

# St. Lawrence County Agricultural Development Plan

*A 4th generation family farm as seen across a corn field in Madrid, NY*



*Photo submitted by LouAnne King*

**Effective:  
December 5, 2016**

**Prepared by:**

**St. Lawrence County Planning Office  
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December 5, 2016

Operations Committee: 11-14-2016

RESOLUTION NO. 332-2016

**ADOPTION OF THE ST. LAWRENCE COUNTY AGRICULTURAL DEVELOPMENT PLAN**

By Mr. Dann, Chair, Operations Committee

**WHEREAS**, Resolution No. 159-2014 adopted on July 7, 2014 authorized the County to apply for Agricultural and Farmland Protection Planning Funds to prepare a new/updated St. Lawrence County Agricultural Development Plan, and

**WHEREAS**, the purpose of the Agricultural Development Plan is to foster the economic advancement and diversification of agriculture as one of St. Lawrence County’s most significant contributors to the economy of the County, and

**WHEREAS**, the St. Lawrence County Agricultural and Farmland Protection Board oversaw the creation of the Plan and gathered input from the farming community, held public forums, met with project stakeholders, and administered an online survey, and

**WHEREAS**, the Planning Office, Cornell Cooperative Extension of St. Lawrence County, the County Industrial Development Agency, and the County Soil and Water Conservation District met to prepare the goals and actions that are intended to assist with the improve productivity and profitability of farm operations and agribusinesses, and

**WHEREAS**, the St. Lawrence County Agricultural and Farmland Protection Board held a public hearing on November 3, 2016, to receive public comment on the draft Plan,

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Legislators adopts the updated St. Lawrence County Agricultural Development Plan and authorizes the Agricultural and Farmland Protection Board to forward to the Commissioner of Agriculture and Markets, and

**BE IT FURTHER RESOLVED** that as the Plan is implemented, it will be reviewed and modified as needed to reflect the changing times and conditions of the agricultural industry in St. Lawrence County.

STATE OF NEW YORK                    )  
  ) ss:  
COUNTY OF ST. LAWRENCE        )

I, Kelly S. Pearson, Deputy Clerk of the St. Lawrence County Board of Legislators, **DO HEREBY CERTIFY** that I have compared this Resolution No. 332-2016 entitled “Adoption of the St. Lawrence County Agricultural Development Plan”, adopted December 5, 2016, with the original record in this office and that the same is a correct transcript thereof and of the whole of said original record.

Kelly S. Pearson  
Kelly S. Pearson, Deputy Clerk  
St. Lawrence County Board of Legislators  
December 6, 2016

# ***St. Lawrence County Agricultural Development Plan***

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## *Executive Summary*

**Intent:** St. Lawrence County's Agricultural Development Plan was created to help strengthen and diversify its agricultural economy, and to protect and improve farmland. To achieve this, the County examined economic trends by comparing data from the 2002 and 2012 USDA Agriculture Census; and reviewed real property data and soils information to develop a deeper understanding of the industry's environmental and economic foundations. The County also solicited input from the farming community by hosting three public forums in winter 2015; conducting an in-depth online survey of farmers in spring 2016; and through on-going discussions with stakeholder agencies and organizations that serve the agricultural community. At the end of this process, four lead organizations – Cornell Cooperative Extension of St. Lawrence County, the County Industrial Development Agency, the County Planning Office, and the County Soil and Water Conservation District - developed goals and actions in response to results from the data analysis and feedback from the farming community.

**Economic Profile:** The 2002 and 2012 Ag Census data revealed St. Lawrence County ranked fourth in the State for market value of its agricultural products, 71% of which came from milk and other dairy products. Despite fewer dairy farms and a decline in the number of dairy cows, dairy production volume grew over the past decade and dominated as the largest contributor to the agricultural economy. The value of crop production more than tripled between 2002 and 2012, and hay and other crops represented the largest farm category. The data showed most St. Lawrence County farms generated less than \$25,000 in market value of agricultural product, and only 5% of farm operators were 35 years old or younger. Finally, St. Lawrence County offers some of the lowest property values in the Northeastern US, has the highest Amish population in the State, and ranks second statewide for number of certified organic farms.

**Land Analysis:** To complement this economic profile, an analysis of available soils showed soil classes 2 to 4 (soils that are most suitable for cultivation) account for 36% of the land area, and fewer than one acre out of every five acres available consists of prime, or prime if drained farmland. Despite these constraints, the County's 2016 Real Property records revealed there are more than 3,200 farmland parcels that total over 308,000 acres and have a combined taxable value in excess of \$230 million. Because the conversion of farmland into non-agricultural uses presents adverse economic and environmental consequences, the County identified the following characteristics that should be protected: 1) Lands with agricultural valuations, 2) Lands classified as agricultural (100s) or residence with farmland (241s), 3) Soils that are prime, prime if drained, or of statewide significance and 4) Farmland in an agricultural district. Three tools were developed to help municipalities protect and promote agricultural activities when administering and revising their land use regulations. They include the County's online Agricultural Atlas; a revised agricultural data statement to better evaluate the impacts of non-agricultural uses on farmland; and a matrix and audit to develop farm-friendly land use regulations.

**Farmer Input:** In addition to this data analysis, the County obtained valuable feedback from the farming community through its outreach efforts. The most important issues identified by farmers who attended the public forums were continued investments in the transportation network; preserving and expanding value-added production; diversifying agricultural production; accessing new markets outside the region; preparing a new generation of farm operators; and incorporating technology in farm operations. Results from the County's online survey, meanwhile, revealed soil drainage and the limited growing season were the two greatest constraints for all farm types. Nearly half of all farms anticipate putting



additional acreage into production, and roughly one-third plan to expand their operations in less than five years. Property taxes were the greatest economic issue affecting farm operations, especially among those that grossed less than \$50,000 in sales annually. Eighty-six percent of local food producers said they did not have a food safety plan, and two-thirds said they did not do any on-farm packaging or processing. The most important training topics identified by farm producers were increasing production; improving productivity; marketing and sales; renewable energy systems; and energy savings.

**Goals and Actions:** To respond to issues raised by the farming community, and to address findings from the Plan's economic profile and land analysis, staff from Cooperative Extension, the Industrial Development Agency, the Planning Office, and the Soil and Water Conservation District met regularly to prepare the Plan's goals and actions matrix. The matrix first lists those goals and actions that benefit the entire farming community; these are followed by goals and actions that assist a particular farm type or industry. These four organizations will serve as the lead agencies on the Plan's implementation, and will deliver updates to the County's Agricultural and Farmland Protection Board (AFPB) at its quarterly meetings. As initiatives are implemented over the next five years, the lead agencies will revise the matrix to prepare a new set of actions, or create new goals as appropriate. When revised, the matrix will be presented to the Agricultural and Farmland Protection Board, and to the Board of Legislators for review and approval.

# Economic Profile

*Blake and Carmen Gendebien's Farm on Five Mile Line Road in Lisbon, NY*

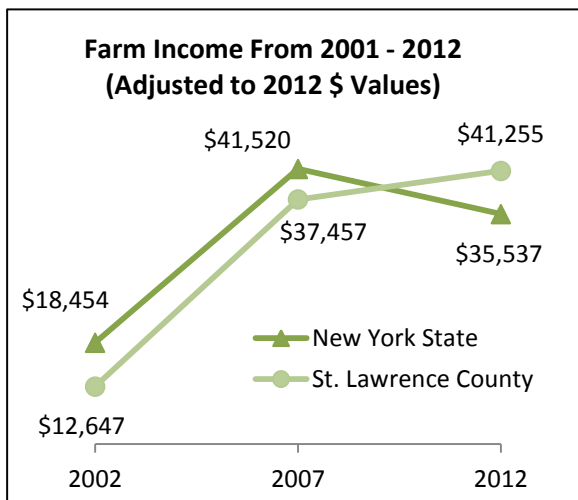


*Photo by Blake Gendebien*

## Economic Profile

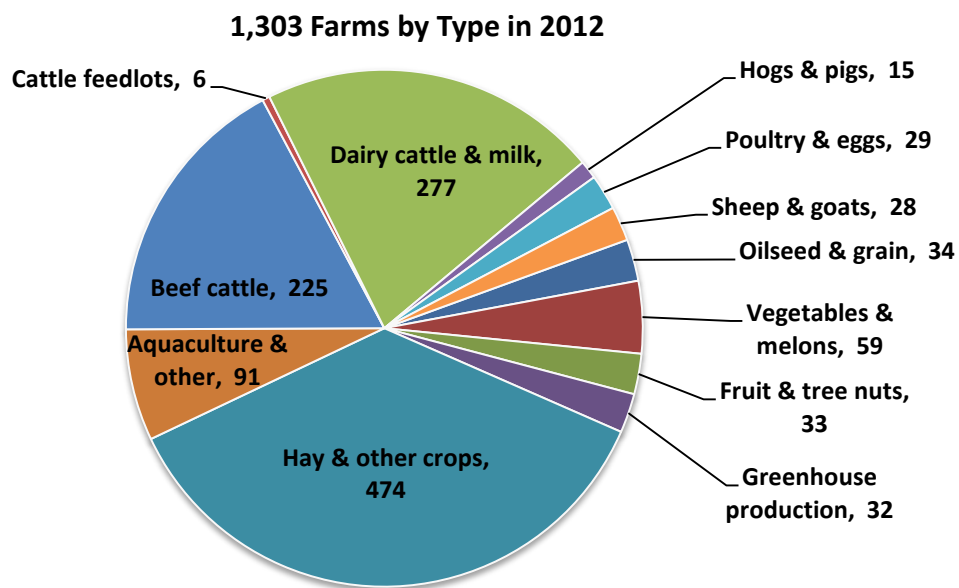
Agriculture is a significant contributor to St. Lawrence County's economy, and farmland is one of the county's most important and irreplaceable economic and environmental assets. In 2012, the county ranked first in New York State for hay production; second for land used for forage; third for number of cattle and calves; and third for milk production and corn production. The market value for agricultural products sold by St. Lawrence County farmers exceeded \$187 million in 2012 and placed the county fourth in the state.

### Farm Income and Payroll



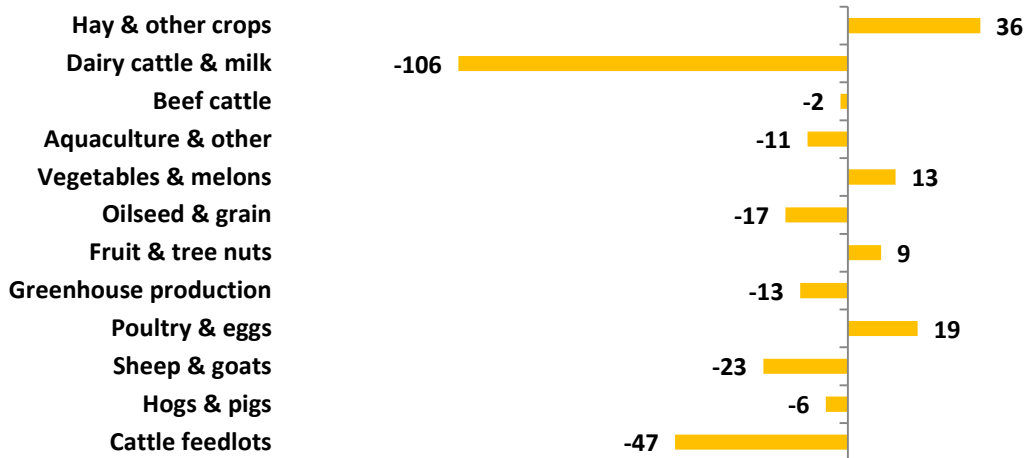
The 2012 Census of Agriculture reports 785 St. Lawrence County farmers (60%) identified farming as their primary occupation, and on average, earned an annual income of \$41,255 which exceeded the state average of \$35,537. The 2012 Ag Census also reports 314 farms in St. Lawrence County employed 1,401 workers. Forty-six percent of these employees (645) are employed year-round by half of the county's farms. The New York State Department of Labor reports 47 agricultural, forestry and fishery operations employed 559 persons in 2014 with an annual payroll of \$19.5 million, yielding an average, annual employee salary of \$34,871.

### Farm Types



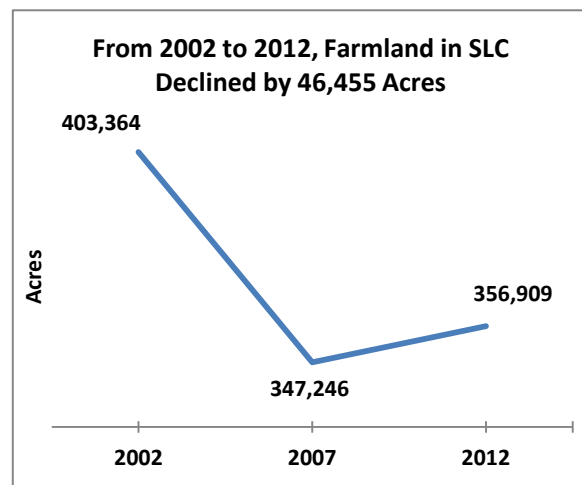
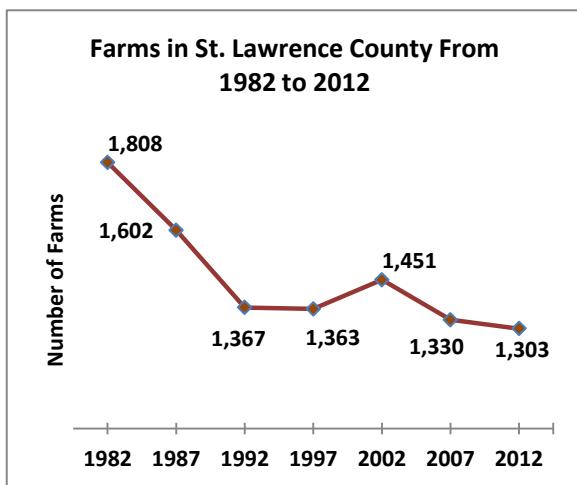
Of the 1,303 farms operating in the county in 2012, the three largest farm types were hay and other crops (474 farms, which include maple syrup producers); dairy cattle and milk production (277); and beef cattle – which includes farm operations that raise dairy herd replacements (225). These three categories represented 75% of all farm operations in 2012. The county’s fourth largest category (91 farms) was “Aquaculture and Other” which includes fish hatcheries, apiaries, horse stables and rabbitries.

### Change in Farm Types from 2002 to 2012



Since 2002, the number of dairy farms operating in the county declined by 28% (-106). A significant loss also occurred among cattle feedlots (-47 operations or -89%). Thirty-six new hay and other field crop operations were established, and gains were also made among vegetable and melon farms; orchards; and poultry and egg farms.

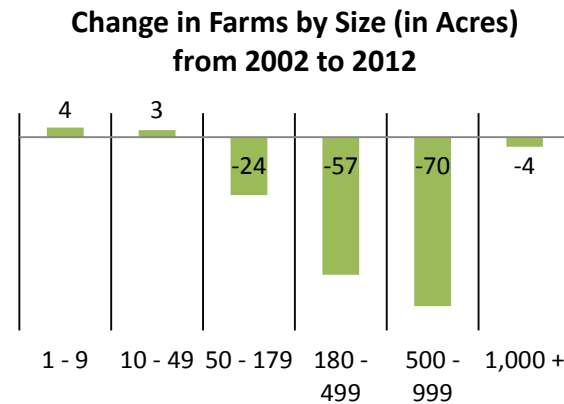
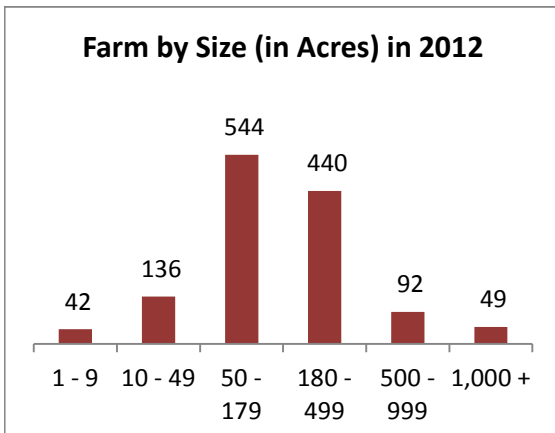
### Fewer Farmers, Less Agricultural Land



The overall number of farms and acres farmed in St. Lawrence County over the past decade declined by 10% and 12% respectively, compared to a 5% decline statewide in number of farms, and a 7% decline in farmland.

### Farms by Size

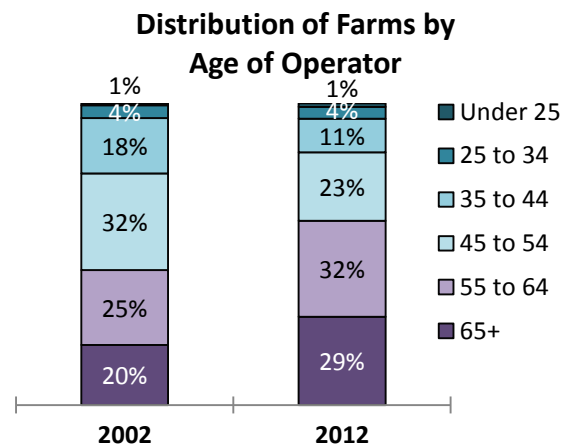
In 2012, 75% of St. Lawrence County farms (984) were between 50 to 499 acres in size. Forty-two percent of all farms in the county (544 farms) were 50 to 179 acres, followed by 34% of farms (440) that were 180 to 499 acres.



Since 2002, the county experienced an overall decline in the number of farms 50 acres and larger in size. The greatest loss was farm operations between 500 and 999 acres (70 farms, or a decline of 43%). Farms ranging in size from 1 to 9 acres and 10 to 49 acres were the only farm size categories that experienced a net gain since 2002.

### Farmers at Retirement Age

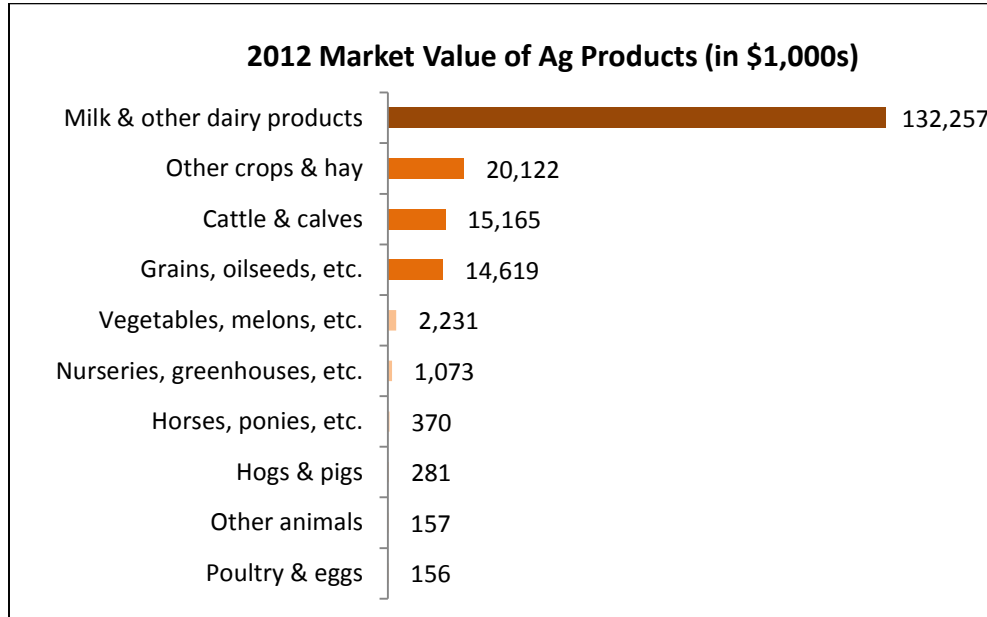
In 2002, the average age of farm operators in the county was 53.8 years. By 2012, the average age rose to 57.3 years. In 2012, 61% of primary farm operators in the county have reached the age of retirement (55 years and older). Only 5% of the farming community in the county is 34 years or younger.



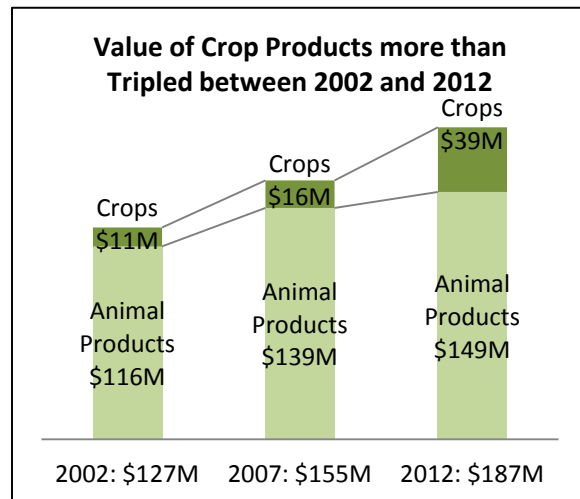
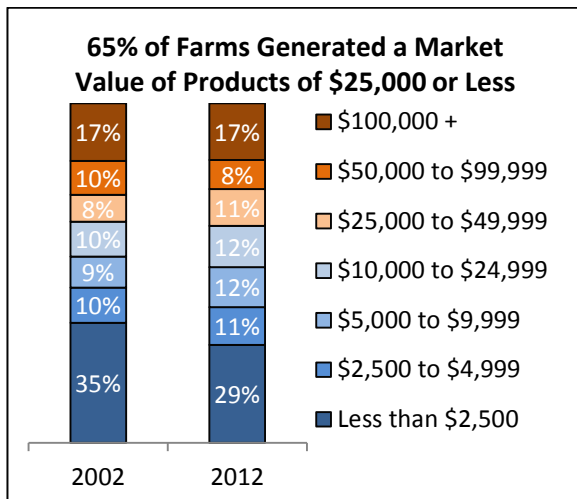
### Market Value of Agricultural Products

The chart below reveals four tiers in the 2012 market value of agricultural products in St. Lawrence County. USDA defines market value as the gross value of all agricultural products from a farm before taxes and production expenses. These figures do not include payments from federal farm programs, income from farm-related sources such as customwork and other

agricultural services, or income from nonfarm sources. The first tier shows dairy dominates the market value of St. Lawrence County agricultural products. The value of dairy products exceeded \$132 million and accounted for 71% of the total value of all products generated by the county's farmers.



The second tier of market value is hay (\$20 million), cattle and calves (\$15 million), and corn and soybeans (\$14 million). A third economic tier is represented by vegetable and melon producers (\$2.2 million), followed by nurseries and greenhouses (\$1 million). Horse, hog, poultry, and other animal farms represent the fourth tier, each generating a market value of less than \$500,000.

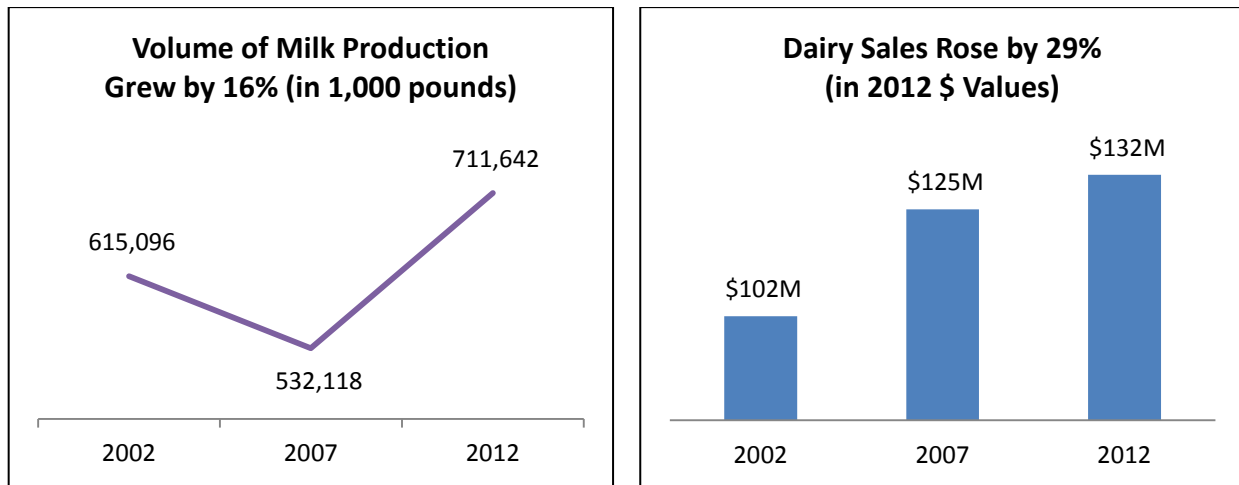


The distribution of farms by value of sales in the chart above shows 65% of the county's farms generated \$25,000 or less in the market value of products in 2012. Roughly one-third of the county's remaining farms generated more than this amount. From 2002 to 2012, the total

value of ag products sold by St. Lawrence County farmers grew by 47% to more than \$187 million. While a majority of this value (\$149 million or nearly 80%) was derived from animal products, the market value of crops in the county more than tripled to \$39 million.

### *Dairy is Big Business*

Despite a 28% decline in the number of dairy operations and 12% decline in dairy cows (38,018 in 2002 to 33,604 in 2012), dairy remains an economic powerhouse to the county's agricultural industry.



Since 2002, volume of milk production grew by 16%, and for the last decade, dairy producers consistently ranked St. Lawrence County as a top ten producer in the Northeast Milk Marketing Order Area, which includes all counties located in eastern New York, New Hampshire, Vermont, Massachusetts, Connecticut, New Jersey, southeast Pennsylvania, Delaware and northern Virginia (see: [http://www.fmmone.com/NE\\_Statistical\\_Handbook/NE\\_Statistical\\_Handbook.XLS](http://www.fmmone.com/NE_Statistical_Handbook/NE_Statistical_Handbook.XLS)). From 2002 to 2012, the market value for dairy products grew by 29%, and achieved dairy sales per head of cow that is now on par with the state average (\$3,933 per head).

