INCREASING ORGANIC AGRICULTURE IN ONTARIO USING LOCAL FOOD DISTRIBUTION SYSTEMS

Honours Thesis
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Abstract

Various studies have found that organic agricultural methods produce healthier soils with a higher content of organic matter, cause less soil erosion and create less environmental pollution from chemical fertilizers and pesticides. Farms that use organic production methods may also have a greater biodiversity of birds, predatory insects, soil organisms and plants, and emit less greenhouse gases due to lower fossil energy inputs compared to conventional agricultural methods. Studies have also found that purchasing local food reduces the greenhouse gas emissions associated with food transportation, and benefits rural communities and economies. This study seeks to promote organic production methods and local food systems in order to take advantage of the environmental and social benefits of both in order to decrease the negative environmental impact of our food production and distribution systems. The purpose of this study is to determine whether supporting the development of certain types of local food distribution systems can increase the amount of organic agricultural production in Ontario. The main objective of this study is to develop policy recommendations that may be effective in increasing the availability of local, organic food in Ontario and in supporting the development of the local food distribution systems that are used most by organic producers. A high percentage of organic farms use a Community Supported Agriculture (CSA) sales method and 75 percent of CSA farms in Ontario use organic production methods. CSA farms are mainly concentrated in five areas across Ontario. These five areas each have an established customer base, existing infrastructure, and individuals who have knowledge of alternative sales methods and distribution systems. These areas also have a strong network of communication between local producers and the communities that exist in these areas are educated about local food. All of these factors increase the success of a potential local food distribution system. For these reasons, the five areas identified in this study are prime locations for developing local food distribution systems.
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Definitions and Abbreviations

“product” – refers to meat and eggs

“organic producer” – a person who grows crops and/or produces products using organic methods regardless of whether or not they are certified

“producer” – a person who grows and/or produces organic crops and/or products

“buyer” – Any operation, not including individual consumers, that purchases food including restaurants, food stores, food distributors, and processors

“Community Supported Agriculture” – abbreviated to CSA; a sales method where crops and/or products are sold directly from a farm to many customer, referred to as members, who pay a set price at the beginning of each growing season in order to receive a delivery of crops and/or products throughout the growing season

“local food distribution system” – a system of local agricultural producers and distributors who distribute food locally either directly to consumers or to other buyers

“horticulture” – the science and art of growing fruits, vegetables, and flowers, or ornamental plants

“agriculture” – the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products

“local organic delivery business” – an independent business that purchases organic food mainly from local suppliers and delivers it directly to customers
Introduction

Purpose and Objectives

The purpose of this research is to determine whether supporting the development of certain types of local food distribution systems can increase the amount of organic agricultural production in Ontario. This research will determine whether organic producers use certain local distribution systems to sell their crops/products more than non-organic producers and, if so, which distribution methods are most used by organic producers. By answering this question, this research will determine whether supporting the development and growth of a particular local distribution method, or methods, would greatly increase the amount of local, organic crops/products that are produced in Ontario. The research will also identify challenges that may be preventing the organic sector from growing in Ontario. The overall goal of this research is to develop policy recommendations that may promote the growth of the local, organic sector in Ontario. The terms distribution method and distribution system are used in this report to refer to the methods that organic and non-organic producers use to sell and distribute their crops and products. The word distribution is used to refer to the selling of crops and products in addition to its usual meaning (i.e. the act of dividing and delivering something) because crops and products are often sold to distributors who then sell them to food stores, food processors, etcetera. The terms distribution method and sales method are therefore used interchangeably in this report.

The main objective of this research is to develop policy recommendations that may be effective
in increasing the availability of local, organic food in Ontario. In order to develop such policy recommendations this study will identify:

1. the sales methods that are used by organic and non-organic producers in order to identify the relationship between organic agriculture and local food distribution;

2. the demographics of organic farmers in Ontario in order to develop policies specifically for this group;

3. the challenges that organic producers have when producing and selling their crops; and

4. the challenges that buyers have when sourcing local food.
**Background Research**

**Literature Review**

Much research has been done on the environmental benefits of organic agricultural methods. Various studies have found that organic agricultural methods produce healthier soils with a higher content of organic matter (Mondelaers, Aertsens, & Van Huylenbroeck, 2009), cause less soil erosion, and create less environmental pollution from chemical fertilizers and pesticides (Li, Yang, Zhang, Yin, Zhao, & Liu, 2013). Farms that use organic production methods also have a greater biodiversity of birds, predatory insects, soil organisms and plants (Bengtsson, Ahnstrom, & Weibull, 2005), and emit less greenhouse gases due to lower fossil energy inputs compared to conventional farms (Pimentel, Hepperly, Hanson, Douds, & Seidel, 2005). Studies have also identified the environmental impacts of local food. Local food generally requires less packaging and produces less greenhouse gas emissions because it has been transported a much shorter distance (Banu & Sasikala, 2013).

The economic aspects of both organic agriculture and local food have also been studied in previous literature. In a market analysis report by Agriculture and Agri-Food Canada, the International Markets Bureau analyzed the market trends for organic food in Canada and internationally. This report found that the organic sector is steadily growing and that 80 percent of all organic food and beverage products sold in Canada are imported (International Markets Bureau, 2010). In 2009, five produce items comprised 78 percent of Canada's total certified organic imports (International Markets Bureau, 2010). The total amount spent on these five items was just under 100 million Canadian dollars (International Markets Bureau, 2010). Purchasing local food has been found to benefits local rural communities as well as rural economies (Banu & Sasikala, 2013). Studies have shown that when local food is purchased locally, economies benefit because of the multiplier effect. The multiplier is the amount of local economic activity that is triggered by the purchase of one item. When more items and services are
purchased locally, more jobs and wealth are created locally. Previous literature has studied the multiplier effect as it relates to local food (Jennings, 2012). According to Dr. Kevin Stolerick of the University of Toronto, if every household in Ontario spent ten dollars each week on local food, approximately 2.4 billion dollars would be inputted into the local economy in one year (The Ontario Table). According to the multiplier effect, that money would then create additional jobs and wealth within the local economy.

