



Latino Farmers in Michigan:

An Overview

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ABSTRACT

Michigan Latino farmers contribute to the largest and fastest growing minority-farming group in the U.S. However, they are subject to lack of financial resources, limited land ownership, difficulty in obtaining bank loans, low sales, insufficient training, meager farm equipment, language barriers, and limited information resources. This report provides research results from a survey of Latino farmers in Michigan, and focuses primarily three types of farmers: berry, livestock, and other-produce farmers. These farmers are a diverse group of individuals with different practices and processes. This study demonstrates that a study focusing on specific types of farmers can identify specific issues pertaining to those types of farmers. For example, this study shows that Latino berry farmers tend to engage in agricultural planning and practices that lead to improved sales.

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Introduction

Latino farmers are considered to be the largest and fastest growing minority farming group in the U.S. (Fry, 2008; Martinez & Gardner, 2011). The 2007 U.S. Census of Agriculture reported a 14% increase in the number of Hispanic/Latino farm operators between 2002 and 2007, reflecting a growth that is significantly higher than the overall increase in farm operators across the country (U.S. NASS, 2009). Despite their growth in numbers, Hispanic farmers are often characterized as “socially disadvantaged” and “limited resource” farmers (Ahearn & Newton, 2009; Kleiner & Green, 2008). The socially disadvantaged status of Hispanic farmers has prevented them from accessing important agricultural and related services that could improve their farming conditions (FACT, 1990).

Since the 1990s, the Southeast and Midwest regions of U.S. have seen a large influx of Latino in-migration with an accompanying increase of the number of farms operated by Latinos (Romero, 2011). Between 1992 and 2007 in the Midwest alone, the number of farms with a Latino operator increased by more than 200 percent in Kansas and Michigan, and 110 percent in Minnesota (Romero, 2011). According to the 2007 Census of Agriculture, Michigan ranks first in the Midwest and tenth in the nation in the total number of Hispanic/Latino principal farm operators.

Despite overall indicators of economic expansion in the agricultural sector in Michigan (Peterson et al., 2006), Hispanic farmers continue to show poor economic performance (U.S. NASS, 2009). The 2007 Census reports that 53 percent of Hispanic farmers in Michigan reported total annual sales of less than \$5,000 although more than 40 percent cite farming as their primary occupation (U.S. NASS, 2009). These facts confirm the importance of recognizing and addressing the unique challenges Michigan Latino farmers face in finding strategies to increase their farm viability. The purpose of the research reported here is to identify and develop a broader understanding of Michigan Latino farmers’ demography, as well as farming conditions and practices, in order to facilitate programs that may better serve their needs and requirements. This research project provides an overview of:

- (1) Demography and farm characteristics
- (2) Agricultural practices
- (3) Marketing practices
- (4) Challenges faced by farmers
- (5) Information and training needs
- (6) Reasons for farming and choosing farm locations
- (7) Goals and future expectations
- (8) Effects of duration of stay in the U.S. on farming practices

Barriers and Practices of Latino Farmers

In policy circles, Hispanic/Latino farmers have often been labeled as “small-scale”, “limited resource,” “minority,” and/or “socially disadvantaged” (Kleiner & Green, 2008). On average, Hispanic/Latino owned farms tend to be smaller in acreage and have lower sales than those operated by white/Euro-American farmers (Kleiner & Green, 2008). Because of their high level of social and economic disadvantage, Latino farmers experience unique challenges with regard to initiating, developing, and sustaining their farming practices.

Prior research that looked into reasons that limit farming sustainability among Hispanic/Latino farmers has identified several barriers and practices that contribute to these limitations. Two of the most commonly discussed issues are lack of English language ability and citizenship challenges that limit Latino farmers' integration into U.S. culture (e.g., Hermansen-Baez, 2011; Marinez & Gomez, 2011). Hermansen-Baez (2011) further argues that the inability to acquire English-speaking skills is "exacerbated by long workdays with irregular schedules and limited availability of courses in English as a Second Language." Other studies have also pointed out that cultural differences among Latino immigrants (particularly new immigrants) and social and political vulnerability of Latino families in new immigrant destinations make it difficult for Latinos to actively participate in governmental assistance programs that are designed to enhance their farming practices and sustainability (e.g., Flora, Emery, Thompson, Padro-Meza, & Flora, 2012). Due to these various barriers, most Latino farmers and horticulturists consider sharing agricultural produce with family and friends as more important than market-oriented strategies (Flora, Emery, Thompson, Padro-Meza, & Flora, 2012).

Barriers that prevent Latino farmers from accessing governmental resources (e.g., USDA resources) lead to a range of unfavorable circumstances that put Latino farmers at a distinct disadvantage. Marinez & Gomez (2011) point out a range of such barriers including difficulty comprehending U.S. agriculture policy, challenges expressing their farming needs, difficulties in accessing capital for purchasing farms and/or operational loans, lack of knowledge on USDA Farm Service Assistance disaster programs, lack of understanding of advocacy and its importance, lack of a voice on matters of farm policy and advocacy, difficulty comprehending educational materials presented at workshops, difficulty completing appropriate USDA program applications, and difficulty maintaining a stable and reliable workforce. Studies have also pointed out that misconceptions about USDA programs (i.e., beliefs such as, USDA programs are made only for large scale operations or more experienced producers) and lack of financial records and business plans prevent Latino farmers from accessing USDA programs (Martinez-Feria, 2011).

In addition to these barriers, researchers have also identified a range of related issues faced by Latino farmers in the U.S. such as limited access to and high prices of land, limited economic resilience and financial literacy, limited access to machinery and equipment, and limited agricultural education (e.g., Martinez-Feria, 2011; Romero, 2011) that affect the sustainability of their farm operations. Swisher et. al. (2007) identified avenues for marketing and access to information among major constraints to maintaining farm viability of Latino farmers. Green (2001) found that limited financial resources, access to credit, lack of information appropriate for their farm types, limited access to markets, and low prices in their markets were among the main constraints cited by limited-resource farmers in maintaining farm viability (Green 2001).

As far as Latino farmers in the Midwest and Michigan are concerned, prior studies have pointed out that "those who need more support are less likely to participate in programs designed to support their farm endeavors," (Romero, 2011, p. 11). Research on current status of Hispanic farmers in Michigan suggests that farms are generally family-owned operations led by young male farmers with relatively low levels of education. Overall, these farmers continue to struggle with the English language and face many of the barriers and limitations previously discussed that impact Hispanic/Latino farmers throughout the U.S.