### *Maple Syrup Production*

According to the St. Lawrence County Maple Producers Association, there were more than 250 maple producers in the county in 2015. Two major factors that influence maple syrup production are 1) the number of days that elapse to transition from cold winter days to spring-like temperatures, and 2) the number of days where temperatures range from 40 degrees during the day to freezing overnight. The greater the number of days for both of these factors yields a greater volume of maple sap. According to the County Maple Producers Association, both factors have increased in variability over the last decade.



## *Organic Farm Operations*

In 2014, New York State ranked third in the United States for number of certified and exempt organic farms (917 out of 14,093 farms). The most current county-level data for organic farming comes from the 2012 Ag Census, which reported 981 (certified and exempt) organic farm operations in the State. Sixty-one of these farms are in St. Lawrence County – the 2<sup>nd</sup> highest of any county in the state – and generated more than \$7 million in value of organic sales. While the distribution of organic farms by farm type is not available at the county level, data for New York State show 28% of organic producers cultivate hay and other crops, and an additional 28% raise beef cattle. Eighteen percent raise other animals such as bison, fish, bees and rabbits, and 11% grow fruit and tree nuts.

Based on USDA's 2014 Organic Survey, 72% of organic sales in New York were through wholesale channels including processors, millers and packers, and organic cooperatives. Twenty-three percent of organic sales in New York are direct to consumer through farm stands, farmers' markets, Community Supported Agriculture (CSAs) or other similar arrangements. The remaining 5% were direct to retail or institutions such as natural food stores, supermarkets, restaurants, universities and hospitals. The first point of sales for 57% of New York organic producers is within 100 miles of their farm operation. The first point of sales for 40% of state organic producers is sold regionally (101 - 500 miles), and 3% of farmers sell nationally (further than 500 miles). An assumption is made that a similar distribution of sales exists for organic operators in St. Lawrence County.

## *Amish Population*

A distinguishing characteristic of the county's farming industry is the presence of Amish households and farms that are found across its landscape. The Young Center for Anabaptist and Pietist Studies at Elizabethtown College in Pennsylvania estimates New York's Amish population grew by 44% (5,265 persons) from 2010 to 2015, and is now home to 17,280 Amish residents (<http://groups.etown.edu/amishstudies/statistics/population-by-state/>). The 2010 US Religion Census commissioned by the Association of Statisticians of American Religious Bodies provides a county-by-county enumeration of religious practices in the US. This survey reported St. Lawrence County was home to 13 Amish congregations with 1,840 adherents, the highest number of any county in New York. Based on this data, an Ohio State University publication ranked St. Lawrence County 24<sup>th</sup> in the US for largest Amish population. This report also calculated the Village of Heuvelton's surrounding Amish community to include 11 Amish church districts where 1,671 Amish persons reside, and ranked it the 16<sup>th</sup> largest Amish community in the nation.

The Young Center identifies six factors that influence new Amish settlement growth: 1) fertile farmland at reasonable prices; 2) non-farm work in specialized occupations; 3) rural isolation that supports their traditional, family-based lifestyle; 4) environment that is conducive to their

way of life; 5) proximity to family and other similar Amish church groups, and 6) a successful method that is used to resolve church or leadership conflicts.

### *Affordable Farmland Values*

St. Lawrence County is home to some of the most affordable agricultural land values in the Northeastern United States. The 2014-2015 New York Agricultural Statistics Annual Bulletin reports the average 2014 farm real estate value in New York was \$2,700 per acre, the 2<sup>nd</sup> lowest state average in the Northeast (Maine’s average was \$2,080 per acre). County-level data shows St. Lawrence County’s average cash rent in 2013 for non-irrigated cropland was \$36.50 per acre, and pasture was \$10 per acre, compared to New York State’s averages of \$52 and \$20, respectively. The adjacent table shows St. Lawrence County’s rents for non-irrigated cropland between 2008 and 2013 rose by 12%, the lowest increase compared to Lewis and Jefferson Counties and New York State.

**Cash Rents for Non-Irrigated Cropland Over Time**

Location	2008	2013	2008-2013
Jefferson	\$ 28.0	\$ 35.0	25%
Lewis	\$ 41.0	\$ 53.5	30%
St. Lawrence	\$ 32.5	\$ 36.5	12%
NYS	\$ 40.0	\$ 52.0	30%

### *Takeaways*

- The county’s “Big 3” farm operations are Hay, dairy and cattle.
- Despite fewer dairy farms and a decline in the number of dairy cows, dairy production volume grew over the past decade and dominates as an economic powerhouse to the county’s economy.
- Hay and other crop production are becoming increasingly important in economic contributor to the county’s agricultural industry.
- Most farms in the county generate less than \$25,000 in market value of agricultural product.
- Most of the county’s farm operators have approached the age of retirement.
- St. Lawrence County has the second highest number of organic producers in the State.
- There are more Amish residing in St. Lawrence County than in any other county in the State.
- Despite an overall decline in acreage used for farming, St. Lawrence County’s affordable farmland values are anticipated to attract future investment in agricultural production.

# Land Analysis

*Blue Skies and Green Fields*



*Photo submitted by Kelsey O'Shea*

## Soils Analysis

To quantify the availability of farmland that is suitable for cultivation, the USDA Natural Resources Conservation Service (NRCS) categorizes soil into eight classes. The lower the soil class, the more suitable the soil is for agricultural production; the higher the soil class number, the severity of limitations increases. Soil classes are also grouped into two categories to indicate cultivation suitability. Soil classes 1 to 4 are suitable for cultivation, while classes 5 to 8 are not. Locations that are not assigned a soil class are often identified as urban areas, gravel and sand pits or quarries, and reservoir dams.

### **Soils Suitable for Cultivation:**

- Class 1 *Few* limitations that restrict use
- Class 2 *Some* limitations that reduce choice of plants or require moderate conservation practices
- Class 3 *Severe* limitations that reduce choice of plants, or require special conservation practices, or both
- Class 4 *Very severe* limitations that restrict choice of plants, or require very careful management, or both

### **Soils Not Suitable for Cultivation:**

- Class 5 Little or no erosion hazard, but other *limitations that are impractical to remove* and limit their use mainly to pasture, range, forestland, or wildlife food and cover
- Class 6 Severe limitations and *generally unsuitable for cultivation*, and limit their use mainly to pasture, range, forestland, or wildlife food and cover
- Class 7 Very severe limitations and *unsuitable for cultivation*, and restrict their use mainly to grazing, forestland, or wildlife
- Class 8 Limitations that *preclude use for commercial crop production* and restricted in use to recreation, wildlife, or water supply or for esthetic purposes

Source: USDA Agricultural Research Service

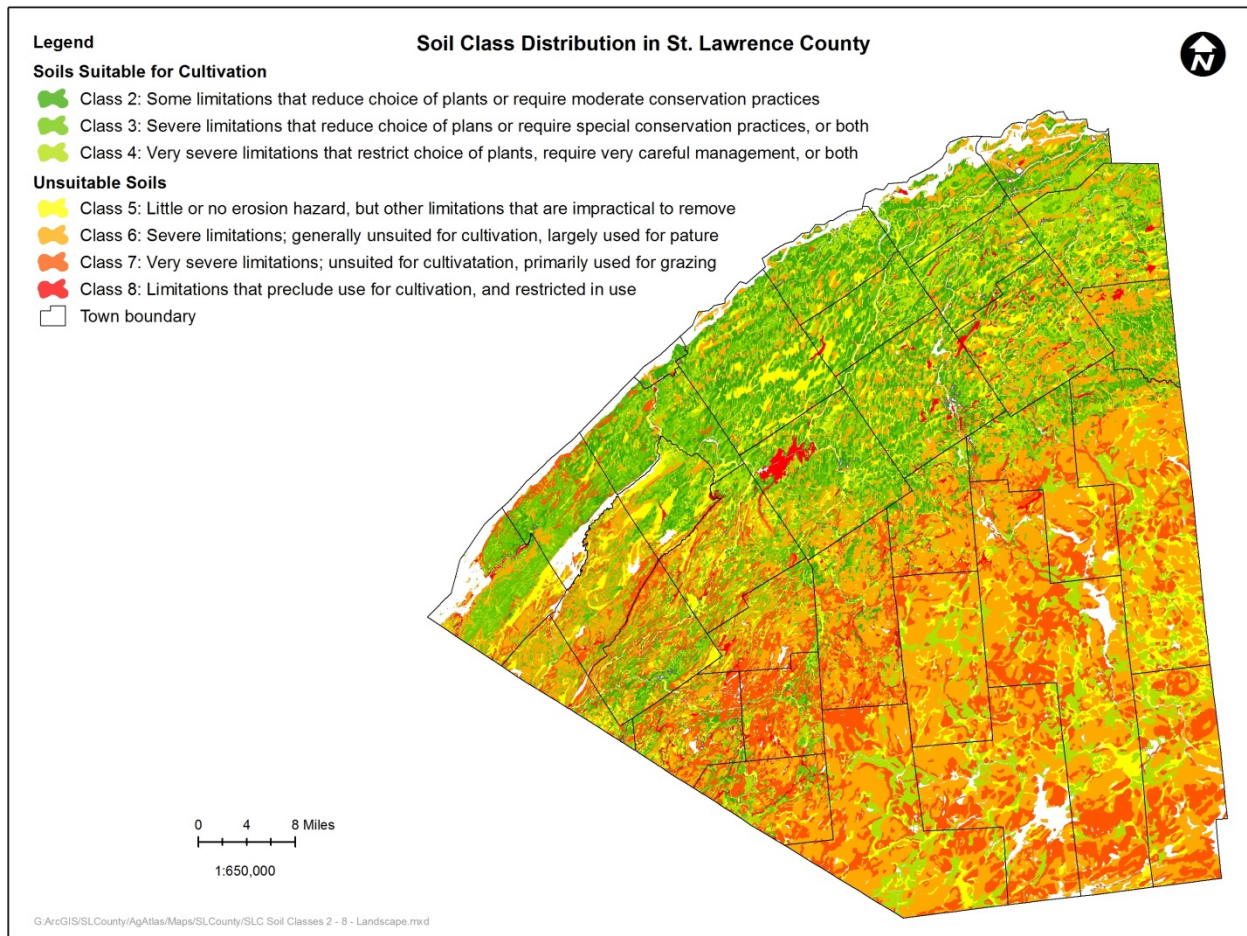
Class 1 soils are not present in St. Lawrence County. The table below shows 36% of the land in the county contains soil classes 2, 3 and 4 which can be used for cultivation. Of these three soil classes, only 10% of the land in St. Lawrence County contains class 2 soils.

**Availability of Soil Classes in St. Lawrence County**

Class	Cultivate?	Acres	%	% Cultivate
2	Y	164,266	10%	
3	Y	207,272	12%	
4	Y	248,324	14%	36%
5	N	184,854	11%	
6	N	569,190	33%	
7	N	308,256	18%	
8	N	28,796	2%	
Not Assigned	N	3,458	0%	64%
	Total	1,714,416		

The limited availability of class 2, 3 and 4 soils in the county constrains plant selection, and/or requires soil conservation practices from agricultural producers. According to the County Soil and Water Conservation District, the most common limitations in the county are wet, rocky, shallow and erosive soils. The most common soil conservation practices utilized by county farmers are: the installation of drain tile, crop rotation and no tillage farming.

The map below depicts the distribution of soil classes throughout the county. A majority of soil classes 2, 3 and 4 parallel the St. Lawrence River Valley, and transitions into soil classes 5 to 8 along the foothills of the Adirondack mountains.



Compared to the rest of the United States, St. Lawrence County is at a competitive disadvantage when it comes to the availability of soils that are suitable for cultivation. Thirty-six percent of the soil in St. Lawrence County is suitable for cultivation, compared to 58% for the continental US. The availability of class 1 and 2 soils in the United States (23%) is more than double the availability of class 2 soils in the county, and the US has a higher proportion of class 3 and class 4 soils compared to St. Lawrence County (35% versus 26%).

***Distribution of Soil Classes by Location***

Classes	SLC	US
1 - 2	10%	23%
3 - 4	26%	35%
5 - 8	64%	42%



## Prime Farmland

The USDA NRCS also designates which class 2, 3 and 4 soils contain characteristics that are ideal for agricultural production. These soils are defined as: Prime farmland; prime farmland if drained; or farmland of statewide importance.

### Prime Soils in St. Lawrence County

Soil	Acres	%
Prime	137,142	8%
Prime if Drained	188,571	11%
Statewide Importance	205,714	12%
Total	531,427	31%

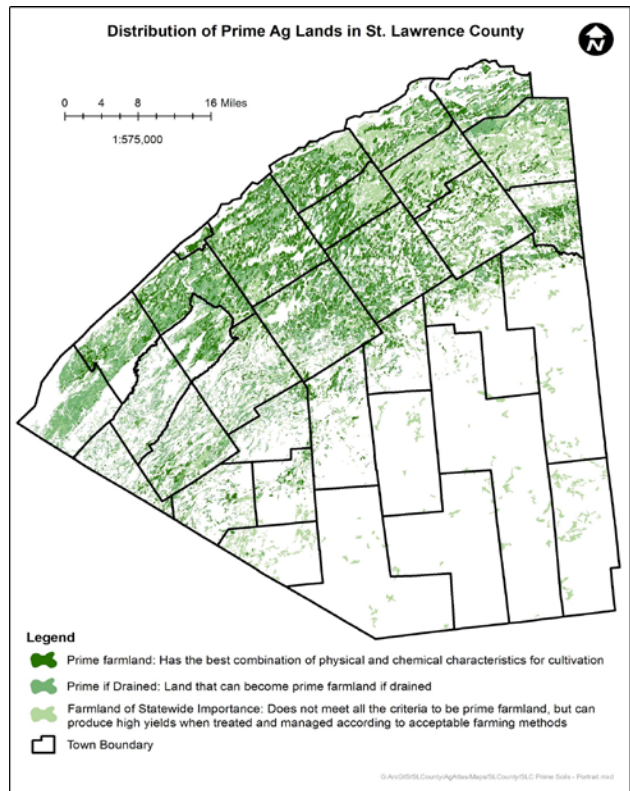
Prime farmland presents the best combination of physical and chemical characteristics that are needed to produce food, feed forage, fiber, and oilseed crops. It possesses an adequate and dependable supply of moisture; a favorable temperature and growing season; acceptable acidity and alkalinity; and acceptable salt/sodium content. These soils contain few or no rocks and are permeable to water and air. It is not excessively erodible or saturated with water for long periods; and is either not frequently flooded during the growing season, or is protected from flooding. Slopes for prime farmland range mainly from 0 to 6% (<http://www.ars.usda.gov/SP2UserFiles/Program/215/Food%20security%20talk%20inputs%20Lunch%203-15-11.pdf>).

Farmland of Statewide Importance, meanwhile, do not present all the characteristics to be designated as prime farmland, but are capable of producing high crop yields when treated and managed using acceptable farming methods ([http://www.cteco.uconn.edu/guides/resource/CT\\_ECO\\_Resource\\_Guide\\_Soils\\_Farmland.pdf](http://www.cteco.uconn.edu/guides/resource/CT_ECO_Resource_Guide_Soils_Farmland.pdf)).

The application of these definitions reveals less than one-third of land in St. Lawrence County (31%) is prime farmland, prime if drained, or farmland of statewide importance. Of these three categories, soils that are prime, or can be prime if drained is limited to 19% of all the land present in the county. This equates to less than one-acre of prime farmland for every five-acres of land that is available in St. Lawrence County.

The adjacent map depicts the location of prime, prime if drained, and farmland of statewide importance. The darker shades reveal the prominent location of prime soils in the central portion of the St. Lawrence River Valley which includes the towns of Oswegatchie, Depeyster, Lisbon, Canton, Waddington, Madrid and Potsdam.

Prime farmland presents the best combination of physical and chemical characteristics that are needed to produce food, feed forage, fiber, and oilseed crops. It possesses an adequate and dependable supply of moisture; a favorable temperature and growing season; acceptable acidity and



The table below reveals there are four tiers (based on acreage) in the distribution of prime farmland in St. Lawrence County.

<i>Distribution of Prime Agricultural Land in St. Lawrence County (in Acres)</i>				
<b>Town</b>	<b>Prime</b>	<b>Prime if Drained</b>	<b>Farmland of Statewide Importance</b>	<b>Total</b>
Lisbon	19,343	17,400	11,734	48,477
Potsdam	15,120	15,170	9,556	39,846
Canton	10,645	17,932	11,757	40,334
Waddington	9,870	8,190	7,280	25,340
Oswegatchie	9,365	16,352	8,563	34,280
Stockholm	8,486	4,707	14,985	28,178
Madrid	8,323	7,176	8,819	24,318
Louisville	6,590	5,004	10,694	22,288
Norfolk	5,741	3,452	14,846	24,039
Massena	4,924	6,577	4,043	15,544
Brasher	4,370	7,608	22,727	34,705
Lawrence	3,842	3,552	7,069	14,463
Morristown	3,775	10,094	6,057	19,926
Depeyster	3,705	6,963	4,463	15,131
Gouverneur	3,144	8,813	7,181	19,138
Parishville	2,903	3,235	6,390	12,528
Dekalb	2,875	8,033	9,234	20,142
Pierrepont	2,492	2,967	4,125	9,584
Russell	2,490	3,277	3,305	9,072
Hopkinton	2,193	1,825	7,192	11,210
Fowler	1,890	2,808	3,792	8,490
Ogdensburg	1,235	420	469	2,124
Hammond	1,065	13,773	5,060	19,898
Edwards	1,038	1,510	2,829	5,377
Hermon	855	4,119	2,893	7,867
Rossie	787	3,778	2,324	6,889
Macomb	419	7,135	3,504	11,058
Pitcairn	162	292	5,385	5,839
Colton	120	53	4,290	4,463
Piercefield	-	-	4,720	4,720
Clare	-	-	1,930	1,930
Fine	-	-	1,598	1,598
Clifton	-	-	1,234	1,234

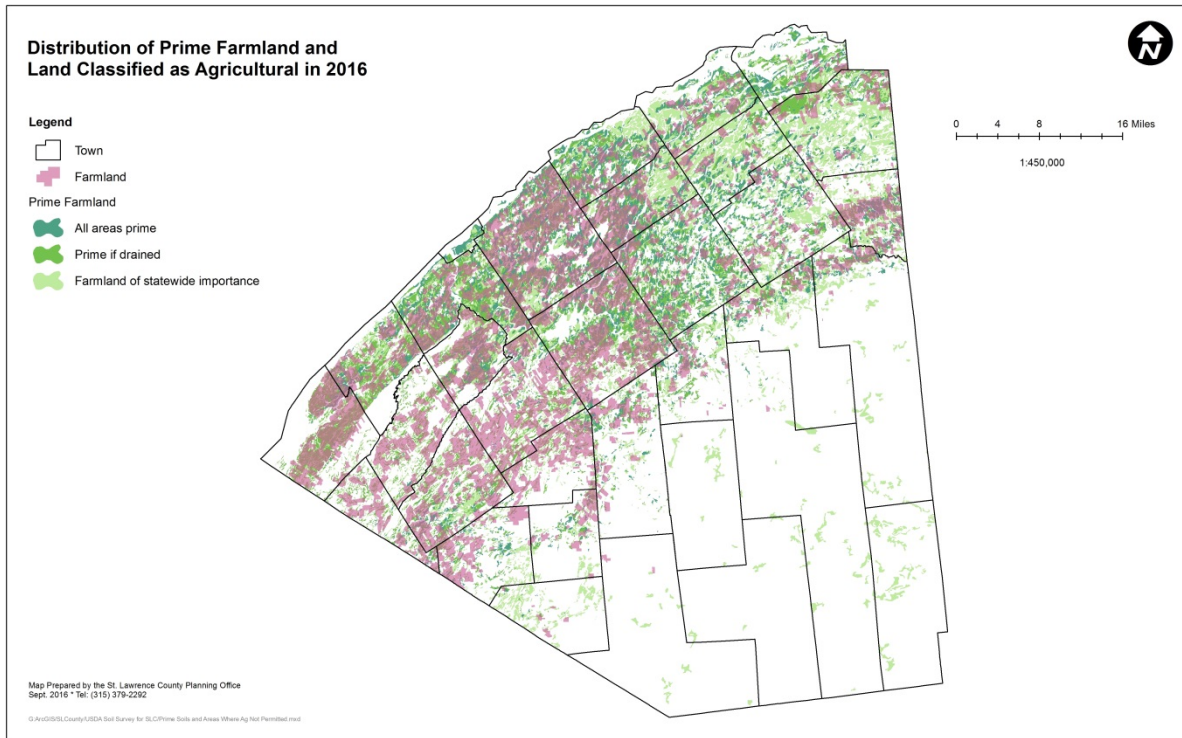
The greatest concentration of prime farmland - approximately 45,000 acres or one-third of all prime farmland in the county - is in found in the towns of Lisbon, Potsdam and Canton. The second largest tier ranges from over 5,000 acres in Norfolk to less than 10,000 acres in Waddington. The third tier contains the greatest number of towns (15) with prime farmland



acreage that ranges from 1,000 to 5,000 acres. The last tier lists towns each with less than 1,000 to 0 acres of prime farmland.

## *Land Classified as Farmland*

Land designated as prime farmland does not mean it is being used for agricultural purposes. The map below depicts lands classified as farmland (in pink) and helps reveal the extent of farming in the county.



Parcels depicted in pink are classified as 100s (agricultural) and as 241s (residence with farmland) by local assessors, and are primarily located in the St. Lawrence Valley. This map reveals a majority of prime farmland in Hammond, Depeyster, Lisbon, Canton and Lawrence is used for farming purposes. Assuming land in each town is accurately classified by local assessors, areas with the greatest potential to expand agricultural production on prime farmland exists in Morristown, Oswegatchie and in towns east of Lisbon and Canton.

## *The Value of Farmland in St. Lawrence County*

St. Lawrence County's 2016 Real Property Tax Records indicate there are 3,286 parcels classified as farmland (100s), or residence with farmland (241s) and total 308,904 acres. The combined taxable value of these properties to St. Lawrence County and local governments is greater than \$230 million. The following table shows the largest farmland classifications are

dairy (87,190 acres), farmland (77,109 acres), field crops (72,550 acres), and cattle, calves and hogs (35,520 acres).

*2016 St. Lawrence County Agricultural Land Classifications*

<b>Class</b>	<b>Type</b>	<b>Parcels</b>	<b>Acres</b>	<b>Taxable Value</b>
100	Agricultural	2	153	\$ 406,457
105	Farmland	1,125	77,111	\$ 29,108,163
110	Livestock	11	1,409	\$ 1,003,444
111	Poultry	1	183	\$ 80,613
112	Dairy	594	87,190	\$ 87,054,030
113	Cattle, calves, hogs	284	35,520	\$ 34,307,855
114	Sheep	7	944	\$ 782,820
115	Honey	1	2	\$ 25,000
116	Other livestock	44	4,041	\$ 4,613,943
117	Horses	37	3,343	\$ 5,545,231
120	Field crops	891	72,550	\$ 33,853,920
140	Truck crops	2	16	\$ 125,540
151	Tree fruits	3	240	\$ 82,300
152	Vineyard	1	12	\$ 186,200
170	Nursery and greenhouse	2	357	\$ 314,500
182	Pheasants	2	338	\$ 229,700
184	Wild livestock	1	564	\$ 201,200
241	Residence with farmland	274	24,931	\$ 32,974,914
<i>Total</i>		<i>3,286</i>	<i>308,904</i>	<i>\$ 230,895,830</i>

### *The Value of Farmland as Open Space*

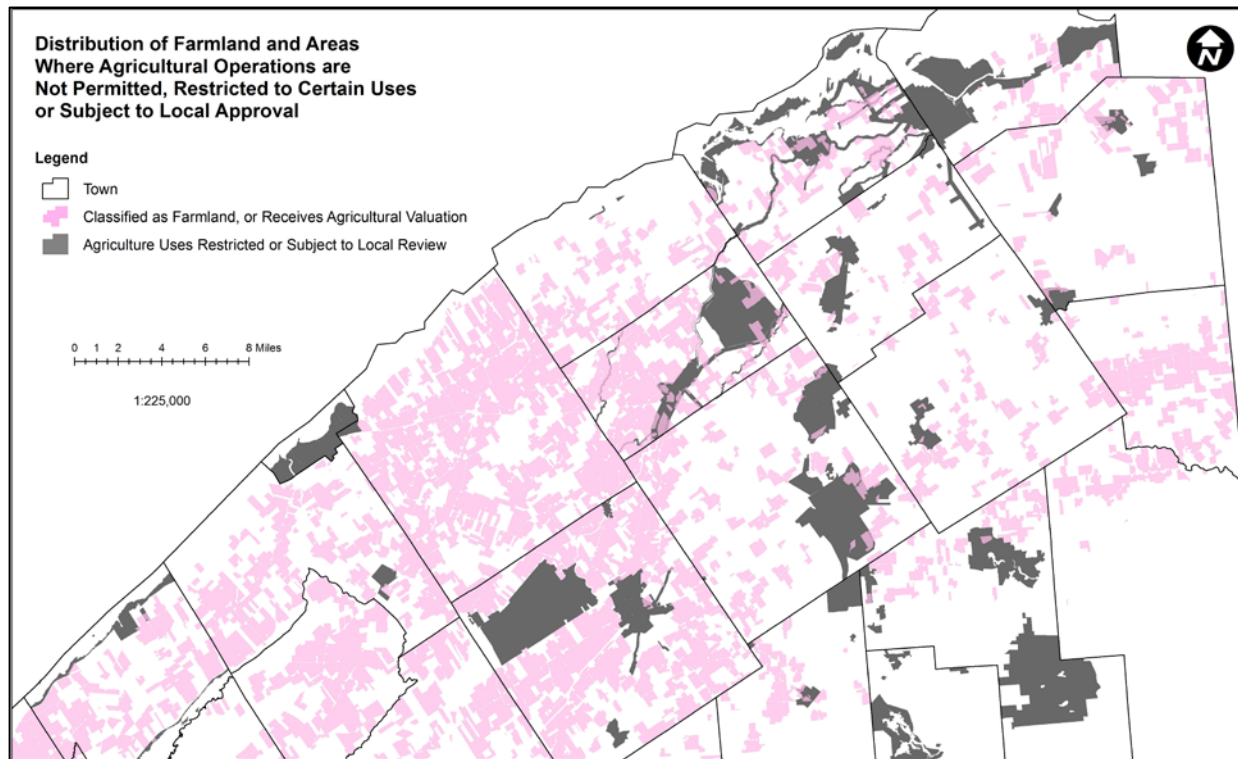
In addition to serving as a working landscape, farmland in the county also contributes an open space value that benefits private property owners and the public at large. One indicator that reflects this contribution is acreage enrolled in the US Department of Agriculture’s Wetland Reserve Program (WRP). The WRP gives landowners the opportunity to voluntarily protect, restore and enhance wetlands on their property through a conservation easement. Lands eligible for enrollment include wetlands previously farmed or used as pasture; lands with the potential to become wetlands due to flooding; pasture or forests where the hydrology was significantly degraded and can be restored; riparian areas that are connected to protected wetlands; or adjacent lands that contribute to wetland functions and values.

