of respondents reported their gross income from farming as being below \$25,000 with 2% reporting no income from farming, 5% reporting below \$1000, 26% in the \$1000-\$9,999 range and 23% in the \$10,000 to \$24,999 range. Eighteen percent reported gross income between \$25,000 and 49,999, 13% between \$50,000 and \$99,999, and 11% between \$100,000 and



\$249,999. Four percent reported gross incomes over \$250,000. A majority, 86%, reported less than half their household income from farming (Fig. 5).

### Information sources

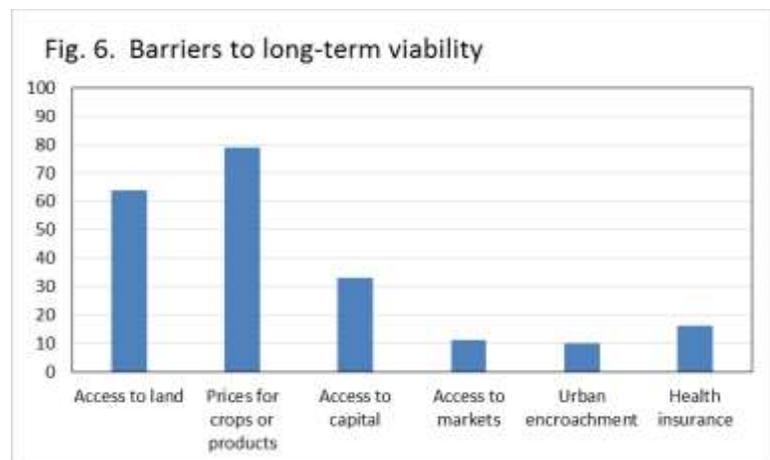
Primary sources of information that beginning cash grain farmers relied on include other farmers (92%) and neighbors and friends (89%). Other important sources were books, magazines and newspapers (82%) and the internet (82%). Table 2 provides a breakdown of all the information sources respondents listed from highest to lowest percentage.

<b>Source</b>	<b>Percent using</b>
Other farmers	92
Neighbors, friends	89
Books, magazines, newspapers	82
Internet	82
Local ag supplier	80
Tax consultant	78
Crop consultant	70
USDA Farm Service Agency	62
Conferences, field days, workshops	51
Lender	49
USDA Natural Resources Conservation Service	44
Coop or product marketing association	41
County Land Conservation Department	37
Social media	20
University System colleges	11
University Extension Service	11
Technical college	9
Non-profit educational groups	6

### Long-term viability

When asked how long they expected to be farming, nearly half of beginning cash grain farmers (48%) said they planned to be farming 30 years or more. Twenty seven percent planned to farm at least 20 years.

Although the majority planned to remain cash grain farming for the long haul, they foresaw barriers to their viability. The most prominent barrier identified by respondents was prices for their product (79%), followed by access to land (64%). While less important than prices and land, access to capital (33%) was also identified as a barrier to long-term



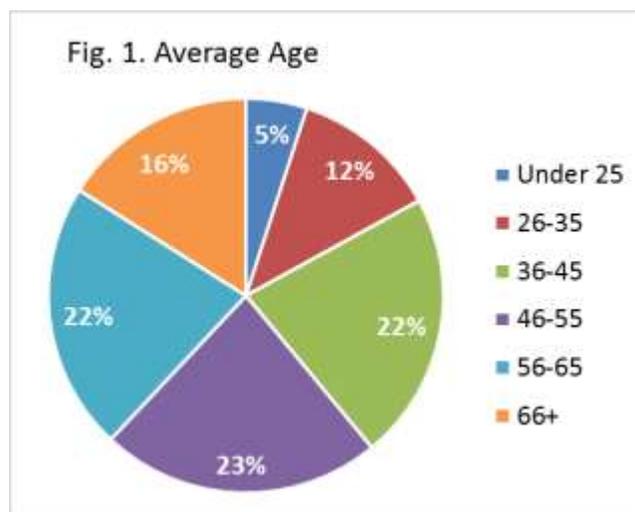
viability. Health insurance was also viewed as more of a barrier for long-term viability (16%) than for getting started (13%). When asked what they needed to ensure long-term viability, responses included access to educational programs and workshops, financial assistance, and increased production knowledge and skills.

## Beginning Forage Crop Farmer Profile

According to the 2012 Ag Census, Wisconsin had just over 37,000 farms and over two million acres of forage land that included hay, haylage, grass silage, and greenchop. The farms ranged from one acre to over 3,000 acres. In our survey, a total of 74 beginning farmers or 7% of respondents identified themselves as forage crop producers.

### Demographics

Among respondents to the 2014 survey, 83% of beginning forage crop farmers were male and 80% were married. The largest number (23%) were in the 46 to 55 year age range (Fig. 1). The next largest age categories were 36-45 (22%), and 56-65 (22%) year age ranges. Sixteen percent were over 65 years of age, 12% were between 26 and 35, and 5% were under 25 years of age. A total of 63% reported having some post-secondary education, including an Associate's degree (20%), a Bachelor's degree (27%), or a Master's degree (21%).

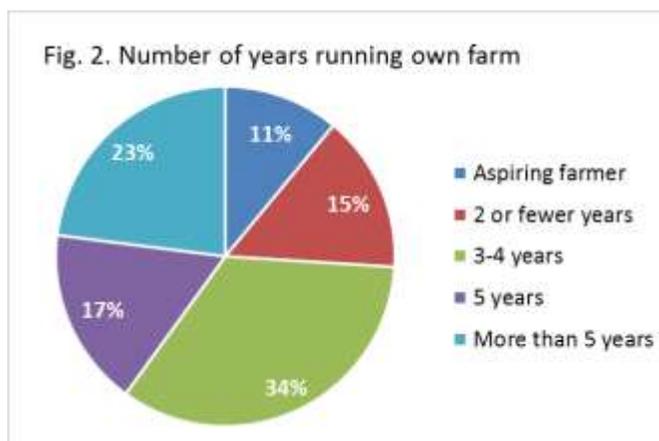


Eighty-six percent of forage crop farmers farmed alone, with 3% farming with their parents, 3% with siblings, and 8% in other partnerships. A majority (68%) were the first generation forage crop farmers. Eighteen percent were second, 13% third, and one percent were fifth generation on their farm.

### Getting started: barriers, training, and mentors

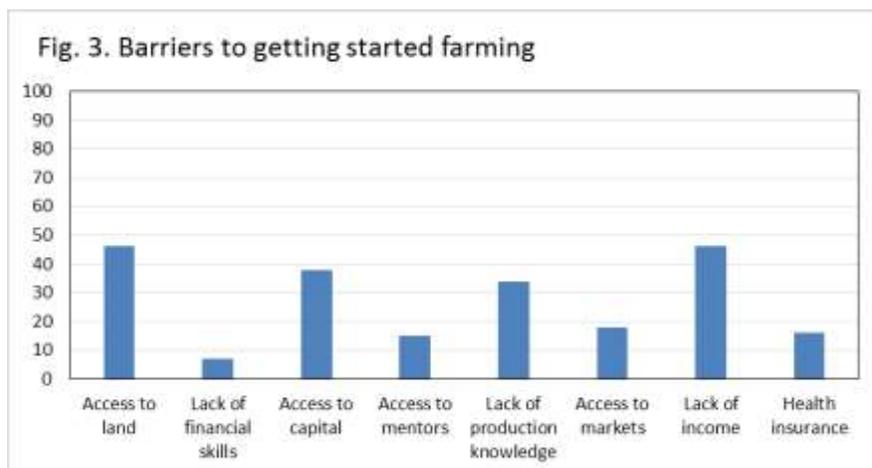
When they filled out the survey in 2014, 34% of respondents had been farming at least three years with 17% for five years, and 23% for more than five years (Fig. 2).

