



# **To Certify or Not to Certify: How marketplace relationships affect the adoption of organic certification by fruit and vegetable farmers**

Ariana Torres

Purdue Horticulture Business – [hort.purdue.edu/HortBusiness](http://hort.purdue.edu/HortBusiness)

Purdue Horticulture and Landscape Architecture – [ag.purdue.edu/HLA](http://ag.purdue.edu/HLA)

Purdue Agricultural Economics – [ag.purdue.edu/AgEcon](http://ag.purdue.edu/AgEcon)

**This article highlights the findings of a study conducted by Torres et al., (2016), who investigated how marketing relationships influence the adoption of organic certification among fruit and vegetable growers. When possible, this publication will compare the study's results with the 2016 Certified Organic Census of Agriculture from the U.S. Department of Agriculture – National Statistics Service (USDA-NASS).**

## Introduction

Organic foods remain one of the fastest growing food segments, with projected double-digit market growth in the 2013-2018 period (Organic Trade Association, 2018). According to the 2016 Certified Organic Survey, the USDA reported that the number of certified operations exceeded 14,000 farms, an 11 percent increase from the previous year; and sales rose to \$7.6 billion, up 23 percent since 2015. Of the total sales, about \$3.4 billion came from fruits (\$1.41 billion), vegetables (\$1.73 billion), and specialty crops, such as nursery, floriculture, and mushrooms (\$0.23 billion). Among all certified organic commodities, the top selling crops are apples, lettuce, and strawberries.

Although the market for certified organic foods grows every year, organic food sales are less than 6 percent of total food sales (Organic Trade Association, 2018), and data from the 2012 Census of Agriculture reported that only 1% of American farms are certified. Low adoption of organic certification is a response by growers to market, structural, and attitudinal barriers (Constance and Choi, 2010). While some farmers report that production and certification issues are deterring them from certifying, others are just not interested in certification (Torres et al., 2016).

From the market perspective, the decision to certify organic is complex. Access to markets and price premiums seem to be key factors influencing organic certification. The organic market has changed — from organic foods mainly sold in natural stores to a growing demand for organic foods available at large food retailers and chains of grocery stores. To address the increasing demand from massive retailers, many certified organic operations have merged or consolidated to access high-volume, high-value organic markets (Park, 2009). Another change is consumers' willingness to pay higher prices for organically produced foods in local markets (Dimitri, 2012). These trends offer important

opportunities to farmers selling fruits and vegetables directly to customers — capturing a higher share of consumers' dollars, building long-term relationships with customers, and obtaining direct feedback from the marketplace, for example. Thus, the relationship between the choice of market channel and the adoption of organic certification needs more examination.

This study investigated whether customer relationships made by farmers selling locally influenced them to adopt organic certification. The rationale is that farmers will choose their markets depending on available choices, which is likely to affect their probability to certify organic. For example, a farmer may choose to sell at the farmers markets, a common market outlet for fruit and vegetable operations, which will allow her/him to build relationships with customers and convey their use of sustainable production practices.

Our proposition is that grower-customer relationships help farmers capitalize on price premiums for locally grown products that are not necessarily certified. Thus, grower-customer relationships built in local markets may be trumping the choice of organic certification among farmers. On the other hand, if a farmer sells to wholesalers, she/he would receive price premiums only if the products were certified organic.