As of 2016, the Soil and Water Conservation District reports agricultural producers and farmland owners in St. Lawrence County committed 15,324 acres to the WRP, which accounts for 28% of all WRP land in New York State – the most of any other county statewide. To date, there are 185 WRP easements in the county that range in size from 4.6 acres to 1,612 acres and these areas provide essential wildlife habitat; provide recreational opportunities; and contribute to the visual appeal of the county’s landscape.

## Compatibility with Land Use Regulations

Of the 32 towns in the county, zoning regulations are in effect in 15 towns which determines: 1) what uses are permitted; 2) where they may be located; and 3) how those uses may be established on a property. All existing zoning districts were reviewed to identify where agricultural uses were allowed. Areas depicted in pink in the map below lands classified as farmland. Those areas in grey show where agricultural uses are prohibited; certain agricultural uses are allowed; or if agricultural uses are subject to local approval.

A visual inspection of the map below reveals the greatest inconsistencies between zoning regulations and farm uses are found in: Madrid, Louisville and Potsdam. To a lesser degree, inconsistencies also appear in Brasher, Canton, Pierrepont, Stockholm and Parishville. In these locations, farming is either: a grandfathered use; certain ag operations are not permitted; or subject to local approval before it can be established.



## Conversion Pressure on Agricultural Lands

There are two data sources that are readily available to examine the extent of farmland being converted into non-agricultural uses. The first data source is a comparison of farmland acreage according to 2006 and 2016 County Real Property records. In 2016, there were 3,286 parcels

**Extent of Farmland in St. Lawrence County**

Year	Parcels	Acres
2016	3,286	308,904
2006	2,956	308,265
<i>Change</i>	<i>330</i>	<i>639</i>

classified as farmland that encompassed 308,904 acres. From 2006 to 2016, land classified as farmland (and residences with farmland) grew by 330 parcels and totaled 639 acres. Assuming land is accurately classified, the county did not experience a net loss of farmland over the past decade.

***Change in Farmland Acreage  
From 2006-2016***

<b>Class</b>	<b>Type</b>	<b>Acres</b>
241	Residence with farmland	20,308
120	Field crops	19,471
117	Horses	552
110	Livestock	223
111	Poultry	160
100	Agricultural	153
140	Truck crops	16
152	Vineyard	12
150	Orchards	2
182	Pheasants	0
184	Wild livestock	-2
151	Tree fruits	-24
170	Nursery and greenhouse	-113
114	Sheep	-197
190	Game Preserve	-208
115	Honey	-326
116	Other livestock	-1,751
113	Cattle, calves, hogs	-2,243
105	Farmland	-9,586
112	Dairy	-25,808

*Total*      639

The composition of farmland, however, did change. Since 2006, residences with farmland (241s) grew by 20,308 acres, followed by field crops (120s) at 19,470 acres. The two classifications that retracted the most were dairy farms (112s) at -25,809 acres, followed by farmland (105s) at -9,586 acres. These changes are assumed to be due to dairy operators who retired and subdivided the farm house with some acreage to a new homeowner, and sold/leased the remaining farmland to a nearby farm operation. Despite a transition in ownership and a change in the way farmland was used, these figures indicate the overall extent of farmland in the county did not diminish but remained stable.

The second data source is the location of land use projects that are referred to the County Planning Board on an annual basis. Some form of land use regulation (e.g. site plan review, subdivision review, and/or zoning) is in effect in 28 out of 32 towns, and is effect in all 12 villages in the county. In these communities, if a project's location is within 500' of certain

landmarks, the project must be referred to the County Planning Board for review. In St. Lawrence County, these landmarks are: a county or state highway/right of way; a municipal boundary; state or county-owned land with public facility; county or state-owned park/recreation area; or a farm operation in an Agricultural District.

From January 2011 to November 2016, the County Planning Board reviewed 899 land use projects. Half of these projects (449) were located within village limits, and the remaining half (450) occurred in towns. In most villages in the county, land use projects are situated in areas where utilities and road infrastructure already exist and they typically do not involve the conversion of farmland. Conversely, most

***Location of Land Use Projects  
Referred to County Planning Board***

<b>Year</b>	<b>Town</b>	<b>Village</b>	<b>Total</b>
2011	89	89	178
2012	95	67	162
2013	78	56	134
2014	67	83	150
2015	72	97	169
2016	49	57	106

*Total*      450      449      899  
50%      50%

new construction in towns occurs in a linear fashion along county or state highways, and likely involves the conversion of farmland into non-agricultural uses. Collectively, both data sources indicate that while town-based projects may involve the conversion of farmland, land elsewhere in the county is being put into agricultural production. Overall, the county has not experienced a net loss of farmland.

## *The Consequence of Converting Farmland*

While the total acreage of farmland in the county since 2006 has remained steady, land classified as prime farmland, or prime if drained, is limited to 19% of the county's total land area, and these soils represents the economic foundation of the county's agricultural industry. The loss of prime farmland to non-agricultural uses places pressure on marginal lands that are generally more erodible, droughty, and less productive, and creates environmental and economic consequences for the county as a whole. The use of marginal soils for agricultural production requires additional time and energy from farmers, which raises the business expenses of the farming industry and places it at an economic disadvantage compared to other regions where prime farmland is reserved and protected for agricultural uses.

## *Lands that Warrant Protection*

Based on their economic and environmental contributions, the following lands warrant protection to ensure the continued viability of agricultural industry in the county:

1. Lands with agricultural valuations
2. Lands classified as agricultural (100s) or residence with farmland (241s)
3. Soils that are prime, prime if drained, or of statewide significance
4. Farmland in an agricultural district

To promote their protection, digital maps for each of these categories were created and posted online, and additional tools (described below) were created to help the public make informed decisions about areas that are most suitable for agricultural production.

## *Tools to Protect and Promote Agricultural Production*

Preserving prime soils for cultivation purposes; promoting the continued use of farmland for agricultural production; preventing its conversion into non-farm uses; and minimizing conflicts between agricultural activities and non-farm uses are four actions that can support the advancement and diversification of the St. Lawrence County's farming economy. Three tools were developed to help communities protect and promote agricultural activities when administering and revising their municipal land use regulations.

The first tool is the County's Agricultural Atlas (<http://new.dancgis.org/ima>), an online mapping tool which allows users to query and view parcel boundaries; aerial imagery; freshwater wetlands; soil classes; prime farmland; hydric soils; local zoning information (if in effect); whether agricultural operations are allowed; if a parcel is in an Agricultural District; and if a potential project on a parcel would be subject to County Planning Board review. The second tool is a matrix (a Farm Friendly Audit) to determine if an issue is readily addressed in a municipality's zoning regulations. The third tool is a document which explains the basis for revising land use regulations to accommodate agricultural activities. The guideline includes recommendations that can give agricultural uses equal standing as other permitted land uses in a community; and offers development standards to promote economic activity through agriculture.

In 2016 the Town of Madrid's Planning Board agreed to serve as a case study for using these tools while revising its zoning regulations. Based on the results from the farm friendly audit, Madrid's Town Planning Board has recommended the Town:

1. Expand the list of defined agricultural uses in the zoning code
2. Expand the list of agricultural uses that will be permitted in the R-A District
3. Subject certain agricultural uses in the R-A District to Site Plan Review rather than Special Use Permit
4. Eliminate requirements for non-commercial farms that are not applied to commercial farm operations in the R-A District
5. Incorporate setbacks for certain agricultural uses and structures that are reasonable to the NYS Department of Agriculture and Markets
6. Utilize the County's revised Agricultural Data Statement which identifies if prime farmland is present on a parcel; and whether the parcel receives an agricultural valuation
7. Incorporate the Ag Data Statement as a part of its legal notice requirements; and
8. Redraw the Industrial District which presently prevent a significant amount of prime farmland from being used for agricultural production.

The matrix, farm-friendly guidelines and revised Agricultural Data Statement are appended at the end of this report to help other municipalities conduct a farm-friendly audit.

## *Public and Private Forests*

In 2015, lands classified by local assessors as forest totaled 665,429 acres. Sixty-seven percent (448,551 acres) of these forests is privately owned, 32% (212,657 acres) is owned by the State of New York, and the remaining 1% (4,221 acres) is owned by the County. The table below shows more than half of this forestland (54%) is located in the towns of Colton, Fine, Hopkinton, Clifton and Piercefield. Communities that account for less than 1% of forestland collectively represent 3% of the total forestland in the county.

**Tenure & Distribution of 2015 Forestland  
in St. Lawrence County (in Acres)**

<b>Town</b>	<b>Private</b>	<b>State</b>	<b>County</b>	<b>Total</b>	<b>%</b>
Colton	85,413	31,333	331	117,077	18%
Fine	29,896	56,221	-	86,117	13%
Hopkinton	69,545	9,992	1,172	80,709	12%
Clifton	46,774	31,150	-	77,924	12%
Piercefield	40,603	19,703	-	60,306	9%
Clare	57,633	1,410	-	59,043	9%
Parishville	18,234	12,665	1,049	31,947	5%
Russell	17,403	4,061	-	21,464	3%
Pitcairn	13,997	6,788	302	21,088	3%
Stockholm	17,170	3,439	367	20,976	3%
Brasher	1,621	17,835	196	19,652	3%
Edwards	7,367	2,495	-	9,862	1%
Pierrepont	6,301	2,507	235	9,043	1%
Hammond	7,333	1,611	-	8,944	1%
Hermon	3,397	2,718	29	6,144	1%
Madrid	3,165	1,420	533	5,118	1%
Lisbon	4,245	34	-	4,279	1%
DePeyster	2,560	992	-	3,552	1%
Canton	3,066	25	6	3,097	0.5%
Macomb	2,099	756	-	2,855	0.4%
Gouverneur	776	1,865	-	2,641	0.4%
Waddington	2,572	-	-	2,572	0.4%
Louisville	2,121	359	-	2,480	0.4%
Fowler	2,280	101	-	2,381	0.4%
Norfolk	-	2,381	-	2,381	0.4%
DeKalb	1,183	-	-	1,183	0.2%
Potsdam	762	-	-	762	0.1%
Rossie	-	756	-	756	0.1%
Oswegatchie	459	-	-	459	0.1%
Morristown	365	-	-	365	0.1%
Lawrence	212	-	-	212	0.03%
Massena	-	40	-	40	0.01%
<b>Total</b>	<b>448,551</b>	<b>212,657</b>	<b>4,221</b>	<b>665,429</b>	
	<b>67%</b>	<b>32%</b>	<b>1%</b>		

New York State offers a tax exemption (FTL 480-a) to private property owners of 50 contiguous acres of forestland for the long-term management of woodlands to help achieve a more stable forest economy. To be eligible, property owners commit to a 10-year forest management plan that is prepared by a qualified forester and is approved by the Department of Environmental Conservation. The management plan delineates the extent and type of forest on a property,



and outlines how it will be managed primarily for forest crop production. The plan identifies scheduled commercial harvests, noncommercial thinnings, road construction and other management practices. The reduction in taxes realized for a participating property owner is 80% of property's assessed value, or 40% of a town's equalization rate, whichever is less. For each year the property owner receives the exemption, the property owner commits to the management plan for the next 10 consecutive years.

Since 2005, participation by private landowners in the State's Forest Tax Law's 480-a Program grew by 95,875 acres. In 2005, 55 certificates were issued for approved forest management plans which affected 15,233 acres in the county. By 2015, the DEC issued 91 certificates for approved plans which covered 111,109 acres or 26% of all privately owned forestland in the county.

### *Forest Composition*

According to the US Forest Service, more than 1.3 million acres in the County is forested, 83% of which is privately owned. This estimate accounts for *all* lands with woods present, which includes lands classified by local assessors as forest, as well as other lands where forests are not the primary use on a property (e.g. a residence with 10 or more acres). These forests are dominated by maple, beech and birch species which occupy more than 800,000 acres and accounts for 62% of the forest composition in St. Lawrence County. The second largest forest group comprises of ash and cottonwood species (11%) and covers more than 138,000 acres.

***Forest Groups & Ownership in St. Lawrence County in 2014 (in Acres)***

<b>Forest Group</b>	<b>Publicly owned</b>	<b>Privately Owned</b>	<b>Total</b>	<b>%</b>
Maple/beech/birch	163,517	648,409	811,926	62%
Elm/ash/cottonwood	18,568	119,754	138,322	11%
Spruce/fir	6,659	101,922	108,581	8%
Oak/hickory	-	105,275	105,275	8%
Aspen/birch	8,201	46,317	54,518	4%
White/red/jack pine	8,471	32,400	40,871	3%
Oak/pine	13,213	26,621	39,834	3%
Exotic softwoods	2,142	11,708	13,850	1%
Non-stocked	-	1,129	1,129	0%
<b>Total</b>	<b>220,771</b>	<b>1,093,535</b>	<b>1,314,306</b>	
	17%	83%		

### *The Long Term Threat of Invasive Species*

The increasing presence of invasive species poses a growing economic and ecological threat to the county's forests. The two largest forest groups in St. Lawrence County are susceptible to two invasive insects that have had a devastating impact on hardwood stands in the United States. The Emerald Ash Borer is a destructive wood-boring pest of ash trees, and the Asian

Longhorned Beetle feeds on a wide variety of hardwood trees. Both insects are known for chewing into a tree to lay eggs. Upon hatching, the larvae bore into the tree, overwinter and feed on the tree until it bores out at adulthood. This process kills the tree. While the primary species threatened by the Emerald Ash Borer are ash trees, the Asian Longhorned Beetle is a threat to a variety of hardwood species including maple, ash, birch, sycamore, mountain ash, poplar and willow. To date, the ALB has been found in New York City and Long Island, while the EAB has been detected in Syracuse and Onondaga County, and is present across the St. Lawrence River in Ontario.

Vegetative invasive species such as swallow wort, honeysuckle and buckthorn also post a threat to the county's forests. Once established, these fast growing invasives can grow in dense concentrations, which crowd out native vegetation and can eventually overtake forest floors. This process prevents the forest understory from re-generating, inhibits forest diversification, and impacts wildlife by reducing native plants for food and habitat. Variations of all three species have been identified in portions of the county.

## *Takeaways*

- While the extent of farmland in the county has not declined, the county's best soils for cultivation purposes (prime and prime if drained) is limited to 19%, which is less than one-acre of prime farmland for every five-acres available. Prime, and prime if drained soils should be protected for agricultural production. Other lands that warrant protection for agricultural activities are: 1) Lands receiving agricultural valuations; 2) lands classified as farmland; and 3) farmland located in an agricultural district.
- Tools have been created to help local municipalities protect and promote agricultural activities in their communities. Those tools include: the County's Ag Atlas (online at: <http://new.dancgis.org/ima>); a revised Agricultural Data Statement to evaluate land use projects that are subject to local review; a matrix to conduct a farm-friendly audit; and recommended land use regulations to protect and promote agricultural operations.
- Sixty-five percent of the total forestland in the county is privately owned. A majority (73%) of the forest composition in the county comprise of maple, beech, birch, ash and cottonwood species. These species are becoming increasingly vulnerable to the presence of invasive insects and plants.
- Proactive measures are needed to minimize the impending devastating impact the EAB will have upon forests before the insect's presence is confirmed in the county.

# Public Forum Summary

*New Barn Swagger*



*Photo submitted by Kelsey O'Shea*

## *Outreach through Public Forums*

As part of St. Lawrence County's public outreach efforts, three forums were held in March 2015 to receive input on issues the new Plan should emphasize. Meetings were held on the 9<sup>th</sup> at the Stockholm Municipal Building; the 18<sup>th</sup> at the Lisbon School Auditorium; and on the 23<sup>rd</sup> at the Gouverneur Village Court Room. All meetings were held from 7:00 pm to 8:30 pm. Participants were asked to discuss: 1) assets, 2) barriers to progress, and 3) opportunities to strengthen and diversify the county's agricultural industry. In some instances, stakeholders assisting with the creation of the Plan attended more than one forum to hear first-hand what the agricultural community had to say about the future direction of farming in St. Lawrence County.

### *Meeting Process*

Each meeting began with an overview of the intent for creating a new Agricultural Development Plan; the reasons for the meeting; and an overview of what would be discussed. Specifically, meeting participants were asked to:

Describe agricultural assets by answering:

- What the agricultural community in St. Lawrence County is good at;
- What the industry's strengths are;
- What distinguished agriculture in the county from other places; and
- What are the advantages of farming in the county

When discussing barriers, participants were asked to identify:

- What the farming community could do a better job at;
- What are the areas for improvement;
- What needs to change for the better; and
- What is getting in the way of success

Finally, attendees were asked to identify opportunities by discussing:

- What the ag community cannot afford to pass by, and
- What the ag community must do to advance farming in the county

### *Prioritizing Recommendations*

After identifying assets, barriers and opportunities, participants were asked to prioritize these issues based on the availability of resources such as: time, local capacity, funding, and anticipated outcome from addressing these efforts. Each participant was given five votes to prioritize issues based on these parameters.

After tallying votes and grouping similar issues together, three themes emerged from the forums:

- 1) Improve and diversify the agricultural business environment – 151 votes total
- 2) Diversify and improve access to consumer markets – 80 votes
- 3) Meet the education and training needs of new and existing farm operators – 71 votes

### *Key messages to improve and diversify the agricultural business environment:*

#### *→Protect and promote our agricultural assets by investing in our transportation infrastructure*

The county's agricultural industry as a whole benefits from an established business network that supports agricultural operations. In addition to operating in a farm-friendly setting, St. Lawrence County's agricultural producers have access to agriculturally-literate lending institutions and receive quality technical assistance from service organizations such as Cornell Cooperative Extension, the Soil and Water Conservation District, and the Northern New York Agricultural Development Program. The county also offers some of the most affordable land prices in the Northeastern US, and its rural setting has helped minimize the rapid conversion of agricultural lands into non-agricultural uses that have occurred elsewhere in the state.

In spite of these assets, the success of the county's agricultural producers relies on the ability to distribute goods to market. The county's established dairy industry in particular depends on the existing road network to deliver milk products and livestock for processing.

It is for these reasons that it is essential to **provide access to a diversified and well-maintained transportation network, which includes highways, rail and the St. Lawrence Seaway.**

#### *→ Preserve and expand value-added production*

The current value-added production capacity in the county **must be sustained and expanded.** This capacity ranges from food, feed and forestry processing plants that provide valued jobs to the community, to local producers who engage in direct marketing with consumers, retailers, institutions and

restaurants. Approaches to sustain and increase value-added production across the spectrum of the ag industry will maximize revenue for the county's agricultural producers. Specific references were made to establish a new meat processing facility in the county. Other recommendations included marketing the county's agricultural assets to attract new processors and agribusiness corporations.

### →*Address regulations that affect business operations*

**There are regulations in place that hinder production and place farm operations at a competitive disadvantage.** Two specific examples include: Maple producers in Vermont who process and sell value-added maple products at their farms are not subject to state certified kitchen requirements that are imposed on maple producers in New York.

A second example is the installation of subsurface drain tiling requires stamped plans by a state-licensed engineer. In the past, Soil and Water Conservation Districts prepared drainage plans in collaboration with USDA-NRCS engineering staff. That is no longer the case. To resume this service, efforts are currently underway for SWCDs to obtain certification under a new partnership with State Department of Agriculture and Markets staff.

Both examples point to examining opportunities where regulations can be reformed to benefit the agricultural community while protecting the health and interest of the general public, and to find ways to help the ag community comply with the regulations that are in place.

### →*Address our tax burden*

**There is a high cost of doing business in New York.** St. Lawrence County is consistently challenged with providing essential services to a population that experiences some of the highest unemployment and poverty rates in the State, and must generate property tax revenue from some of the lowest housing and land values in New York. In addition to raising sufficient funds to provide local services, the State's current tax system requires municipalities to allocate local revenue to support state programs, or is responsible for administering unfunded mandates. At the county level, for instance, county governments must help pay for Medicaid, preschool special education, public assistance and other programs that county governments elsewhere in the nation do not pay for.

Two approaches can be employed to address taxes that affect agricultural production: advocating for State tax reform, and maximizing participation in tax relief programs that are available to agricultural producers, including: sales tax exemptions, agricultural assessments, school property tax credit, and farm property tax exemptions for capital projects.

### →*Make the most of our natural resources*

Land in the county is used for diverse agricultural practices such as tillable acreage, pasture, uplands and timber stands, and the seasonal climate is consistent and ideal for dairy, forage and maple production. Poorly drained soils in the county respond well to drain tiling to maximize production yields, and local producers benefit from the presence of a local source of Lyme to amend soil conditions. In response to declining aquifers and multi-year droughts that affect other agricultural regions in the US, **the county's agricultural industry should take advantage of its access to abundant sources of clean water.**

Forum attendees also acknowledged **invasive species threaten the county's agricultural production and timber stands.** Invasive species such as the Emerald Ash Borer, the Asian Longhorned Beetle, and the Hemlock Woolly Adelgid can decimate maple, ash and hemlock tree species throughout the county, while the Alfalfa Snout Beetle, Late Blight, Spotted Wing Drosophila and Swede Midge are detrimental to alfalfa, fruit and vegetable production.

### →*Strengthen and diversify agricultural production*

Dairy is a major contributor to the farming industry as it accounts for 71% (\$132 million) of the market value of products that are generated by the county's farm operations. The significance of the dairy industry's role in the county's economy warrants strategies to sustain its economic position, and identifying measures to minimize vulnerability to global fluctuations in demand and pricing. The county's agricultural industry should also be diversified to take advantage of emerging niches in biofuel, organic, poultry, livestock, and crop production. These circumstances call for developing strategies to **sustain and strengthen the county's dairy operations, and accelerate growth in agricultural diversification.**



## *Key messages to diversify and strengthen consumer markets:*

Median incomes for year-round residents have historically been lower in the county than elsewhere in the state, which constrains the local market's ability and willingness to afford higher-priced, locally-grown products. Public forum attendees identified the county's geographic location which increases time and fuel costs to deliver goods to consumers with higher incomes in major US population centers.

### *→Improve access to consumer markets outside the area*

To strengthen producer access to markets outside the county, **consolidate producer distribution efforts** to reduce the cost of accessing larger markets elsewhere in the state, and support the expansion of the regional broadband network to **maximize e-commerce activity**.

*→Create a regional “North Country” brand* to market locally-produced products that are sold in the county, throughout the state, and Canada; and educate consumers about the value of purchasing locally. Other suggestions include **creating a food hub** to provide a centralized location for local products; utilizing GardenShare to connect producers to local consumers including area institutions, retailers, and food establishments; and **increase the presence of farmers markets** where seasonal residents spend their summers.

*→Take advantage of the county's proximity to major Canadian markets*, and address actual or perceived barriers to exporting products to Canada – America's largest trading partner.

Strategies must also be developed to help producers raise production volumes to satisfy growth in consumer demand.

*→Expand and enhance agri-tourism opportunities to attract new and repeat customers.* Give customers the opportunity to visit a farm or business operation to learn about, and sample local products which enhances a visitor's overall experience of St. Lawrence County. Prime agri-tourism candidates include the St.

Lawrence Wine Trail; members of the Maple Producers Association; u-pick establishments; roadside stands and orchards.

## *Key messages to meet the education and training needs of farm operators:*

### *→Prepare a new generation of farmers*

The current generation of farmers in St. Lawrence County has approached the age of retirement and only 5% of the county's farms are operated by persons under the age 34. To sustain and advance the county's agricultural economy, the industry must prepare to transition to a new generation of farmers.