Fifty-four percent of beginning forage crop farmers indicated that it had taken them five or more years to get established after making the decision to farm. For another 19%, it took three to four years, while 14% got started in one to two years, and 13% got started in less than one year.



The three top barriers to getting started identified by respondents (Fig. 3) were access to land (46%), lack of income (46%), and access to capital (38%). Thirty-four percent indicated that lack of production knowledge was a barrier.

We asked farmers what training or preparation they had had prior to starting farming. A majority (53%) had grown up on a farm. Thirty-two percent indicated that they had had no training prior to starting farming. High school agriculture coursework (22%) and internships (18%) were among the types of training reported by beginning forage crop producers.



Fourteen percent had attended field days. Six percent had attended a formal beginning farmer training.

Fifty-one percent of respondents reported having a mentor to help them get started. The majority of these mentors were family members (47%), with smaller numbers relying on neighbors (36%), friends (14%) and others (3%).

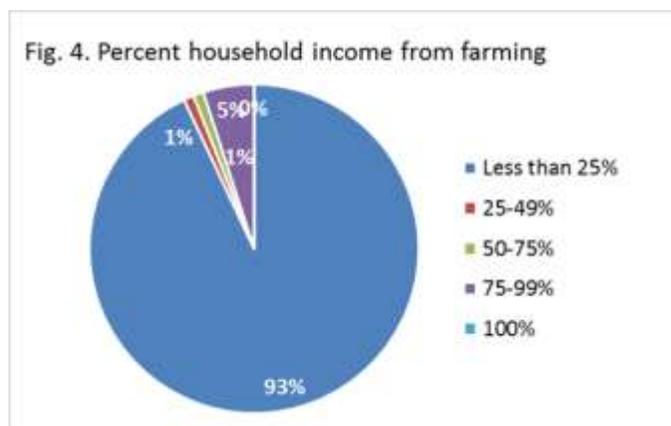
Although 32% of respondents reported having borrowed money to get started, none of them reported having a business plan. Lenders included commercial banks (57%), family members (21%), Farm Credit (14%), Farm Service Agency (7%), and other (14%). Business structures used included 30% sole proprietorships, 16% limited liability corporations (LLC), 1% partnerships. No formal business structure was reported by 53% of respondents.

Practice	Percent using
Soil testing	38
No-till cropping	35
Cover Cropping	31
Organic Practices	25
Certified organic	(20)
Rotational or managed grazing	18
Nutrient Management Planning	18
Continuous grazing/set stocking	11
Integrated pest management	8
Irrigation	2

### Snapshot of a beginning forage crop farmer

Beginning forage crop farmers reported owning an average of 57 acres and renting an additional 7 acres of land. Eleven percent reporting having purchased land in the last two years at an average of \$3336 per acre. Twenty-two percent reported having rented land in the last two years at an average rate of \$105 per acre.

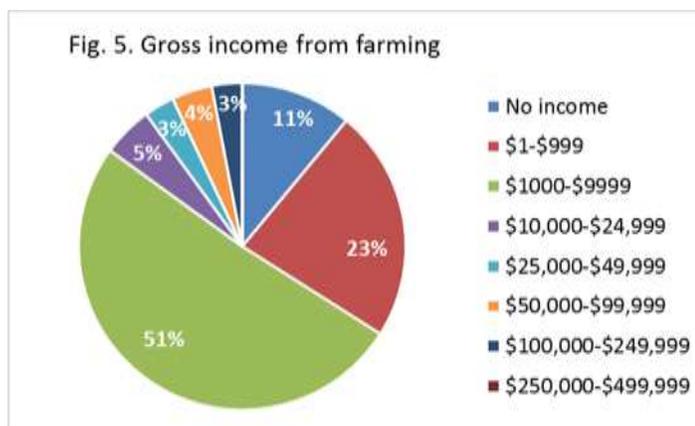
Beginning forage crop farmers used a variety of common management practices on their farms, but generally at lower levels than other beginning farmer categories. The most commonly used practices were soil testing (38%) and no-till cropping (35%). Table 1 shows the breakdown of farm management practices from the survey respondents.



Eighty five percent of beginning forage crop farmers reported having access to high speed internet. Accessing farming information was the primary use of the internet, with 53% using it for this purpose. Smaller proportion used it for purchasing inputs (22%), marketing (13%), and networking with other producers (12%). Forty-four percent reported utilizing the internet within the last month. Social media use was reported by 13% of beginning forage crop farmers.

### Financial performance

A majority of respondents sold their products direct to livestock producers (45%), with 42% via private sales and 16% listing local mills and auction houses. Cooperatives (6%), brokers (2%), and 'other' (3%) were secondary markets for their products.



Ninety-three percent of beginning forage crop farmers reported receiving less than 25% of their household income from farming (Fig. 4). One percent said they received 25-49% of their income from farming, 1% fell in the 50-74% range with 5% reporting 75-99% of their income from farming. None of the forage crop producers reported receiving all of their income from farming.

A majority of respondents reported their gross income from farming as less than \$10,000, with 51% in the \$1,000-\$9,999 range, 23% in the \$1 to \$999 range, and 11% reporting no income. Five percent of forage crop producers reported gross income between \$10,000 and \$24,999 (Fig 5). Ten percent reported gross income between \$25,000 and \$500,000. Farming was clearly a secondary income stream for most of these beginning farmers.

### Information sources

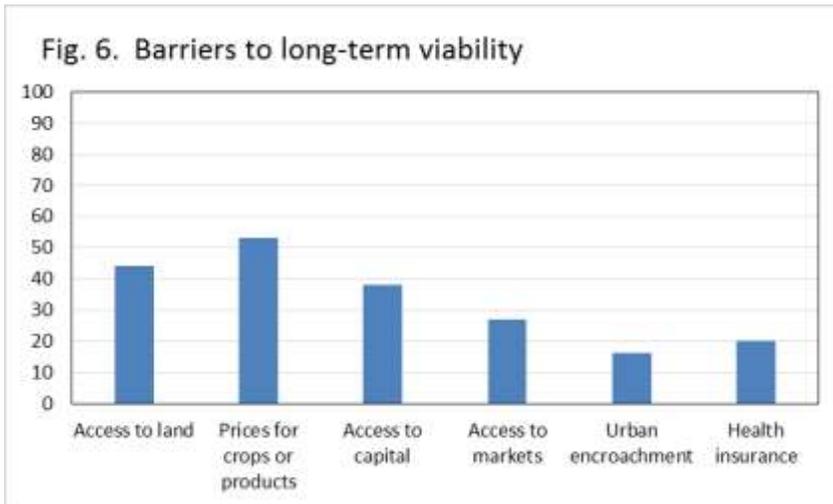
Primary sources of information that beginning forage crop farmers relied on include other farmers (88%), neighbors and friends (86%), the internet (75%), and books, magazines, and newspapers (69%). Table 2 provides a breakdown of all the information sources respondents listed from highest to lowest percentage.

<b>Source</b>	<b>Percent</b>
Other farmers	88
Neighbors, friends	86
Internet	75
Books, magazines, newspapers	69
Tax consultant	55
Local ag supplier	49
Crop consultant	40
Conferences, field days, workshops	35
USDA Farm Service Agency	33
USDA Natural Resources Conservation Service	22
Social media	19
Lender	19
Coop or product marketing association	19
County Land Conservation Department	16
Non-profit educational groups	15
Technical college	4
University System colleges	4
University Extension Service	4

### Long-term viability

When asked how long they expected to be farming, 33% said they planned to be farming 20 years or more. Twenty-five percent planned to farm at least 30 years.