Most Hispanic/Latino farmers in the Midwest and Michigan are part-time farmers. Their income from farming is very low, which contributes to categorizing their farms as "limited

resource farms” (Romero, 2011). A high percentage of these farmers do not participate in federal, state, or community programs that are designed to assist with their farming practices. One major issue affecting Hispanic farmers in Michigan is their poor economic performance (Romero, 2011). As stated before, despite overall expansion of Michigan’s agricultural sector and Hispanic farmers’ increased participation in production of Michigan crops, data from the 2007 census show that 53 percent of Hispanic farmers have total annual sales of less than \$5,000, and only 17 percent make more than \$50,000 per year (U.S. NASS, 2009).

Methods

The population for this survey consisted of a list of Michigan Latino farmers obtained from the National Agricultural Statistics Service (NASS). These Latino owned or operated farm operations fit the NASS definition of a farm, that is, an operation that produces, or would normally produce and sell, \$1,000 or more of agricultural products per year. Before conducting the survey, efforts were made to update the NASS list by matching the list with an independent source of Hispanic farmers from the Michigan Department of Agriculture and Rural Development (MDARD). Records from MDARD that were not on the NASS list were included in the population as potential Latino farms. Approximately 100 records were identified as potential farms from the MDARD list that NASS had not yet confirmed as Latino or as actual farms for a combined total of 559 records (USDA NASS, 2012).

The survey instrument, a questionnaire, was designed and provided by staff at the Julian Samora Research Institute of Michigan State University. All data collection activities were conducted by the NASS Michigan Field Office. Two phases of mail-out and mail-back were the primary data collection method. It was supplemented with non-response follow-up by telephone calls. Two Spanish speaking students from Michigan State University were hired to aid in the telephone data collection phase of the survey. Data collection occurred June 8 to July 20, 2012 (USDA NASS, 2012).

The overall response rate for the Survey of Latino Farmers in Michigan was 58 percent. This response rate is slightly lower than normally realized in NASS conducted surveys. It is speculated that the low response rate is attributable both to the target audience and its unease in dealing with outside entities such as Michigan State University (USDA NASS, 2012). After eliminating responses that did not qualify for the survey, 79 usable and complete surveys were chosen for the data analysis which consisted of 34 mail responses and 45 phone responses. This sample size is consistent with the sample sizes used in other similar survey-based studies on Latino farmers in the Midwest (e.g., Lucht, 2006, *Latinos in Southwest Missouri*, n=63; Swisher, Brenann & Shah, 2007, *Hispanic-Latino Farmers and Ranchers Project*, n=72; Lezberg & Reyes-Hamann, 2010, *Hispanic Farmers in Wisconsin*, n=104; Garcia-Pabon, 2011, *Risk Concerns among Latino Farmers in Missouri*, n=62).

We conducted comparisons of the survey sample with the national data from the 2007 census in order to assess the representativeness of the sample. These comparisons indicate that the survey sample broadly represents the 2007 census data in terms of the proportions of respondents from different counties in Michigan (Table 1). Upon comparing respondents to the national population of Hispanic farmers from the 2007 census, we observed that the survey sample again broadly represents the overall population for several demographic and farm characteristics such as male/female ratio, farming being the primary occupation, operators farm ownership type, and average number of years farming in the present farm (Table 2).

Table 1. Participants by County and Total Latino Operators by County, 2007

County	Survey Respondents	2007 Ag Census*
Allegan	2 (2.5%)	45 (4.8%)
Barry	1 (1.3%)	28 (3.0%)
Berrien	3 (3.8%)	34 (3.6%)
Charlevoix	1 (1.3%)	1 (0.1%)
Clinton	2 (2.5%)	14 (1.5%)
Delta	1 (1.3%)	4 (0.4%)
Gladwin	1 (1.3%)	13 (1.4%)
Grand Traverse	2 (2.5%)	7 (0.7%)
Huron	1 (1.3%)	23 (2.5%)
Ingham	----	16 (1.7%)
Ionia	1 (1.3%)	11 (1.2%)
Iosco	1 (1.3%)	11 (1.2%)
Isabella	1 (1.3%)	6 (0.6%)
Jackson	3 (3.8%)	21 (2.2%)
Kalamazoo	1 (1.3%)	16 (1.7%)
Kent	1 (1.3%)	14 (1.5%)
Lapeer	1 (1.3%)	11 (1.2%)
Lenawee	2 (2.5%)	27 (2.9%)
Livingston	1 (1.3%)	13 (1.4%)
Macomb	1 (1.3%)	10 (1.1%)
Monroe	1 (1.3%)	12 (1.3%)
Montcalm	1 (1.3%)	17 (1.8%)
Oakland	2 (2.5%)	6 (0.6%)
Oceana	5 (6.3%)	17 (1.8%)
Ottawa	6 (7.6%)	48 (5.1%)
Saginaw	3 (3.8%)	26 (2.8%)
Sanilac	2 (2.5%)	19 (2.0%)
Shiawassee	1 (1.3%)	7 (.7%)
Van Buren	27 (34.2%)	163 (17.4%)
Wexford	1 (1.3%)	8 (0.9%)
Missing County	3 (3.8%)	----
Total	79 (100%)	648/937

* Source: U.S. National Agricultural Statistics Service report 2007

Table 2. Comparisons with National Data

Characteristic	U.S. (2007 census)*		Survey sample
	All farms	Hispanic operated farms	Sample of Hispanic Farms
Total number of operators	3,281,534	82,462	
Total principal farm operators	2,204,792	55,570	79
Average size of farm	418 acres	307 acres	86 acres
Average value of sales	\$134,807	\$119,634	\$162,442
Farms with internet access	57%	44%	75.5%
Farmers' sex=Male	86%	88%	92%
Farming as primary occupation	45%	45%	55%
Operator owns all farm acres	69%	77%	73%
Worked off farm	65%	73%	60%
4 years or less on present farm	10%	16%	14%
Average age of operator	57.1	56.0	

* Source: U.S. National Agricultural Statistics Service report 2009

Results

Demographic Overview and Farm Characteristics

Mirroring trends in farming in general, most of the respondents to the survey were male (92%). Seventy-five of the farmers who returned the survey responded to the question “How long has your family been living in U.S.?” For ten respondents (13.3%), their family has lived in the U.S. for more than three generations. For the remaining farmers (63), families are first, second or third generation immigrants. Most respondents to the survey have been farming for a long time; 59% of the respondents indicated that they have been farming for more than 10 years. Approximately twenty-seven percent (26.9%) have been farming for five to ten years and 11.5% have been farming for two to five years. Most respondents have also engaged in farming prior to owning the current farm. Forty (40) respondents (54%) indicate that they have been engaged in prior farming. Sixty-six (66) farmers responding to the survey answered the question on farm size. Most farms are relatively small in size: 40 farms were less than 50 acres; 13 had 51-100 acres; 13 had over 100 acres. The average farm size was 79 acres. Michigan Latino farmers are somewhat more likely to own farm land than rent farm land. Seventy-one (71) respondents indicated that they own the land they farm; 68 indicated that they rent farm land; and 20 respondents indicated that they own and rent land. The average number of acres owned by farmers (87.67 acres) is much higher than the average number of acres rented (15.78 acres).