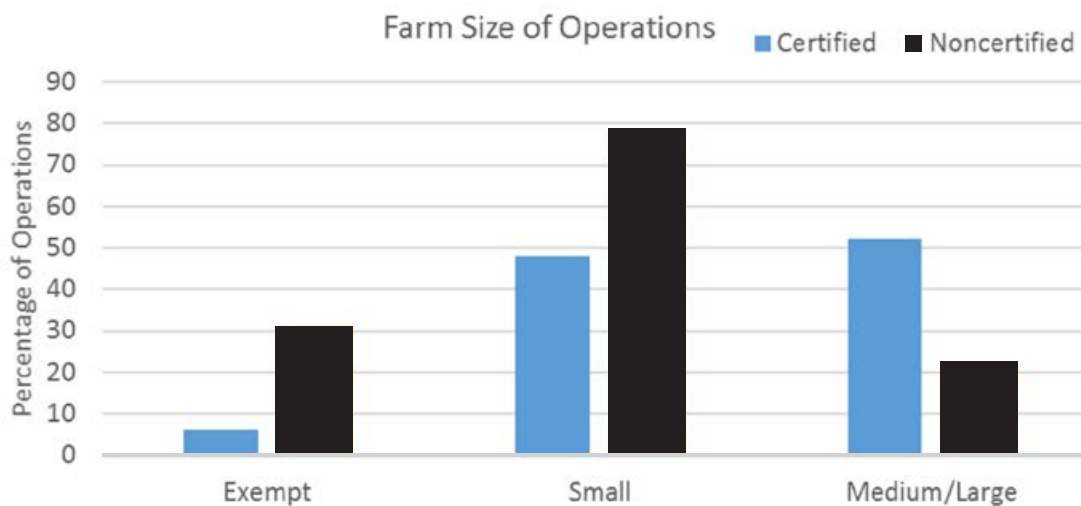
## Survey Background

- A team of Purdue University researchers conducted an online survey of fruit and vegetable growers who participate in the Food Industry MarketMaker database in 16 states and Washington, D.C. We collected 1,559 responses from farmers (36% response rate) (Torres et al., 2016).
- Operations surveyed were located in Alabama, Arkansas, Florida, Georgia, Iowa, Illinois, Indiana, Kentucky, Michigan, Mississippi, Nebraska, New York, Ohio, Pennsylvania, and South Carolina.
- The questionnaire included *farm management questions* (number of employees, distance to markets, number of crops, number of acres), *farmer's characteristics* (education, gender, location, number of years farming, farm ownership), and *attitudinal questions* (perceptions toward their operation, organic agriculture, and certification).

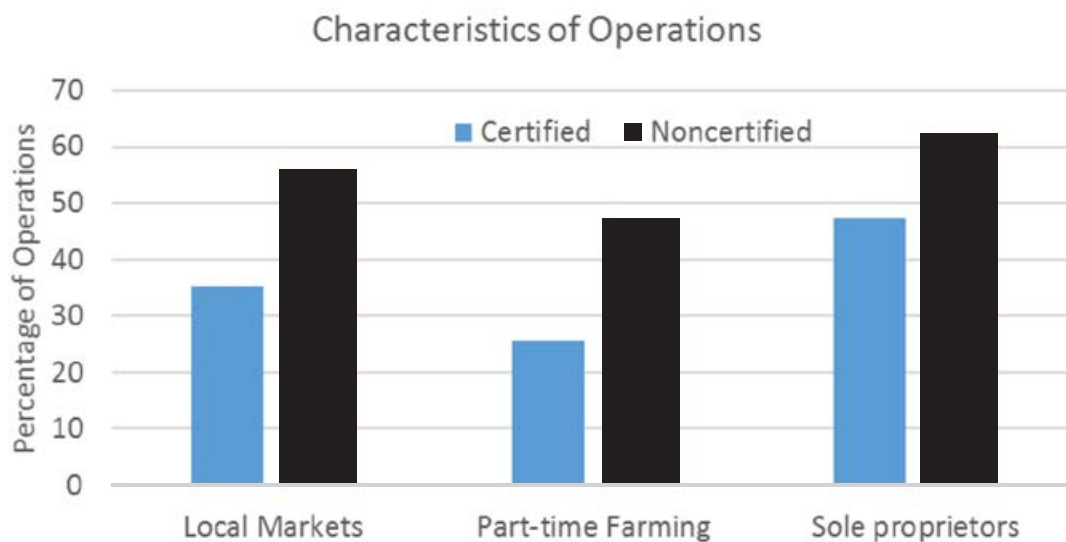
## The Data

From a subsample of 480 farmers, 129 operations (27 percent) were entirely certified organic and 351 growers (73 percent) used organic practices but were not certified. We excluded conventional farmers from this study. The clear-cut comparison of certified and non-certified organic operations allowed us to understand what it would take for farmers who are already using organic practices to take the next step and adopt organic certification.