Although the majority planned to remain forage crop farming for the long haul, they foresaw barriers to their viability (Fig. 6). The most prominent barrier identified by respondents was prices for their product (53%). While less important than prices, respondents also listed access to land (44%) and access to capital (38%) as important barriers for long-term viability. Health insurance was viewed as a barrier for long-term viability by 20% of respondents.

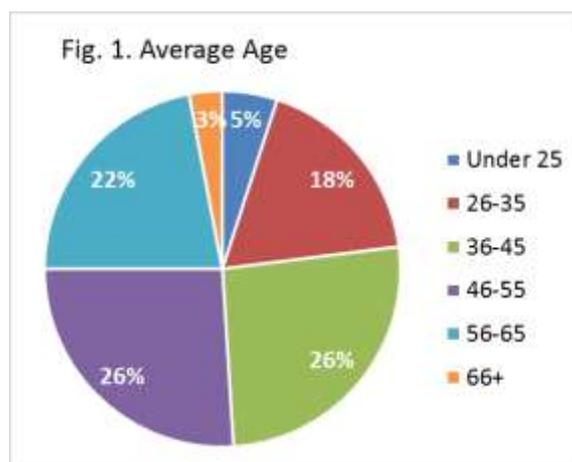


## Beginning Vegetable Farmer Profile

According to the 2012 Census of Agriculture, Wisconsin had 2,880 vegetable farms with an average acreage of 99 acres. Of these farms, 1075 produced processing vegetables on an average of 1373 acres per farm and 1874 produced fresh market vegetables on an average of 5.5 acres per farm. Seventy six respondents to our survey identified themselves as vegetable farmers.

### Demographics

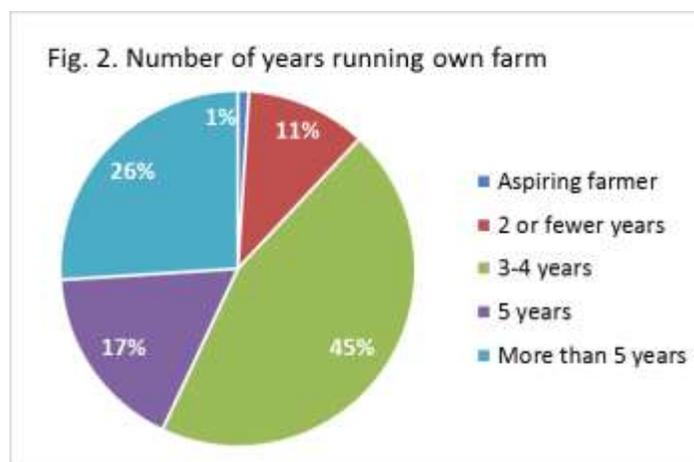
Among survey respondents, 57% of beginning vegetable farmers were male and 43% were female, by far the largest proportion of female farmers of any category. Seventy seven percent reported being married. Over half were between the ages of 36 and 55 (52%) with 22% falling in the 56-66 age range. Only 5% fell in the 25 years or younger category (Fig. 1). Nearly half (47%) of respondents had advanced degrees, either Bachelors (35%) or Masters (12%), 20% had an Associate's degree, 32% had a high school diploma.



Eighty two percent of vegetable farmers farmed alone, with 8% farming with their parents and 10% farming with other partners. More than three quarters (77%) were the first generation vegetable farming. Seven percent were second generation, 7% were third generation, 4% were fourth, 3% were fifth, and 2% were sixth generation.

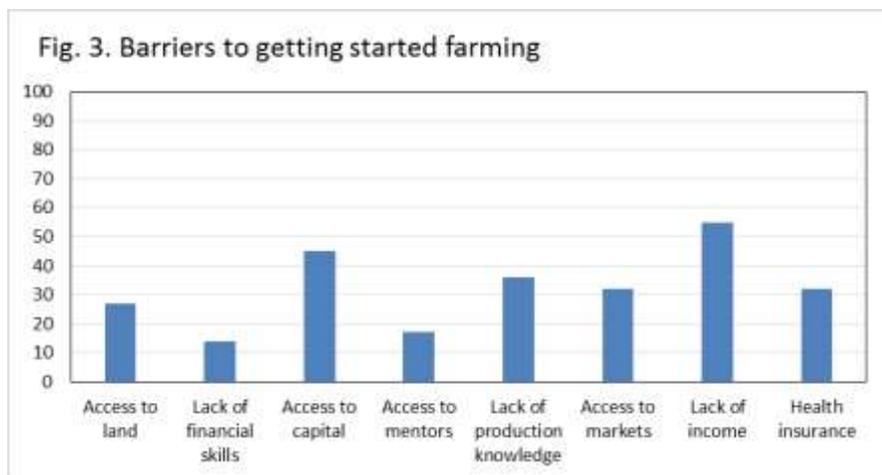
### Getting Started: barriers, training, and mentors

At the time of the survey, just under half of the farmers surveyed had been running their own farm for 3-4 years (45%) with the next highest percentage (26%) being 6+ years. Seventeen percent had been running their own farm for five years, 11% for 2 or fewer years, and 1% identified themselves as aspiring farmers (Fig. 2).



The highest percentage (39%) of beginning vegetable farmers surveyed indicated it had taken them five or more years to get established after making the decision to farm. For another 8% it took three to four years, while 24% got started in one to two years, and 29% were able to get started in less than one year.

There were many barriers to getting into vegetable farming reported in the survey (Fig. 3). Lack of income was reported as the largest barrier, with access to capital coming in second and lack of production knowledge taking third place.



We asked farmers what training or preparation they made prior to starting farming. Ten percent listed that they had had no training. Nearly half (46%) had grown up on a farm and considered that an important experience for their own farming career. Field days, workshops and conferences came in second with 44% and internships or work on another farm rounded out the top three with (38%).

Eighty-three percent of beginning vegetable farmers reported having access to high-speed internet. Seventy-six percent of those farmers used the internet to access agricultural information, 63% for agricultural marketing activities, 56% for purchasing agricultural inputs and 46% to network with other producers.

Fifty-four percent of vegetable farmers had a mentor to help them get started in farming, with 44% learning from a family member and 22% learning from friends.

Thirty-eight percent of beginning vegetable farmers indicated that they had borrowed money from a commercial bank to get started in farming, while 31% borrowed money from the Farm Service Agency and 31% borrowed from family members. Only 34% of beginning vegetable farmers reported having a written business plan. Forty-four percent of vegetable farmers farmed under an LLC, 25% were a sole proprietorship and 24% reported having no formal structure.

### Snapshot of a beginning vegetable farmer

Beginning vegetable farmers reported having an average farm size of 23 acres of owned, tillable land and 74 acres of rented, tillable land. A larger proportion of beginning vegetable farmers reported renting land (38%) with only 9% purchasing land within the last two years. Of the 9% who purchased land, the average weighted

Practice	Percent using
Organic Practices	71
Certified organic	(22)
Soil testing	65
Cover Cropping	61
Irrigation	59
Integrated pest management	37
Rotational or managed grazing	31
Nutrient Management Planning	31
No-till cropping	14
Continuous grazing/set stocking	4

price was \$3,336 per acre. For the 38% who rented land within the last 2 years, with an average weighted price of \$105 per acre.