Preparing this new generation involves renewed partnerships with area school districts to **expose students to agricultural careers, revitalize FFA chapters across the county, and incorporate technology in agricultural learning opportunities.**

At the post-secondary level, SUNY Canton is resurrecting its agriculture program. To complement the completion of a two or four-year degree that leads to an agricultural career, potential services for new farm operators include **creating a farmer mentoring program, establishing an incubator farm program, and assisting emerging farm operations with agricultural business planning to successfully access start-up capital.**

### *→Utilize technology and innovation to increase production*

In addition to raising consumer demand for agricultural products made in St. Lawrence County, revenues for farm operations can also be increased by reducing business expenses and improving operation efficiencies to increase production. This requires **accelerating the utilization of farm technologies.** This includes **adopting innovative methods to extend the growing season, and to minimize the risks of invasive species.** Farm operators and employees are expected to be familiar with the operation and maintenance of modern farm equipment that relies on wireless technology, and upgrading or replacing hardware

and software systems. High energy costs affect production. As fuel prices continue to rise, it will become necessary for local producers to **transition to local, renewable energy resources.**

# Ag Survey Summary

*Lunch Time*



*Photo submitted by Kelsey O'Shea*

## *Survey of the Farming Community*

As part of the Agricultural Development Plan's outreach efforts, the County Planning Office partnered with Dr. Carrie Johns and graduating senior Kyle Currie at St. Lawrence University to design a comprehensive questionnaire and conduct an online survey of the County's agricultural community. The online survey was administered in March and April 2016.

Postcards inviting agricultural producers to participate in the survey were mailed to 541 property owners whose lands were classified as agricultural (100s); rural residence (240s); rural vacant (320s); and to farm operations receiving agricultural valuations. Mailing addresses were sourced from the St. Lawrence County Real Property Tax Office; the County Planning Office; 2014 USDA Organic Historical Data; St. Lawrence County Maple Producer Association; and the Northern New York Maple Producers Association. Digital postcards were also emailed to 69 people who were involved with, or were interested in receiving updates about the Agricultural Development Plan's creation, and press releases were distributed to local media to help promote farmer participation in the survey.

One hundred seven producers completed the survey, which achieved a 19.7% response rate based on the number of postcards mailed to property owners. Survey participation was voluntary; participants were not required to answer all questions. The survey highlights below include a fraction with a denominator that indicates the number of farmers who answered each question. Tables and charts detailing responses to each survey question, and a copy of the questionnaire are located at the end of the Plan.

### ***Survey Highlights:***

#### *General Characteristics*

- 59% are two or more kinds of farm operation (e.g. dairy, maple, field crops, etc.) (63/107)
- The most common farm types are: field crops (51), livestock for meat (39) and dairy (37)
- 29% of farms are 50 to 179 acres (21/71), and 27% of farms are 180 to 499 acres (19/71). Both categories represent for more than half (56%) of all farms in the county.
- 61% said none of their tillable land is tile drained (52/85)
- Nearly half of farms (48%) are organic or use some organic practices (40/84)
- 45% have owned or operated their farms for more than 20 years (44/98)
- 77% of farmers have a two-year college degree or higher (75/97)

#### *Economic Characteristics*

- 30% generate less than \$10,000 in annual gross sales (27/89)
- 29% generate \$10,001 - \$50,000 in annual gross sales (26/89)
- The two most common farm types generating less than \$50,000 annually in sales were field crops (27) and livestock for meat (26)
- 6% generate \$50,001 - \$100,000 in annual gross sales (5/89)
- 19% generate \$100,001 - \$500,000 in annual gross sales (17/89)
- 16% generate more than \$500,000 in annual gross sales (14/89)
- 72% use at least seven acres and gross \$10,000 in annual sales receipts, and could qualify for an agricultural valuation (65/90)

### *Tenure and Retirement*

- 28% are 60+ years old and have reached the age of retirement (30/107)
- 42% plan to retire, or plan to transfer ownership in the next 10 to 15 years (28/66)
- 42% said their kids aren't interested in continuing the farm (36/86)
- 73% said they do not, or are unsure if they have a succession plan (53/73)

### *Quality of Business Environment*

- 55% of farmers rated the county's overall ag support network as "good" or "excellent" (519/936)
- The largest category rated "poor" by farmers was processing facilities (29/102)
- The largest categories rated "adequate" by farmers was access to equipment sales and service (27/186), industry vendors and contractors (22/186), and veterinarians (22/186)
- The largest categories rated "good" by farmers was access to farm supply, feed and fertilizer businesses (38/245) and general contractors (34/245)
- The largest categories rated "excellent" by farmers was access to service agency staff (25/174) and financial services (23/174)

### *Top Issues Affecting Business Operations*

- The top issues affecting farms by farm type and by gross annual sales were:*
- All farm types:* Soil drainage (35/249) and limited growing season (34/249)
- Dairy producers:* Environmental regulations (20/131), drainage (17/131) and access to skilled labor (16/131)
- 65% of livestock and dairy producers do not have a (certified) nutrient management plan (40/62)
- Maple producers:* Environmental regulations (10/98), distance to markets (9/98)
- Local food producers:* Limited growing season (14)
- Less than \$10,000:* Drainage (10/85), limited growing season (10/85)
- \$10,001 - \$50,000:* Limited growing season (14/86), liability insurance (11/86), distance to markets (11/86)
- \$50,001 - \$100,000:* Liability insurance (3/25), access to processing facilities (3/25)
- \$100,001 - \$500,000:* Liability insurance (8/58)
- Greater than \$500,000:* Environmental regulations (12/46)

### *Top Expenses Affecting Business Operations*

- All farm types and farm with gross sales less than \$50,000:* Property taxes were the greatest economic issue affecting business operations. In some instances it was double the vote count for the second-highest category. Farms with gross sales greater than \$50,000 also identified:
- \$50,001 - \$100,000:* Volatility in product prices (3/17) and insufficient cash flow (3/17)
- \$100,001 - \$500,000:* High input costs (7/44) and energy costs (7/44)
- Greater than \$500,000:* Volatility in product prices (8/35)

### *Future Activity*

- Nearly half of all farms (48%) anticipate putting additional acreage into production (47/97)
- 36% plan to expand operations in less than five years (34/95), and 23% plan to expand within the next five to 10 years (14/60)
- Dairy (21), poultry and livestock (14) are the most common farm types that plan to expand
- 37% of dairy and livestock producers are planning facility/system updates within the next five years (156/422). Update grazing infrastructure (26/156), and updating/expanding feed and forage systems (24/156) were the two most common updates

### *Local Food Producers*

66% of local food producers do not do any on-farm packaging or processing (35/53)

37% said they were not familiar, or their familiarity with food safety practices was poor or adequate (19/51)

86% said they did not have a food safety plan (44/51)

The top initiatives to improve profitability among local food producers were: accessing new markets (17/48); access to storage, processing and distribution facilities (16/48); and adding value to existing products (12/38)

61% said they would be willing to work with other producers to improve profitability (31/51)

### *Top Training Topics*

*The top training topics by farm type and by gross annual sales were:*

*All farm types:* Increasing production (25/184), improving productivity (24/184), marketing and sales (29/173), renewable energy systems (25/173) and energy savings (21/173)

*Dairy producers:* Milk and feed price risk management (9/74) and calf feeding and young stock management (9/74)

*Less than \$10,000:* Increasing production (10/73), Good Agricultural Practices certification (9/73) and marketing (8/73)

*\$10,001 - \$50,000:* Marketing (13/87) and increasing production (12/87)

*\$50,001 - \$100,000:* Marketing (3/23) and renewable energy systems (3/23)

*\$100,001 - \$500,000:* Renewable energy systems (8/59) and estate planning (8/59)

*Greater than \$500,000:* Labor management (9/48), price/cost risk management (8/48) and regulatory compliance (8/48)

# Goals and Actions

*Cooperative Extension's Learning Farm in Canton*



*Photo submitted by Kitty O'Neil*



## *Goals and Actions Matrix*

Four service organizations – Cornell Cooperative Extension of St. Lawrence County, the St. Lawrence County Industrial Development Agency, the St. Lawrence County Planning Office, and the St. Lawrence County Soil and Water Conservation District – are members of, or regularly participate in the County’s Agricultural and Farmland Protection Board meetings, and will serve as the lead agents on the implementation of the Agricultural Development Plan’s goals and actions.

Staff from all four lead agencies met regularly to develop the Plan’s goals and actions. These goals and actions were written in response to: issues raised at the public forums and results from the online survey; issues raised in discussions with project stakeholders; and from trends or issues that emerged in the Plan’s economic profile and land analysis.

The Plan’s actions are action-oriented, and are based on: staffing capacity and available programming resources; the ability to implement an action within a reasonable time frame; and the action’s anticipated outcome. The Plan’s matrix first lists those goals and actions that benefit the entire farming community, and are followed by goals and actions that will help benefit or advance a particular farm type or industry. Certain actions may satisfy more than one goal, but they are listed only once to avoid redundancy in the matrix.

There are significant external issues - such as State and Federal regulations, the State’s current property tax structure, and international trade policies - that affect the operations of farm businesses, but cannot be readily addressed using local staffing and programming resources. These issues instead should be incorporated by elected officials as part of a legislative reform agenda. Because property taxes were identified in the online survey as the single largest cost that affects farm operations, an action was written for the Board of Legislators to advocate for property tax relief by enacting a phased State takeover of Medicaid costs and other State-mandated programs.

The advancement of each action is listed by year over a five-year period, and the matrix identifies potential partners and funding sources that may assist with project implementation. The acronyms of partner agencies referenced in the matrix are below. This list is by no means comprehensive and is not intended to exclude organizations or resources that could be used to advance the goals and actions of the Plan.

- BOCES – St. Lawrence – Lewis Board of Cooperative Educational Services
- CCE – Cornell Cooperative Extension of St. Lawrence County
- Chamber – St. Lawrence County Chamber of Commerce
- County Highway – St. Lawrence County Highway Department
- DANC – Development Authority of the North Country
- DEC – New York State Department of Environmental Conservation
- Farm Bureau – St. Lawrence County Farm Bureau
- FCE – Farm Credit East
- GardenShare – A non-profit that seeks to end hunger and strengthen food security
- Harvest NY – Business development, marketing, dairy and livestock processing specialists in NNY
- IDA – St. Lawrence County Industrial Development Agency
- Maple Producers Association – St. Lawrence County Maple Producers Association
- Planning – St. Lawrence County Planning Office
- Reh Center for Entrepreneurship – Reh Center for Entrepreneurship at Clarkson University

- SBDC – Small Business Development Center at SUNY Canton
- SLC EAB Task Force – St. Lawrence County Emerald Ash Borer Task Force
- SWCD – St. Lawrence County Soil and Water Conservation District

The implementation of the Ag Plan’s goals and actions will be overseen by the County’s Agricultural and Farmland Protection Board. Updates will be delivered by each of the lead agencies at the Agricultural and Farmland Protection Board’s quarterly meetings. As the Plan’s actions are implemented, nearing completion, or face unanticipated challenges, they may be revised or added to account for these circumstances. At the end of five years, the lead agencies will review the matrix to prepare a new set of actions, or create new goals as appropriate, and present them to the Agricultural and Farmland Protection Board, and to the Board of Legislators for review and approval.

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>All Farm Operations:</b>						
1.	Improve the productivity of farmland.	Soil drainage constrains farm production.	Advise farm operators, publish articles and host demonstrations that highlight the benefits of tile drainage. Raise public awareness about available financing through outreach efforts such as press releases, and print/online advertisements.	CCE, SWCD, DANC & FCE	Development Authority of the North Country, Farm Credit East	Ongoing
			Increase the cultivation of viable, weather-resistant forage options that can grow on marginal soils through research and development projects and by delivering technical assistance.	CCE	Northern NY Ag Development Program, Northeast SARE, NY Farm Viability Institute	Ongoing
			Deliver annual programs and events such as the Crop Congress which informs farm operators with up to date issues, technology and research in field production.	CCE	Underwriters such as agribusinesses	Ongoing
		The limited growing season constrains farm production.	Conduct research and development projects, deliver education and training, and provide technical assistance with cost-sharing programs related to cold climate/covered agriculture production.	CCE, SWCD	Northern NY Ag Development Program, Northeast SARE, NY Farm Viability Institute, USDA Natural Resource Conservation Service	2017
2.	Protect prime soils for agricultural production.	Less than 1 acre for every 5 acres in the county is prime (or prime if drained) farmland.	Deliver land use training on preserving prime farmland for agricultural production using the County's online Ag Atlas, and the revised Ag Data statement for project reviews.	Planning	Annual operating budget	2017
			Assist municipalities in resolving inconsistencies between land use regulations and NYS Agriculture and Markets Law through farm friendly audits and zoning/land use revisions.	Planning	NYS Department of Agriculture and Markets Farmland Protection Planning and Implementation Funds	2017
3.	Assist with the transition to a new generation of farm operators	A majority of farm operators have reached, or are approaching the age of retirement and have not prepared succession or estate plans.	Deliver education and training on estate and succession planning.	CCE, FCE	Harvest NY, NY FarmNET, Farm Credit East	2017

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>All Farm Operations:</b>						
3. (Cont.)	Assist with the transition to a new generation of farm operators.	A majority of farm operators have reached, or are approaching the age of retirement and have not prepared succession or estate plans.	Design and implement the Northern New York Farm Internship and Management Program to connect retiring farmers with new prospective farmers.	CCE	NYS Workforce Development Institute, Northeast Agricultural Education Foundation	2017
			Accelerate the number of high school students who enroll in BOCES Agricultural Studies Academy through outreach efforts such as Ag Academy Ambassadors, high school presentations and open houses at CCE's Learning Farm.	CCE, BOCES	Annual operating budget	2017
			Partner with area school districts that have existing school-based agricultural programs to develop the Agricultural Studies Academy into a four-year, secondary degree program at BOCES.	CCE, BOCES	BOCES, area school districts	2018
			Coordinate an outreach effort for school counselors to explore the wide range of ag-related careers involving science, technology, engineering and math that enhance agricultural production. The initiative could include area farm tours, hearing from leaders in the farm and food industry, and meeting with college and universities about ag-related degrees.	CCE, Planning, IDA, Farm Bureau	Farm Bureau, Northeast Agricultural Education Foundation	2017
			Partner with Farm Credit East to maximize participation in FCE's New Farmer Programs such as Generation Next and Farm Start.	CCE, IDA, SBDC, FCE, SWCD	Farm Credit East	2017
			Increase the enrollment of local high school graduates at SUNY Morrisville, SUNY Cobleskill, and Cornell University by coordinating outreach efforts such as high school presentations and campus site visits.	CCE, BOCES, Planning	SUNY Morrisville, SUNY Cobleskill, Cornell University	2018

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>All Farm Operations:</b>						
3. (Cont.)	Assist with the transition to a new generation of farm operators.	A majority of farm operators have reached, or are approaching the age of retirement and have not prepared succession or estate plans.	Create and maintain an online directory of resources that is locally available to the farming community. These include: service agencies, financial resources, technical assistance programs, cooperatives, and state and local associations (e.g. SWCD, IDA, CCE, USDA Service Center, County Chamber, Farm Bureau, Maple Producers Association, GardenShare, North Country Grown, DFA, AgriMark, Horizons, DANC, FCE and SBDC). This directory would be used as part of the IDA's business briefing program for start up enterprises.	IDA, Planning	Annual operating budget	2017
4.	Improve the productivity and profitability of farm operations and agribusinesses.	Farm operators identified property taxes as the greatest economic issue that affects business operations.	Increase public awareness about tax exemptions and credits that are available to farm operations by featuring them in an online resource directory, and by incorporating them into a business briefing program for start up enterprises.	IDA, Planning, SWCD	Annual operating budget	2017
		Farm operators identified property taxes as the greatest economic issue that affects business operations.	Continue to advocate for property tax relief by enacting a phased State takeover of Medicaid costs and other State mandated programs.	Board of Legislators, State elected officials	None	2017
		Increasing production and marketing were the top two training topics identified by farm operators generating less than \$50,000 in annual sales.	Help new and expanding businesses access capital through training and counseling on marketing, business planning and financing planning.	CCE, FCE, SBDC, Harvest NY	NYS Beginning Farmer Grant, ProDairy Dairy Acceleration Program	2017
		Increasing production and marketing were the top two training topics identified by farm operators generating less than \$50,000 in annual sales.	Coordinate the preparation and publication of articles in Cooperative Extension's digital newsletter that focus on business management and investments, marketing, and financial resources available.	Planning, CCE, IDA, FCE, SBDC, Chambers of Commerce, DANC, SWCD, Reh Center for Entrepreneurship, Harvest NY	Annual operating budget, newsletter advertisements	2017

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>All Farm Operations:</b>						
4. (Cont.)	Improve the productivity and profitability of farm operations and agribusinesses.	Renewable energy systems and energy savings were identified as two of the top training topics by producers generating \$50,000 or more in annual sales.	Reduce energy costs by informing farm operations and agribusinesses about energy savings/renewable energy programs and incentives. Outreach includes newsletter articles and advertisements, individual consultations, classroom workshops, project demonstrations, and/or technical assistance to participate in cost-sharing programs.	CCE, SWCD, IDA	National Grid, NYSEDA, USDA Natural Resource Conservation Service	2017
		Farm operators generating less than \$500,000 in annual gross sales identified liability insurance as one of the top three issues that affects business operations.	Coordinate events with insurance companies to present information about liability (and other) policies and premiums for farms and agribusinesses.	Planning, Farm Bureau, CCE	Farm Bureau, annual operating budget	2018
5.	Invest in infrastructure that supports the operations of agricultural businesses.	Farmers identified the County's transportation network and public infrastructure as a vital component of the day to day operations of agricultural businesses.	Conduct at least three bridge replacement/major rehabilitation projects each year. Utilize CHIPs funds for the County's annual roads and small culverts program.	County Highway	NYS Consolidated Local Street and Highway Program (CHIPs)	2017
			Assist with the preparation and administration of funding applications to repair, replace or expand public infrastructure that supports businesses and economic development.	County Highway, Planning	Federal Transportation Funds, NYS Small Cities Community Development Block Grant Program, Empire State Development Corporation, NYS Environmental Protection Fund, USDA Rural Development	Ongoing
6.	Protect and expand the current capacity of value added production in the county.	Access to processing facilities was rated "poor" by farmers.	Collaborate closely with the New York Power Authority in its global search to attract advanced manufacturing firms, value-added dairy processing, and large-scale covered agriculture investors and businesses to the county.	IDA	NYPA	2017
			Provide technical assistance and/or financing to processing facilities and farm support businesses on system operations, production efficiencies, and revenue streams.	IDA	Annual operating budget	Ongoing

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>All Farm Operations:</b>						
6. (Cont.)	Protect and expand the current capacity of value added production in the county.	Access to processing facilities was rated "poor" by farmers.	Provide customized technical assistance to emerging and existing meat processing facilities to satisfy quality assurance programs.	CCE, Harvest NY	USDA Rural Development	Ongoing
			Assist with the preparation and administration of economic development and public infrastructure funding applications that benefit processing and packaging facilities.	Planning, IDA	NYS Small Cities Community Development Block Grant Program, Empire State Development Corporation, NYS Environmental Protection Fund, USDA Rural Development	Ongoing
<b>Dairy &amp; Livestock Operations:</b>						
7.	Deliver programs and services that sustain and advance the county's dairy industry.	Calf feeding, young stock management, price risk management, and parlor facility renovations were the top training topics identified by dairy producers.	Deliver education and training on calf management, cow comfort, facility needs and risk management.	CCE	Northern NY Ag Development Program, New York Farm Viability Institute	Ongoing
		Labor management was identified as the most important training topic for producers with annual sales greater than \$500,000.	Provide education and training to farm operations on hiring, supervising and managing employees, and compliance with OSHA regulations.	CCE	Northern NY Ag Development Program, New York Farm Viability Institute, NYS Workforce Development Institute	2017
		Animal welfare policies were identified as the third highest issue that affects producers with annual sales greater than \$500,000.	Advise and educate dairy producers about best practices for on-farm animal care as recommended by the National Dairy FARM Program.	CCE	Northern NY Ag Development Program, New York Farm Viability Institute, Dairy Cooperatives	2017
8.	Assist dairy and livestock producers with environmental stewardship.	Environmental regulations are identified as one of the top three issues affecting farm operations. Seventy-one percent of dairy and livestock producers reported they do not have a Nutrient Management Plan or Certified Nutrient Management Plan.	Help farms secure cost sharing assistance from Pro-Dairy's Dairy Acceleration Program, Agricultural Environmental Management (AEM) Programs, and Environmental Quality Incentive Program to prepare CNMPs and use Best Management Practices for manure handling and storage systems, milk house waste collection and treatment systems, and improvements to silage leachate systems.	SWCD, CCE	NYS Soil and Water Conservation Committee, USDA Natural Resources Conservation Service	Ongoing

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>Dairy &amp; Livestock Operations:</b>						
8. (Cont.)	Assist dairy and livestock producers with environmental stewardship.	Environmental regulations are identified as one of the top three issues affecting farm operations. Seventy-one percent of dairy and livestock producers reported they do not have a Nutrient Management Plan or Certified Nutrient Management Plan.	Assist farm operators with participation in the NYS Climate Resilient Farming Program to install ag waste cover and flare systems, improve on-farm water management, and enhance soil health.	SWCD	ProDairy Dairy Acceleration Program, NYS Soil and Water Conservation Committee	2017
		Updating grazing infrastructure, and expanding or updating feed and forage systems within the next five years were the most common updates identified by dairy and livestock producers.	Assist dairy and livestock producers with the planning, design and implementation of improved grazing systems, and feed and forage systems.	SWCD, CCE	NYS Soil and Water Conservation Committee, Annual operating budget	Ongoing
9.	Deliver education and training to help create a qualified labor pool of farm workers.	Access to skilled labor was identified by dairy producers as one of the top issues that affects business operations.	Provide education and training to farm workers and agribusiness employees on subjects including certifications in: pesticide application, milk processing and meat processing.	CCE, Harvest NY	Annual operating budget	Ongoing
			Provide on-farm training to various levels of farm employees on milker training, nutrition and overall production management.	CCE	Northern NY Ag Development Program, NYS Workforce Development Institute	Ongoing
		Public forum attendees recognized the importance of incorporating technology in education and training opportunities. Farm operators and employees are expected to be familiar with the operation and maintenance of modern farm equipment that relies on wireless technology, and upgrading or replacing hardware and software systems.	Partner with nationally recognized farm equipment dealers and vendors to sponsor and deliver regional workshops on precision planting technologies used in farm equipment, and on automated technologies used in robotic milking systems.	Planning, CCE, Farm Bureau	Area farm equipment vendors (e.g. LeBerge and Curtis, Walldroff, etc.), Farm Bureau	2018



**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b><i>Dairy &amp; Livestock Operations:</i></b>						
10.	Provide programs and services that promote the expansion of livestock production and increases the average gross sales of livestock producers.	Livestock for meat was the largest farm category generating an annual gross sales of \$50,000 or less. Livestock and poultry producers were the second largest farm category that intend to expand operations over the next five years.	Provide livestock production outreach and education that targets increased production quality and profitability, including beef and sheep quality assurance, nutrition management, pasture and hay management, business management and market development.	CCE	Northeast SARE, Northeast Center for Risk Management Education, USDA Rural Development	Ongoing
		Forty-six percent of producers said establishing a local, small-scale livestock processing facility would benefit their business.	Provide technical and/or grantwriting assistance on an as needed basis to prospective and existing USDA livestock processing facilities.	IDA, CCE, Planning	USDA Rural Development, NYS Empire State Development, NYS Small Cities Community Development Block Grant Program	Ongoing
<b><i>Fruit &amp; Vegetable Producers:</i></b>						
11.	Deliver programs and services that increase the annual gross sales of local food producers.	Accessing new markets; access to storage, processing and distribution facilities; and consolidated sales and distribution were identified by local food producers as the top three initiatives to improve profitability.	Utilize Cooperative Extension's commercial kitchen as a training platform for food safety planning, value-added processing and packaging for fruit, vegetable, dairy and meat products.	CCE, Harvest NY	USDA Rural Development, USDA Community Food Program	Ongoing
			Provide educational programming to assist with the advancement of a regional food hub which is anticipated to help market, consolidate and distribute local food products to new and expanded markets.	CCE, Harvest NY	USDA Rural Development, USDA Community Food Program	2017
			Increase producer awareness about cost-sharing/financial resources available to establish storage and transportation capacity.	SWCD, FCE	USDA Farm Service Agency, Annual operating budget	2017

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>Fruit &amp; Vegetable Producers:</b>						
11. (Cont.)	Deliver programs and services that increase the annual gross sales of local food producers.	Accessing new markets; access to storage, processing and distribution facilities; and consolidated sales and distribution were identified by local food producers as the top three initiatives to improve profitability.	Utilize Cooperative Extension's commercial kitchen as a teaching platform for culinary skill training to help increase consumer awareness and demand for local foods	CCE	WIC and Senior Farmer's Nutrition Program, NY FreshConnect, SNAP Nutrition Education and Obesity Prevention Grant Program	Ongoing
		Thirty-seven percent of local food producers were not familiar with food safety practices, and 86% did not have a food safety plan.	Design and deliver education and training programs to help food producers become Good Agricultural Practices (GAP) certified and prepare Food Safety Plans that comply with the Food Safety Modernization Act (FSMA).	CCE	USDA Rural Development, USDA Community Foods Program	2017
		Marketing was a top training topic identified by farm operators generating less than \$50,000 in annual sales.	Develop and deliver educational programs that focus on improved farm business management, market development and distribution.	CCE, Harvest NY, Clarkson University	USDA Community Foods Program	2017
			Promote producer participation in the State's "New York Grown and Certified Program" by helping producers become GAP certified, and by providing technical assistance in Agricultural Environmental Management (AEM) Programs.	CCE, SWCD	NYS Department of Agriculture and Markets	2018
			Launch a marketing/consumer awareness campaign to help consumers identify local agricultural products and support the local food economy.	CCE, Chamber of Commerce, Planning, GardenShare	NYS Department of Agriculture and Markets Farm, Apple and Cuisine Trail Program, WIC and Senior Farmer's Nutrition Program, Market New York, NY FreshConnect, SNAP Nutrition Education and Obesity Prevention Grant Program, USDA Farmer's Market Promotion Program, USDA Local Food Promotion Program	2018
			Launch a marketing initiative to increase customer attendance, and raise producer participation at area farmers markets.	GardenShare	USDA Farmer's Market Promotion Program, USDA Local Food Promotion Program	2018
<b>Maple Producers:</b>						
12.	Deliver program and services that advance the county's maple industry.	Forty-eight percent of maple syrup producers generate \$50,000 or less in annual gross sales.	Provide education and training to maple producers on research and development projects, facility operations and value added production.	CCE	Northern NY Ag Development Program, New York Farm Viability Institute, Northeast SARE, USDA Specialty Crop Block Grant Program	Ongoing

