

# Characteristics of Indiana Vegetable Farmers

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## Our Survey

We conducted an online survey in 2012 of fruit and vegetable growers who participate in the Food Industry MarketMaker database in 16 states and Washington, D.C.: Alabama, Arkansas, Florida, Georgia, Iowa, Illinois, Indiana, Kentucky, Michigan, Mississippi, Nebraska, New York, Ohio, Pennsylvania, and South Carolina. Our survey received responses from 1,559 farmers, which represents a 36 percent response rate.

This publication focuses on the responses we received from Indiana vegetable growers and their demographic characteristics (including age and education), experience, and attitudes.

The survey asked growers about their demographics, experience, sources of information, perceptions, and expectations. From these 89 responses, we can provide in-depth information about Indiana vegetable farms. However, because the survey was voluntary and the sample is mainly composed of small- and medium-size operations, our results may not be representative of all Indiana vegetable farms. Below we provide our survey results, and when possible, we compare them with the 2012 USDA Census of Agriculture results for Indiana vegetable operations.

## Farm Sizes and Practices

Like the USDA, we categorize farm sizes based on their annual gross sales:

- Small = annual gross sales <\$10,000
- Medium = annual gross sales between \$10,000 and \$250,000
- Large = annual gross sales >\$250,000

We also categorize farms based on their production practices. Indiana vegetable operations can be:

- Conventional
- Noncertified organic
- Certified organic
- Transitioning to organic certification

### NEED MORE INFORMATION?

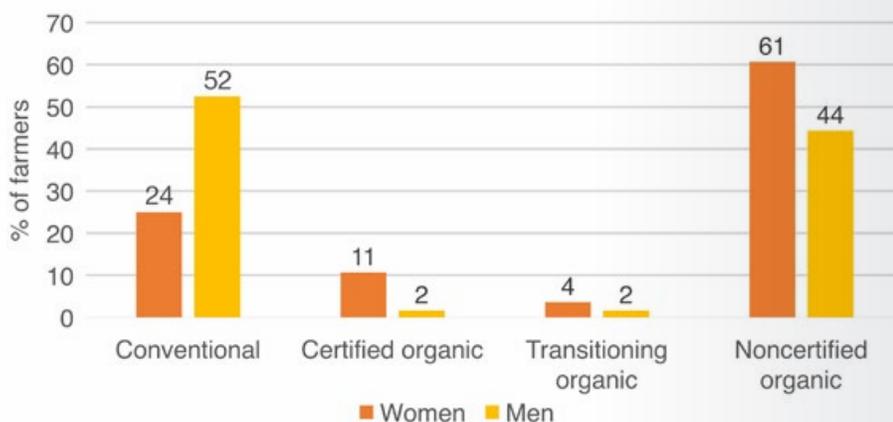
More information about Indiana vegetable operations are provided in other publications in the Fruit and Vegetable Farmer Surveys series, available from the **Purdue Extension Education Store**, [www.edustore.purdue.edu](http://www.edustore.purdue.edu).

## Gender and Education

Our survey results show that 32 percent of Indiana vegetable growers are women. In contrast, the 2012 USDA Census of Agriculture reports that only 10 percent of Indiana vegetable growers are women. Most of women in our sample own small and medium operations — women own 29 percent of small farms, 35 percent of medium operations, and 8 percent of large farms.

Vegetable production practices differ greatly among men and women. Figure 1 displays the share of men and women growers by production practices. Our survey shows that most men grow their vegetables conventionally (53 percent), while most women farm organically but are not certified (61 percent). It is interesting to note that 76 percent of women use organic practices (certified, transitioning, and noncertified), compared to only 48 percent of men.

► *Production Practices by Gender*



**Figure 1.** This graph shows vegetable production practices among Indiana women and men growers. Most women tend to use organic practices, while men tend to grow conventionally.

### WHAT DOES THIS MEAN?

Most women farmers grow vegetables organically but are not certified. Most men farmers grow vegetables conventionally. The number of women whose farms are certified organic or transitioning to organic is greater than those of men.

Two-thirds of Indiana vegetable growers have a college degree. College-educated growers account for 57 percent of small growers, 67 percent of medium growers, and 92 percent of large growers.

Our survey also finds that education varies by production practice. More than 80 percent of conventional growers have a college degree, while approximately 50 percent of certified, noncertified, and transitioning organic growers hold a college degree.