Beginning vegetable farmers used a variety of common management practices on their farms. They were the only category among whom organic practices ranked first (71%). Cover cropping (61%) and irrigation (59%) also ranked higher among beginning vegetable farmers than with other farm types. As with other farmer categories, soil testing also ranked high (65%). Integrated pest management (37%) and nutrient management planning (31%) also ranked fairly high. Table 1 shows a breakdown of farm management practices from the survey respondents.

Eighty-three percent of beginning vegetable farmers reported having high-speed internet access and 76% of them used it to access agricultural information. Sixty-three percent of them reported using the internet for agricultural marketing activities, 56% used it to purchase agricultural inputs and 46% of respondents used it to network with other producers. Social media use was reported by 53% of beginning vegetable farmers.

### Financial Performance

A majority of beginning vegetable farmers (83%) reported selling their produce direct to customers (CSA, Farmers Market, farm stand). Other venues included direct to restaurants or grocery stores (38%), through a cooperative or farmer-owned marketing organization (17%), through private sales/to another producer (17%), through a broker or marketer (4%) or to their local feed mill or sale barn (4%).

Fig. 4. Percent household income from farming

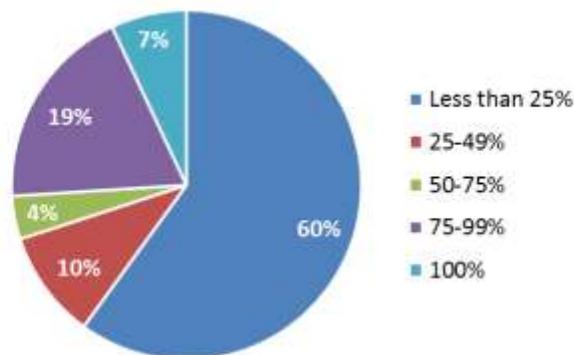
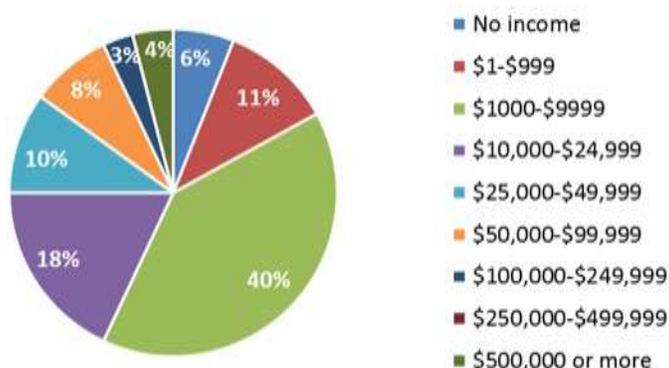


Fig. 5. Gross income from farming



Sixty percent of beginning vegetable farmers reported receiving less than 25% of their household income from farming. Ten percent reported 25 to 49%, 4% reported 50 to 74%, and 19% reported receiving between 75-99% of their income from the farm. Seven percent reported that all of their income came from farming (Fig. 4).

Forty percent of beginning vegetable farmers reported gross farm income of \$1,000-\$9,999 with 11% falling in the \$1-\$999 category and 6% reporting they made no income at all (Fig. 5). Eighteen percent reported income in the \$10,000-\$24,999 range. Ten percent indicated their gross income

was in the \$25,000-\$49,999 range. Eight percent fell into the \$50,000-\$99,000 range, 3% grossed \$100,000-\$249,999. None of the farms reported being in the \$250,000-\$499,999 and 4% reported earning \$500,000 or more in gross farm income.

### Information sources

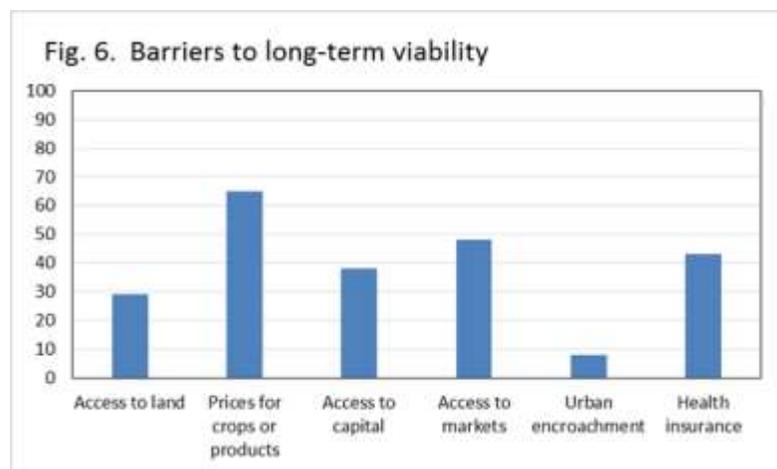
There were a variety of ways vegetable farmers accessed information, with books, magazines and newspapers being the highest percentage at 92%. A close second, 89% relied on other farmers for advice. The internet (87%) was also an important source as were neighbors and friends (81%). Table 2 shows a breakdown of all the information sources respondents listed from highest to lowest percentage.

Source	Percent using
Books, magazines, newspapers	92
Other farmers	89
Internet	87
Neighbors, friends	81
Conferences, field days, workshops	67
Non-profit educational groups	57
Tax consultant	57
Social media	53
USDA Natural Resources Conservation Service	48
Local ag supplier	47
Coop or product marketing association	41
USDA Farm Service Agency	40
Crop consultant	33
County Land Conservation	29
Lender	20
University System colleges	17
University Extension Service	17
Technical college	9

### Long-term viability

We asked respondents what resources would be most helpful to them and the top three responses were education/classes/workshops, second was grants/loans/finances and third, production knowledge/assistance.

Although there were barriers to beginning a farming operation, respondents were optimistic about how long they expected to be farming. The largest proportion, 34%, stated that they planned to be farming for at least 20 years. Twenty eight percent reported planning to farm for 30 or more years, 24% for ten years or more and 14% for at least five years.



health insurance as a barrier, while 38% listed access to capital, money or loans. Twenty-nine percent of the respondents indicated access to land was a barrier.

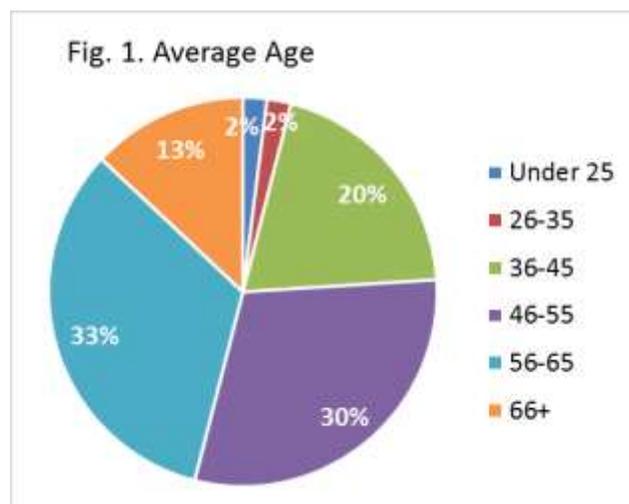
Despite their optimism, beginning farmers did foresee barriers to their viability (Fig. 6). The most prominent barrier identified by respondents was prices for their product (65%). While less important than prices, nearly half of respondents listed access to markets as a barrier for long-term viability (48%). Forty-three percent listed lack of

## Beginning Fruit Farmer Profile

According to the 2012 Census of Agriculture, Wisconsin had 1,276 fruit farms with 9,252 acres of both bearing age and non-bearing age stands. Wisconsin is ranked 9<sup>th</sup> in the US for production of fruit, nuts and berries. Farm size averaged between 10 to 49 acres. Among our survey respondents, 44 were beginning fruit farmers.