Recently, a body of literature has emerged to study the need for local food distribution systems in Ontario. In 2005, Dr. John Smithers studied two local food networks in Ontario to determine the characteristics of local food systems and the barriers that may prevent farms from participating in local food systems (Smithers, 2005). Smithers found that the main challenges facing local producers was a lack of resources such as time, affordable labour, marketing skills, and infrastructure for processing and distribution (Smithers, 2005). In 2008, the Canadian Co-operative Association produced a report that outlines a large number of local food initiatives and alternative sales methods (Canadian Co-operative Association, 2008). This report lists several benefits of local food initiatives and suggests broad actions that the federal government could take to promote local food initiatives. In 2009 the George Morris Centre, Canada’s independent agri-food think tank, produced a report that studied the feasibility of establishing a local food distribution initiative in the Niagara Region and the City of Hamilton (Gooch, Marenick, Felfel, & Vieira, 2009). This study found that any initiative to create a local food distribution system “must be strategically linked to an existing system” so that the new initiative can benefit from access to an existing customer base, existing infrastructure, and individuals who have knowledge regarding alternative sales methods and distribution systems (Gooch, Marenick, Felfel, & Vieira, 2009). In September 2012 the Greenbelt Fund funded a regional food hub pilot project that is developing an implementation plan to create a local food hub in the Greater Toronto Area. The purpose of the local
food hub is to meet the demand for local food in the area (The Greenbelt Foundation, 2012). This project is currently ongoing.

**Provincial Organic Statistics**

Figure 1 shows the percentage of the total number of farms in each province that used organic production methods (i.e. organic farms/total farms) in 2006\(^1\). The provinces with the highest percentage of organic agriculture are British Columbia, Nova Scotia, and Newfoundland. The provinces with the lowest percentage of organic agriculture are Saskatchewan, Prince Edward Island, and Manitoba.

![Organic Agriculture Trends in Canada's Provinces](image)

**Figure 1 - Organic Agriculture Trends in Canada's Provinces.**

This graph shows the percentage of the total number of farms in each province that used organic production methods, regardless of certification status, in 2006 (Canada, "Number of farms reporting organic products regardless of the certification status, 2006").

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\(^1\) Statistics regarding organic agriculture are based on 2006 census data because the 2011 census data did not collect the same types of data from organic farms. The primary researcher was therefore unable to compare the 2011 organic farm data with the 2006 data.
**Organic Farm Sizes**

Organic farms are generally much smaller than non-organic farms. Provinces with a high percentage of farms that use organic production methods also have a higher percentage of small- and medium- scale farms, compared to provinces where a low percentage of the total farms use organic production methods. Figure 2 compares the sizes of the farms in the three provinces with the highest percentage of organic farms and the three provinces with the lowest percentage of organic farms. Figure two also provides the sizes of farms in Ontario in order to compare Ontario to these other provinces.

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**Figure 2 - Farm sizes in 2006 for select Canadian provinces**

This graph shows the percentages of the total number of farms in British Columbia, Nova Scotia, Newfoundland, Ontario, Prince Edward Island, Manitoba, and Saskatchewan that fit into various farm size categories (Canada, Number of farms classified by total far area and classified by area in crops (excluding Christmas tree area) and summerfallow, 2006).
Age Trends

The following series of graphs show the age trends that are occurring in Ontario and other provinces of Canada that have various percentages of organic farms. The overwhelming trend is that the average age of farmers across Canada has increased steadily since 2001.

![Average Age of Farm Operators in Each Province](image)

Figure 3 - The average age for farm operators in each province in 2001 and 2006

The above graph is based on information from Statistics Canada (Canada, Characteristics of farm operators, 2001) (Canada, Selected farm operator variables, 2006).

Conversion Pressures

Three key factors that influence the loss and fragmentation of agricultural land are: shifting farmer demographics (i.e. the increasing age of the average farmer), population growth, and municipal policies and decision making (Secretariat, 2002). These three factors are related. As shown in Figures 2 and 3 the average age of farmers in Ontario, and other Canadian provinces,
has been increasing since 2001. As the average age of a Canadian farmer continues to rise, farmers will steadily retire. Aging farmers are not being replaced by younger farmers at a fast enough rate. As farmers retire, unprotected agricultural lands become extremely vulnerable to being sold for non-agricultural purposes and converted for other uses such as housing developments. Farmland in southern Ontario is especially vulnerable due to population growth.

**Policy Tools**

_Agricultural Protection Zones_

Agricultural protection zones are a land planning tool. These zones are used to protect prime agricultural land by prohibiting non-agricultural land uses (Dunn, 2013). British Columbia, Newfoundland, and Quebec are the only three provinces in Canada that have passed legislation to make the creation of agricultural protection zones mandatory (Secretariat, 2002). Provinces often create commissions to designate and set standards for agricultural protection zones.

Agricultural protection zone regulations often prohibit the subdivision of a property that is within the protected zone in order to prevent farm owners from subdividing land with the intent to sell the smaller land parcels for development (Dunn, 2013).

**Case Studies**

_Oregon_

The state of Oregon, in the United States of America has also created legislation making it mandatory for the state to create agricultural protection zones. Oregon’s regulations that govern their agricultural protection zones do not allow agricultural land to be divided into parcels of land that are too small for commercial agriculture (Oregon Department of Land
Conservation and Development). This policy has been beneficial for large farms but has not been beneficial for small-scale farms (Dunn, 2013).

**British Columbia, Nova Scotia, and Newfoundland**

Because British Columbia, Nova Scotia, and Newfoundland are the three provinces with the highest percentage of total farms that use organic production methods, these three provinces may provide a model for the characteristics that are necessary in order to have a strong organic agriculture sector. Two of these characteristics include: mandatory protection for prime agricultural zones, and a high percent of farms that are below 69 acres in size (see Figure 2).

British Columbia and Nova Scotia also have a very high number of post-secondary programs in horticulture/agriculture and agriculture related activities. This study finds that having a significant number of post-secondary education programs available for potential farmers may be necessary in order to create a strong organic agriculture sector. British Columbia currently has 21 post-secondary programs in agriculture and agriculture related activities including horticulture and sustainable agriculture. Nova Scotia currently has 7 post-secondary programs in agriculture and agriculture related activities despite being a much smaller province with fewer post-secondary institutions compared to Ontario. Post-secondary institutions in British Columbia and Nova Scotia also offer programs related to farm management, and food distribution and sales. British Columbia has a program in food market

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2 This information was gathered by completing an online inventory of the programs offered at each of the colleges and universities in British Columbia.

3 This information was gathered by completing an online inventory of the programs offered at each of the colleges and universities in Nova Scotia.
analysis while Nova Scotia has programs in agricultural economics, agricultural business, and international food business.