Thirty-four (34) farmers indicated that they have no off-farm work (40%). Sixty percent (60%) of farmers (45 respondents) have full or part time off-farm work. Seventy-six (76) farmers responded to a question asking whether their spouses work off-farm full time or part time. Sixteen (16) spouses (21.1%) work off-farm full time and ten spouses (13.2%) work off-farm part time. Most Michigan Latino farm operations are single family or individual operations (90.7%). Seven (7) respondents (9.3%) indicated a partnership such as multi-family operations (3), family partnerships (2), and non-family partnerships (2). For a summary of sample

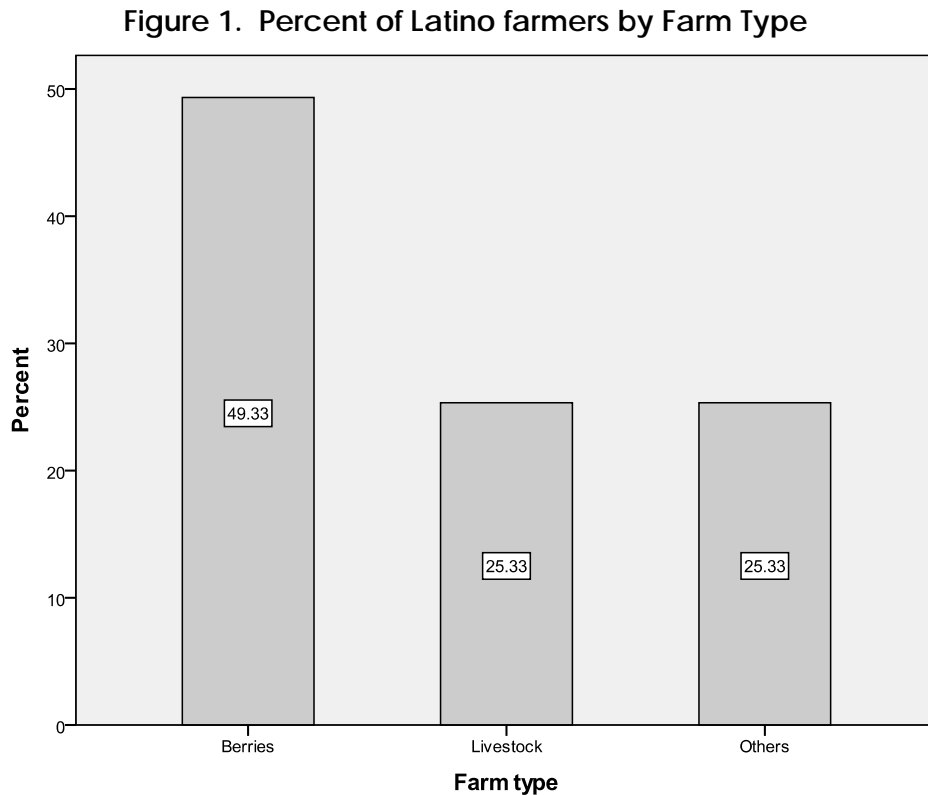
demographic and farm characteristics, see Table 3.

Table 3. Respondents Demographic Overview and Farm Characteristics (n=79)

Characteristic	Number	Percentage
Gender		
Male	68	92%
Female	6	8%
Length of family stay in U.S.		
Family has been in the U.S. for >3 generations	10	13.3%
Family is first generation immigrants, parents immigrated or grandparents immigrated	63	86.7%
Farm type		
Berry	37	49.3%
Livestock	19	25.3%
Other	19	25.3%
Off-farm work		
No off farm work	34	40%
Full or part time off farm	45	60%
Type of operation		
Single family or individual operations	68	90.7%
Partnerships	7	9.3%
Number of years farming		
Planning to start	1	1.3%
0-2 years	1	1.3%
2-5 years	9	11.5%
5-10 years	21	26.9%
10 years or more	46	59.0%
Farming prior to owning this farm		
Yes	40	54.0%
No	34	46.0%
Farm size		
50 acres or less	40	60.6%
- 51-100 acres	13	19.7%
- > 100 acres	13	19.7%
Number of acres		
Owned	N=71, Avg=87.67	
Rented	N=68, Avg=15.78	
Average Sales Values		
Berry		\$253,947
Livestock		\$31,182
Others		\$131,837
Farm size (average acres owned and rented)		
Berry		74.12
Livestock		62.43
Other		132.65

The majority of the respondents reported using their farmland for growing blueberries (37). Some also reported producing vegetables (11), row crops (10), cattle (9) and sheep (6). Few farmers among the respondents produced more than a single crop/product. Based on their primary produce type, we identified three main farm types among the respondents; berry farmers

(49.3%), livestock farmers (25.3%), and other farmers (25.3%). The livestock category is broadly defined as any breed or population of animals kept by humans for agricultural use and commercial purposes. This category included cattle, pigs, sheep, horses, alpaca, dairy, and poultry. The other category included field crops, row crops, vegetables, oilseed, grains, horticultural crops, grass, ornamentals, alfalfa, and hay (Figure 1).



The overall average sales value for respondents was \$162,442. However, the median indicates that half of the respondents only earn \$34,216 in average sales per year. Among the respondents, average sales values are highest for the berry farmers (\$235,947), followed by other farmers (\$131,837). Lowest average sales value is recorded for livestock farmers (\$31,182). As far as average farm size is concerned, farmers in the “other” category have considerably larger farms (132.65 acres), followed by berry farmers (74.12 acres) and livestock farmers (62.43 acres). Most farmers in the sample (59%) have been farming for more than 10 years, with a majority in each of the farm types being long-term farmers (Berry farmers, 51.3%; Livestock farmers, 57.9%; and Other farmers 73.7%). The proportion of berry farmers who engage in farming as a primary occupation (67.6%) is significantly higher than those who do not use farming as a primary occupation ($p < 0.05$). The proportion of livestock and other farmers who use farming as their primary occupation is not significantly different from those who do not use farming as a primary occupation for those two respective farm types.

Agricultural Planning and Practices

Half (50%) of the respondents have a business plan and 33.8% of the farmers among the respondents engage in direct sales. From the 76 farmers that responded to the question, 57.9%

maintain pest management records. Approximately sixty-two percent (61.8%) of the farmers in the sample maintain nutrient management records. More than half of the respondents have approved GAP plans (53.4%). Thirty-six respondents (49.3%) have soil and water conservation plans; 19 (26.0%) manure conservation plans; and 37 (50.7%) IPM (integrated pest management) plans (Table 4).