# Farming Experience

Our survey indicates that Indiana vegetable growers average 25 years of farming experience. Figure 2 displays grower experience at different operation sizes. Small and medium growers average 22 years of farming experience; however, large farm owners have been farming for 45 years.

Similarly, we find that conventional growers have more experience (29 years) compared to noncertified organic (23 years), certified organic (19 years), and transitioning organic growers (18 years).

► Vegetable Farmer Experience

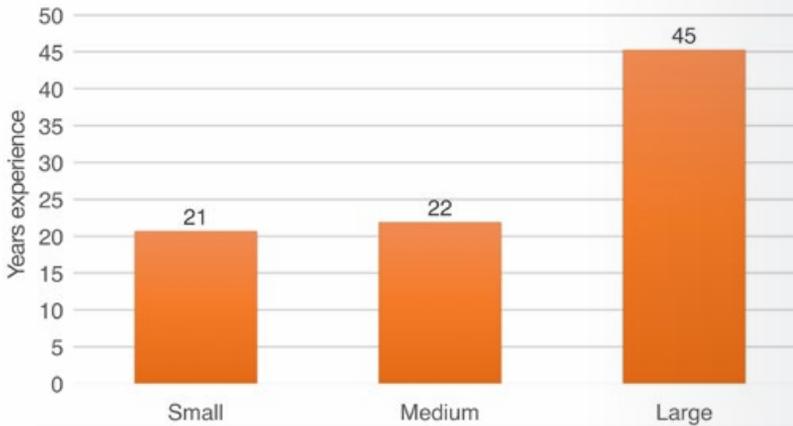


Figure 2. This graph shows how Indiana vegetable growers experience differs across farm size. On average, large operation growers report more farming experience.

### WHAT DOES THIS MEAN?

Grower experience increases as farm size increases. On average, owners of larger farms have more years farming.

# Sources of Information

Our survey asked growers how often they obtain useful information from price-reporting services, directories of product buyers, university extension services, other farmers, grower associations, and wholesalers and retailers.

The top sources of information Indiana vegetable growers report being useful are other farmers (97 percent), university extension services (71 percent), wholesalers and retailers (61 percent), grower associations (54 percent), price-reporting services (40 percent), and directories of product buyers (29 percent). Figure 3 shows the sources of information that small-, medium-, and large-operation growers consider useful.

► Useful Sources of Information

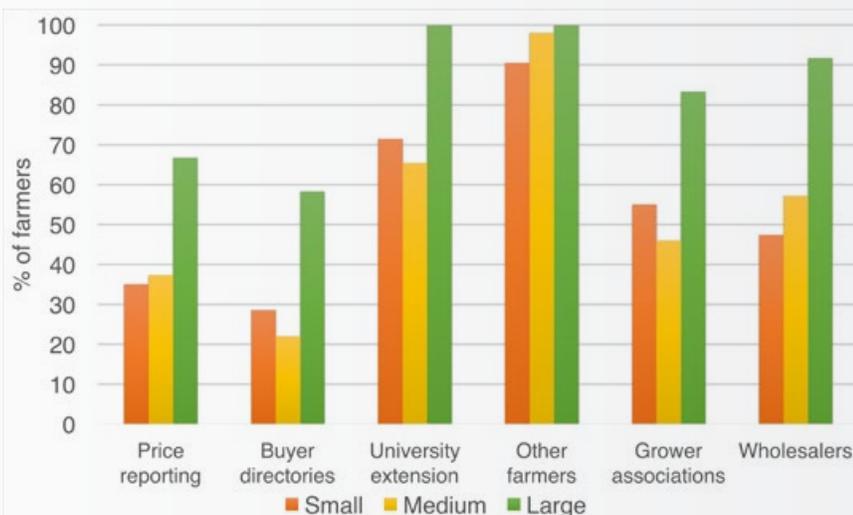


Figure 3. This graph shows what Indiana vegetable growers report as useful sources of information. Owners of large vegetable operations report most sources of information as useful.