**Ontario**

**Education**

Ontario has a significant lack of educational programs at the post-secondary level in horticulture/agriculture and agriculture related activities. In March of 2014, Guelph University, Ontario’s only university that runs an agricultural college, announced the closure of two satellite campuses that belong to their agricultural college (Porter, 2014). As of 2015, Ontario will have only 3 post-secondary programs in horticulture/agriculture and agriculture related activities.

**Land Planning Gaps**

In Southern Ontario, 1.8 million acres of land is protected by the Greenbelt Act (The Greenbelt Foundation). The Greenbelt Act is a piece of legislation that includes the Niagara Escarpment Act and the Oak Ridges Moraine Act (Desir, 2012). Each of these pieces of legislation provide permanent protection of agricultural land by specifying where urban development is and is not permitted in the areas that are encompassed by each Act. Each of these acts are mandatory pieces of legislation. Therefore, municipalities that exist within the 1.8 million acres that are encompassed by these three Acts must follow all of the regulations in the acts.

However, according to a report by the Canadian Environmental Law Association, a significant amount of agricultural land near urban centres across Canada is currently owned by

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4 This information was gathered by completing an online inventory of the programs offered at each of the colleges and universities in Ontario.
developers, awaiting development (Dunn, 2013). Although Ontario’s greenbelt provides protection for some agricultural land, a large portion of Ontario’s farmland is not protected (Metcalf Foundation, 2008). Productive agricultural lands in Ontario have therefore continued to be converted to non-agricultural uses such as residential development (Dunn, 2013).

**Methodology**

**Background Research**

The background research was done in three stages.

1. Compile data that describes the past and current state of the organic sector in Ontario and across Canada.

2. Identify and describe policy tools that have been created to support local farming and identify and describe case studies where these tools have been used.

3. Identify which of these policy tools are being used in Ontario and which can potentially be used to support local farming in Ontario.

The policy tools identified in the second stage will also be analyzed to determine whether they support or prevent local farms from using organic farming methods.

**Primary Research**

**Surveys**

The primary data in this study was collected using surveys and interviews. To fulfil objectives one to three, both organic and non-organic producers were surveyed (See Appendix 1 and 2). The list of organic producers was made up of farmers from across Ontario. This list was
compiled using information from The Organic Council of Ontario and GoodWorks.ca as well as information found during an extensive internet search. This list represented approximately five percent of the total number of organic farms in Ontario\(^5\). The list of non-organic producers was made up of farmers specifically from the Regional Municipality of Durham (the Durham Region) which was chosen as a study site. This study area was chosen because the primary researcher is very familiar with the area and therefore expected a higher response rate. This study area was also appropriate because it covers a large geographic area, is representative of southern Ontario and has a significant agricultural industry. The Durham Region is representative of southern Ontario because it contains a mixture of urban and rural settlements and is affected by the pressure to expand its residential and urban areas, which is a pressure that exists throughout southern Ontario. The list of non-organic farms represented approximately five percent of the non-organic farms in the Durham Region.

Both surveys were created using FluidSurveys.com. Potential survey participants were contacted via email and/or telephone. Participants either completed the survey directly using the online link to FluidSurveys.com or their survey was completed by the primary researcher during a semi-structured phone interview. The questions asked during these phone interviews were the same questions asked on the online survey however, these interviews allowed the primary researcher to ask additional questions in order to explore the participants’ answers in more detail. These interviews also allowed the participant to offer feedback about the survey questions and to provide additional information.

\(^5\) This refers to the total number of organic farms in Ontario in 2006. The 2006 data was used for reasons explained in the Background Research section.
Mapping

The survey data found that organic producers were much more likely than non-organic producers to sell their crops and/or products through a CSA program or farmers’ markets. In order to verify the connection between organic farms and the use of farmers’ markets and/or a CSA program, a list of farmers’ markets and a list of CSA programs in Ontario were compiled and the addresses of the farmers’ markets and CSA programs were mapped. A list of farmers’ markets in Ontario was compiled using information from the Farmers’ Markets Ontario website (Farmers' Markets Ontario). A list of CSA programs across Ontario was compiled using information from the Ontario CSA Farm Directory website (Ontario CSA Farm Directory) and additional information that was found during an extensive internet search for CSA programs in Ontario. Each map was analyzed to determine whether they showed clustering (i.e. whether organic farms, farmers’ markets or CSA farms are concentrated in certain areas of Ontario). The map of farmers’ markets and the map of CSA farms were then compared with the map of the organic farms to identify whether any clusters that existed in the map of organic farms were also present in the maps of the farmers’ markets and/or the CSA farms. This was done in order to verify the connection that was found between the presence of organic farms and the presence of farmers’ markets and CSA programs.

Additional CSA Verification

In addition to the mapping exercise described in the previous section, the connection between organic farms and the use of a CSA sales method was verified by determining the percentage of farms on the list of CSA farms in Ontario that use organic production methods. This percentage was determined by scanning each CSA farm’s website and information that was provided on
secondary websites such as the Ontario CSA Directory and GoodWork.ca. This additional verification was done to prove that non-organic farms across Ontario are less likely to use a CSA sales method and that this trend was not specific to the study area that was chosen for the non-organic surveys (i.e. the Durham Region).

**Interviews**

A sample of the managers and/or owners of CSA farms in each of the five clusters as well as the manager of independent food stores and restaurants, and local, organic delivery businesses were interviewed in order to fulfil objective four of the overall report. All interviews were completed using a semi-structured interview format. Using semi-structured interviews allowed the primary researcher to ask additional questions in order to explore the participants' answers in more detail. This style of interview also allowed the participant to provide additional information. See Appendix three, four and five for the questions that were asked during each interview.
Results and Discussion

Distribution/Sales Methods

The surveys showed that both organic and non-organic producers sell their crops and/or products using on-farm markets, local restaurants, distributors, food co-ops, and food processors approximately equally. Non-organic producers sold their crops and/or products to supermarket chains approximately three times as much as organic producers. Organic farms sold their crops over two times as much to independent food stores and were also more likely to use farmers’ markets. The most significant sales method reported by organic producers was the Community Supported Agriculture (CSA) method. Forty percent of organic farms reported using a CSA sales method whereas no non-organic farms reported using this method.