**St. Lawrence County Agricultural Development Plan  
Goals and Actions Matrix**

Number	Goal	Issue	Recommended Action	Partner(s)	Potential Funding Source(s)	Year to Begin
<b>Maple Producers:</b>						
12. (Cont.)	Deliver program and services that advance the county's maple industry.	Forty-eight percent of maple syrup producers generate \$50,000 or less in annual gross sales.	Consult with the County Chamber of Commerce and the Maple Producers Association on pursuing marketing funds to promote the maple industry.	Planning	USDA Specialty Crop Block Grant Program	2018
		New York maple producers are subject to certified kitchen requirements that do not apply to producers in Vermont and Ontario. Maple producers identified Environmental regulations as the top issue that affects business operations.	Examine regulations that apply to maple producers in Canada, New York and Vermont, and examine the viability of revising State health requirements to be consistent with adjacent jurisdictions.	Planning, Maple Producers Association, State elected officials	Annual operating budget	2018
<b>Forestland &amp; Timber Production:</b>						
13.	Minimize the economic and environmental impact of invasive species on agriculture and forestry, with a particular emphasis on the Emerald Ash Borer (EAB).	Public forum attendees identified invasive species as a threat to the county's agricultural and forest economy. More than 119,000 acres of forestland in the county consist of ash and cottonwood species, which is threatened by the impending arrival of the EAB.	Identify locations and quantify the impact of areas that are most vulnerable to the EAB, and accelerate the harvest of threatened ash species prior to its arrival.	St. Lawrence County EAB Task Force	NYS Soil and Water Conservation Committee, NYS Department of Environmental Conservation	2017
			Initiate outreach efforts such as a public awareness campaign and evening seminars to help private property owners prepare for, and mitigate the arrival of the EAB.			2018
		Foresters identified invasives such as the Hemlock Woolly Adelgid, the Asian Longhorned Beetle, Swallowwort and Buckthorn as threats to forest stands and timber production. CCE's Field Crop Specialist identified the Alfalfa Snout Beetle, Late Blight, Spotted Wing Drosophila and Swede Midge as detrimental to alfalfa, fruit and vegetable production.	Advise property owners and farm operators on the identification and eradication of invasive species.	CCE, SWCD, DEC	USDA Natural Resources Conservation Service, NYS Soil and Water Conservation Committee	2017
14.	Provide technical assistance to land owners on achieving a healthy and resilient forest ecosystem and sustainable timber industry.	Twenty-six percent of privately owned forestland in the county participates in the Forest Tax Law (FTL) 480-a Program and is under sustainable forestry management practices.	Provide one-on-one consultation on sound silviculture and forestry management practices to land owners, and assist with participation in Federal and State forestry programs.	SWCD, DEC	NYS Department of Conservation 480-a Tax Program, NYS Soil and Water Conservation Committee	Ongoing

## ***Bibliography***

- “2014 Organic Survey, Certified and Exempt Organic Farm Data, Complete Report.” United States Department of Agriculture National Agricultural Statistics Service.  
[http://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Organics/](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Organics/)
- “2014-2015 Agricultural Statistics Annual Bulletin, New York.” 2014 New York Agricultural Statistics. USDA National Agricultural Statistics Service.  
[http://www.nass.usda.gov/Statistics\\_by\\_State/New\\_York/Publications/Annual\\_Statistical\\_Bulletin/](http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/Annual_Statistical_Bulletin/)
- “Agricultural Capability of United States Soils.” ESRI ArcGIS Resource Center.  
<http://resources.arcgis.com/en/communities/soils/02ms00000005000000.htm>
- “Amish Population Change 2010-2015.” Young Center for Anabaptist and Pietist Studies, Elizabethtown College.  
[https://groups.etown.edu/amishstudies/files/2015/08/Population\\_Change\\_2010-2015.pdf](https://groups.etown.edu/amishstudies/files/2015/08/Population_Change_2010-2015.pdf)
- “Amish Population Profile 2015.” Young Center for Anabaptist and Pietist Studies, Elizabethtown College.  
<http://groups.etown.edu/amishstudies/statistics/amish-population-profile-2015>
- “Farmland Soils.” Connecticut Environmental Conditions Online.  
[http://www.cteco.uconn.edu/guides/resource/CT\\_ECO\\_Resource\\_Guide\\_Soils\\_Farmland.pdf](http://www.cteco.uconn.edu/guides/resource/CT_ECO_Resource_Guide_Soils_Farmland.pdf)
- “New York Volume 1, Complete Report, All Tables.” 2002 Census Volume 1, Chapter 2: County Level Data New York. USDA National Agricultural Statistics Service.  
[http://www.agcensus.usda.gov/Publications/2002/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/New\\_York/](http://www.agcensus.usda.gov/Publications/2002/Volume_1,_Chapter_2_County_Level/New_York/)
- “New York Volume 1, Complete Report, All Tables.” 2012 Census Volume 1, Chapter 2: County Level Data New York. USDA National Agricultural Statistics Service.  
[http://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/New\\_York/](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_County_Level/New_York/)
- “Northeast Milk Marketing Area Statistical Handbook.” Northeast Marketing Area, Federal Milk Marketing Order 1. USDA Agriculture Marketing Service Dairy Program.  
[http://www.fmmone.com/NE\\_Statistical\\_Handbook/NE\\_Statistical\\_Handbook.XLS](http://www.fmmone.com/NE_Statistical_Handbook/NE_Statistical_Handbook.XLS)
- “Quarterly Census of Employment and Wages (QCEW).” New York State Department of Labor Labor Statistics.  
<http://labor.ny.gov/stats/LSQCEW.shtm>
- “RI Soil Survey - Capability Classes and Subclasses.” USDA Natural Resources Conservation Service Rhode Island.  
[http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ri/soils/?cid=nrcs144p2\\_016628](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ri/soils/?cid=nrcs144p2_016628)
- “US Land Use and Soil Classification.” USDA Agricultural Research Service.  
<http://www.ars.usda.gov/SP2UserFiles/Program/215/Food%20security%20talk%20inputs%20Lunch%203-15-11.pdf>

# Appendix A:

## Ag Survey Results

*Cows Don't See Color*



*Photo submitted by Kelsey O'Shea*

# 2016 St. Lawrence County Agriculture Survey Results

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Created in partnership between:

St. Lawrence University and the  
St. Lawrence County Planning Office

## Introduction

As part of the creation of St. Lawrence County's Agricultural Development Plan, the County Planning Office partnered with Dr. Carrie Johns and graduating senior Kyle Currie at St. Lawrence University to design a questionnaire and conduct an online survey of the County's Agricultural community. The survey was conducted in Spring 2016.

Postcards inviting agricultural producers to participate in the survey were mailed to 541 property owners whose lands were classified as agricultural (100s); rural residence (240s); rural vacant (320s); and to farm operations with agricultural valuations. Digital postcards were also sent to 69 people by email who are involved with, or are interested in the Agricultural Development Plan. Addresses were sourced from the St. Lawrence County Real Property Tax Office; the County Planning Office; 2014 USDA Organic Historical Data; St. Lawrence County Maple Producer Association; and the Northern New York Maple Producers Association.

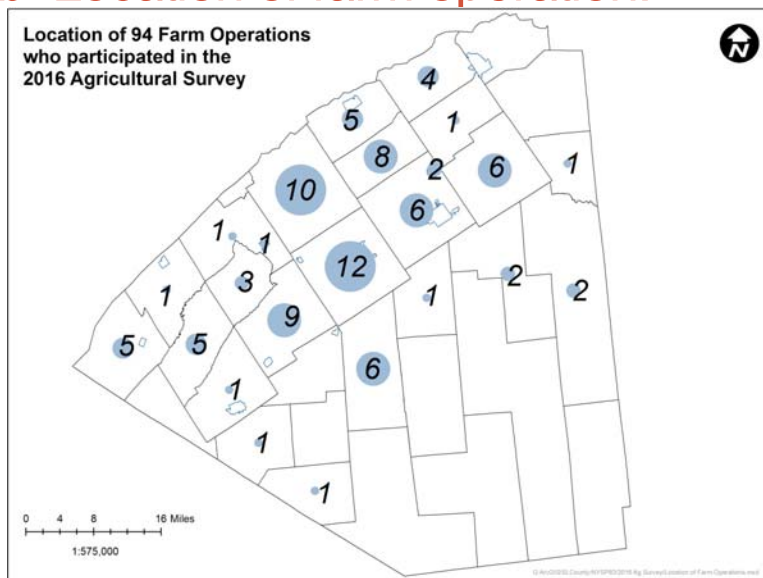
One hundred seven producers completed the survey, which achieved a 19.7% response rate for the postcard mailing. Survey participation was voluntary; participants were not required to answer all questions. Responses to the survey are detailed below. A copy of the survey questionnaire is located at the end of this report.

## 1a. Where is your farm located?

Distribution of Farm Operations who Participated in Survey					
Canton	12	Lawrence	1	Oswegatchie	1
Dekalb	9	Lisbon	10	Parishville	2
Depeyster	3	Louisville	4	Pierrepont	1
Fowler	1	Macomb	5	Pitcairn	1
Gouverneur	1	Madrid	8	Potsdam	6
Hammond	5	Morristown	1	Russell	6
Heuvelton	1	Norfolk	1	Stockholm	6
Hopkinton	2	Norwood	2	Waddington	5

Responses = 94; Did not disclose = 13

## 1b. Location of farm operation:





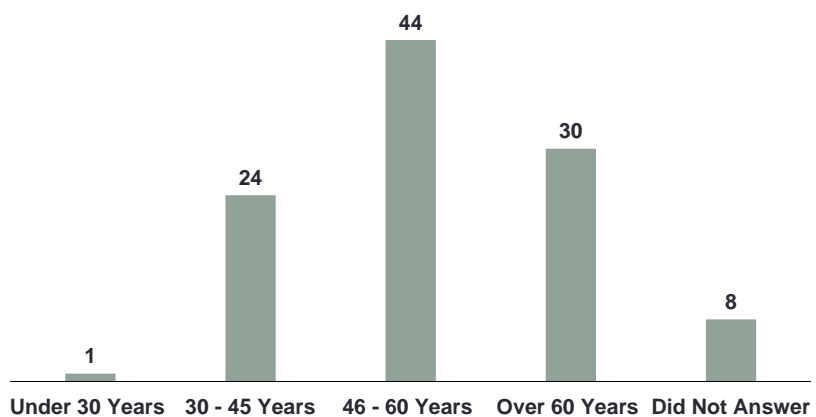
## 2. Role in the farm operation:

- Owner/operator: 80 (82%)
- Owner: 13 (13%)
- Operator: 1 (1%)
- Other: 4 (4%)

Other: 1 educator; 1 retired owner; 1  
equipment operator

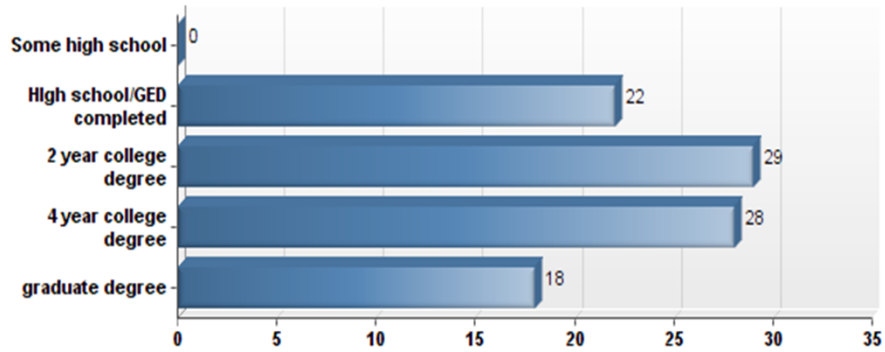
Number of Responses = 98

## 3. How old are you?



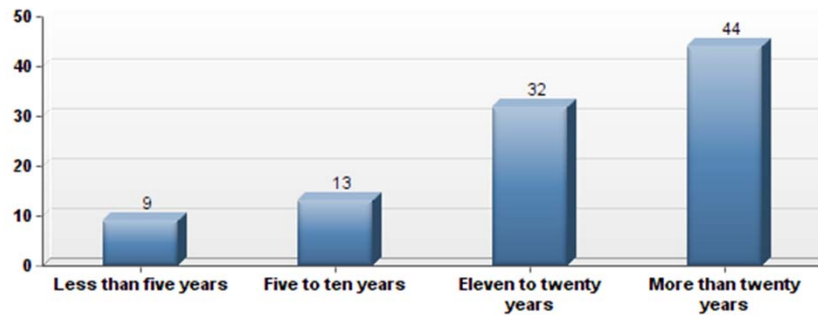
Number of Responses = 107

## 4. Level of formal education



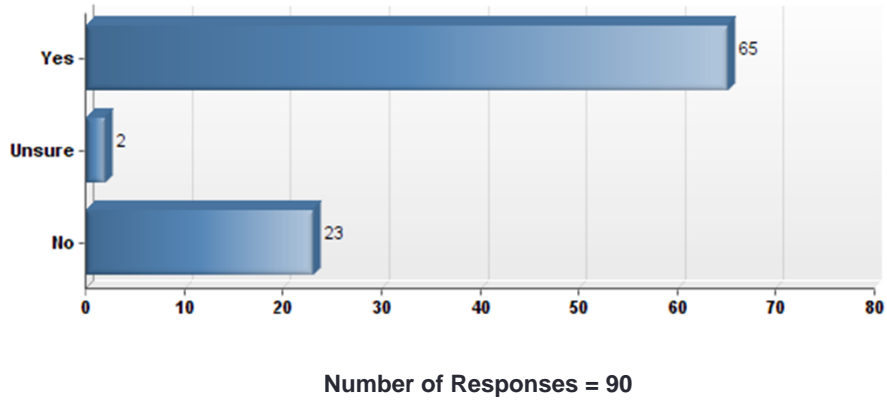
Number of Responses = 97

## 5. How long have you owned or operated your farm?



Number of Responses = 98

## 6. Does your farm use at least 7 acres and gross at least \$10,000 in annual sales receipts?



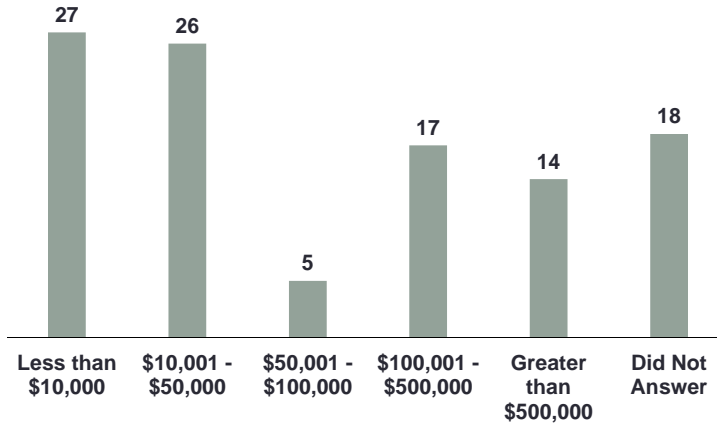
## 7. Operation's average gross sales over the last five years:

Type of Producer	Less than \$10,000	\$10,000 - \$50,000	\$50,001 - \$100,000	\$100,001 - \$500,000	Greater than \$500,000	Grand Total
Dairy	2	6	2	11	14	35
Equine	3	4	2	3	6	18
Field Crops	13	13	3	8	13	50
Honey/Apiary	3	3	1	4	5	16
Landscaping or horticultural products	1	2	1	6	5	15
Livestock for Meat	11	16	2	4	6	39
Livestock for Fiber	2	1	1	3	5	12
Maple syrup	7	5	4	3	6	25
Other	7	7	1	3	4	22
Poultry for Eggs	5	5	2	5	6	23
Poultry for Meat	4	5	2	5	6	22
Produce	8	8	1	5	5	27
<b>Total Producers Identified</b>	<b>66</b>	<b>75</b>	<b>22</b>	<b>60</b>	<b>81</b>	<b>304</b>

Participants Could Select One or More Farm Category

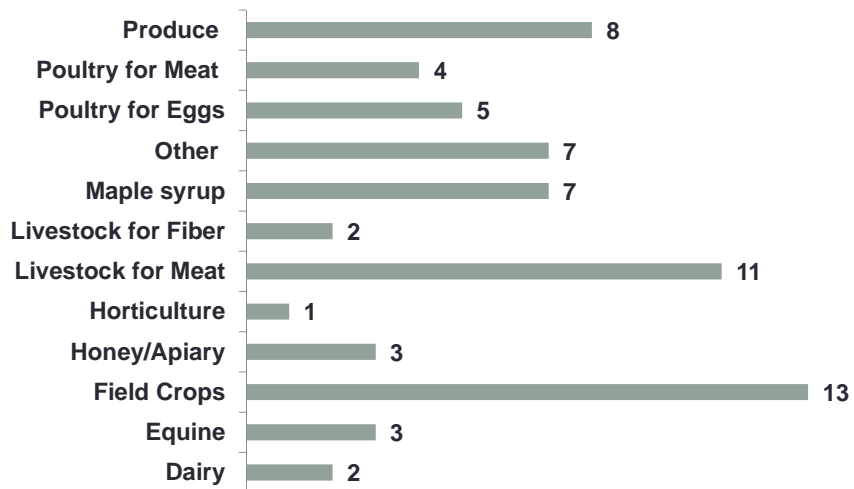
## 7a. Operation's average gross sales over the last five years:

All Farm Operations by Average Gross Sales



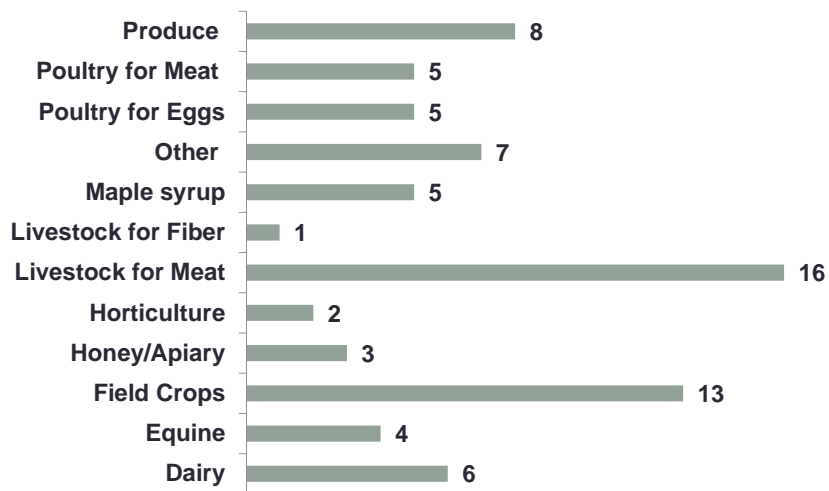
Number of Responses = 107

## 7b. Farms generating less than \$10k:



Participants Could Select One or More Farm Category

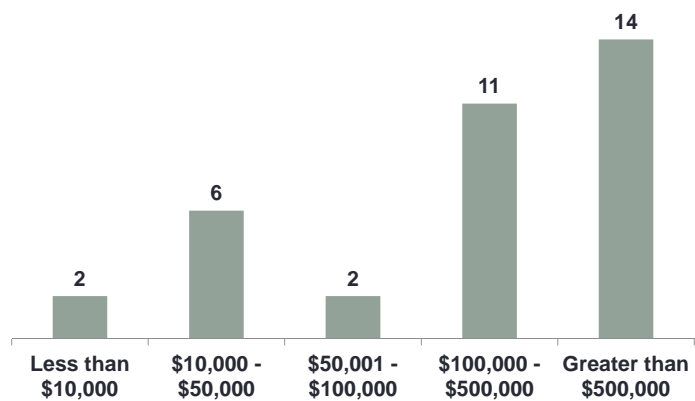
## 7c. Farms generating \$10k - \$50k:



Participants Could Select One or More Farm Category

## 7d. Average gross sales by farm type:

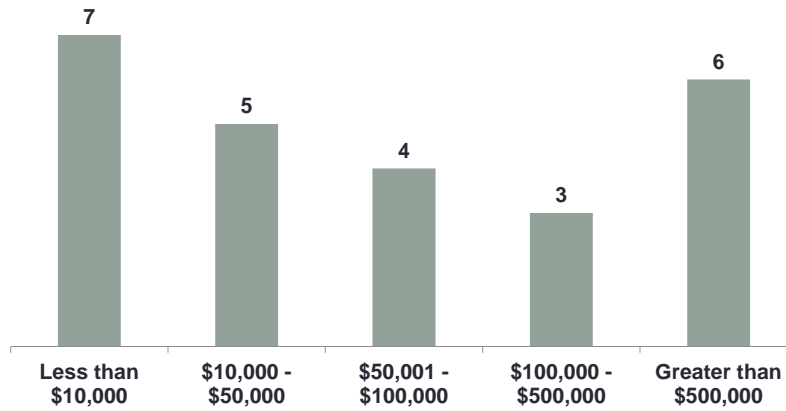
### Dairy Operators



Number of Responses = 35

## 7e. Average gross sales by farm type:

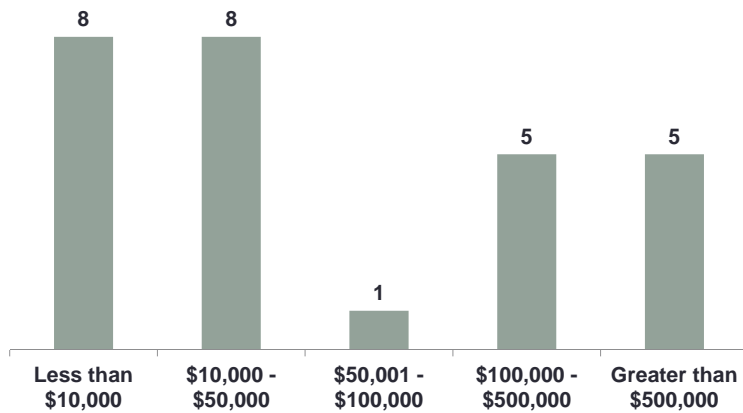
Maple Syrup Producers



Number of Responses = 25

## 7f. Average gross sales by farm type:

Food Producers by Average Gross Sales (5 Years)

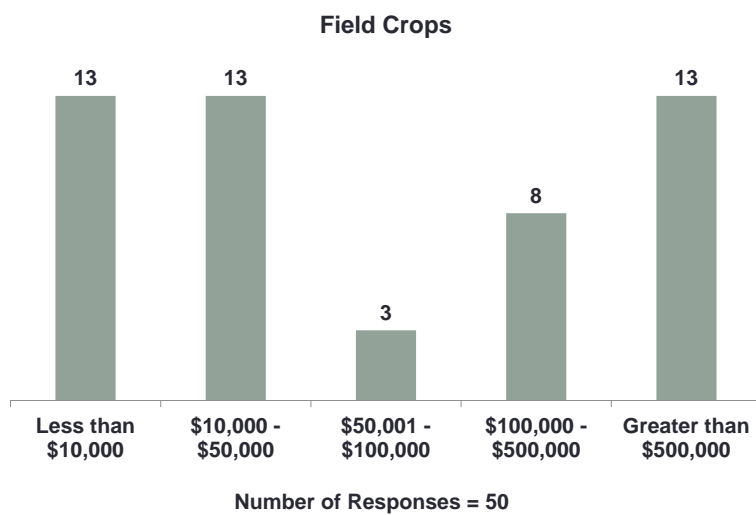


Number of Responses = 27

## 7g. Average gross sales by farm type:

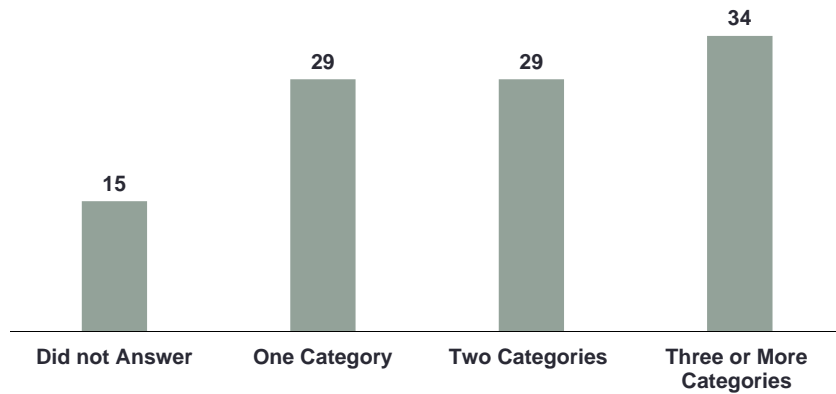


## 7h. Average gross sales by farm type:





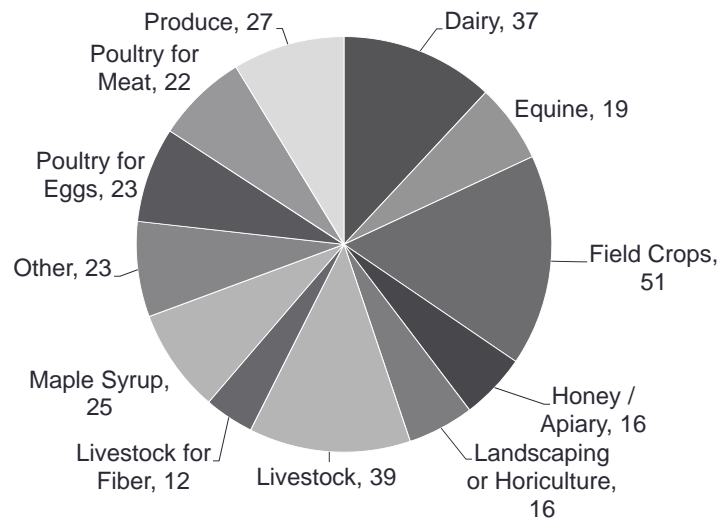
## 8a. Type of farm operation:



Number of Responses = 107

Participants were able to select one or more types of farm operations.