Table 4. Survey Respondents' Agricultural Planning and Practices

Agricultural plan/ practice	Frequency	Percentage Yes
Maintain nutrient management records	47	61.8
Maintain pest management records	44	57.9
Have an approved GAP plan	39	53.4
IPM plan	37	50.7
Have a business plan	37	50.0
Use soil and water conservation plans	36	49.3
Engage in direct sales	25	33.8
Manure management plans	19	26.0

Further analysis indicates that farm type is associated with maintaining pest management records and nutrient management records (chi square, $p < .001$). Eighty-six percent (86.1%) of berry farmers maintain pest management records. This proportion is significantly higher than those who do not maintain pest management records ($p < .05$). Among livestock farmers a larger proportion do not maintain pest management records (73.7%). In the “other” farm category, there is no significant difference between the proportions of those who do and do not maintain pest management records. These differences in pest and nutrient management practices may relate to differences in pest and nutrient management needs specific to different farm types, however, other variables, including differing outreach opportunities by agricultural sector, may also contribute to these differences.

A similar trend is also observed for maintaining nutrient management records where a significantly higher proportion of berry farmers (86.1%) maintain nutrient management records than any other farm type. A significant association was also observed between farm type and having an approved GAP plan (chi square, $p < .01$). The proportion of berry farmers (72.2%) that have approved GAP plans is significantly higher than those who do not ($p < .05$) whereas most farmers in livestock and other categories do not have GAP plans. In the “other” farm category, only 31.6% of the farmers have reported having approved GAP plans. By investigating patterns of IPM use, we once again observe that there is an association between farm type and IPM use where the proportion of IPM users are highest among berry farmers (74.3%). As far as other agricultural planning and practices are concerned, we did not observe any significant associations between farm type and soil and water conservation; farm type and having business plans; and farm type and manure management.

In addition to these agricultural plans and practices, we inquired from the respondents whether they label their products. Labeling practices are somewhat rare among respondents. Among 52 respondents who answered the question, only 24 indicated that they have one or more product labels. The most commonly used labels are “local” labels (15) followed by “Pure Michigan”(7), Grassfed (4) and USDA (3).

Among those who have product labels, a majority only have one label (19). Three respondents have two labels and two respondents reported having three labels. A significant association was not observed between farm type and number of product labels obtained.

However, based on the sample, labels are used by 40.7% of berry farmers, 50.0% of livestock farmers and 55.6% of other farmers.

Marketing practices

Despite the significance of market access and marketing strategies for increasing farm viability, information regarding Michigan Latino farmers’ marketing practices is limited (Romero, 2011). In one recent federally-funded report addressing Hispanic farmers in the U.S., farmers cited marketing and access to information as major constraints in maintaining their farm viability (Swisher et. al., 2007). Studies that can provide more detailed information about Michigan Latino farmers’ marketing experiences is thus warranted.

According to the survey responses, packers represent the major markets for Michigan Latino farmers. More than 47% of participants sold some percentage of their production to packers. Twenty-seven percent (26.8%) sold their produce at farmer’s markets. Approximately 20% of the respondents sold some or all of their production wholesale. Direct-sales to customers was less frequent. Fourteen percent (13.9%) of the farmers sold a portion of their produce in direct sales. Sales at other locations such as farm stands, produce auctions, grocery stores, co-ops, and internet sales were relatively low. Respondents’ least utilized sales methods were Community-Supported Agriculture (CSA) and direct sales to restaurants. Only 2.8% of the respondents indicated that they sell some amount of produce through CSA (Table 5).

Table 5. Survey Respondents’ Sales Locations

Location	Frequency	Percentage Yes
Packers	34	47.2
Farmers market	19	26.8
Wholesale	15	20.8
Customers pick	10	13.9
Co-op	9	12.5
Farm stand	7	9.7
Produce auction	7	9.7
Grocery stores	5	6.9
Internet	4	5.6
CSA	2	2.8
Restaurants	0	0

Among respondents, the preferred market for berry farmers was packers. Forty-seven percent (47.1%) of berry farmers sold some or all of their produce to packers. This was followed by 30.3% berry farmers who sold some of their produce at farmers’ markets. Packers also represented the major markets for livestock farmers where 47% of livestock farmers sold their produce to packers. For other farmers, the preferred markets were wholesale (31%) and farmers’ markets (31%).

Thirty-six percent (36.1%) of Michigan Latino farmers in the survey sample use more than one market channel, although the majority of respondents use only one market channel (63.9%). Berry farmers are less likely to use multiple market channels. Only 29.4% of berry farmers indicated that they use more than one market. Most berry farmers in the sample sell their full production to packers. For livestock and other farmers, 42% of farmers in each category use multiple market channels. However, a statistically significant association between farm type and

the use of multiple market channels was not found.

Challenges

When asked what kind of challenges they face, the respondents identified lack of money to buy farm equipment and land as major challenges followed by difficulties in obtaining bank loans. Lack of money to buy farm equipment was a major challenge for 65.8% of the respondents. Additionally, 61.1% of the respondents indicated that lack of money to buy land was a challenge.

Fifty-three percent (53.4%) indicated obtaining bank loans as a challenge. Thirty-five percent (35.1%) of the respondents indicated (1) their lack of awareness of government rules and regulations and (2) access/cost of health care among challenges they face. Lack of knowledge about where to sell the produce is also a concern. Thirty-five percent (34.7%) of the respondents indicated this as a challenge (Table 6).

Table 6. Survey Respondents' Challenges to Farming

Challenge	Frequency	Percentage Yes
Money to buy equipment	48	65.8
Money to buy land	44	61.1
Obtaining loans	39	53.4
Access and cost of health care	25	35.1
Not knowing rules	25	35.1
Not knowing where to sell	25	34.7
Finding land to buy	23	32.4
Know-how on raising crops/animals	17	23.9
Lack of English knowledge	17	23.9
Other	5	18.5
Finding land to rent	13	18.3

In keeping with this general trend in challenges faced by farmers, berry farmers and other farmers have indicated the lack of money to buy land/equipment and difficulty in getting bank loans as major challenges. However, livestock farmers in the sample deviated from this general trend. Ninety percent (89.5%) of the livestock farmers in the sample indicated lack of English language ability as a challenge.

Information and training needs

Farmers need to be well versed on a wide range of topics ranging from agronomy and animal husbandry to marketing and regulations. Hence, access to accurate information is critical to maintaining viable farms (Lezberg & Reyes-Hamann, 2010). For these reasons, survey respondents were asked several questions on their information needs and likelihood of using different information sources. Respondents reported that they require information on production methods (72.7%), environmental conservation (68.1%), marketing (64.3%) and business planning (61.4%). There was also a high demand for information on alternative crops (61.5%) (Table 7).