Figure 4 - Sales methods used by organic and non-organic farms

This graph is based on the survey responses of 47 organic farms and 19 non-organic farms.
**Age**

An approximately equal number of organic and non-organic farms reported that their farm owner(s) and/or manager(s) were between 50 to 59 years of age. Over two times as many non-organic farms reported that their farm owner(s) and/or manager(s) were between 60 to 69 years of age. Over three times as many organic farms reported having a farm owner(s) and/or manager(s) that were between 30 to 39 years of age and twice as many organic farms reported having a farm owner(s) and/or manager(s) that was between 20 to 29 years of age. Therefore, organic producers are, on average, a much younger group than non-organic producers. This is significant because it suggests that strategies that are designed to benefit young farmers will be most likely to promote organic farming.

![Age Trends for Farm Owners and Managers in Ontario Based on Survey Responses](image)

**Figure 5 - Ages reported for farm owners and managers**

This graph is based on the survey responses of 47 organic farms and 19 non-organic farms.
Education

An approximately equal number of organic and non-organic farms reported that their manager(s) and/or owner(s) have completed a college or university education as their highest level of education. However, over three times as many non-organic farms reported that their manager(s) and/or owner(s) have completed high school or equivalent as their highest level of education. No non-organic farms reported having a manager(s) and/or owner(s) who had attained a master’s degree, whereas approximately 13 percent of organic farms had a manager(s) and/or owner(s) who had completed a master’s degree as their highest level of education. Because the survey found that organic producers are much more likely than non-organic producers to be between 20 to 39 years of age, the fact that the vast majority of organic producers have at least a college or university level of education may simply reflect the fact that younger generations generally have higher levels of formal education. In 2011, 75.5 percent of Canadians under the age of 30 had completed a post-secondary education compared with only 30 percent in 1990 (Kolm, 2013). However, because organic producers are generally more educated, and because organic producers are generally members of younger generations that are also generally more educated, those wishing to pursue organic agriculture may be very likely to take advantage of educational opportunities if additional post-secondary programs in horticulture/agriculture and agriculture related activities were available. Such programs are discussed in the Conclusions and Recommendations section.
Figure 6 – Highest level of education attained by organic and non-organic farm managers and/or owners

This graph is based on the survey responses of 47 organic farms and 19 non-organic farms.
Mapping
Organic Farms

This map shows that clusters of organic farms exist in six main areas of Ontario: Kingston, Uxbridge, Hamilton, Niagara, the Counties of Grey and Bruce, and the area from Acton north to Orangeville.

Figure 7 - The distribution of organic farms across Ontario

The locations in this figure were compiled using information from The Organic Council of Ontario, GoodWorks.ca, and information found during an extensive internet search.
Farmers’ Markets

A list of farmers’ markets was compiled using information from the Farmers’ Markets Ontario website (Farmers' Markets Ontario). Because there are so many farmers’ markets across Ontario no definite geographic clusters were identified.

Figure 8 - The distribution of farmers’ markets across Ontario

The locations mapped in this figure were compiled using information from the Farmers’ Markets Ontario website (Farmers' Markets Ontario).
CSA Farms

This map showed that definite clusters of CSA farms exist around the following five areas: Kingston, Uxbridge, Hamilton, the Counties of Grey and Bruce, and the area from Acton north to Orangeville.

Figure 9 - The distribution of CSA farms across Ontario

The locations in this figure were compiled using information from the Ontario CSA Farm Directory website (Ontario CSA Farm Directory), GoodWork.ca, and additional information that was found during an extensive internet search for CSA programs in Ontario.

Additional CSA Verification

The additional CSA verification process found that 75 percent of CSA farms in Ontario use organic production methods and only 25 percent of CSA farms use non-organic production methods. Therefore, there is a strong connection between the use of organic production methods and the use of the CSA sales method. This trend is found all across Ontario and is therefore not specific to the study site that was used for the non-organic survey.
Non-Organic Survey

Rationale for Non-Organic Methods

When asked to explain why they do not use organic production methods, two responses from non-organic producers were very common. The most common response is that the farm manager(s) already uses best management practices (e.g. only using chemical fertilizers and pesticides when necessary, rotating crops, etc.). The second most common response is that organic methods are less cost effective than non-organic methods because non-organic methods generally provide the producer with a better quality yield of crops and therefore fewer crops are discarded due to their lack of quality. The third most common response is that some farms are too large to use organic methods without hiring many additional workers because organic methods are very human-labour intensive.

The previous data leads to the following five conclusions. Producers generally limit their usage of chemical fertilizers and pesticides and therefore may be open to proven methods that eliminate the use of chemical fertilizers and pesticides however, farmers must be educated on these methods. Strategies to promote organic farming must promote appropriate sales markets that cause the least amount of crops to be wasted and that allow organic farmers to sell their crops for a fair price. Strategies to promote organic farming must create educational opportunities for farmers to learn and to practice organic methods in order to train farmers that are able to grow crops organically while generating the least amount of waste. Strategies to promote organic farming should provide organic farms with a market for their lower quality crops to ensure that organic farmers receive the maximum possible profit from their crops.
Strategies to promote organic farming must allow the transition from large-scale farms to small-scale farms which are compatible with organic production methods.

**Organic Survey**

**Distribution/Sales Method Rationale**

The organic survey asked farmers to provide reasons for why they distribute/sell their product the way they do. The most common rationale, by far, for using a direct sales method (e.g. farmers’ market, CSA, etc.) is that selling directly to the customer provides the farmer with the greatest profit because there is no middle person, such as a distributor or food store, taking a portion of the profit. The next three most common responses were as follows. Selling directly to the customer creates a more secure customer base because customers can cultivate a loyal relationship with the producer. Direct delivery methods generally cause fewer crops to be wasted because individuals may be more lenient in terms of the look of the crops whereas food stores generally require crops to be a specific colour, shape, and size. Specifically with the CSA method, producers receive an upfront budget for the season because customers generally pay a lump sum at the beginning of the growing season in exchange for weekly or bi-weekly baskets of crops and/or products throughout the growing season. This provides the producer with the start-up costs that are required at the beginning of the season. Having additional start-up money is especially advantageous for producer in their first few years of production.

Producers who sell their products to distributors all stated that they do so because it is the easiest way to sell their crops and/or products. Only two of the 47 organic producers surveyed reported that they sell their crops and/or products to supermarket chains. Both of these
producers stated that they are able to sell their products in this way because they hire specialized companies to market their crops and/or products and to communicate with the supermarket chains that, according to various survey participants, are otherwise extremely difficult to communicate with. The rationales that were reported by organic producers who sell their crops and/or products to local food stores were more varied.