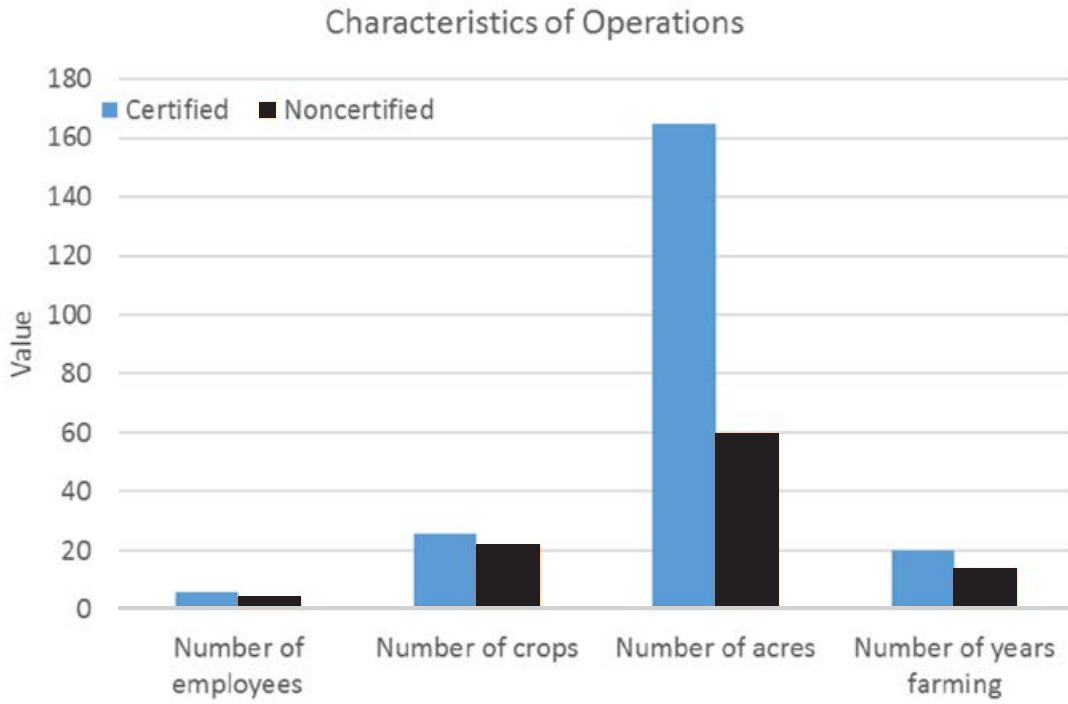
The following figures illustrate the differences between organic certified and organic non-certified operations that were part of the study. Figure 1 compares the size of operations by annual gross sales for certified and non-certified organic operations. Figure 2 shows the percentage of operations selling locally, farming part-time, and structured as sole proprietorships. Figure 3 reports on the number of employees, number of acres, number of crops, and number of years farming. Lastly, figure 4 shows the region of the operations, such as South (Florida, Georgia, South Carolina), Delta (Alabama, Arkansas, Mississippi, and Louisiana), Midwest (Iowa, Illinois, Indiana, Michigan, Nebraska, Ohio, and Kentucky), and Northeast (New York and Pennsylvania).



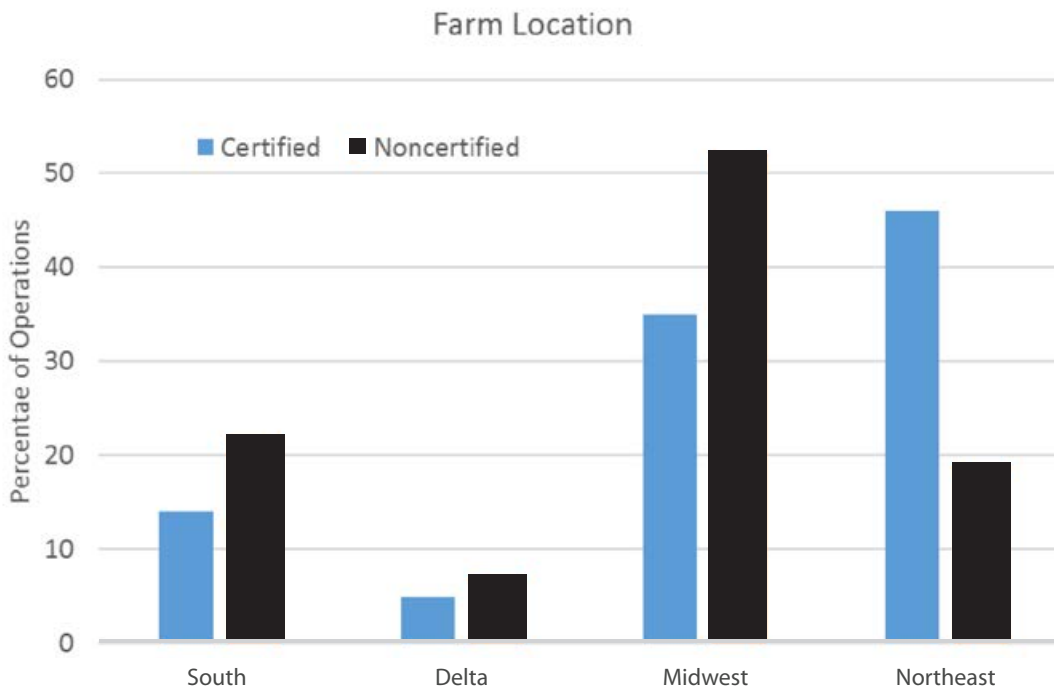
**Figure 1.** Most certified organic operations are medium or large (sales >\$50,000) and most non-certified operations are small (sales between \$5,000 and \$50,000).