Table 7. Survey Respondents' Information Needs

Information need	Frequency	Percentage Yes
Production methods	48	72.7
Environmental conservation	47	68.1
Marketing	45	64.3
Alternative crops	40	61.5
Business planning	43	61.4
Financial record keeping	39	55.7
Organic farming	32	45.7
Livestock	18	27.7
Other	3	3.8

When asked what information sources they use, respondents reported that they tend to consult other farmers (76.5%) most frequently, followed by Michigan State University (52.9%), and supply dealers (37.5%). In addition to these frequently used information sources, berry farmers also consult with the County Land and Conservation Department to a lesser degree. Respondents are least likely to use organic certifiers for obtaining information (Table 8).

Table 8. Information Sources Used by Respondents

Source	Frequency	Percentage Yes
Other farmers	52	76.5
MSU	36	52.9
Supply dealers	24	37.5
FSA	19	29.2
County land conservation dept.	18	28.6
MIDATCP	17	26.2
NCRS	17	26.2
Growers' association	16	24.6
Bankers	13	20.6
Groundwater technician	11	16.9
Organic certifier	1	1.6

Survey respondents reported their likelihood of using a range of information sources such as personnel, print, and other media in order to obtain agricultural and farming information. Our findings indicate that respondents are more likely to use other farmers, family members, MSU, and farm magazines as preferred information sources. However, they are less likely to use radio, internet, or smart phones (Table 9).

Table 9. Likelihood of Using Different Information Sources

Info source	Not likely	Somewhat likely	Very likely	Extremely likely	Don't know	Missing
Other farmers	11 (13.9%)	19 (24.1%)	21 (26.6%)	19 (24.1%)	-	9 (11.4%)
Family members	12 (15.2%)	21 (26.6%)	24 (30.4%)	10 (12.7%)	2 (2.5%)	10 (12.7%)
Radio	33 (41.8%)	13 (16.5%)	16 (20.3%)	2 (2.5%)	3 (3.8%)	12 (15.2%)
TV	26 (32.9%)	17 (21.5%)	18 (22.8%)	5 (6.3%)	2 (2.5%)	11 (13.9%)
Equipment dealers	22 (27.8%)	19 (24.1%)	19 (24.1%)	6 (7.6%)	2 (2.5%)	11 (13.9%)
Farm magazines	18 (22.8%)	16 (20.3%)	23 (29.1%)	12 (15.3%)	2 (2.5%)	8 (10.1%)
Field days	18 (22.8%)	17 (21.5%)	20 (25.3%)	11 (13.9%)	3 (3.8%)	10 (12.7%)
MSU publications	13 (16.5%)	17 (21.5%)	23 (29.1%)	13 (16.5%)	4 (5.1%)	9 (11.4%)
Conferences	17 (21.5%)	13 (16.5%)	24 (30.4%)	12 (15.2%)	4 (5.1%)	9 (11.4%)
Internet	25 (31.6%)	15 (19.0%)	17 (21.5%)	11 (13.9%)	1 (1.3%)	10 (12.7%)
Smart phones	33 (41.8%)	16 (20.3%)	8 (10.1%)	7 (8.9%)	3 (3.8%)	12 (15.2%)

In the survey, several questions were included to assess the Michigan Latino farmers' computer use and online behavior. Among the respondents, 76.4% indicated that they have access to the Internet. This percentage is significantly higher than the national average (44%) for Latino farmers (Census 2007). Although access to the Internet is high for the respondents, we did not observe a significant association between farm type and use of information gathered from the Internet. For all three farm types, there is no significant difference in the proportions of farmers who use the Internet for information and those who do not. As a percentage, livestock farmers use information gathered from the Internet the most (61.1%).

In the survey we inquired what type of training farmers require and whether they would attend agricultural training programs. Eighty-four percent (83.5%) of the respondents indicated that they would participate in training programs. Thirty-nine of them prefer training offered in English, whereas, 22 would participate only if training is offered in Spanish. Farmers' interest in participating in training programs is significantly associated with farm type ($p < .001$). Berry farmers prefer to participate in training programs offered in Spanish whereas livestock and other farmers prefer training programs offered in English.

We also inquired from respondents their language preference to read a printed booklet of agricultural information. Ninety-seven percent (97.2%) of the respondents indicated that they would read such a booklet as opposed to 2.8% who would not read it. Among those who would read it, 47 prefer the booklet in English, and 22 prefer to read it in Spanish. Farm type is also associated with preference to read a booklet of agricultural information ($p < .001$). A significantly larger proportion of berry farmers would like to read the booklet, and read it in Spanish. Amongst livestock farmers, a significantly large proportion would like to read the booklet in

English. Preference among “other” farmers is also English.

As seen in Table 10, respondents expressed an interest in obtaining training in agricultural marketing (57.8%), land management (54.7%), loans counseling (50.0%), and FAS (48.4%). When these training needs are evaluated by farm type, we found out that most berry farmers have indicated training needs in loans counseling (71.4%) followed by agricultural marketing services (62.9%). Livestock farmers have indicated preference for training in land management (69.2%) and agricultural marketing services (53.8%). Other farmers prefer training in natural resource conservation (46.7%) and agricultural marketing services (46.7%).

Table 10. Training Interests of Survey Respondents

Interest	Frequency	Percentage Yes
Ag marketing	37	57.8
Land management	35	54.7
Loans counseling	32	50.0
FSA	31	48.4
Natural resource conservation	30	46.9
Legal services	27	42.2
Computing	24	37.5
Other	5	7.8

Reasons for farming and for choosing farm location

Most respondents (53.3%) indicated a preference for a rural family lifestyle as one of the reasons for choosing to farm. Other commonly indicated reasons for farming also included intentions to earn money (38.7%), intention to own a business (38.7%), and farming being a family tradition (34.7%). Four respondents (5.3%) indicated that they chose to farm for pleasure (Table 11).

Table 11. Survey Respondents’ Reasons for Farming

Reason	Frequency	Percentage Yes
Want a rural lifestyle for my family	40	53.3
As a way to earn money	29	38.7
To own a business	29	38.7
Farming is a family tradition	26	34.7
Land inexpensive compared to other places	6	8.0
Other (e.g., for pleasure)	4	5.3

As far as reasons for choosing specific farm locations, 32.9% of the respondents indicated land being inexpensive as the major reason. A sense of neighborhood and community also seems to be of concern. Among their various considerations, 27.4% of farmers selected the farm location based on its community and 30.1% of farmers selected the location because their family members lived in the area. Quality of land was also an important consideration. Thirty-two percent (31.9%) of the respondents had taken this factor into consideration when selecting farm location (Table 12).