**Challenges**

The challenges that were reported by organic survey participants are listed in the Table 1.

Challenges number 1 to 4 can be associated with a lack of farmer knowledge of organic practices and farm-related activities such as farm management. Challenges number 5 to 13 can be associated with sales and distribution challenges. Challenge number 14 relates to consumer education. Challenges 15 and 16 relate to specific financial challenges and challenges 17 to 20 are miscellaneous challenges related to policy and the availability of local farming materials that are allowed under certified organic standards (i.e. seeds). According to this list, strategies to promote organic farming must address the current lack of producer knowledge of organic practices. Strategies to promote organic farming must also promote effective distribution systems that provide the organic producers with a fair price for their crops and/or products. Therefore strategies must take into consideration the distribution/sales methods that are used most by organic farmers (i.e. the CSA method and independent food stores).
<table>
<thead>
<tr>
<th>#</th>
<th>Challenge</th>
<th># of Repeat Responses</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Pest and weed control</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Learning curve/lack of knowledge (not many education options, difficult to find mentors, difficult to find staff that are already skilled)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Getting permission for certain inputs from organic certifiers and researching solutions that fit under the certification guidelines</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Records keeping</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Difficult to lower production costs to make wholesale selling financially viable and difficult to compete with large producers while remaining sustainable, i.e. without using mechanization (high labour costs)</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Not enough organic distributors for delivery purposes</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Difficult to meet the demand</td>
<td>3</td>
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<tr>
<td>8</td>
<td>Difficult to sell local meat because of federal and provincial inspect and because abattoirs are very far away (1 farmer said 3.5 hours away so 12 hours of driving per batch of chickens)</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Competing with imports while receiving a fair price</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Finding reliable and consistent markets for produce</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Large organic distributors currently control the organic market (i.e. distributors used for supermarket chains)</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Large grocery stores are onerous to sell to and do not provide flexibility</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Shelf space at grocery stores is expensive (specifically mentioned for organic milk sales)</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Difficult to explain/market non-certified organic</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Paying for certification</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>Start-up capital</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Sourcing materials locally that are allowable under organic standards (e.g. seeds)</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>Bill C-18</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>The quotas system (Specifically mentioned that, for chickens, farmers’ could sell more than they are allowed to produce)</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Difficult to farm next to a conventional farmer because they are not responsible for making sure that their GMO seeds or chemicals stay on their fields (Buffer zones)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 1 - Challenges that were reported by organic survey participants**

The information in this table is based on the survey responses of 47 organic farms and 19 non-organic farms.
CSA Cluster Interviews
Explaining the Clusters

Producers who use the CSA method (CSA producers) gave three main responses when asked why they farm in their current location. The vast majority of producers stated that they farm in their current location either because the land prices were cheap or because they took over their family farm or had other family ties in the area. Producers who did not give one of these three reasons stated that they do not have a particular reason for why they chose their current farm location. Based on this, this study concludes that it may be difficult to predict where organic farming clusters may be initially created. However, the CSA producers who were interviewed did provide three characteristics of their area that have been beneficial to the growth of organic farming in their area. These characteristics are: awareness of local food and community support for local food, strong communication between CSA farms, and a young, well educated population. The two geographic clusters that have the highest number of CSA farms are Kingston and Hamilton. The CSA producers who were interviewed in both of these locations reported that Kingston and Hamilton have all three of the characteristics that are stated above.

Across all of the CSA clusters, a total of 22 CSA farms were interviewed. These 22 farms represent approximately 22 percent of the CSA farms in Ontario. Of these 22 farms, 17 of them stated how long they have operated a CSA program. Of these 17 CSA farms, 76 percent have been operating for ten years or less. The remaining 24 percent have been operating a CSA for just over 20 years. Of the 17 farms that have been operating a CSA for ten years or less, 35 percent were farms that had been operating for a long time and have only started to
use a CSA program within the last ten years. These findings show that CSA programs are a relatively new distribution/sales method. According to survey respondents, the organic sector has also grown over the last few decades. Therefore, the growth of CSA farming has occurred at the same time as the growth of organic farming. For this and other reasons stated previously in this study, promoting the use of the CSA distribution/sales method may be mutually beneficial to organic producers. Therefore, strategies which promote the CSA distribution/sales methods may also indirectly promote the use of organic production methods.

**Potential for Duplication**

As stated above, it is difficult to predict where new CSA clusters may initially begin. However, CSA clusters tend to exist in areas where farmers are education about the CSA method, and where young and/or educated people are aware of the local food opportunities in their area and where these people actively support local food in general. The interview responses also identified that CSA clusters tend to grow in areas where there is a strong communication network between the CSA farms in the area. This information leads to the following three conclusions. CSA farms are more likely to be created if new farmers are educated about the CSA method. CSA farms are more likely to be created if new farmers are introduced to established farmers who use a CSA method therefore creating a strong communication network among CSA producers. CSA farms are most likely to be successful if consumers are educated about the CSA method in addition to being educated on the benefits of local food.

**CSA and Local Organic Challenges**

Three of the CSA producers that were contacted during the CSA interviews provided additional information regarding the challenges that make it difficult to manage a CSA program and to
produce local, organic food in general. These challenges revolved around education and infrastructure.

All three of these CSA producers stressed the importance of education. They stated that in order to promote the use of organic production methods, farmers must be given the opportunity to learn organic production skills. One producer specifically stated that Ontario has an overwhelming lack of such opportunities. Another producer stated that a successful CSA programs require a lot of management skills that many producers do not have. Therefore, there is a need for individuals who have the management skills that are specifically necessary to operate a CSA program. Many of the CSA producers who were interviewed that manage a larger CSA program stated that they hire an employee to specifically manage their CSA program. This finding matches the findings of a 2005 study done by John Smithers which found that two of the main challenges facing local producers were a lack of time and marketing skills (Smithers, 2005).