### Demographics

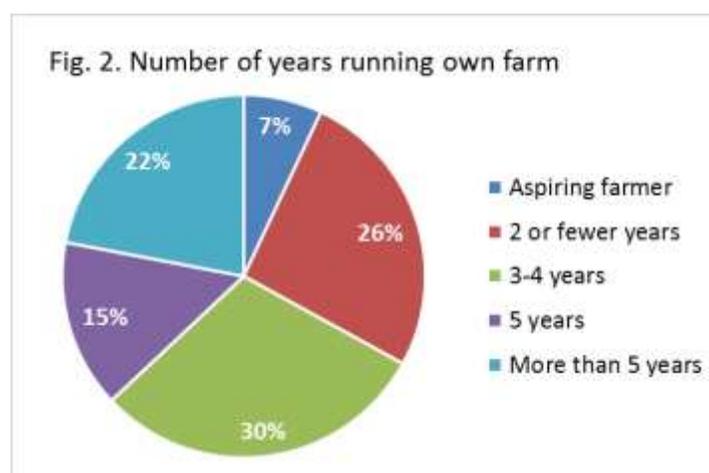
Among survey respondents, 71% of beginning fruit farmers were male and 91% reported being married. Beginning fruit farmers were, on average, older than all other categories. Thirty-three percent were between the ages of 56-65, 30% fell into the 46-55 age category and 20% selected the 36-45 age range. Only 13% of the respondents were over the age of 66 and 2% were 26-35, with 2% under the age of 25 (Fig. 1). Sixty-two percent reported having advanced degrees, either Masters (31%), Bachelors (31%), or Associate's degree (13%). Twenty five percent reported having a high school diploma. This category had the highest proportion of respondents reporting having a Master's degree or higher.



Ninety-six percent of beginning fruit farmers reported farming alone. The remaining 4% reported farming with siblings. The vast majority of beginning fruit farmers (87%) were the first generation. Seven percent were second generation and two percent fell into each of the third, fourth, and fifth generation categories.

### Getting Started: barriers, training, and mentors

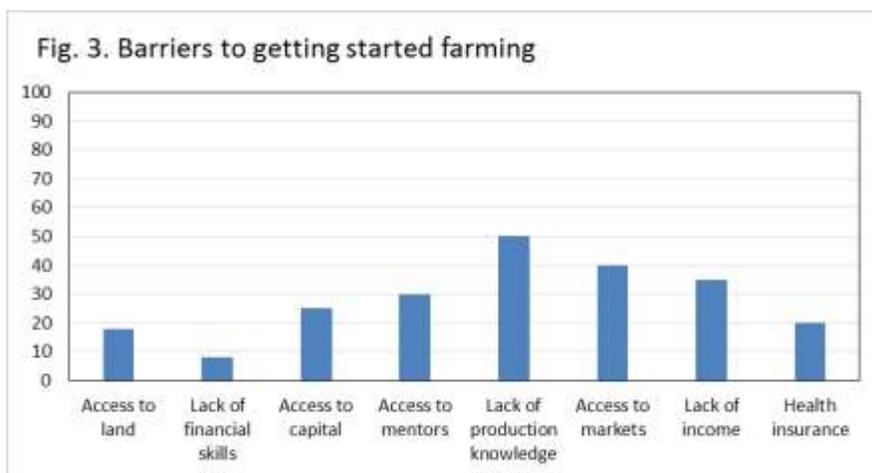
Thirty percent of respondents had been farming for 3-4 years on their own, with 26% farming as little as 2 or fewer years. Twenty two percent of beginning fruit farmers reported having been farming for 6+ years (Fig. 2).



Thirty percent of the fruit farmers surveyed indicated it had taken them five or more years to get established after making the decision to farm. For another 16% it took three to four years, while 40% got started in one to two years, and 14% were able to get started in less than one year.

There were many barriers to getting into fruit farming reported in the survey (Fig. 3). Lack of production knowledge was most often reported as the largest barrier, with access to markets coming in second and lack of income taking third place.

We asked farmers what training or preparation they made prior to starting farming. Twenty-four percent listed that they had had no training. Nearly half (46%) attended field days, workshops or conferences and 30% grew up on a farm. Internships or work on another farm was reported by 15% of the respondents.



Forty-one percent of fruit farmers reported having a mentor to help them get started in farming. Mentors included friends (35%), a family members (24%), and neighbors (17%).

Sixty-nine percent received loans from a commercial bank to get started farming, while 23% borrowed money from the Farm Service Agency, 8% borrowed from family members and 8% borrowed from farm credit. Only 11% of beginning fruit farmers reported having a written business plan.

Thirty-three percent of fruit farmers farm established their business as an LLC, 29% chose a sole proprietorship and 26% had no formal structure. Nine percent were structured under an S or C corporation and 2% reported farming under a partnership.

### Snapshot of a beginning fruit farmer

Beginning fruit farmers reported having an average farm size of 15 acres of owned, tillable land and 1 acre of rented, tillable land. Within the previous two years, more beginning fruit farmers reporting renting land (16%) than purchasing land (13%). Of the 13% who purchased land, the average weighted price was \$3,336 per acre. For the 16% who rented land within the last 2 years, the average weighted price was \$105 per acre.

Practice	Percent using
Soil testing	53
Integrated pest management	45
Irrigation	38
Organic Practices	36
Certified organic	(13)
Nutrient Management Planning	24
Cover Cropping	21
No-till cropping	17
Rotational or managed grazing	7
Continuous grazing/set stocking	0

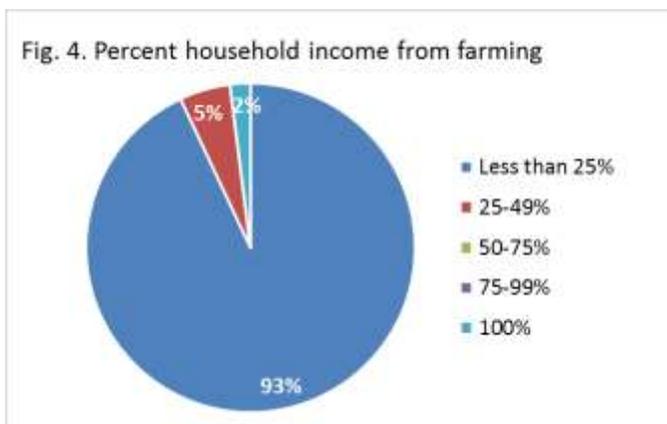
Beginning fruit farmers used a variety of common management practices on their farms. Like vegetable farmers, relatively large proportions of beginning fruit farmers reported

utilizing integrated pest management (45%), irrigation (38%), and organic practices (35%), compared to other farmer types. Table 1 shows the breakdown of farm management practices from the survey respondents.

Ninety-one percent of beginning fruit farmers reported having high-speed internet access and 73% of them used it to access agricultural information. Fifty one percent used it to purchase agricultural inputs, 46% of respondents used it to network with other producers, and 34% of them used the internet for agricultural marketing activities.