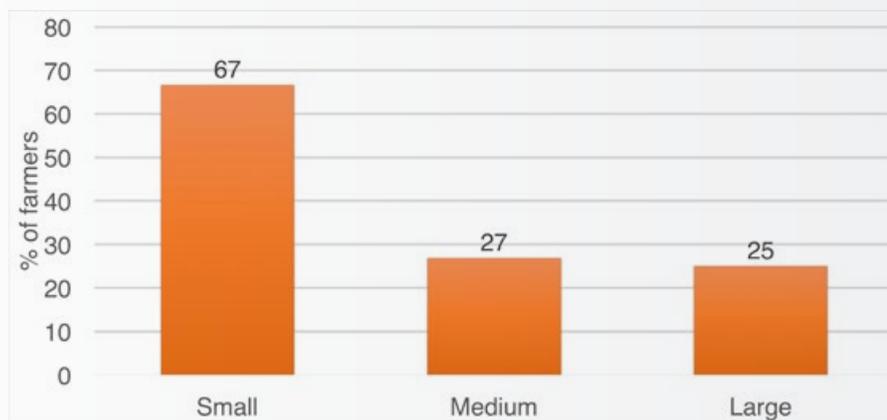
### WHAT DOES THIS MEAN?

All larger growers report that university extension and other farmers are useful sources of information.

## Farm Management

Almost a third of Indiana vegetable growers in our sample farm part-time. Figure 4 illustrates the percentage of part-time farmers by farm size. The survey indicates that 67 percent of small growers farm part-time, 27 percent of medium growers farm part-time, and 25 percent of large growers farm part-time. The percentage of part-time growers is greater among noncertified organic (41 percent) than conventional (31 percent) and certified organic (25 percent) vegetable farms.

► *Percentage of Part-time Vegetable Growers*



**Figure 4.** This graph shows the percentage of Indiana vegetable growers who are farming part-time by farm size. Part-time farming is more common among small-farm owners.

### WHAT DOES THIS MEAN?

Part-time farming is more common among growers in small operations.

The survey also asked growers the average number of on-farm hours they worked per week and the percentage of time they devoted to recordkeeping. On-farm activities include crop production and managerial and sales activities. On average, Indiana vegetable growers spend 46 hours per week working on farm business, and they spend 12 percent of that time on recordkeeping.

The amount of time a grower spends on farm activities and recordkeeping varies across farm size. Figure 5 shows the number of on-farm hours per week (blue bars) and the percentage of time spent on recordkeeping (orange line) for different grower sizes. As farm size increases, growers tend to spend more hours per week on farm business and a higher percentage of time on recordkeeping.

Growers with large operations report that they spend the greatest amount of time on farm business (65 hours per week) and percentage of time recordkeeping (19 percent). It seems that growers with large operations spend a higher proportion of time on administration activities compared to growers of medium and small farms. In contrast, growers with small operations spend the fewest hours on farm business (30 hours per week) and percentage of time on recordkeeping (7 percent).

The survey also finds that conventional, certified organic, and transitioning organic growers spend more hours per week on farm business (about 49 hours per week) than noncertified organic growers (43 hours per week). On average, conventional and noncertified organic farmers spend a higher percentage of time on recordkeeping (13 percent) compared to certified organic (9 percent) and transitioning organic growers (3 percent).

► Hours/Week On-Farm and Percentage Time Recordkeeping

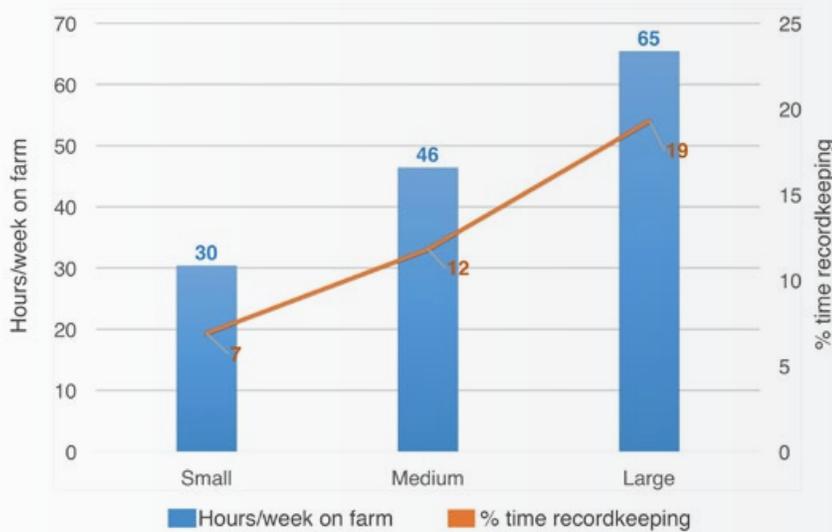


Figure 5. This graph shows the number of hours per week Indiana vegetable growers spend on farm business (blue bars) and the percentage of time they spend on recordkeeping (orange line).