Two of these three CSA producers specifically stated that local, organic producers are in need of infrastructure that is extremely expensive for a small business to purchase. According to Melanie Golba, owner and operator of Plan B Organic Farms and board member of the Hamilton Community Food Security Stakeholders Committee, “Smaller scale organic farms do not have the financial capital to develop their own farms with the proper infrastructure needed to process, handle, store, and deliver their food efficiently” (Golba, 2014). Golba stressed the need for grant money to provide small scale producers with the money to purchase much needed infrastructure such as cold storage, refrigerated delivery trucks, and food safe washing and handling systems (Golba, 2014). The need for processing and distribution infrastructure was also identified as a challenge for local producers in Smithers’s study (Smithers, 2005).
In 2013, Ontario announced that it will invest $30 million dollars in the province to create jobs and support innovative local food projects over the next three years (Ministry of Agriculture and Food, 2013). Part of this investment includes a fund called the Local Food Fund. This fund was created to support projects that market and promote local food, strengthen regional and local food networks by increasing partnerships along the supply chain, and use new and innovative equipment and processes to boost the supply, quality, availability and distribution of local food (Ministry of Agriculture and Food, 2013).

According to Golba, prior to the creation of this fund, grant money from the province has mainly been given to registered charities (Golba, 2014). She also stated that, prior to the creation of the Local Food Fund, “even if a farm partners with a charity the funds are never allowed to go towards capital, only promotion, education, etc.” According to Golba, the Local Food Fund is the first grant program where the Ontario government has specifically allocated funding to infrastructure projects (Golba, 2014). This grant program is a positive step towards alleviating the current infrastructure challenge facing small-scale, local producers.

**Independent Grocer Interview**

The following information was gathered from a single interview with the manager of an independent food store in Kingston, Ontario. This interview provided useful information however; this information may only apply in the Kingston area. In order to verify that the information that was collected during this interview accurately represents independent food stores across Ontario, future research would need to include interviews with a larger number of independent grocers from across Ontario.
Challenges

The manager reported that the age and experience of producers can pose a challenge. Young and/or inexperienced farmers may not understand how food stores work because they lack experience and business skills. Purchasing local food becomes inefficient when producers lack business skills and/or do not have an adequate understanding of how to work with buyers.

Local Restaurant Interviews

Challenges

The manager of one of the restaurants reported two specific challenges that the restaurant has when purchasing local food. These challenges have to do with infrastructure and management. First, local producers are often unable to keep up with supply and therefore are not able to provide consistent supplies of food. This manager stated that local farms often become quite popular and become unable to keep up with demand because they lack the proper infrastructure. Second, working with local farms can be inefficient because producers may not understand how to manage the business aspects of their farm operation (i.e. their relationships with their buyers) and/or may not have enough employees to manage their buyers effectively. Therefore, producers and buyers would both benefit if producers had more access to infrastructure and business management training.

Local, Organic Distributor Interviews

Characteristics

For the purposes of this research, a local, organic delivery business is an independent business that purchases organic food mainly from local suppliers and delivers it directly to customers.
Local, organic delivery businesses differ from food distributors because they sell directly to individuals instead of to retailers, processors, etcetera. These delivery businesses also differ from the CSA model in two ways. Customers are able to purchase food baskets on an occasional basis instead of having to receive a weekly or bi-weekly basket and customers pay for their basket at the time of each delivery instead of paying an upfront cost to receive baskets for the entire season.

**Potential**

Survey participants stated that using a CSA method takes a lot of time as well as interpersonal, management, and business skills. The CSA method therefore represents a challenge for farmers because they may be lacking the time and/or skills that are necessary in order to run a successful CSA. These delivery businesses were seen as one possible solution to this challenge because using such a business would reduce the time demands on farmers and would leave the management and business aspects to people who are presumably more skilled in those areas.

Local, organic delivery businesses may also provide the producer with the highest price for their crop, second only to if the farmer were to sell their crops directly. Because these businesses sell directly to consumers they require the crops to be passed through less hands than a distributor who sells to a food store or processors that then sells the crop and/or product to the consumer.

Local, *organic* delivery businesses were identified specifically as a distribution method that could overcome the challenges of CSA farms, or those farms that would otherwise sell using a CSA method, because it was found that approximately 75 percent of CSA farms in
Ontario are organic\textsuperscript{6}. Because the significant majority of CSA farms, or farms that would prefer to use a CSA sales method, use organic production methods, these farms are highly likely to be compatible with distributors who specialize in organic food.

Local, organic delivery businesses have the potential to increase the amount of jobs that are available in the local food sector and to educate consumers about the benefits of local, organic food. The two businesses that were interviewed employ 40-50 and 13 employees respectively and work with 10 to 20 suppliers. Both of these businesses supplies well over 1000 customers. Local, organic delivery businesses also have the potential to educate the public about the availability and benefits of local food because their business relies on making people aware of why their service is beneficial. These distributors therefore educate the public about the benefits of both local and organic food. These businesses could therefore save governments money that they would otherwise need to spend on education and awareness campaigns. For this reason, governments should encourage and support the creation of local, organic distribution businesses. Both businesses reported that there is a huge demand for local, organic crops and products and that this demand is increasing. Both businesses stated that one of their biggest challenges is learning how to manage the business.

\footnote{\textsuperscript{6}As stated previously, this research compiled a list of farms in Ontario who offer a CSA program. The percentage of these farms that are organic was determined by completing a thorough search of each farms website or of information that was provided on secondary websites such as the Ontario CSA Directory and GoodWork.ca.}
Conclusions and Recommendations

One of the conclusions that was drawn from the information provided by interview participants is that markets (i.e. independent food stores, restaurants, direct to customers, etc.) are currently available for local producers to sell their products however, these markets, and the networks that connect these markets, are not able to grow because producers are lacking the necessary infrastructure and business management skills. This lack of infrastructure and business management skills prevents producers from fully taking advantage of local markets and from growing local food networks that would increase the efficiency of local food systems.

Local Food Distribution Initiatives

The guidebook for the Local Food Fund specifically states that the fund can be used for projects that bring “growers with similarities (such as organic) together into a single entity to bring their products to market (i.e. one-time or short-term costs for regional food hubs, co-packing)”. This act of pooling resources is consistent with the recommendations made in the 2009 Niagara and Hamilton local food distribution initiative feasibility report. The study found that the vast majority of respondents who were consulted during the study believed that any initiative attempting to create a new type of local food distribution system “must be strategically linked to an existing system” (Gooch, Marenick, Felfel, & Vieira, Feasibility Study for Establishing a Local Food Distribution Initiative in Niagara & Hamilton, 2009). Linking any new local food distribution initiative with existing systems would increase the likelihood of the project being successful because the new initiative would benefit from having access to a potential customer base, existing infrastructure, and individuals who have knowledge regarding alternative sales
methods and distribution systems (Gooch, Marenick, Felfel, & Vieira, Feasibility Study for Establishing a Local Food Distribution Initiative in Niagara & Hamilton, 2009).