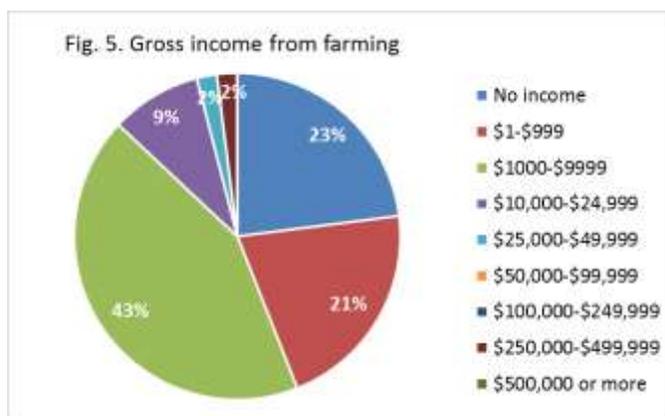
### Financial Performance

A large proportion of respondents (79%) reporting selling their produce direct to customers (CSA, Farmers Market, farm stand). Thirty-one percent sold direct to restaurants or grocery stores, 18% through private sales/to another producer, 8% sold through a cooperative or farmer-owned marketing organization, and 5% through a broker or marketer.



Ninety three percent of beginning fruit farmers reported receiving less than 25% of their household income from farming and selling fruit (Fig. 4). Five percent of responses fell into the 25-49%. None of the respondents reported their income from farming in the 50-75% or 75-99% categories. Three percent reported 100% of their household income from farming.

The largest proportion (43%) of farmers reported gross farm income of \$1,000-\$9,999, with 21% falling in the \$1-\$999 category (Fig. 5). Twenty-three percent reported they receive no income from the farm as of the time they were surveyed. Nine percent reported income in the \$10,000-\$24,999 range. Two percent indicated their gross income was in the \$25,000-\$49,999 range and 2% of the farms reported being in the \$250,000-\$499,999 range.



### Information sources

There were a variety of ways fruit farmers reported obtaining farming information, with the highest proportion using the internet (86%) and books, magazines and newspapers (81%). Other important sources were other farmers (76%) and conferences, field days and workshops (76%). Table 2 shows a breakdown of all the information sources respondents listed from highest to lowest percentage.

## Long-term viability

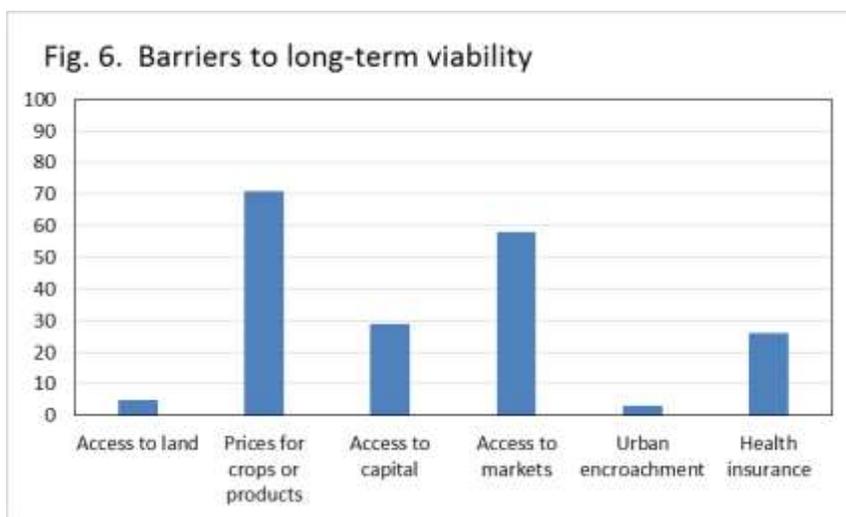
We asked respondents what resources would be most helpful to them and the top three responses were education/classes/workshops, second was grants/loans/finances and third, production knowledge/assistance.

Beginning fruit farmers were optimistic about how long they expected to be farming. Twenty nine percent reported planning to farm at least 30 years and 43% planned to farm at least 20 years.

Despite their optimism, beginning farmers did foresee barriers to their viability (Fig. 6). The most prominent barrier identified by respondents was prices for their product (71%).

Source	Percent using
Internet	86
Books, magazines, newspapers	81
Other farmers	76
Conferences, field days, workshops	76
Neighbors, friends	66
Tax consultant	55
Local ag supplier	53
Social media	39
Crop consultant	35
University System colleges	30
University Extension Service	30
Non-profit educational groups	29
USDA Farm Service Agency	26
USDA Natural Resources Conservation Service	18
County Land Conservation	17
Coop or product marketing	14
Lender	14
Technical college	0

While less important than prices, 58% respondents listed access to markets as a barrier for long-term viability. Twenty-six percent listed lack of health insurance as a barrier, while 29% listed access to capital, money or loans. Only 5% of the respondents indicated access to land was a barrier with only 3% listing urban encroachment as a barrier to their future farming.

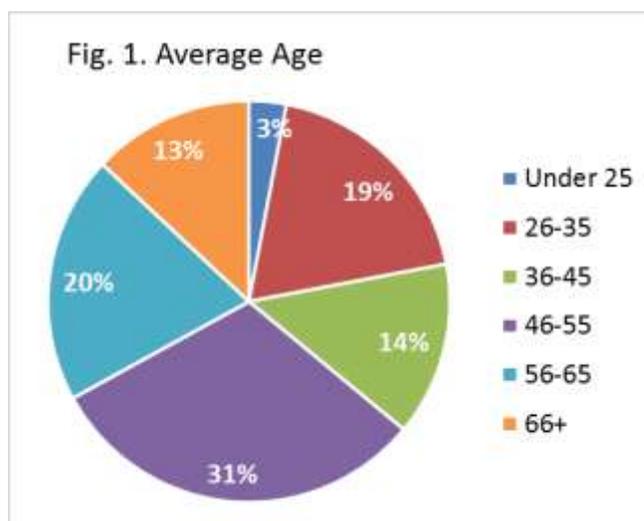


## Beginning 'Other' farmer profile

Sixty-four farmers (6% of total respondents) who didn't fit into the categories of dairy, livestock, cash grain, forages, fruit, or vegetables, were grouped into an 'other' category. These included Christmas trees (9 farms); horticulture/flowers/greenhouse/nursery (7 farms); bee/honey (5 farms), maple syrup (13 farms); farms with land in the Conservation Reserve Program (18 farms); tobacco (1 farm); mushrooms (2 farms); popcorn (1 farm); hops (2 farms); ginseng (1 farm).

### Demographics

Among respondents to the 2014 survey, 80% of beginning 'other' farmers were male and 82% were married. The largest proportion (31%) were in the 46 to 55 year age range (Fig. 1). The 'other' farming category had the largest percentage over 65 (13%) and the smallest number under 25 (3%). The remainder included 26-35 (19%), 36-45 (14%), and 56-65 (20%) year age ranges. A total of 59% reported having some post-secondary education, including an Associate's degree (19%), a Bachelor's degree (24%), and a Master's degree (16%).

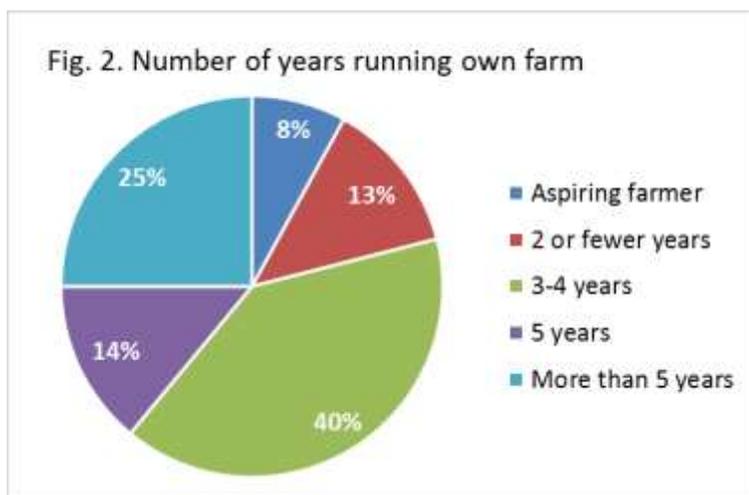


Seventy six percent of beginning farmers in this category farmed alone, with 6% farming with their parents, 6% with siblings, and 10% in other partnerships. Two percent reported farming in a cooperative arrangement. A majority (63%) were the first generation farming. Thirty two percent were second (19%) and third (13%) generation on their farm.