Table 12. Survey Respondents' Reasons for Choosing Farm Location

Reason	Frequency	Percentage Yes
Land inexpensive compared to other places	24	32.9
Quality of land is good for my farm type	23	31.9
A family member lived in the area	22	30.1
Like the community near my farm	20	27.4
Could buy smaller parcels of land	11	15.1
Knew a farmer in the area	10	13.7
Someone helped me locate here	4	5.5

Goals and future expectations

In the survey we asked the respondents to identify their goals for farming from a list of goals that were provided to them. Respondents were allowed to pick more than one goal. Seventy-four farmers responded to this question. The most commonly indicated goal was “increasing revenue” (54.1%). This was followed by “investing in new equipment” (32.4%) and “expanding farm acreage” (29.7%) (Table 13).

Table 13. Survey Respondents' Goals for Farming

Goals	Frequency	Percentage Yes
Increasing revenue	40	54.1
Investing in new equipment	24	32.4
Expanding farm acreage	22	29.7
Maintain as it is	20	27.0
Investing in expanded facilities	19	26.0
Planning retirement	18	24.3
Growth into new markets	17	23.0
New activities	10	13.5
New products	10	13.5
Purchasing my own farm	7	9.5
Other	6	8.1

As far as future expectations are concerned, 94.5% of the respondents expect to be farming five years from now. Eighty percent (80%) of the respondents expect to be farming ten years from now. There is a significant association between farm type and intention to continue farming ten years from now ($p < 0.05$). There is a significant difference between the proportions of berry farmers who expect to continue farming and those who do not expect to continue farming ten years from now, with the highest proportion (94.3%) indicating they will be farming. For livestock and other farmers, only about 50% of the farmers in each group reported that they expect to continue farming ten years from now.

There is no statistically significant association between farm type and the expectation that at least one child will take over the farm. Forty-four percent (44.0%) of the respondents do not expect their children to become farmers. Forty-seven percent (46.7%) of the respondents expect at least one child will become a farmer by taking over their farm. Four percent expect at least one child to become a farmer by establishing a new farm. Compared to other farm types, a higher

percentage of berry farmers (62.2%) indicated that they expect at least one child to take over the farm. Only 36.9% of livestock farmers and 42.1% of other farmers indicated the same.

In the survey we also asked the respondents to assess their likelihood of achieving farming goals over the next five years. Most respondents seem optimistic about achieving their farming goals. Fifty-five percent (54.8%) indicated that they are very likely or extremely likely to achieve their goals over the next five years. Only 6.8% of the farmers indicated that they are unlikely to achieve their goals. A statistically significant association was not observed between farm type and farmers' beliefs of their ability to achieve goals over the next five years. Sixty-three percent (62.9%) of berry farmers, 50% of livestock farmers and 50% of other farmers indicated that they are very or extremely likely to achieve their goals. No berry farmers indicated that they are unlikely to achieve their goals. Eleven percent (11%) livestock and 11% other farmers indicated that they are unlikely to achieve their farming goals. Table 14 below provides a comparison of selected demographic and farm characteristic among berry, livestock, and other farmers.

Effects of Duration of Stay in the US

Out of 75 farmers who responded to a survey question about their durations of stay in the US, 25 (33.3%) farmers were first-generation immigrants, along with 22 (29.3%) second generation immigrants, and 17 (21.5%) third generation immigrants. Ten respondents reported that their families have been in the US for more than three generations.

The length of time respondents have been in the US is significantly associated with their farm type (Chi square 32.96; $p < .001$). Eighty-four percent (84%) of the first generation immigrants are berry farmers. Among first-generation farmers, only four (16%) respondents indicated producing livestock or other crops. Most second generation farmers among the respondents (52.4%) were livestock farmers. Seventy-six percent (19 out of 25) of the first generation immigrants reported that farming is their primary occupation. Contrary to this, among second, third and fourth-generation immigrants, less than 50% of the respondents in each category reported farming as their primary occupation.

A significant association was observed between the length of time respondents have been in the US and their expectations for at least one child to become a farmer (Chi square 23.34; $p < .05$). Eighty percent (80%) of first-generation immigrants indicated that they would like at least one of their children to take over their farm. However, this trend is reversed for the second, third, and fourth-generations immigrants. A higher percentage of these respondents indicated that they do not expect their children to become farmers (52.4% second generation farmers, 41.2% third generation farmers, and 77.8% fourth-generation farmers). Results indicate that the longer Latino farmers have been in the US, the less likely they are to engage in farming as a primary occupation and to expect their children to engage in the same occupation.

As far as farming decisions and practices are concerned, significant associations were not observed between the length of time Latino farmers have been in the US and having business plans, engaging in direct sales, engaging in co-op farming, conducting CSA operations, engaging in soil and water conservation, using IPM practices, and having an approved GAP plan. Significant associations were observed between the length of time Latino farmers have been in the US and whether they maintain pest management records (Chi square 11.29; $p < .05$) and manure/nutrient management records (Chi square 14.88; $p < .05$). These two findings may be compounded by the larger percentage of berry farmers among first-generation immigrants who

also reported a higher likelihood of maintaining pest management and manure/nutrient management records.

As far as information access was concerned, significant associations were not observed between the length of time Latino farmers have been in the US and their usage of computers or the Internet to gather farming information. Most first-generation Latino farmers (92%, 23 of 25) among the respondents reported conducting their farm operations as a single-family or individual operation. A similar pattern was also observed for second, third, and fourth-generation respondents, among whom a higher percentage of operations were single-family or individual farming operations as opposed to multi-family operations, family partnerships, or other ownership types.

As seen in Table 14, some differences were observed between respondents who were first generation immigrants and those who were second, third, or fourth-generation immigrants in their reasons for farming. A higher percentage of second and consecutive other generation immigrants indicated engaging in farming as a way of earning money (44%) whereas only 28% of the first-generation immigrants indicated farming as a way of earning money. A higher percentage of first-generation immigrants farm because they consider farming as a family tradition (40%).

Table 14. Survey Respondents’ Reasons for Farming by Length of Time in the US

Reason for farming	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Want a rural lifestyle for my family	14	56.0	26	52.0
As a way to earn money	7	28.0	22	44.0
To own a business	9	36.0	20	40.0
Farming is a family tradition	10	40.0	16	32.0
Land inexpensive compared to other places	2	8.0	4	8.0

All first-generation immigrants (100%) indicated that someone helped them locate their current farm, whereas only 8.3% of second and other generation farmers indicated receiving help in locating their farms. This finding is not surprising when one considers the significantly short lengths of time first-generation farmers have been farming and living in the US. Their initial successes are heavily dependent on established support networks that include other farmers and kin (Table 15).