In light of the strong connection that this research has found between local, organic farming and the use of CSA programs and following the recommendations made in the 2009 Niagara and Hamilton local food distribution initiative feasibility report, this report recommends that local food distribution initiative be created in the three areas of Ontario where CSA farm clusters are most pronounced. The presence of CSA farm clusters is most pronounced in Kingston, Hamilton, and Uxbridge. Creating a local food distribution system among the CSA farms in these areas would classify as an effort to bring together growers that share similarities for two reasons. The growers in these three areas share a similar sales method and a similar production method (i.e. organic production). The percentages of CSA farms identified in Kingston, Hamilton, and Uxbridge that use organic methods are 93, 91 and 67 percent. The fact that the CSA farms in these three clusters share similarities means that they would be eligible to apply for infrastructure grants offered by the Local Food Fund if they were to undertake a local food distribution initiative (LFDI). According to conclusions made in the 2009 Niagara and Hamilton local food distribution initiative feasibility report, if local food distribution initiatives were implemented in these areas, they would have a higher likelihood of being successful because a LFDS in either of these areas would benefit from existing knowledge and customer bases. A LFDI would also benefit from any relevant infrastructure existing in each of these areas, however, existing infrastructure may not be required for the success of these LFDI because of the fact that, together, they would be eligible for infrastructure grants from the Local Food Fund. It is recommended that LFDIs are undertaken in Kingston, Hamilton, and
Uxbridge in order to take advantage of Local Food Fund grants which will only be available for a limited time (Ministry of Agriculture and Food, 2013). Establishing a LFDI that links the organic, CSA farms in each of these areas would ensure that the systems that individual CSA farms have developed in each of these areas are solidified so that they may continue to benefit these areas for generations to come.

**Education**

This study has identified education as the most important tool to promote the growth of the organic agriculture sector in Ontario. The following two recommendations are made based on recommendations that were given by organic producers and the managers of local food stores, restaurants, and local, organic distributor businesses during the interviews undertaken for this study. These recommendations are extremely appropriate and timely based on the fact that a large proportion of organic producers are below the age of 39 and that, because the average age of a farm operator in Ontario has been increasing since 2001, there is a significant need for aging farmers to be replaced by a younger generation of farmers. Therefore, younger people must be provided with skills that will allow them to fill the need.

**Organic Production**

In order to promote the growth of the organic agriculture sector in Ontario, farmers must be provided with the skills that they will need in order to operate a productive organic farm. Because there is such a strong need for a younger generation of skilled farmers, Ontario currently has an important opportunity to train the next generation of farmers to use organic
production methods. It is extremely important that Ontario takes advantage of this opportunity in order to transition its agricultural sector into organic production methods.

Farm business/Local Food Systems Management

In order to address the challenges that were reported by the managers of CSA farms, independently owned food stores and restaurants, and local, organic distributors, education programs must be available in order to train young people with management, business, and technical skills that individuals will need in order to manage and operate local food distribution systems. The local agriculture sector is especially in need of individuals who are trained to work with food buyers, such as independent food stores, restaurants, and processors in order to facilitate the relationship between farmers and buyers and to facilitate the selling of various crops and products directly between farmers and buyers. Based on recommendation received during this study, individuals with these skills are necessary in order to make sourcing local, organic produce and products more efficient and accessible to buyers.

An example of such a post-secondary program that already exists is the Sustainable Local Food Certificate Program that is offered by St. Lawrence College in Ontario. This program “explores the practices, principles and philosophies involved in local food system development” and focuses on “increasing both academic and hands-on knowledge of regional food initiative across Canada... (St. Lawrence College)”
Land Planning

Agricultural Protection Zones

In light of the increasing age of Ontario’s average farm operator, it is recommended that all prime agricultural land be protected by creating and implementing mandatory agricultural protection zones, following the example of British Columbia. It is recommended that agricultural protection zone polices do not prevent farmland from being subdivided into smaller parcels of land as long as the land continues to be used for agricultural uses. Allowing farmland to be subdivided into smaller parcels of land will allow large farms to transition into small- or medium-sized farms that are compatible with organic farming methods.

Tailoring for Organic

Policies that regulate agricultural protection zones must not prohibit the subdivision of properties in the protected zones in order to allow large-scale farms to be divided into several small- or medium- scale farms. Policies that regulate agricultural protection zones should therefore include a provision stating that properties in these zones may be subdivided into several smaller properties as long as the land continues to be used for agricultural purposes. Small- or medium-scale farms are best suited for organic production methods. Permitting the creation of smaller properties within agricultural protection zones ensures that properties within agricultural protection zones are not frozen at a size that is incompatible with organic production methods and therefore preventing farms in agricultural protection zones from transitioning to organic production methods. The Oregon case study provided in the Background Research section is a prime example of why it is important to ensure that the
regulations created to govern agricultural protection zones must include provisions that allow farmland to be subdivided into smaller parcels of land as long as the land continues to be used for agricultural purposes.

Works Cited


Canada, S. (2006). Number of farms classified by total far area and classified by area in crops (excluding Christmas tree area) and summerfallow. *Census of Agriculture*.


Appendices

Appendix 1 – Organic Survey

1. Your farm operation would benefit from an increase in the availability of local food distribution options (e.g. farmer’s markets, community supported agriculture, local food within grocery stores, food co-ops, etc.).

☐ Strongly Agree
☐ Agree
☐ Unsure
☐ Disagree
☐ Strongly Disagree

2. List the type of distribution methods utilized by your farm operation from most used to least used, 1 being the most used. Leave blank boxes for distribution methods that do not apply to your farm operation.

☐ Supermarket Chains (e.g. Metro Inc., Loblaw Companies, Sobeys)
☐ Independent supermarkets
☐ Specialty food stores
☐ Foodservice distributors (e.g. Flanagan Foodservice, Findlay Foods)
☐ Marketing boards
☐ Wholesale clubs (e.g. Costco)
☐ General merchandisers (e.g. Wal-Mart, Zellers)
☐ Drugstores (e.g. Shoppers Drug Mart)
☐ Convenience stores
☐ Farmers’ Markets
☐ Farm Gate Sales
☐ Roadside stand
☐ Community Supported Agriculture (CSA)
☐ Food Co-ops
☐ Local restaurants
☐ Pick-your-own
☐ Food Processors (e.g. General Mills Canada) (PLEASE SPECIFY BELOW)
☐ Other (PLEASE SPECIFY BELOW)

a) Please provide a brief explanation for your choice of distribution method.
3. Do you currently or have you in the past used organic production methods?