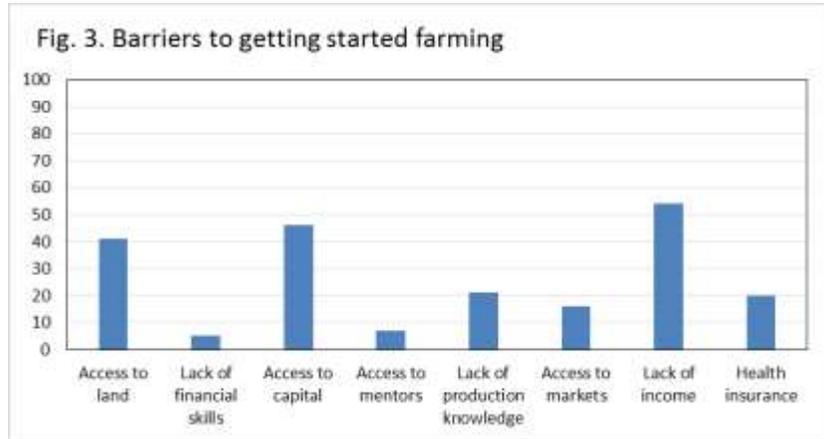
### Getting started: barriers, training, and mentors

At the time of the survey, the majority of respondents had been farming at least three years with 40% for three to four years, 14% for five years, and 25% for more than five years.

Forty-seven percent of beginning farmers in this category indicated that it had taken them five or more years to get established after making the decision to farm. For another 19%, it took three to four years, while 14% got started in one to two years, and 20% got started in less than one year.



The three top barriers identified by respondents were lack of income (54%), access to capital (46%), and access to land (41%). Twenty one percent indicated that lack of production knowledge was a barrier.



We asked beginning farmers what preparation or training they had had prior to starting farming.

Just under half (49%) had grown up on a farm. Thirty three percent indicated that they had had no training prior to starting farming. High school agriculture coursework (13%) and internships (21%) were among the more common types of training reported. Thirteen percent had attended field days. None reported having participated in a formal beginning farmer training or an apprenticeship.

Fifty three percent of respondents reported having a mentor to help them get started. The majority of these mentors were family members (54%), with smaller numbers relying on friends (23%), neighbors (6%), and others (17%).

Although 31% of respondents reported having borrowed money to get started, only 20% reported having a written business plan. Lenders included commercial banks (47%), Farm Credit (5%), Farm Service Agency (11%), family members (32%), and other (16%). Business structures used included 34% sole proprietorships, 29% limited liability corporations (LLC), 2% partnerships, and 2% S or C corporations. Thirty three percent reported having no formal business structure.

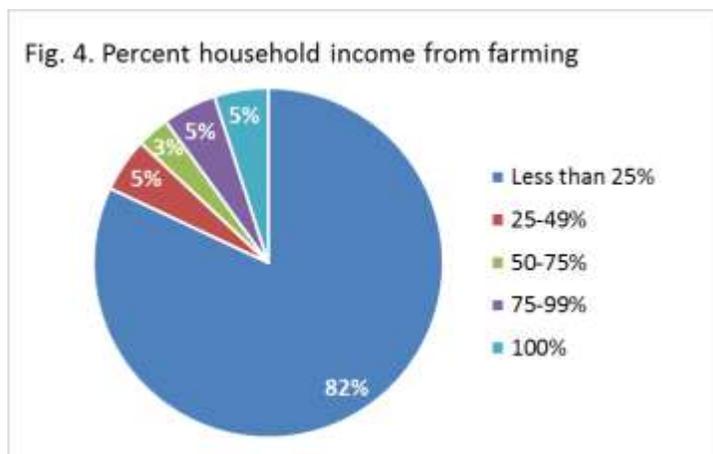
Practice	Percent using
No-till cropping	38
Cover Cropping	38
Soil testing	36
Integrated pest management	24
Organic Practices	24
Certified organic	(10)
Irrigation	13
Nutrient Management Planning	13
Rotational or managed grazing	7
Continuous grazing/set stocking	0

### Snapshot of a beginning 'other' farm

Beginning farmers in this category reported owning an average of 26 acres with the highest proportion of woodland (24 acres) of any category. They reported renting an average of an additional five acres of tillable land. Three percent reporting having purchased land in the last two years at an average of \$3336 per acre. Fourteen percent reported having rented land in the last two years at an average rate of \$105 per acre.

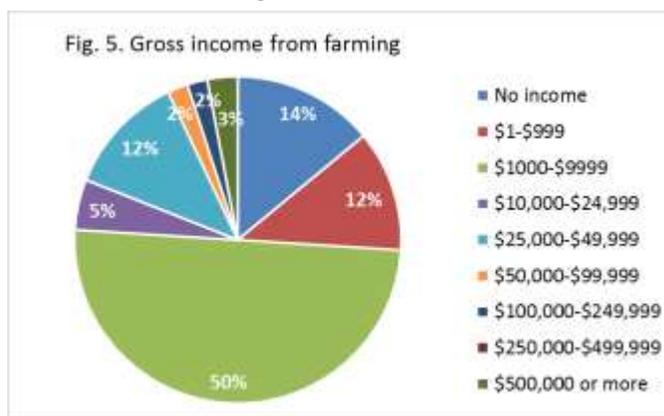
Beginning 'other' farmers used a variety of common management practices on their farms, and, like beginning fruit farmers, a smaller percentage utilized practices such as no-till cropping (38%), cover cropping (38%) and soil testing (36%). Table 1 provides a breakdown of farm management practices from the survey respondents.

Eighty-eight percent of beginning 'other' farmers reported having access to high speed internet. Accessing farming information was the primary use of the internet, with 48% using it for this purpose. Smaller proportion used it for marketing (34%), purchasing inputs (30%), and networking with other producers (30%). Seventy five percent reported utilizing the internet within the last month. Social media use was reported by 27% of beginning 'other' farmers.



### Financial performance

A large proportion of beginning 'other' farmers (54%) reported selling their produce direct to customers (CSA, Farmers Market, farm stand), with an additional 36% reporting marketing through private sales or to another producer. Twenty-three percent reported direct to restaurants or grocery store sales. Other marketing venues were minor ones for these farmers with 4% reporting selling through a cooperative or farmer-owned marketing organization, 6% through a broker or marketer and 4% to local feed mill or sale barn.



Eighty-two percent of beginning 'other' farmers reported receiving less than 25% of their household income from farming (Fig. 4). Five percent said they received 25-49% of their income from farming, 3% fell in the 50-74% range with 5% reporting 75-99% and 5% reporting that they received all of their income from the farm.

A majority of respondents reported their gross income from farming as being less than \$10,000, with 50% in the \$1,000-\$9,999 range, 12% in the \$1 to \$999 range, and 14% reporting no income. Five percent of these producers reported gross income between \$10,000 and \$24,999. Twelve percent reported gross income between \$25,000 and \$49,999. Farming was clearly a secondary income stream for most of these beginning farmers (Fig. 5).