Table 15. Survey Respondents' Reasons for Choosing Farm Location by Length of Time in the U.S.

Reason for choosing location	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Land inexpensive compared to other places	9	36.0	15	31.2
Quality of land is good for my farm type	6	24.0	17	36.2
A family member lives in the area	7	28.0	15	31.2
Like the community near my farm	6	24.0	14	29.2
Could buy smaller parcels of land	4	16.0	7	14.6
Know a farmer in the area	4	16.0	6	12.5
Someone helped me locate here	25	100.0	4	8.3

As far as farming goals are concerned, a higher percentage of first generation farmers expressed a need for investing in new equipment (40%), expanding farm acreage (32%), investing in expanded facilities (33.3%), and purchasing one's own farm (16%), which are all goals reflective of the rather new and yet un-established farming status of first-generation immigrants. In contrast, respondents who were second, third, or fourth-generation immigrants indicated a preference to maintain their farms "as it is" (34.7%). These respondents also expressed planning retirement (30.6%) and growth into new markets (28.6%) as more important farming goals (Table 16).

Table 16. Survey Respondents' Farming Goals by Length of Time in the U.S.

Goals	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Increasing revenue	14	56.0	26	53.1
Investing in new equipment	10	40.0	14	28.6
Expanding farm acreage	8	32.0	14	28.6
Maintain as it is	3	12.0	17	34.7
Investing in expanded facilities	8	33.3	11	22.4
Planning retirement	3	12.0	15	30.6
Growth into new markets	3	12.0	14	28.6
New activities	2	8.0	8	16.3
New products	2	8.0	8	16.3
Purchasing my own farm	4	16.0	3	6.1

As a percentage, first-generation immigrants were also more likely to identify a range of challenges to farming. These included financial challenges (84%), access and cost of health care (52%), not knowing rules and regulations (44%), lack of knowledge on raising animals and producing crops (32%), and finding land to rent (28%). In comparison to only 6.5% of second and other generation immigrants who indicated lack of English language ability as a significant challenge. A high majority of first-generation Latino immigrant farmers indicated English ability as a significant challenge (56%) (Table 17).

Table 17. Survey Respondents' Challenges to Farming by Length of Time in the U.S.

Challenge	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Money to buy equipment	21	84.0	27	56.2
Money to buy land	18	72.0	26	55.3
Obtaining loans	13	52.0	26	54.2
Access and cost of health care	13	52.0	13	26.5
Not knowing rules	11	44.0	14	30.4
Not knowing where to sell	9	36.0	16	34.0
Finding land to buy	9	36.0	14	30.4
Know-how on raising crops/animals	8	32.0	9	19.6
Lack of English language ability	14	56.0	3	6.5
Finding land to rent	7	28.0	6	13.0

Some similarities and differences were also observed between sales locations of first-generation immigrants and other farmers. Both groups indicated using packers as their preferred avenue for sales. Thirty-three percent (33.3%) of first-generation farmers use farmers' markets for sales compared to 23.4% of other immigrants. Customer pick-up and co-op are more commonly used by second, third, and fourth-generation farmers than first-generation farmers (Table 18).

Table 18. Survey Respondents' Sales Locations by Length of Time in the U.S.

Sales Location	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Packers	10	40.0	15	31.9
Farmer's market	8	33.3	11	23.4
Wholesale	5	20.0	10	21.3
Customers pick	2	8.0	8	17.0
Co-op	2	8.0	7	14.9
Farm stand	0	0.0	7	14.9
Produce auction	3	12.0	4	8.5
Grocery stores	1	4.0	4	8.5
Internet	1	4.0	3	6.4
CSA	1	4.0	1	2.1
Restaurants	0	0.0	0	0.0

As far as information needs are concerned, more first-generation farmers indicated a need for information on production methods (83.3%), environmental conservation (83.3%), alternative crops (69.6%), business planning (79.2%), and financial record keeping (62.5%). Second generation and other immigrants expressed a higher percentage need for information on organic farming (47.8%) and livestock (31%) (Table 19).

Table 19. Survey Respondents' Information Needs by Length of Time in the U.S.

Information need	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Production methods	20	83.3	28	66.7
Environmental conservation	20	83.3	27	60.0
Marketing	15	62.5	30	65.2
Alternative crops	16	69.6	24	57.1
Business planning	19	79.2	24	52.2
Financial record keeping	15	62.5	24	52.2
Organic farming	10	41.7	22	47.8
Livestock	5	21.7	13	31.0

A higher percentage of first-generation immigrants among the respondents indicated training needs in loans counseling (70.8%), land management (58.3%), FSA (54.2%), legal services (45.8%), and computing (45.8%). In contrast, a higher percentage of second-and-above generation immigrants indicated training needs in agriculture marketing (62.5%) and natural resource conservation (47.5%) (Table 20).

Table 20. Survey Respondents' Training Interests by Length of Time in the U.S.

Training Interests	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Ag marketing	12	50.0	25	62.5
Land management	14	58.3	21	52.5
Loans counseling	17	70.8	15	37.5
FSA	13	54.2	18	45.0
Natural resource conservation	11	45.8	19	47.5
Legal services	11	45.8	16	40.0
Computing	11	45.8	13	32.5

Most first-generation Latino farmers (70.8%) use “other farmers” as their primary source of information. This trend is also common to second and other generation Latino farmers. MSU Extension is the second most frequently used information source for all generations of respondents. More established farmers such as second, third, and fourth-generation farmers are more likely to use other information sources such as supply dealers (47.6%), FSA (35.7%), County and Land Conservation Department (30%), MIDATCP (28.6%), Growers’ associations (31%), bankers (25%), groundwater technicians (23.8%) and organic certifiers (2.6%) (Table 21).

Table 21. Survey Respondents' Information Sources by Length of Time in the U.S.

Information Source	First-Generation Immigrants		Second-Generation and Above	
	Frequency	Percentage Yes	Frequency	Percentage Yes
Other farmers	17	70.8	35	79.5
MSU	13	52.0	23	53.5
Supply dealers	4	18.2	20	47.6
FSA	4	17.4	15	35.7
County land conservation dept.	6	26.1	12	30.0
MIDATCP	5	21.7	12	28.6
NCRS	7	29.2	10	24.4
Growers' association	3	13.0	13	31.0
Bankers	3	13.0	10	25.0
Groundwater technician	1	4.3	10	23.8
Organic certifier	0	0.0	1	2.6

Summary and Conclusions

Michigan Latino farmers are a diverse group of individuals characterized by their farming practices and processes of agricultural decisions-making. We identified three clusters of farmers based on the type of farm operation. These include berry, livestock, and other farmers. Some interesting findings emerged when these three clusters of farmers were compared. Among the three clusters, berry farmers have the highest average sales value. Berry farmers also tend to engage in more agricultural planning and practices such as maintaining pest and nutrient management records, IPM plans, and GAP plans. Most berry farmers use farming as their primary occupation (68%) as opposed to livestock and other farmers in which less than 50% of the respondents use farming as the primary occupation. Based on the survey results, the main challenges faced by Michigan Latino farmers include lack of financial resources to buy land and equipment and difficulties encountered when applying for bank loans. A higher proportion of livestock farmers also indicated their lack of English language skills as a hindrance.