☐ Yes (currently)
☐ Yes (in the past)
☐ No

a) If yes, what have been your biggest challenges in using organic methods (e.g. selling your goods, government legislation, production methods, regulations)?

4. Please indicate your farm type (Select all that apply)

☐ Dairy cattle and milk production
☐ Beef cattle ranching and farming, including feedlots
☐ Hog and pig farming
☐ Chicken egg production
☐ Chicken production
☐ Turkey production
☐ Sheep farming
☐ Goat farming
☐ Horse and other equine production
☐ Fur-bearing animal and rabbit production
☐ Soybean farming
☐ Oilseed (except soybean) farming
☐ Dry pea and bean farming
☐ Wheat farming
☐ Corn farming
☐ Other grain farming
☐ Potato farming
☐ Other vegetable (except potato) and melon farming
☐ Fruit and tree-nut farming
☐ Mushroom production
☐ Nursery and tree production
☐ Floriculture production
☐ Hay farming
☐ Other (PLEASE SPECIFY BELOW)
5. Please indicate your appropriate age range:

- □ Under 20
- □ 20-29
- □ 30-39
- □ 40-49
- □ 50-59
- □ 60-69
- □ 70-79
- □ 80 +

6. Please indicate your highest level of education:

- □ Elementary
- □ High School or equivalent
- □ Apprenticeship
- □ College
- □ Certification program
- □ Undergraduate (university)
- □ Master’s
- □ Doctorate

**Appendix 2 – Non-organic Survey**

1. Your farm operation would benefit from an increase in the availability of local food distribution options (e.g. farmer’s markets, community supported agriculture, local food within grocery stores, food co-ops, etc.).

- □ Strongly Agree
- □ Agree
- □ Unsure
- □ Disagree
- □ Strongly Disagree

2. List the type of distribution methods utilized by your farm operation from most used to least used, 1 being the most used. Leave blank boxes for distribution methods that do not apply to your farm operation.

- □ Supermarket chains (e.g. Metro Inc., Loblaw Companies, Sobeys)
Independent supermarkets
Specialty food stores
Foodservice distributors (e.g. Flanagan Foodservice, Findlay Foods)
Marketing boards
Wholesale clubs (e.g. Costco)
General merchandisers (e.g. Wal-Mart, Zellers)
Drugstores (e.g. Shoppers Drug Mart)
Convenience stores
Farmers’ Markets
On-farm market
Roadside stand
Community Supported Agriculture (CSA)
Food Co-ops
Local restaurants
Pick-your-own
Food Processors (e.g. General Mills Canada) (PLEASE SPECIFY BELOW)
Other (PLEASE SPECIFY BELOW)

3. Do you currently or have you in the past used organic production methods?

- Yes (currently)
- Yes (in the past)
- No

a) If you have used organic production methods in the past but do not currently, what caused you to stop using such methods?

b) If no, have you ever considered using organic production methods? Why or why not?

c) If no, are you concerned that it would be more difficult to find a market for your farm products if you used organic methods?

- Yes
- No

4. Please indicate your farm type (Select all that apply)

- Dairy cattle and milk production
- Beef cattle ranching and farming, including feedlots
- Hog and pig farming
☐ Chicken egg production
☐ Broiler and Other Meat-type Chicken Production
☐ Turkey production
☐ Sheep farming
☐ Goat farming
☐ Horse and other equine production
☐ Fur-bearing animal and rabbit production
☐ Soybean farming
☐ Oilseed (except soybean) farming
☐ Dry pea and bean farming
☐ Wheat farming
☐ Corn farming
☐ Other grain farming
☐ Potato farming
☐ Other vegetable (except potato) and melon farming
☐ Fruit and tree-nut farming
☐ Mushroom production
☐ Nursery and tree production
☐ Floriculture production
☐ Hay farming
☐ Other (PLEASE SPECIFY BELOW)

5. Please indicate the appropriate age range of your farm owner and/or manager:

☐ Under 20
☐ 20-29
☐ 30-39
☐ 40-49
☐ 50-59
☐ 60-69
☐ 70-79
☐ 80 +

6. Please indicate the highest level of education completed by your farm owner and/or manager:

☐ Elementary
☐ High School or equivalent
☐ Apprenticeship
Appendix 3 – Independent Grocer Interview Questions

1. How do you find suppliers and do you look for certain characteristics in a supplier?
2. What are your purchasing policies (e.g. delivery frequency and quantities, quality guidelines, etc.)?
3. Do you provide flexibility for your suppliers?
4. Do you charge a shelf-space fee?
5. As an independent store, are you able to decide on all of your own practices and policies or are there any regulations that you have to follow?
6. Have you had any challenges in purchasing local produce?
7. Have you seen an increase in demand for local and/or organic food?
8. Do you find that the majority of the local produce and products use organic practices?
9. Do you try to foster a loyal relationship with your suppliers?

Appendix 4 – Local Restaurant Interview Questions

1. How do you find suppliers and do you look for certain characteristics in a supplier?
2. What are you purchasing policies (e.g. delivery frequency and quantities, quality guidelines, etc.)?
3. Do you provide flexibility for your suppliers?
4. As an independent restaurant, are you able to decide on all of your own practices and policies or are there any regulations that you have to follow?
5. Have you had any challenges in purchasing local food?
6. Do you find that the majority of the local producers you purchase from use organic practices?
7. Do you try to foster a loyal relationship with your suppliers?

Appendix 5 – Local, Organic Delivery Business Interview

1. How do you find food suppliers for your business?
2. What do you do to build your customer base?
3. What were your biggest challenges when you started your business and what are your biggest challenges currently?
4. Were there any government grants or other funds available to help you start your business?
5. How many employees does your business employ, how many customers does your business deliver to, and how many suppliers does your business work with?
6. What geographic areas do you deliver to?
7. Have you found that the demand for local and/or organic produce and products has grown in the last few years?
8. Is it difficult to find organic farms to purchase from?
9. How do your prices compare with the prices of supermarkets?