## Information sources

There were a variety of information sources reported by farmers in this category, with the highest proportion identifying other farmers (81%) as an information source. Next most important were the internet (75%), neighbors and friends (74%) and books, magazines and newspapers (73%). Table 2 shows a breakdown of all the information sources respondents listed from highest to lowest percentage.

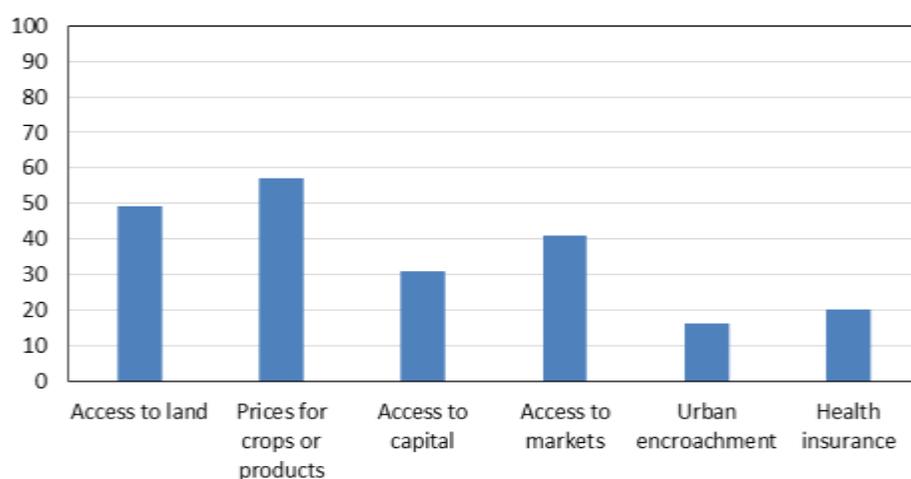
Source	Percent
Other farmers	81
Internet	75
Neighbors, friends	74
Books, magazines, newspapers	73
Tax consultant	52
Conferences, field days, workshops	44
Local ag supplier	40
USDA Farm Service Agency	38
USDA Natural Resources Conservation Service	35
Social media	27
County Land Conservation Department	25
Lender	23
Crop consultant	21
Coop or product marketing	15
Non-profit educational groups	13
University System colleges	10
University Extension Service	10
Technical college	2

## Long-term viability

When asked how long they expected to be farming, 40% of beginning farmers in this category said they planned to be farming 30 years or more. Thirty two percent planned to farm at least 20 years. Although the majority planned to remain farming for the long haul, they foresaw barriers to their viability.

The most prominent barrier identified by respondents was prices for their product (57%). While less important than prices, respondents also listed access to land (49%), access to markets (41%), and access to capital (31%) as important barriers for long-term viability. Health insurance was viewed as a barrier for both getting into farming and long-term viability by 20% of respondents (Fig. 6).

**Fig. 6. Barriers to long-term viability**



## Conclusions

Farmers now comprise less than one percent of the U.S. population. With an average age in the upper 50s, bringing on the next generation of farmers is an issue that is of concern to us all. This survey went beyond the readily available information from beginning farmers who attend traditional workshops and field days. Using the Census of Agriculture, we were able to ask questions of beginning farmers who we may not be reaching with educational programs. What we learned is that beginning farmers are diverse, and have diverse needs, interests, and challenges. The assistance we provide must be flexible and innovative to reach these farmers and help them succeed.

This summary presents a complex picture of beginning farmers in Wisconsin. They are, on average, older than one might expect, and they come to farming with varying backgrounds and skill sets, many having established themselves in an alternative career prior to starting farming. Most grew up on a farm or had relatives who farmed, and attributed their inspiration to farm to these experiences.

A very large percentage of respondents to this survey were not generating enough income to continue farming without significant off-farm income. Very few respondents had a written business plan and it is likely that financial literacy is one area where additional assistance would be well received.

<b>Table 3. Information sources by farm type</b>								
	Average	Dairy	Other Livestock	Cash grain	Forage crops	Vegetables	Fruit	Other
	<b>Percent</b>							
Other farmers	90	97	88	92	88	89	76	81
Neighbors, friends	86	95	87	89	86	81	66	74
Internet	80	69	81	82	75	87	86	75
Crop consultants	51	83	36	70	40	33	35	21
Conferences, field days, workshops	51	73	41	51	35	67	76	44
University extension office	36	41	31	11	4	17	30	10
Social media	30	33	36	20	19	53	39	27
Non-profit groups	14	10	12	6	15	57	29	13
UW System schools	13	19	11	11	4	17	30	10
Technical college	9	24	5	9	4	9	0	2

While they bring skills from other occupations that may contribute to their ultimate success, beginning farmers present a challenge to those who provide farmer education because, based on our survey, they are not necessarily 'plugged into' our information delivery systems. Table 3 shows utilization within the previous year of the primary agriculture education institutions by the different categories of beginning farmers. The table is arranged from most heavily used to least used, and as has been shown in numerous surveys of established farmer, other farmers and friends are primary sources of

information for beginning farmers. The internet is also one of the most heavily used sources of information across all categories of beginning farmers.

Mentors were identified as an important source of information and support by 60% of respondents, with family members being the most common type of mentor (61%). Again, with the aging of the farming community, mentoring by non-family members may be an important means of sharing farming information and skills in the future. Mentoring arrangements, such as the Midwest Organic and Sustainable Education Service (MOSES) mentoring program, could be an effective means for agricultural education institutions to combine several successful mechanisms for training the next generation. The Dairy Grazing Apprenticeship is another approach worth considering. Farming is a complex occupation, requiring a wide variety of skills and knowledge. For those who are interested in generating a living income from farming, a two-year formal apprenticeship that provides in depth training in all aspects of farming may be the most effective approach.

### **Acknowledgements**

The authors would like to express our appreciation for significant contributions to this report from many colleagues and partners. First, this effort would not have been possible without the support and assistance of Audra Hubbell and other staff at the Wisconsin Agricultural Statistics Service. We appreciate financial support from the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), as well as input from our colleagues in the DATCP Division of Agricultural Development. Partners who assisted in crafting the survey include Dick Cates, WI School for Beginning Dairy Farmers; Rhonda Gildersleeve, UW Extension; Tom Cadwallader, Cadwallader Consulting; Joe Tomandl III, Dairy Grazing Apprenticeship; John Hendrickson, UW Center for Integrated Agricultural Systems (CIAS); Ray Ellenberger, USDA Farm Service Agency; Paul Mitchell, UW Agricultural Economics; Paul Dietmann, Badgerland Financial; Paul Daigle, Marathon County Land Conservation Department; Brian Pillsbury, Natural Resources Conservation Service WI Grazing Specialist; Cris Carusi, UW CIAS; Ruth McNair, UW CIAS; Randy Zogbaum, Wisconsin Technical College System; Harriet Behar, Midwest Organic and Sustainable Education Service (MOSES); Dave Johnson, GrassWorks, Inc.; Joy Kirkpatrick, UW Center for Dairy Profitability; Karen Stettler, Land Stewardship Project; Larry Tranel, Iowa State University; Michael Bell, UW CIAS, John Shutske, UW Extension; Brad Barham, UW Agricultural Economics; Valerie Adamski, Northeast WI Technical College; Erin Silva, UW Madison College of Agricultural and Life Sciences (CALIS); David Andrews, Michael Fields Agricultural Institute. We deeply appreciate their contributions.