**WHAT DOES THIS MEAN?**

As farm size increases, growers spend more hours per week on farm business and higher percentage of time on recordkeeping.

## Grower Perceptions of Satisfaction, Risk, and Sustainability

Our survey asked growers their perceptions about farming, and almost 80 percent of Indiana vegetable growers in our sample reported that they are satisfied with their production systems, 53 percent perceive that transitioning to organic is risky, and 46 percent believe that organic practices are more sustainable than conventional.

Figure 6 displays grower perceptions across different production practices. Most conventional, certified organic, transitioning organic, and noncertified organic growers are satisfied with their farming systems. A larger percentage of conventional growers (80 percent) perceive that transitioning to organic is risky. Interestingly, transitioning organic growers do not perceive that the transition is risky. The figure also illustrates that most certified organic, transitioning organic, and noncertified organic growers perceive that organic farming is sustainable. In contrast, less than a third of conventional growers perceive that organic practices are sustainable.

► Growers Perceptions About Production Practices

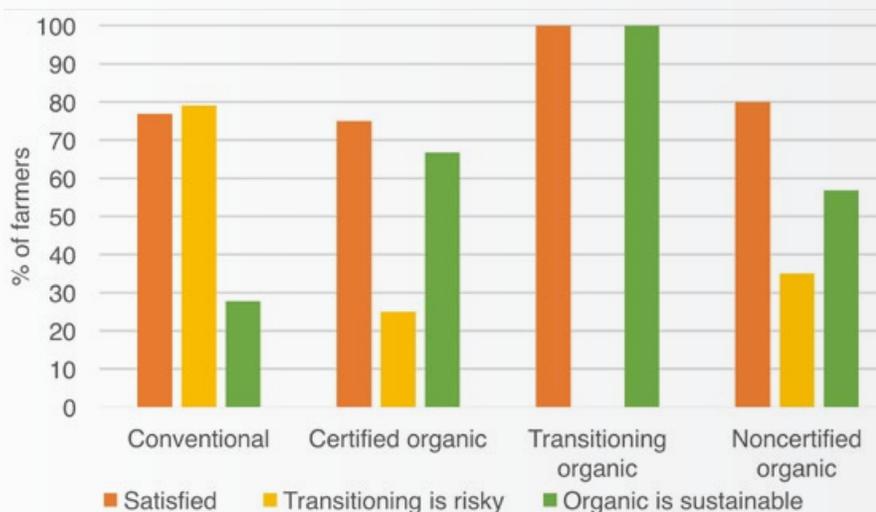


Figure 6. This graph shows Indiana vegetable grower perceptions about farming satisfaction, risk, and sustainability. Regardless of production practices, most vegetable growers are satisfied with their production systems.

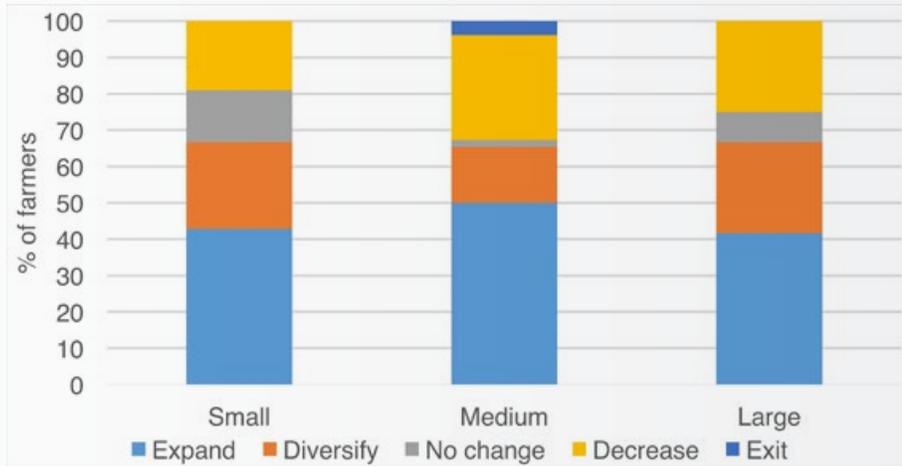
**WHAT DOES THIS MEAN?**

Most vegetable farmers are satisfied with their farming systems. Most certified organic, noncertified organic, and transitioning organic farmers believe that organic farming is sustainable.