**Figure 2.** There is a higher number of non-certified operations selling in local markets, farming part-time, and structured as sole proprietorship.



**Figure 3.** The number of employees, acres, crops, and years farming of certified operations is higher than non-certified operations.



**Figure 4.** The number of non-certified operations is higher in South, Delta, and Midwest regions, while the number of certified operations is higher in the Northeast region.



## Key Findings

- Non-certified organic farmers selling in local markets are 26% *less likely* to certify organic than farmers selling to wholesale markets ( $P < 0.01$ ).
- Farmers' perceptions that organic certification is associated with loss of freedom, paperwork, and interaction with the certifier *decreases the likelihood* to certify organic by 17% ( $P < 0.01$ ).
- Farmers with college education are 5% *more likely* to certify organic ( $P < 0.1$ ).
- The probability to certify organic *increases* with farmers' experience, but up to a certain point ( $P < 0.01$ ).

## Conclusions

The main finding of the study is that a farmer's decision to sell directly to customers seems to decrease the probability that she/he will certify organic, given she/he uses organic practices. One explanation is that non-certified organic farmers may be able to capitalize on higher prices paid for using local and/or alternative labels in local markets. Thus, farmers selling locally seem to be able to substitute these alternative labels for the USDA certification label.

A major implication of the study is that specialty crop farmers using organic practices are not likely to certify organic unless they have access to wholesale markets. This is especially true for smaller operations and those with less than \$50,000 in annual gross sales. If policymakers want to increase the organic certification of fruit and vegetable operations, they should consider supporting the market access of farmers before exclusively focusing on motivating farmers to certify organic. For example, access to local food hubs may help farmers access mainstream markets, which increases the organic food supply for retailers.

*Reference in this publication to any specific commercial product, process, or service, or the use of any trade, firm, or corporation name is for general informational purposes only and does not constitute an endorsement, recommendation, or certification of any kind by Purdue Extension. Individuals using such products assume responsibility for their use in accordance with current directions of the manufacturer.*

Another key finding of the study was the evidence that social interactions that take place in local markets matter. Local markets seem to create strong social ties between customers and farmers, a form of social capital. This form of social capital provides farmers with a source of information, trust-based relationships, and access to price premiums. Lastly, farmers' attitudes are an important driver of their decision making. Some farmers, accurately or not, associate organic certification with loss of freedom, excess paperwork, and complex interactions with certifiers. That perception may deter them from seeking certification or, once certified, even provide justification to drop the certification status.

The findings of our study highlight the decision-making processes involved in the organic certification process. This publication can help growers as well as extension agents, policymakers, and firms in the food supply chain understand the barriers and motives of organic certification.

## Literature Cited

- Dimitri, C., 2012. Use of local markets by organic producers. *Am. J. Agric. Econ.* 94(2), 301–306.
- Organic Trade Association. 2018 Organic Industry Survey, [www.ota.com](http://www.ota.com)
- Park, T.A., 2009. Assessing the returns from organic marketing channels. *J. Agric. Res. Econ.* 34(3), 483–497.
- Sierra, L., Klonsky, K., Strohlic, R., Brodt, S., Molinar, R., 2008. Factors Associated with Deregistration among Organic Farmers in California. Davis, CA: California Institute for Rural Studies.
- Torres, A.P., Marshall, M.I., Alexander, C.E. and Delgado, M.S., 2017. Are local market relationships undermining organic fruit and vegetable certification? A bivariate probit analysis. *Agricultural economics*, 48(2), pp.197-205.