Most Michigan Latino farmers use other farmers as their main sources of agricultural information. This finding is different from those of previous studies that have looked at information sources of US farmers. Prior studies have identified farm magazines, university specialists, supply dealers, and Farm Service Agencies as preferred and most frequently used information sources (e.g., Tucker & Napier, 2002; Patrick et al., 1993). Among the survey respondents, a higher percentage have reported owning a computer and having access to the internet. However, only a small number of farmers indicate that they use the Internet as an information source. Livestock farmers tend to use the Internet as a source of information more frequently than berry and other farmers. Regarding farmers' training requirements, farmers in all three clusters requested training in agricultural marketing. Several berry, livestock, and other farmers also expressed interest in loans counseling, land conservation, and natural resource conservation respectively.

As mentioned above, most farmers indicated that they would read a booklet of agricultural information and would participate in training sessions. However, a higher percentage of berry farmers expressed preference to read the booklet in Spanish as well as participate in training programs offered in Spanish as opposed to the livestock and other farmers who

expressed a preference for English language as the medium of communication. This finding is not surprising when one considers the duration different clusters of farmers have been living in the US. A higher proportion of berry farmers (59.3%) are first-generation immigrants in comparison to livestock farmers who are mostly second generation immigrants (52.4%) and other farmers who are mostly third generation immigrants (52.9%). Hence, berry farmers' preference for Spanish language training and reading materials may indicate their relatively new immigrant status. Although a high percentage of berry farmers (61.8%) indicated a preference for Spanish over English for training and reading materials, only 45.7% of berry farmers indicated "lack of English ability" as a challenge. This may be indicative of the fact that although berry farmers in Michigan do not use English on a regular basis, they do not consider this as a barrier because their information and communication needs are fulfilled through other farmers who speak Spanish.

Berry farmers seem to hold more optimistic views about their ability to achieve farming goals within the next five years (See Table 22). A higher percentage of berry farmers indicated that they expect to be farming ten years from now. This optimistic point of view is also reaffirmed by the fact that a higher percentage of berry farmers indicated an expectation for at least one child to continue farming whereas in livestock and other categories fewer number of respondents indicated such a preference. We can speculate that berry farmers' optimism towards farming is a reflection of their higher farm viability as seen by the revenue generated.

With regard to the delivery of MSU Extension services to the Michigan Latino farmers, the greatest impacts identified in this study have been achieved among berry farmers. This cluster of farmers seems to use better agricultural planning and practices and is generating higher revenues than their counterparts in other types of farms. They also exhibit a higher sense of optimism and a willingness to continue farming in the future. There is a need for strengthening extension services to livestock and other farm clusters as well as reducing the ad-hoc nature of delivery of services by university specialists and government agencies. While strengthening the services to support Michigan Latino farmers who predominantly produce berries, more concerted efforts need to be implemented to support livestock and other farmers.

This research demonstrates that a one-size-fits-all approach may not be the best option for addressing the needs of different clusters of farmers in Michigan. Understanding differences among and within clusters, their unique challenges, circumstances, needs, and requirements can assist in developing programs and services that are more effective and targeted towards specific groups. Extension educators can assist Michigan Latino farmers by developing information booklets and education programs on agricultural marketing options, business planning, procuring loans, obtaining legal services, and understanding government regulations. These programs should be offered in Spanish and in English (with Spanish translations). Information on alternative crops may also be useful for farmers as a high percentage of farmers indicated a preference for this information.

Latino farmers in Michigan seem to place a high value on their community and a preference for a rural lifestyle. As discussed above, approximately 30% of respondents indicated that they chose the farm location based on their preference for the community in the area or because a family member lives in the area. A considerably high proportion (53%) also indicated that they chose to farm because of their preference for a rural lifestyle for their families.

Table 22. Comparisons between Farm Type and Selected Farm Characteristics

Farm characteristic	Berry farmers	Livestock farmers	Other farmers
Number of respondents	37 (49.3%)	19 (25.3%)	19 (25.3%)
Average sales value	\$253,947	\$31,182	\$131,837
Average farm size	74.12	62.43	132.65
% respondents maintaining pest records	86.1%	26.3%	42.1%
% respondents maintaining nutrient records	86.1%	36.8%	36.8%
% respondents with an approved GAP plan	72.2%	31.3%	31.6%
% respondents with IPM plans	74.3%	11.8%	47.4%
Commonly used sales locations	Packers, Farmers' market	Packers, Farmers market, Direct sales	Farmers' market, Wholesale
% Farming as a primary occupation	67.6%	47.4%	36.8%
% Single or individual operations	91.9%	89.5%	89.5%
Main challenges faced	Lack of money to buy land/equipment, getting a bank loan	Lack of English	Lack of money to buy land/equipment, getting a bank loan
% Using multiple market channels	29.4%	42%	42%
% with product labels	40.7%	50.0%	55.6%
% Intending to farm 10 yrs from now	94.3%	68.4%	68.4%
% indicating they are likely to achieve farming goals within next 5 years	62.9%	50%	50%
% expecting at least 1 child to continue farming	62.2%	36.9%	42.1%
Commonly used information sources	Other farmers, MSU, County Land Con. Dep.	Other farmers, MSU, Supply dealers	Other farmers, MSU, FSA
% owning a computer	83.3%	72.2%	94.7%
% Using internet info.	48.6%	61.1%	50.0%
% having access to internet	71.4%	72.2%	89.5%
% indicating they would read a booklet of agriculture information	100% English- 38.2% Spanish- 61.8%	100% English- 94.1% Spanish- 5.9%	88.8% English- 88.9% Spanish- 0.0%
% indicating they would participate in a training	97.1%	72.2%	66.7%
Most frequently requested training types	Loans counseling, ag marketing	Land management, ag marketing	Natural resource conservation, ag marketing

A key finding of this research is that an information network exists among Latino farmers as represented in the finding that respondents tend to consult other farmers (76.5%) most frequently to acquire agricultural information. In addition to traditional programs, approaches that utilize this existing network to deliver needed information may prove effective in meeting the needs of Michigan Latino farmers.

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