# Grower Future Expectations

The survey asked Indiana vegetable growers how they see their operation changing in the next three years. Almost half of all growers expected to expand farm size (46 percent), 27 percent reported no future changes, 18 percent planned to diversify, 7 percent expected to decrease size farm, and only 2 percent reported that they planned to exit farming. Figure 7 shows the future expectations of growers with small, medium, and large farms.

► *Expected Operation Changes (by Farm Size)*



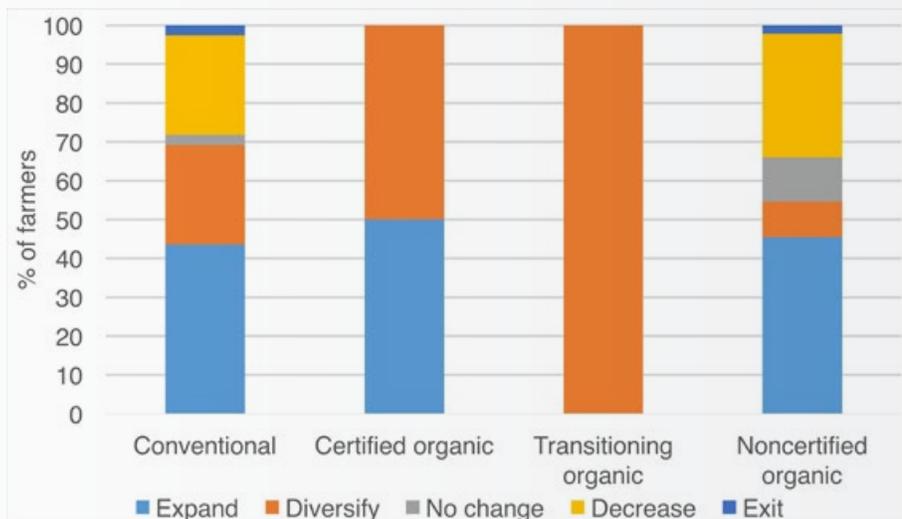
**Figure 7.** This graph shows Indiana vegetable growers' expectations about future operation changes. Expanding farm size is the most common future expectation for Indiana vegetable growers.

### WHAT DOES THIS MEAN?

Expanding farm size is the most common expectation among Indiana vegetable growers, regardless of farm size. Exiting farming is only reported by medium operations.

Figure 8 shows the future expectations of growers of conventional, certified organic, transitioning organic, and noncertified organic vegetable farms. Conventional and noncertified organic growers most commonly expect to expand their farm size. Certified organic growers expect to either expand size or diversify. All transitioning organic growers in our survey expect to diversify in the next three years.

► *Expected Operation Changes (by Production Practices)*



**Figure 8.** This graph shows Indiana vegetable grower expectations about future operation changes. Conventional and noncertified organic operations have similar expectations for the future.

### WHAT DOES THIS MEAN?

Positive future expectations (expand or diversify) are more common among certified organic and transitioning organic growers. A third of conventional and noncertified organic growers expect to decrease size.



## Summary

The findings of our survey highlight the diversity of growers across farm size and production systems. Specifically, growers' demographics, management activities, and expectations vary across farm size and production practices. This publication can help beginning and current growers as well as retailers, extension agents, and policymakers to understand what are different profiles of vegetable growers in Indiana.

## Resources

The 2012 Census of Agriculture. United States Department of Agriculture-National Agricultural Statistics Service (USDA-NASS), [www.agcensus.usda.gov](http://www.agcensus.usda.gov).

"Ag and Food Statistics: Charting the Essentials." United States Department of Agriculture-Economic Research Service (USDA-ERS), [www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials](http://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials).

### FIND OUT MORE

Find other publications in the *Fruit and Vegetable Farmer Surveys* series in the Purdue Extension Education Store:

[www.edustore.purdue.edu](http://www.edustore.purdue.edu)

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