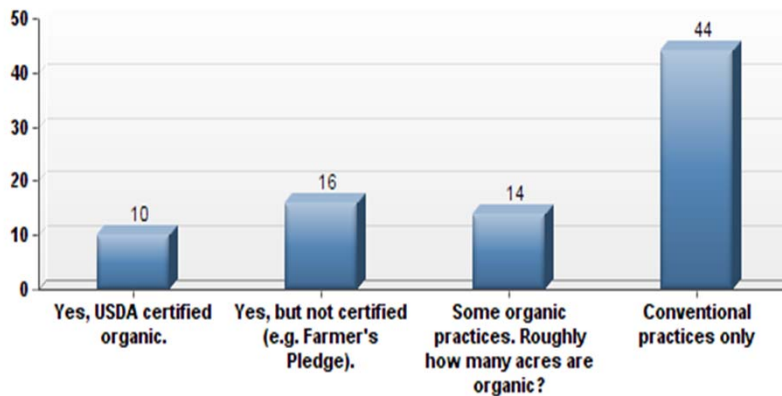
## 8b. Type of farm operation:



## 9. What percent of your sales is generated through the following categories:

Cooperative / processing company		32
Agri-Mark	7	
DFA	10	
DairyLea	2	
Upstate Niagara	2	
"Co-op"	2	
DMS	1	
Horizon	1	
Whitewave	1	
Empire Livestock	1	
North Country Grown	5	
Farmer's Market		6
Canton	4	
Potsdam	2	
CSAs		5
Average # of shareholders is		108

## 10. Is your farm organic:

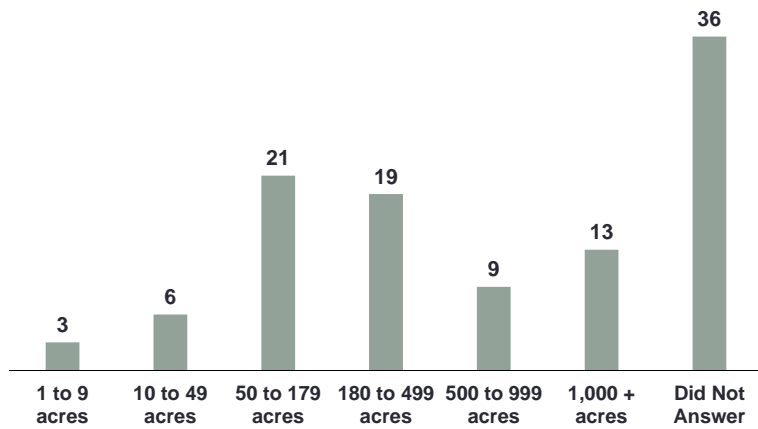


Number of Responses = 84

Responses from "some organic" acreages: 20, 20, 5, 1, 300, 37, 335, 300, 100, and 2. One does not purchase organic seed; Two specify they do not use synthetic pesticides or fertilizers

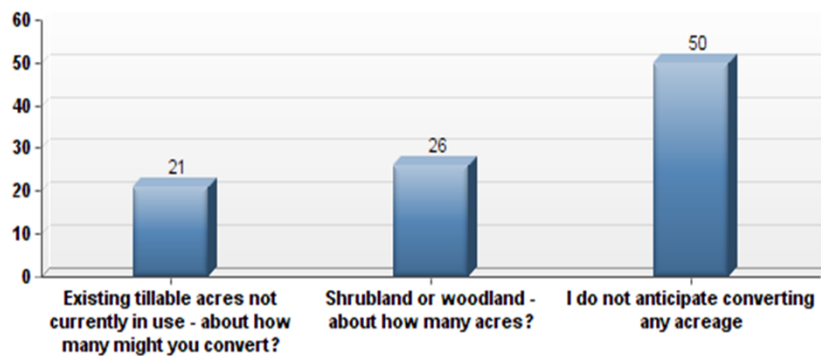
## 11. Size of farm operation:

Farm Operations by Acreage in Production



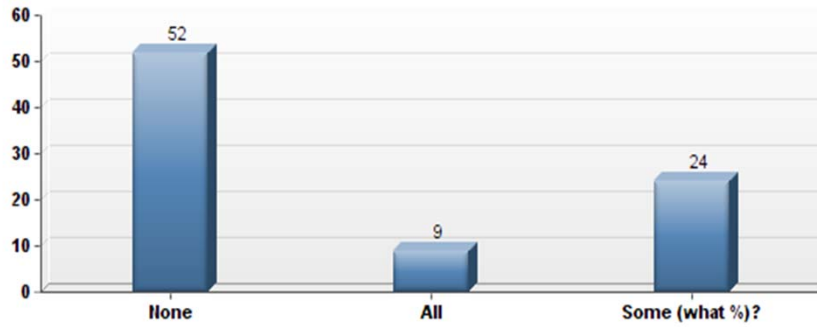
Number of Responses = 107

## 12. Anticipate converting additional acreage into agricultural production?



Number of Responses = 97; 47 Yes, 50 No

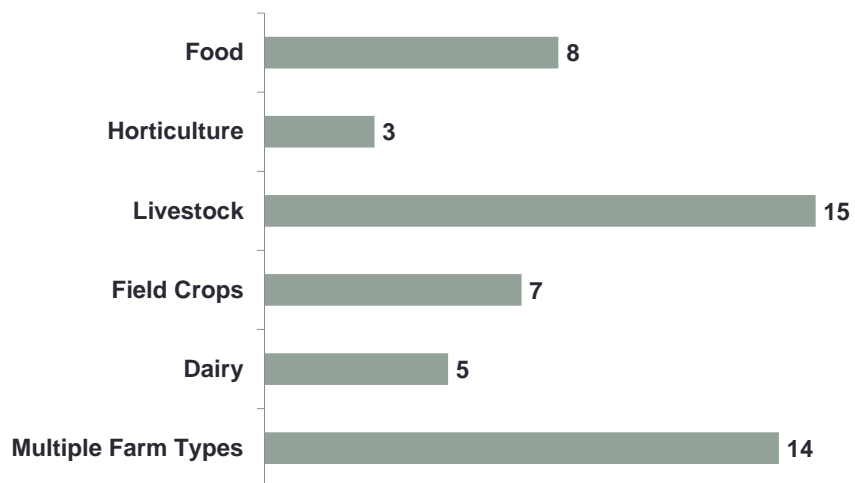
### 13. % of tillable land that is tile drained:



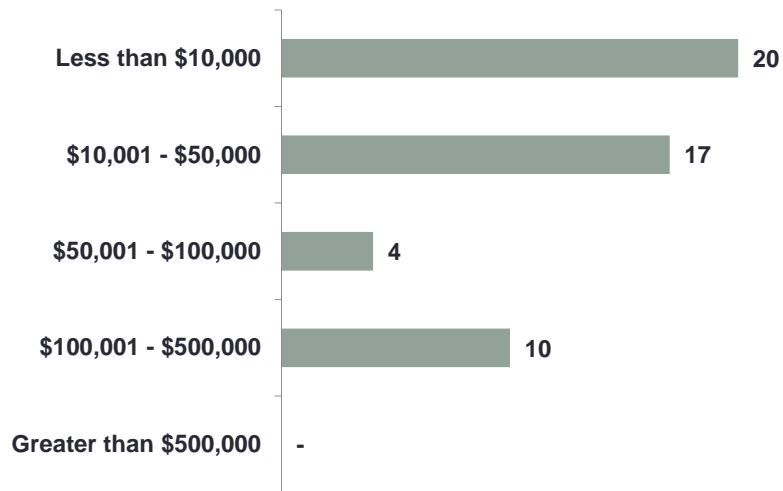
Number of Responses = 85

24 farmers responding "some" tillable: 7 = 25% tillable; 3 = 26% to 50% tillable; 6 = 51% to 75% tillable; 10 = Over 75% tillable

### 13b. 52 Farms with no tile drainage



### 13c. 51 Farms with no tile drainage

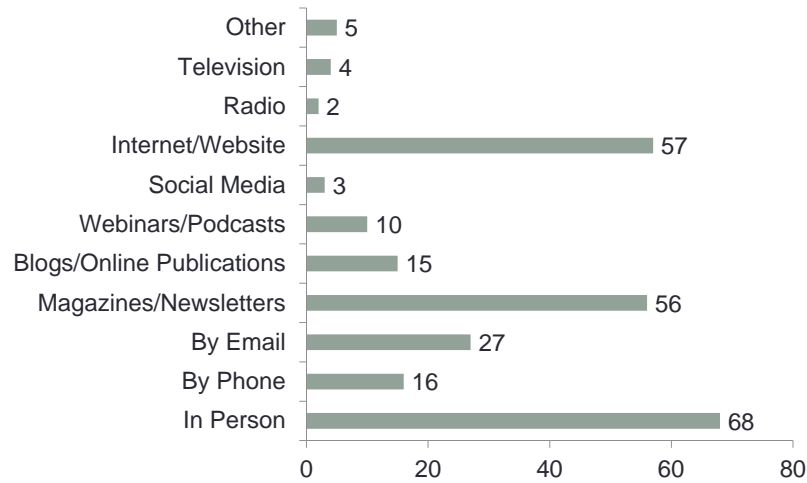


### 14. Three sources to learn about farm management and production uses:



Number of Responses = 239  
Each person could select up to three sources

## 15. Top 3 methods to obtain information that benefits your business:



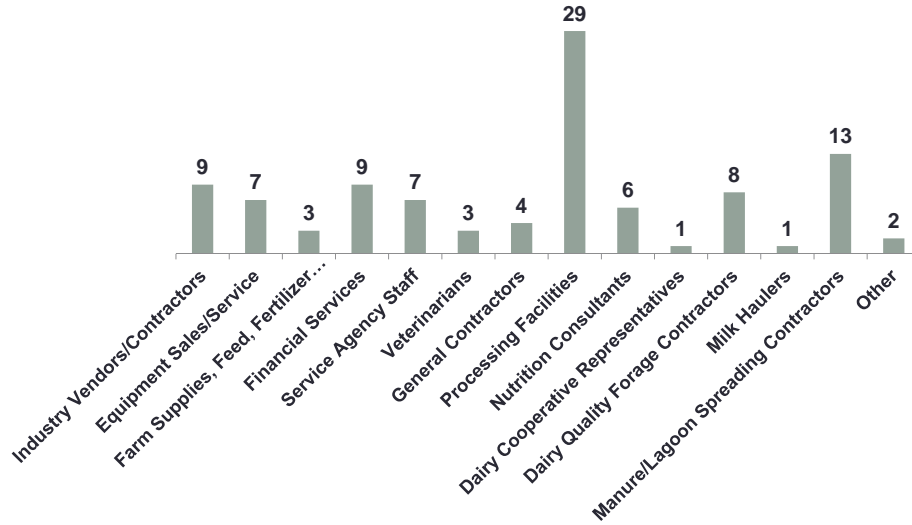
Responses = 87; Each person could select up to three methods

## 16. Access to ag support network:

Type	Poor	Adequate	Good	Excellent	Do Not Use	Total
Industry vendors and contractors	9	22	22	13	20	86
Equipment sales and service	7	27	27	19	6	86
Farm supplies, feed and fertilizer companies	3	21	38	15	9	86
Financial services	9	13	21	23	19	85
Service agency staff (SWCD, CCE, etc.)	7	16	20	25	18	86
Veterinarians	3	22	25	20	15	85
General Contractors	4	16	34	5	23	82
Processing facilities	29	13	17	6	19	84
Nutrition consultants	6	11	15	15	38	85
Dairy cooperative representatives	1	8	8	11	6	34
Dairy quality forage contractors	8	5	6	5	10	34
Milk haulers	1	5	6	15	6	33
Manure / Lagoon spreading contractors	13	7	5	2	32	59
Other:	2	0	1	0	8	11
<b>Total</b>	<b>102</b>	<b>186</b>	<b>245</b>	<b>174</b>	<b>229</b>	

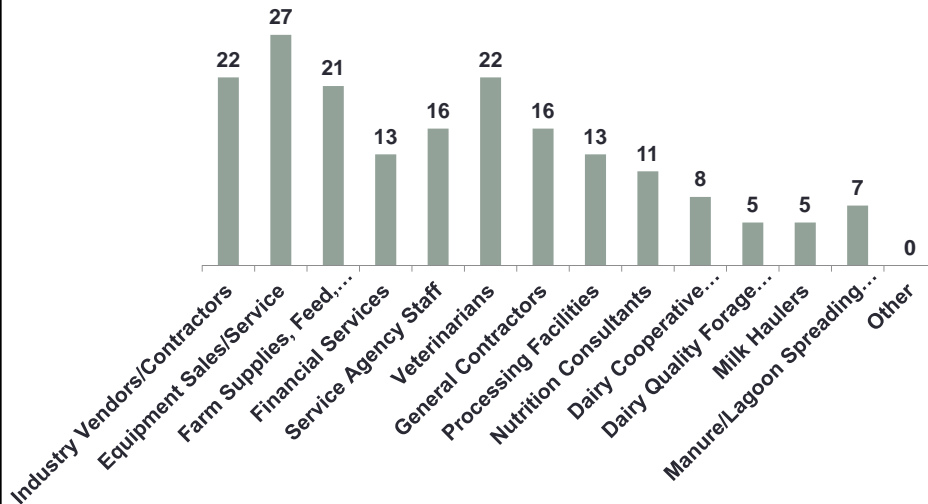
## 16a. Access to ag support network:

Access Rated Poor

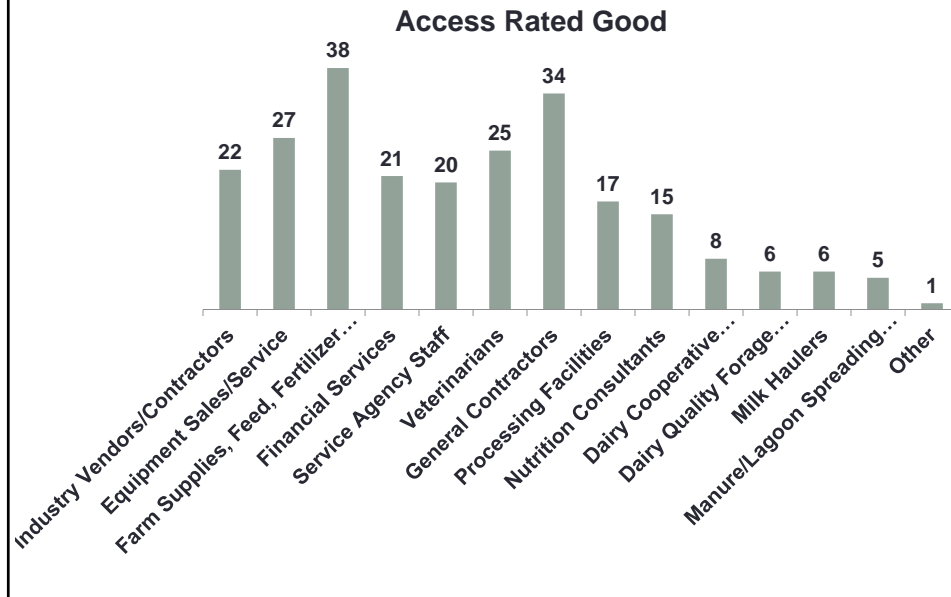


## 16b. Access to ag support network:

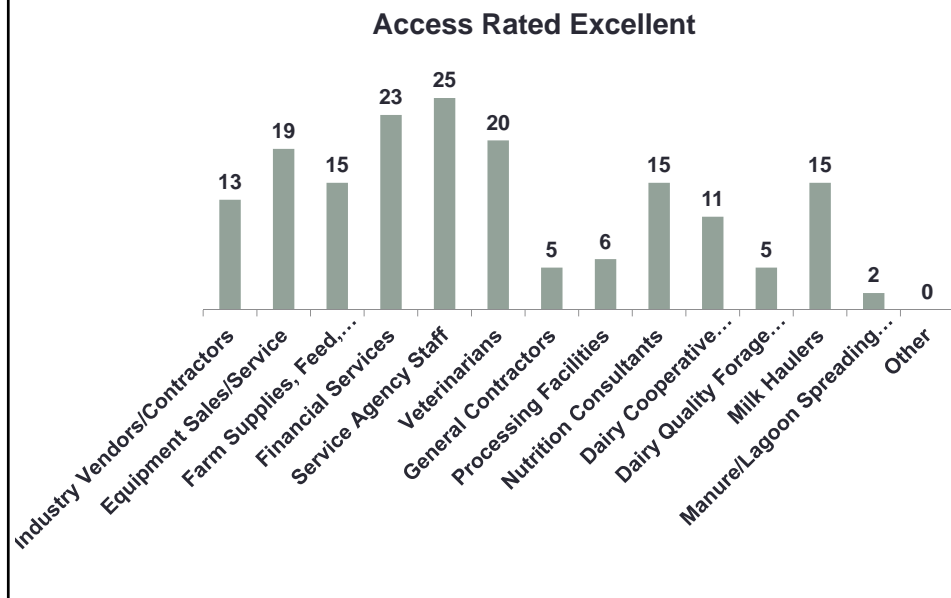
Access Rated Adequate



## 16c. Access to ag support network:

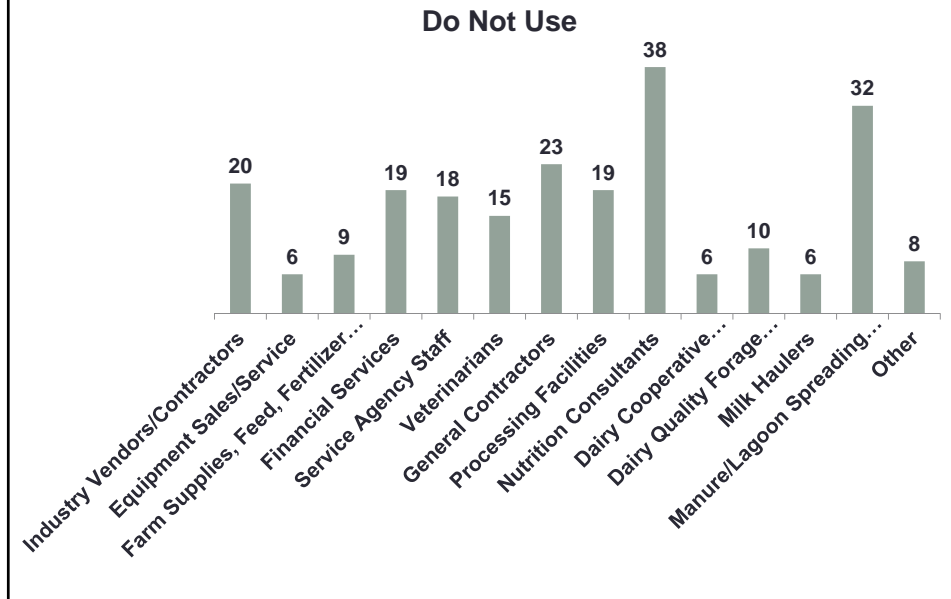


## 16d. Access to ag support network:

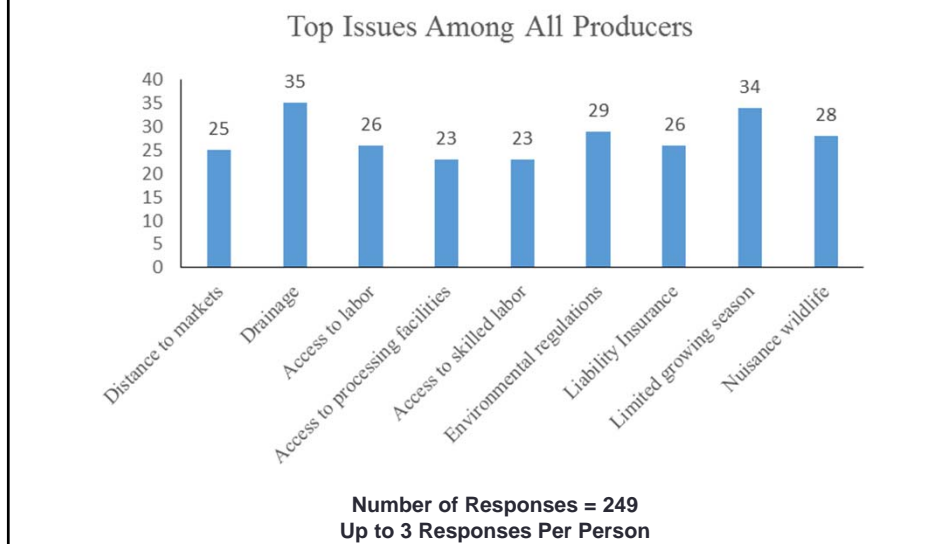




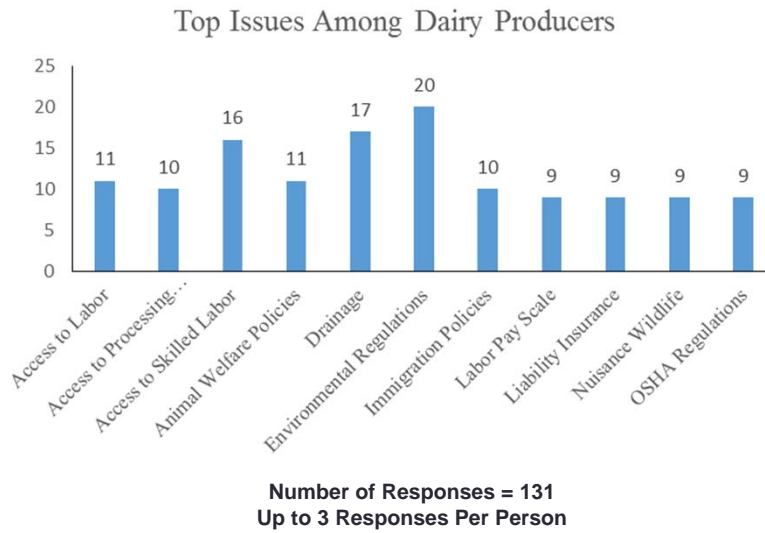
## 16e. Access to ag support network:



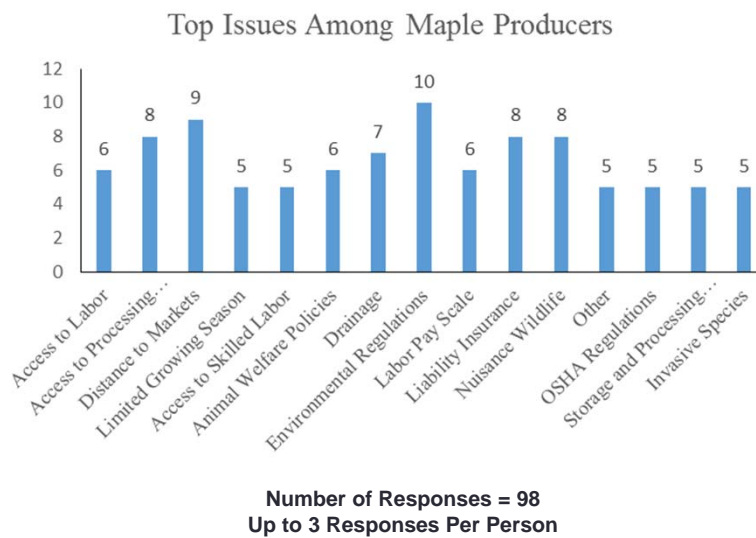
## 17. Top 3 issues that affect business:



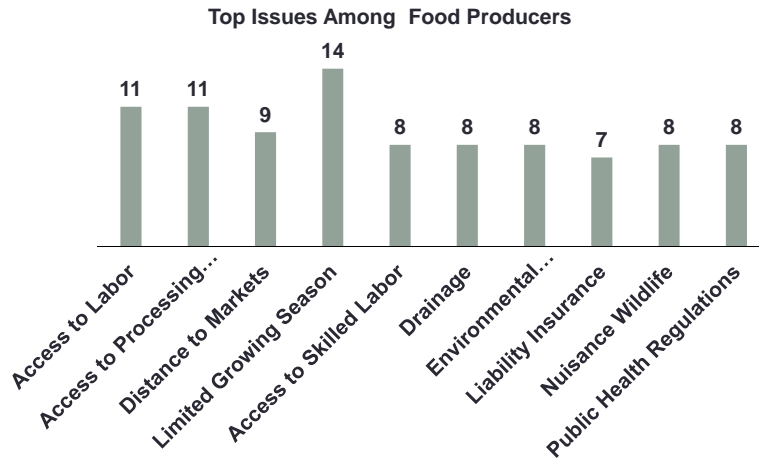
## 17a. Top 3 issues that affect business:



## 17b. Top 3 issues that affect business:

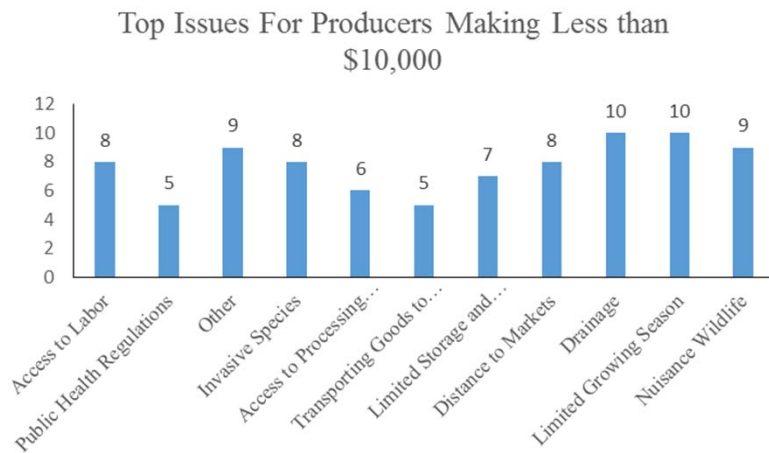


## 17c. Top 3 issues that affect business:



Number of Responses = 92  
Up to 3 Responses Per Person

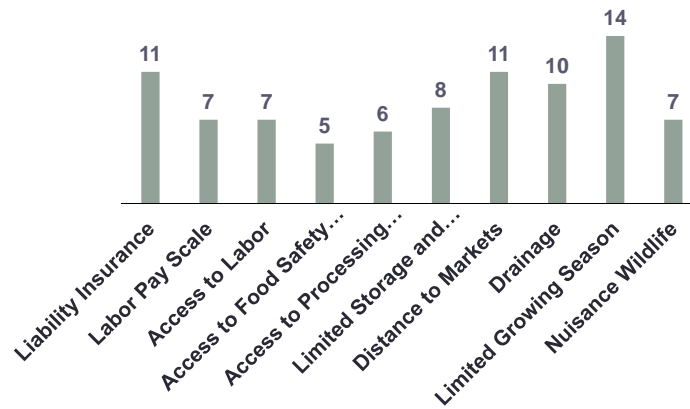
## 18a. 5 year average gross sales - top 3 issues that affect business:



Number of Responses = 85  
Up to 3 Responses Per Person

## 18b. 5 year average gross sales - top 3 issues that affect business:

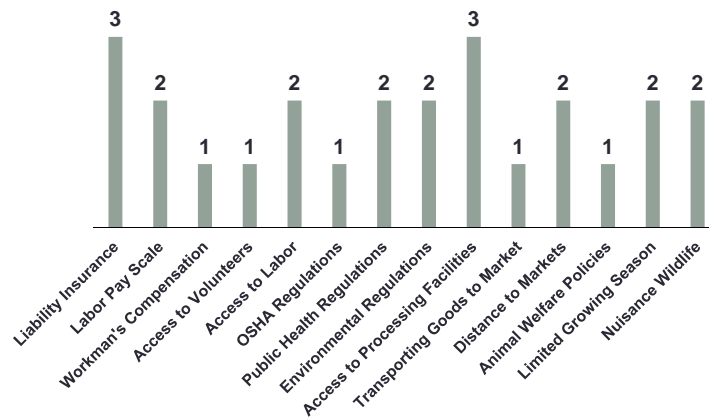
Top Issues For Producers Grossing  
\$10,001 - \$50,000



Number of Responses = 86  
Up to 3 Responses Per Person

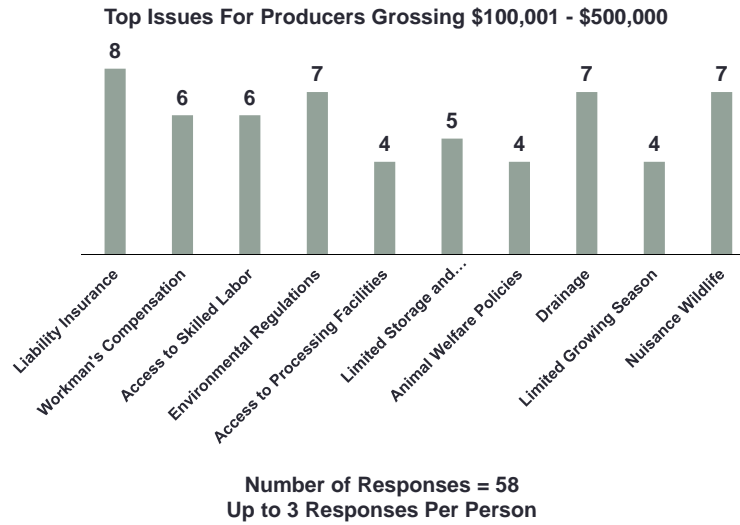
## 18c. 5 year average gross sales - top 3 issues that affect business:

Top Issues For Producers Grossing \$50,001 - \$100,000

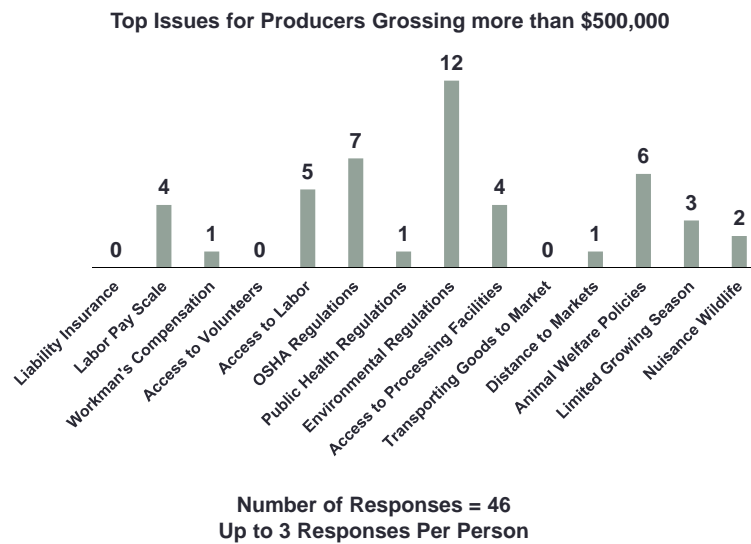


Number of Responses = 25  
Up to 3 Responses Per Person

## 18d. 5 year average gross sales - top 3 issues that affect business:

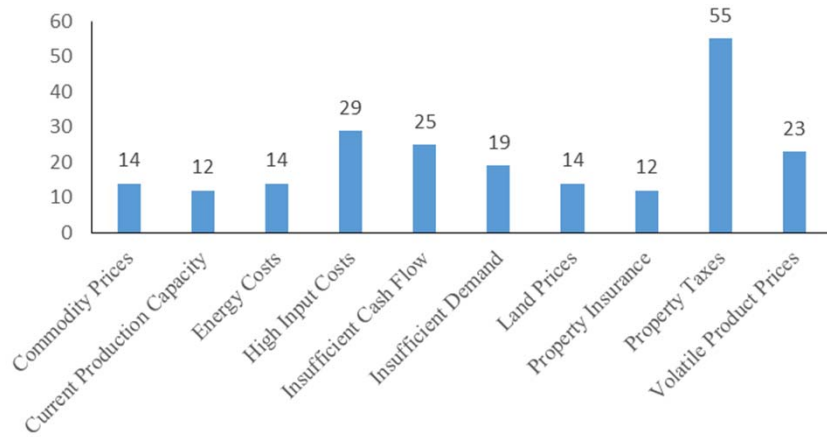


## 18e. 5 year average gross sales - top 3 issues that affect business:



## 19. Top 3 economic issues that affect business:

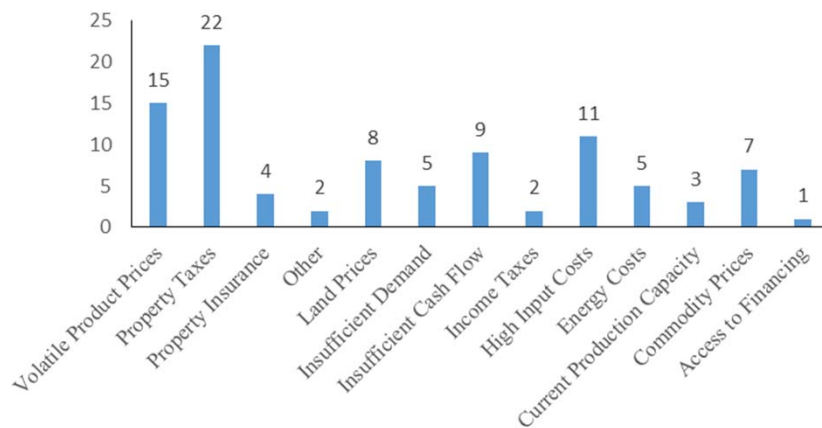
Top Economic Issues Among All Respondents



Number of Responses = 217  
Up to 3 Responses Per Person

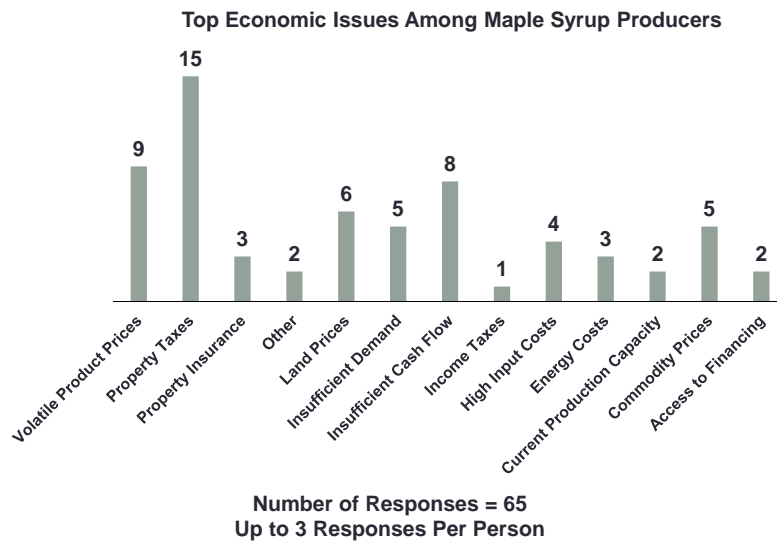
## 19a. Top 3 economic issues that affect business:

Top Economic Issues Among Dairy Producers

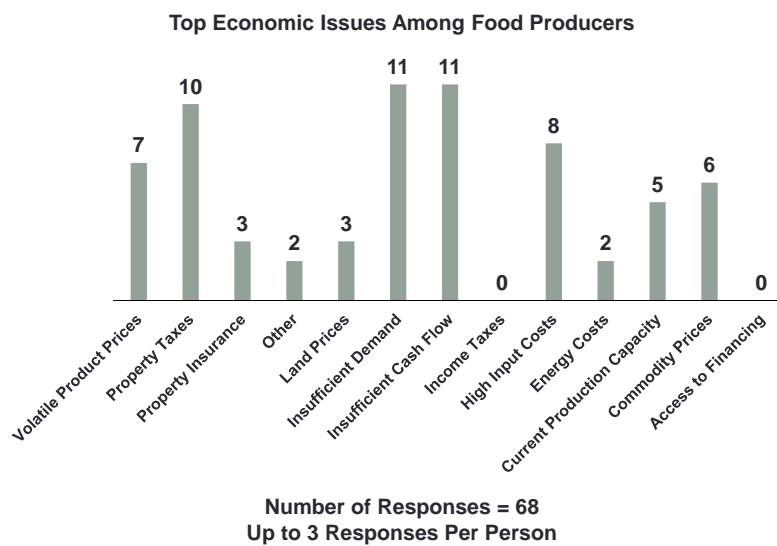


Number of Responses = 94  
Up to 3 Responses Per Person

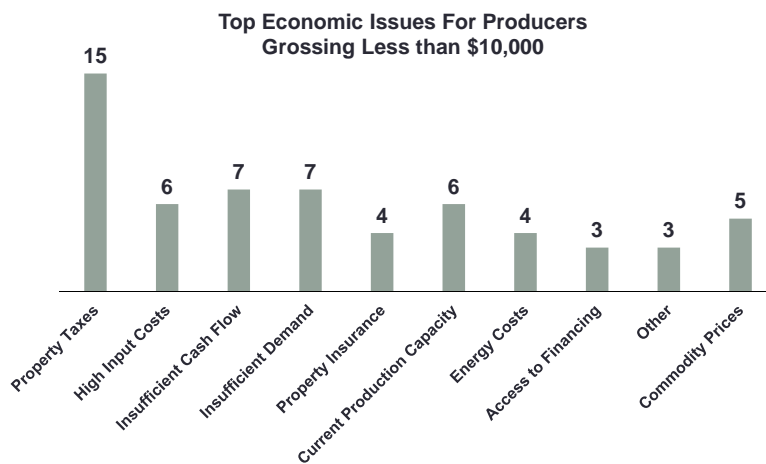
## 19b. Top 3 economic issues that affect business:



## 19c. Top 3 economic issues that affect business:

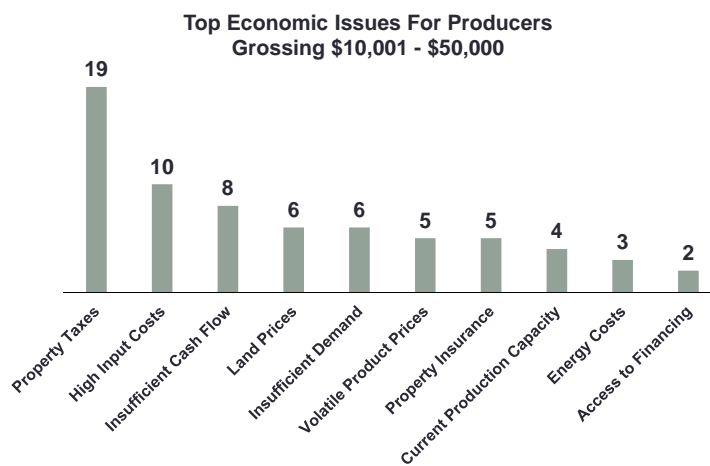


19d. 5 year average gross sales - top economic issues that affect business:



Number of Responses = 60  
Up to 3 Responses Per Person

19e. 5 year average gross sales - top economic issues that affect business:

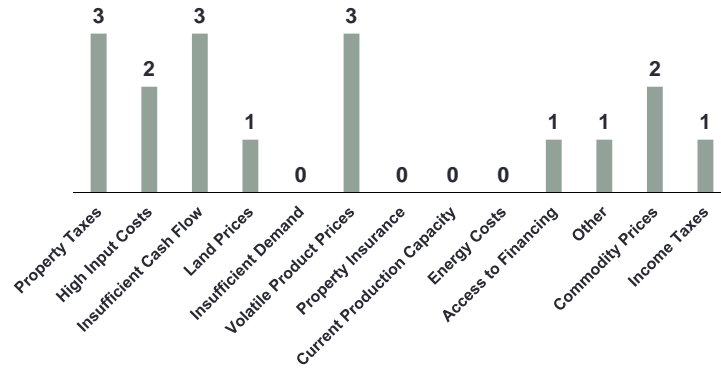


Number of Responses = 68  
Up to 3 Responses Per Person



## 19f. 5 year average gross sales - top economic issues that affect business:

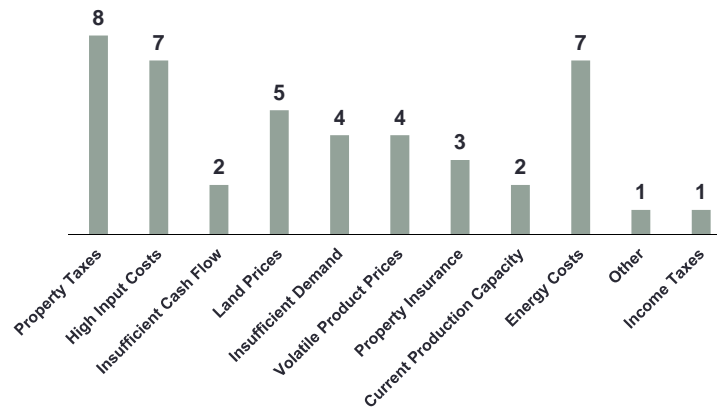
Top Economic Issues for Producers  
Grossing \$50,001 - \$100,000



Number of Responses = 17  
Up to 3 Responses Per Person

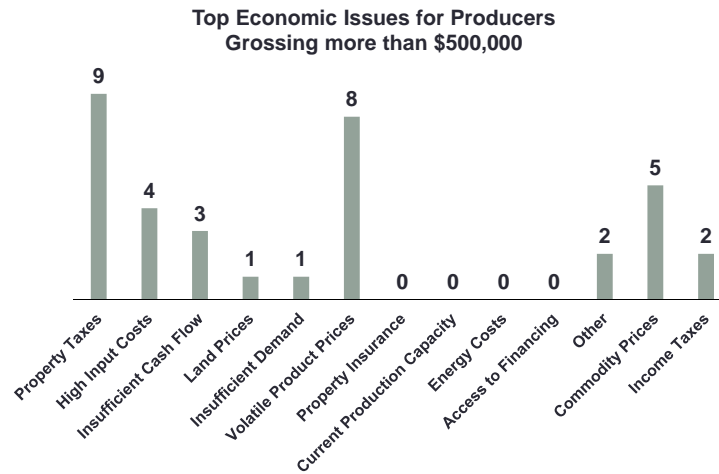
## 19g. 5 year average gross sales - top economic issues that affect business:

Top Economic Issues For Producers  
Grossing \$100,001 - \$500,000



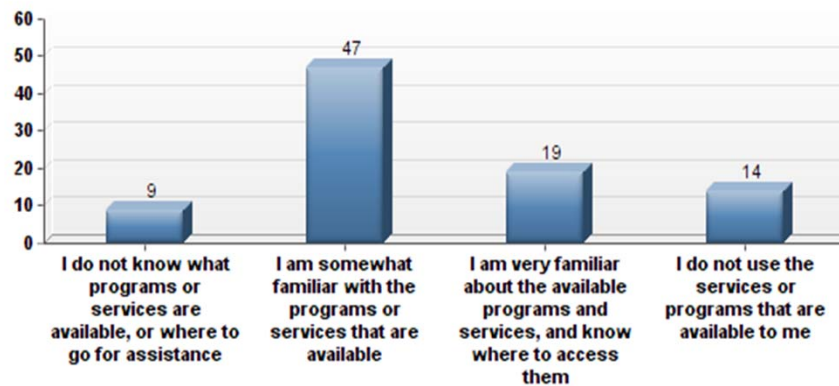
Number of Responses = 44

## 19h. 5 year average gross sales - top economic issues that affect business:



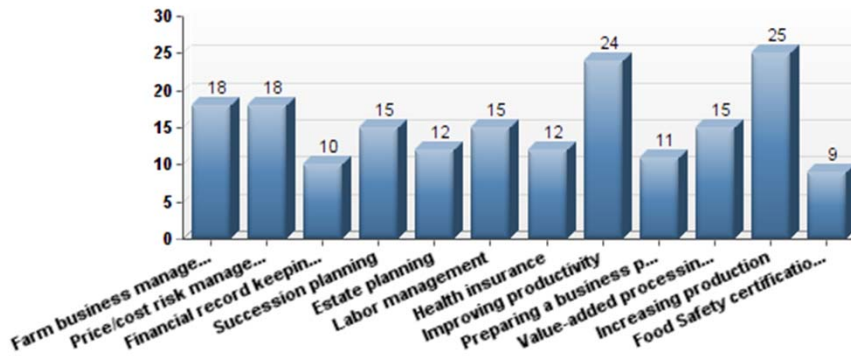
Number of Responses = 35  
Up to 3 Responses Per Person

## 20. Familiarity with government services:



Number of Responses = 89

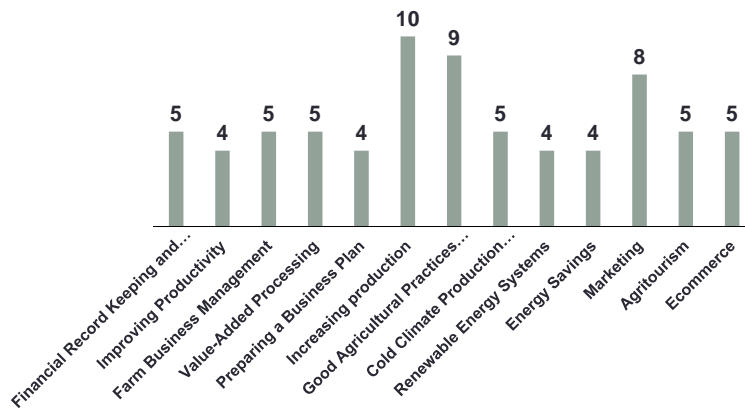
## 21. Top 3 training topics for all producers:



Number of Responses = 184  
Up to 3 Responses Per Person

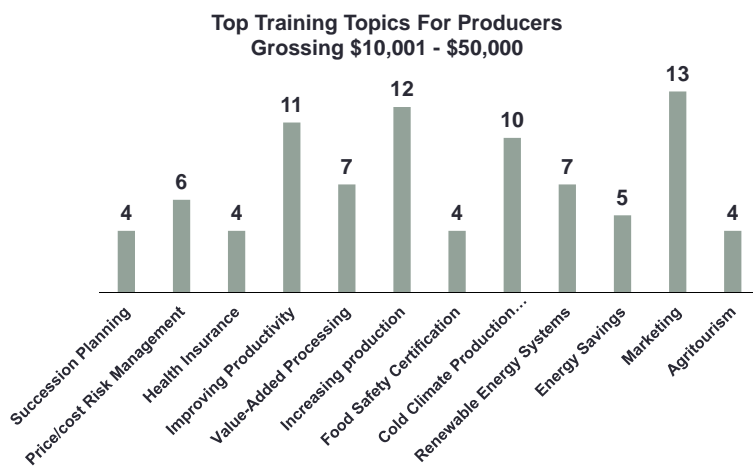
## 21a. Most helpful training topics:

Top Training Topics For Producers  
Grossing Less than \$10,000



Number of Responses = 73  
Up to 3 Responses Per Person

## 21b. Most helpful training topics:



Number of Responses = 87  
Up to 3 Responses Per Person

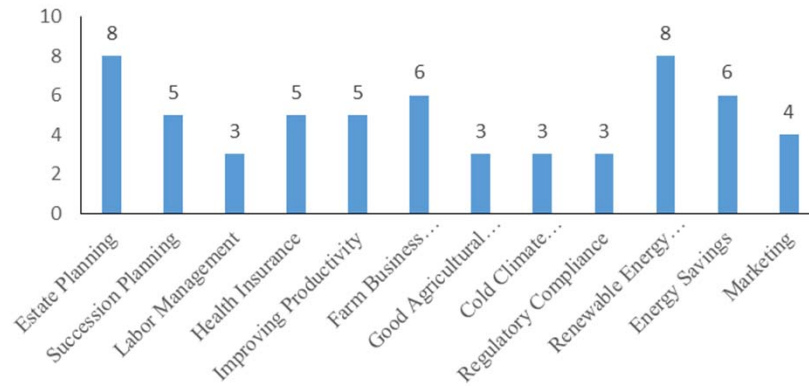
## 21c. Most helpful training topics:



Number of Responses = 23  
Up to 3 Responses Per Person

## 21d. Most helpful training topics:

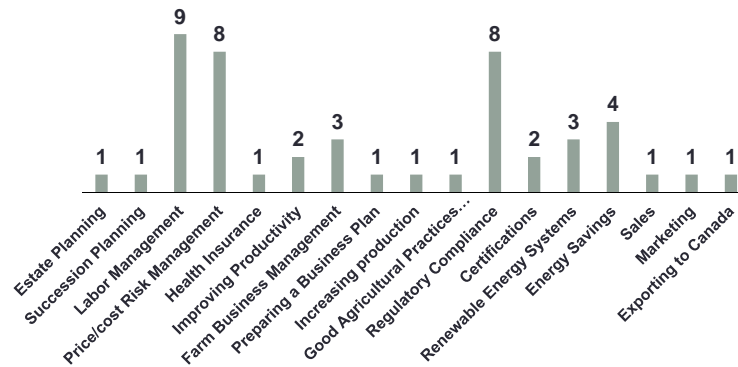
Top Training Topics For Producers Grossing \$100,001 - \$500,000



Number of Responses = 59  
Up to 3 Responses Per Person

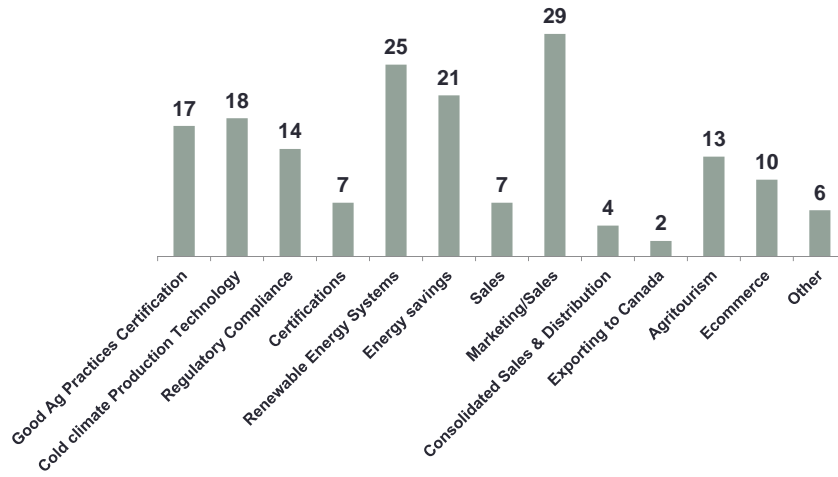
## 21e. Most helpful training topics:

Top Training Topics For Producers Grossing Greater than \$500,000



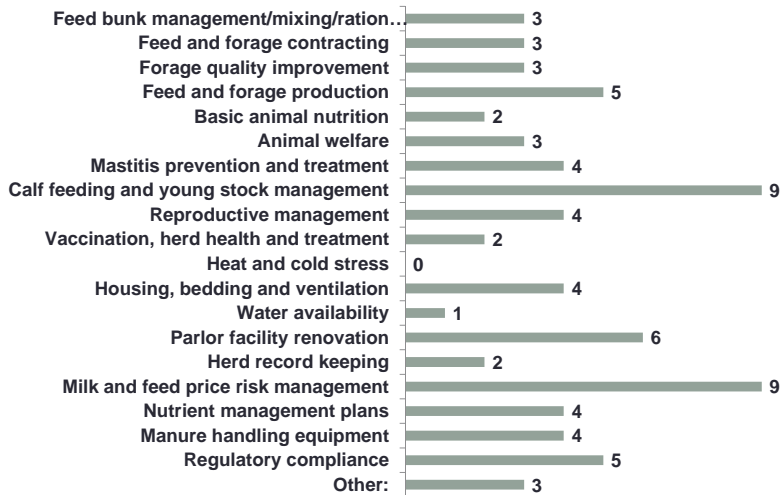
Number of Responses = 48  
Up to 3 Responses Per Person

## 22. Top 3 training topics for all producers:



Number of Responses = 173  
Up to 3 Responses Per Person

## 23. Top 3 training topics for dairy operators:



Number of Responses = 74  
Up to 3 Responses Per Person

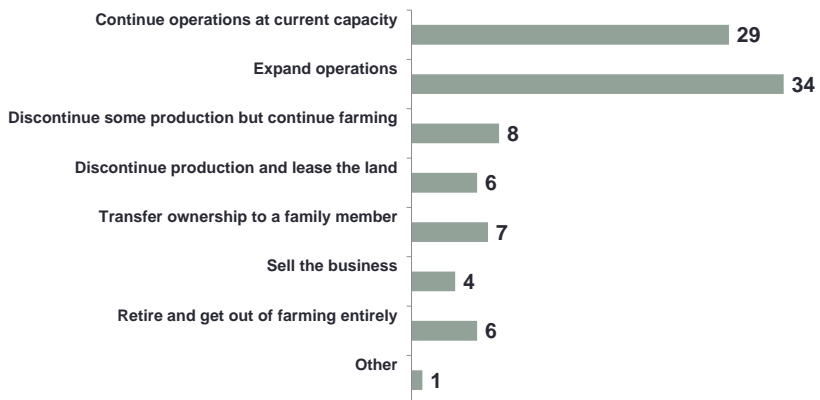
## 24. Future Business Activity:

Activity	Less than 5 years	5 to 10 years	10 to 15 years	Total
Continue operations at current capacity	29	20	11	60
Expand operations	34	14	6	54
Discontinue some production but continue farming	8	5	7	20
Discontinue production and lease the land	6	3	5	14
Transfer ownership to a family member	7	9	17	33
Sell the business	4	3	8	15
Retire and get out of farming entirely	6	5	11	22
Other:	1	1	1	3
<b>Total</b>	<b>95</b>	<b>60</b>	<b>66</b>	

Respondents could select all activities that apply

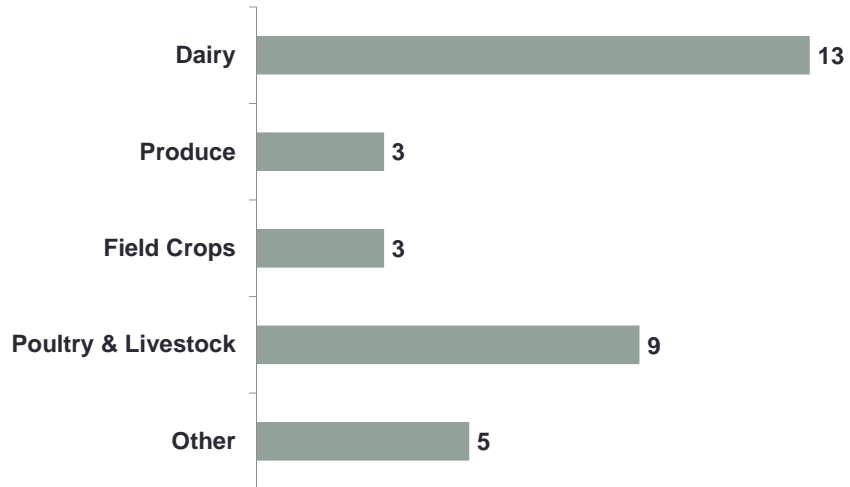
## 24a. Future Business Activity:

Less than 5 years...



Number of Responses = 95

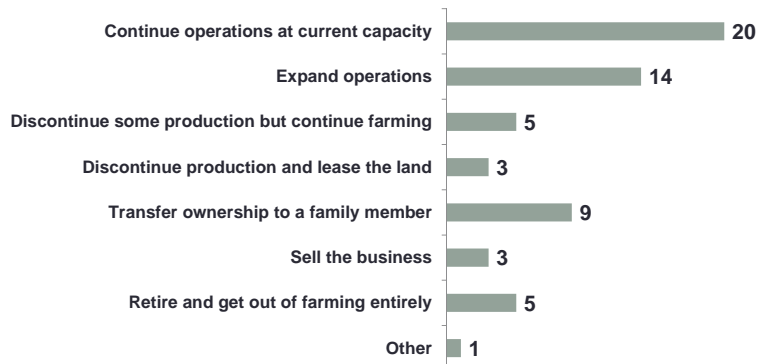
## 24b. Expand in Next 5 Years:



Some farmers selected "continue operations" and "expand operations"

## 24c. Future Business Activity:

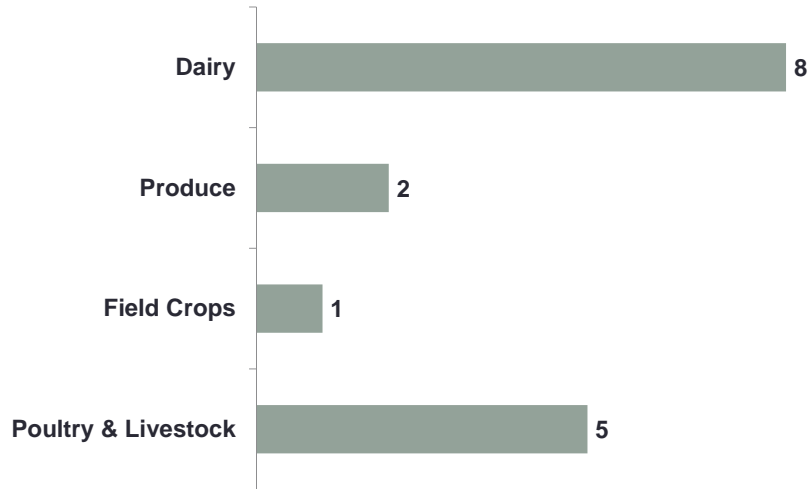
5 to 10 years...



Number of Responses = 60

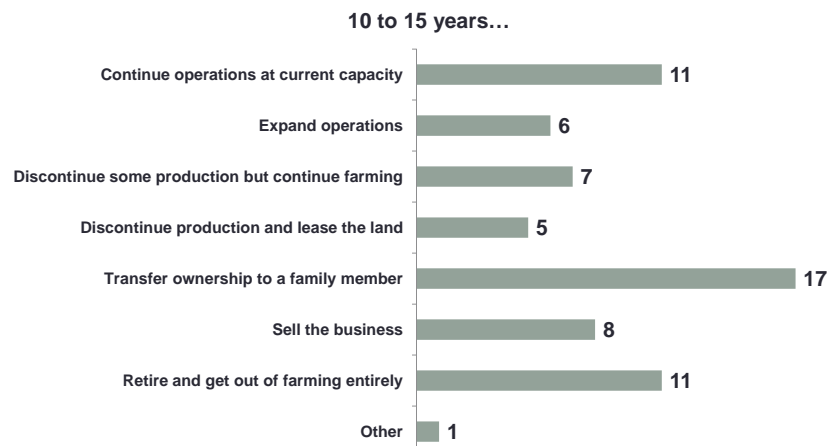


## 24d. Expand in 5 - 10 years:



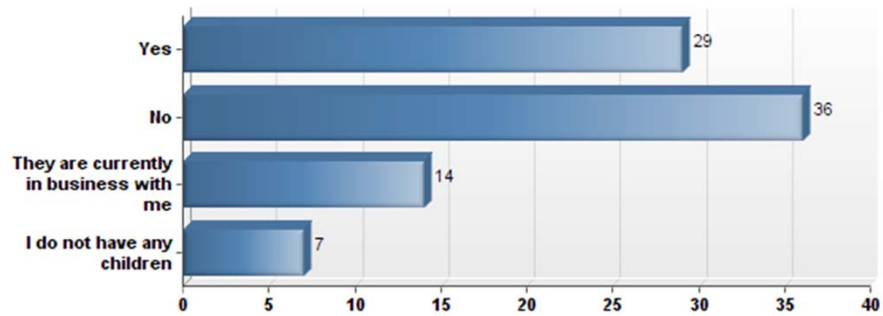
Some farmers selected "continue operations" and "expand operations"

## 24e. Future Business Activity:



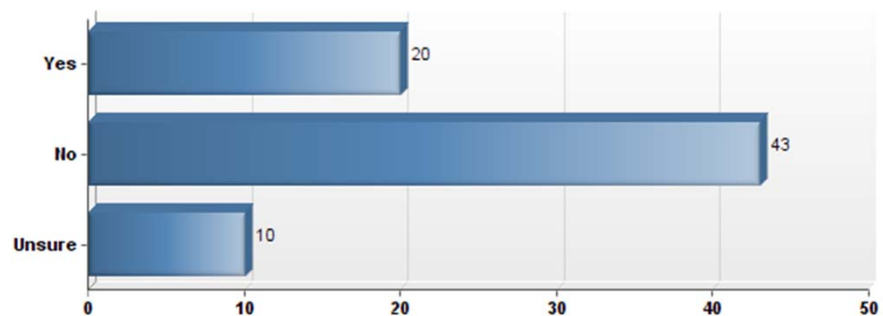
Number of Responses = 66

## 25. Children interested in continuing the farm?



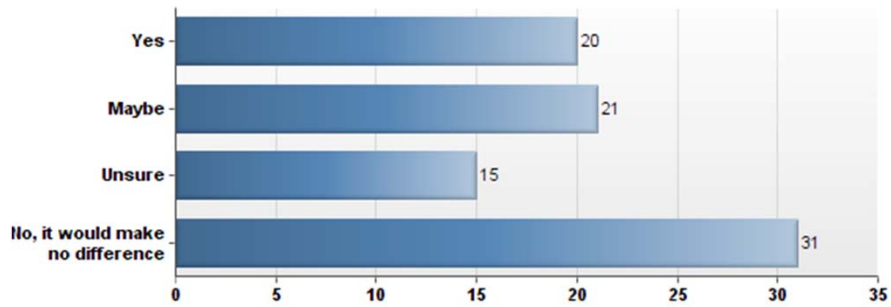
Number of Responses = 86

## 26. Do you have a succession plan?



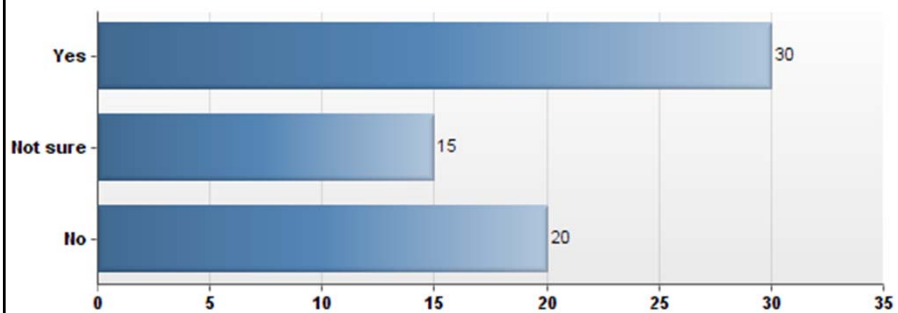
Number of Responses = 73

27. Would the development of a food hub benefit your farm business?



Number of Responses = 87

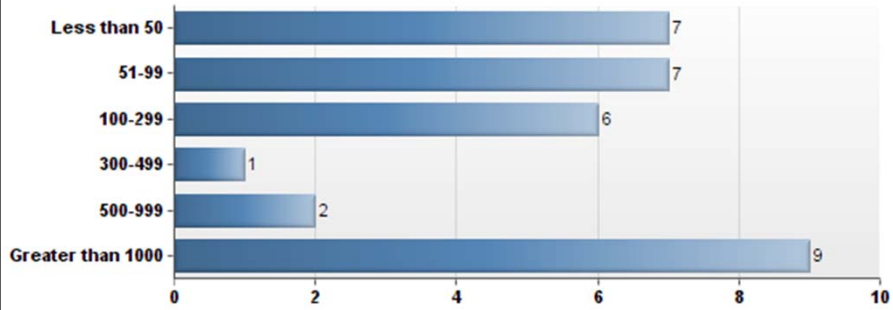
28. Would a local, small-scale livestock processing facility be beneficial?



Number of Responses = 65

## Dairy Producers

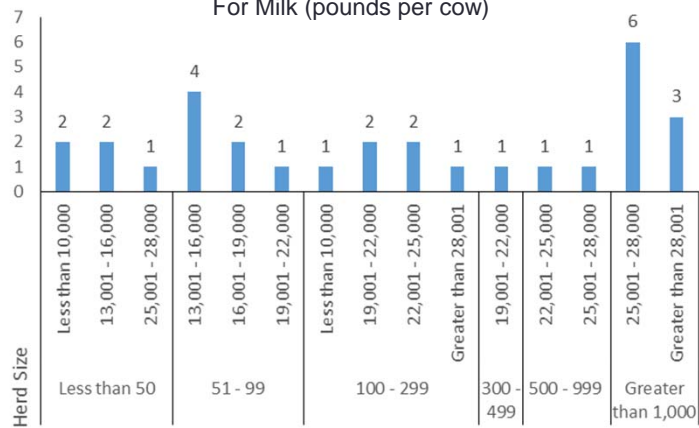
### 29. Size of milking herd



Number of Responses = 32

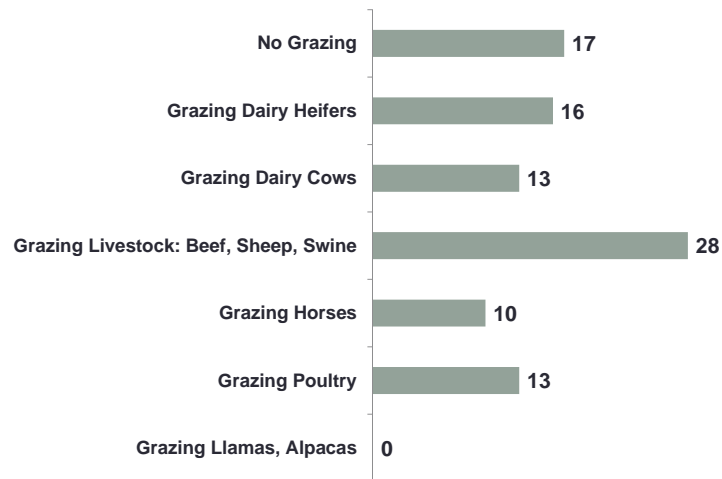
### 30. Annual rolling herd average:

Milking Herd Size vs Rolling Herd Average  
For Milk (pounds per cow)



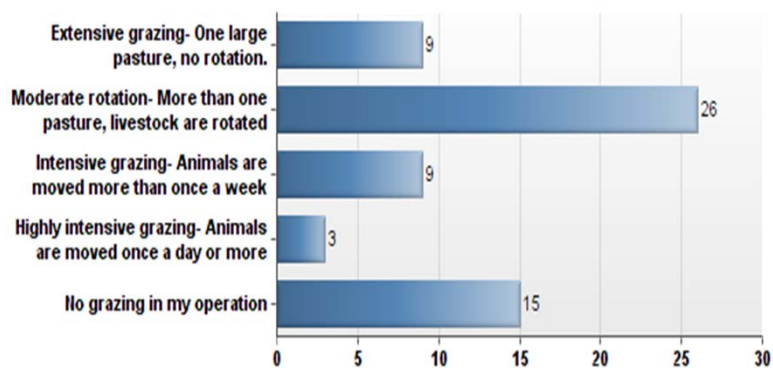
Number of Responses = 30

## 31. Grazing Animal Types:



Number of Responses = 97; could check all that apply

## 32. Grazing Management Practices



Number of Responses = 62; could check all that apply

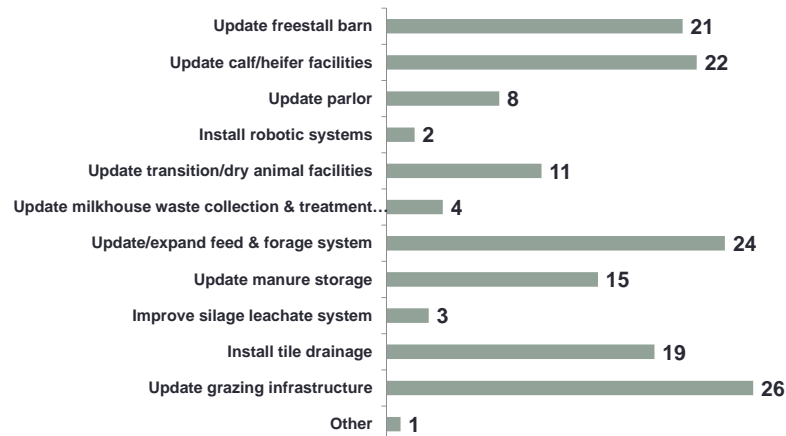
## 33. Any Installations or Updates?

### Dairy & Livestock Producers

Facility/System	Less than 5 years	5 to 10 years	11 to 15 years	Do not plan this within 15 years	Total
Update grazing infrastructure	26	3	0	17	46
Update/expand feed and forage system	24	3	0	25	52
Update calf/heifer facilities	22	5	0	21	48
Update freestall barn	21	3	2	24	50
Install tile drainage	19	5	0	25	49
Update manure storage	15	5	0	26	46
Update transition/dry animal facilities	11	4	0	11	26
Update parlor	8	5	0	11	24
Update milkhouse waste collection & treatment system	4	2	0	13	19
Improve silage leachate system	3	0	0	33	36
Install robotic systems	2	5	0	15	22
Other:	1	0	0	3	4
<b>Total</b>	<b>156</b>	<b>40</b>	<b>2</b>	<b>224</b>	

## 33a. Any Installations or Updates?

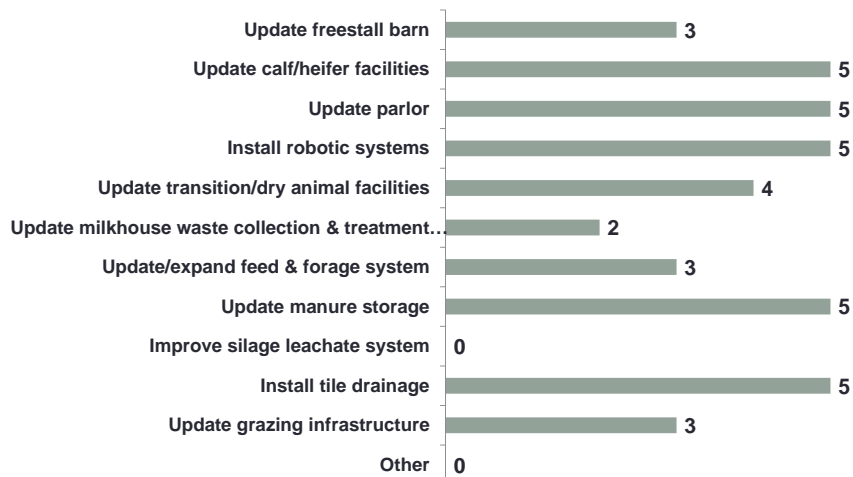
Less than 5 years:



Number of Responses = 156; could check all that apply

## 33b. Any Installations or Updates?

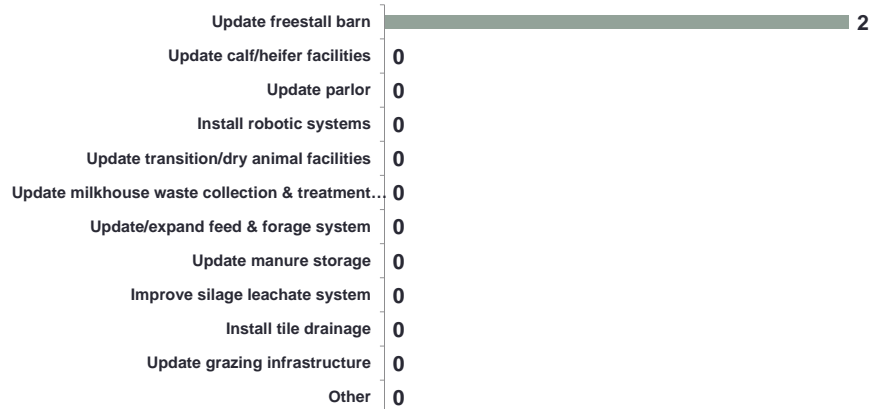
5 to 10 years:



Number of Responses = 40; could check all that apply

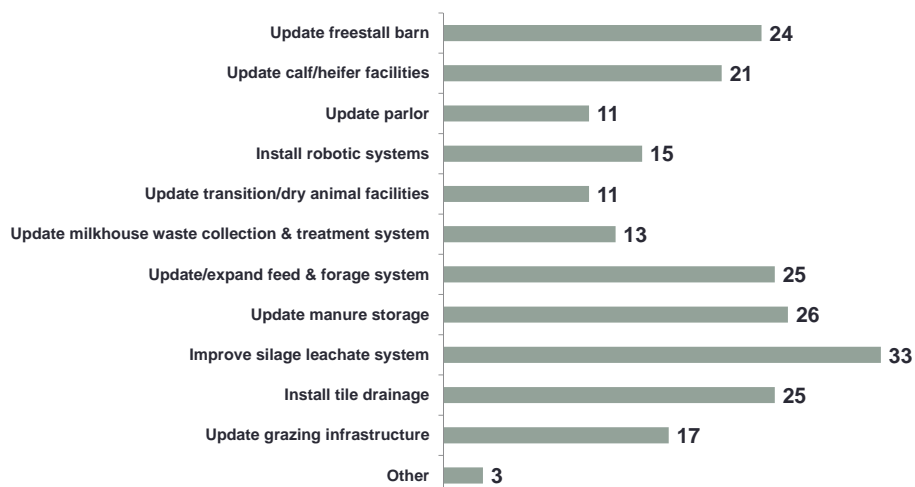
## 33c. Any Installations or Updates?

11 to 15 years:



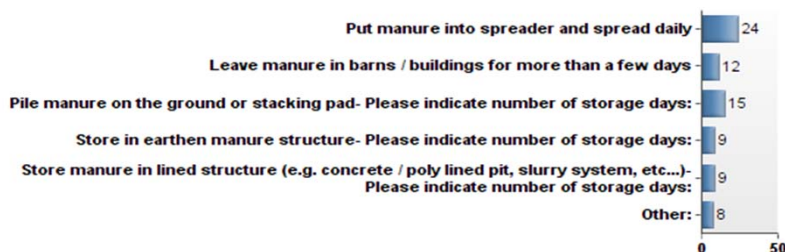
Number of Responses = 2; could check all that apply

## 33d. Do Not Plan to Install or Update



Number of Responses = 224; could check all that apply

## 34. Practices Used to Handle Manure:



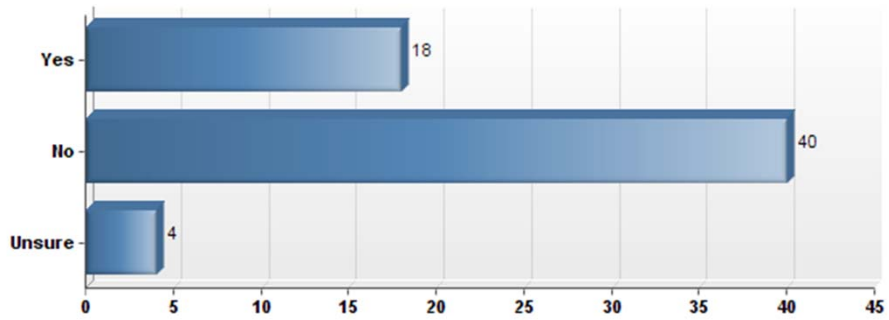
Those who pile manure on the ground or on a stacking pad responded they do so for 60 to 210 days – One person composts it two years.

Those who responded they use an earthen manure structure store manure for 80 to 210 days. Most said 150 to 180 days.

Farmers who use a lined storage structure said they store manure for 150 to 270 days. “Others” composted, spread immediately, or did not store due to rotational grazing.

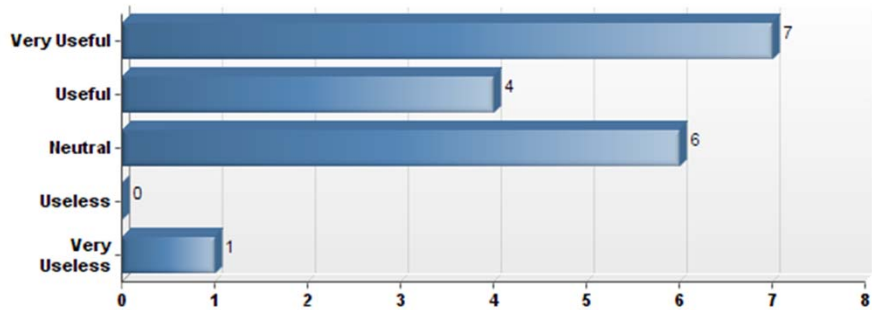


### 35. Do you have a NMP or CNMP?



Number of Responses = 62

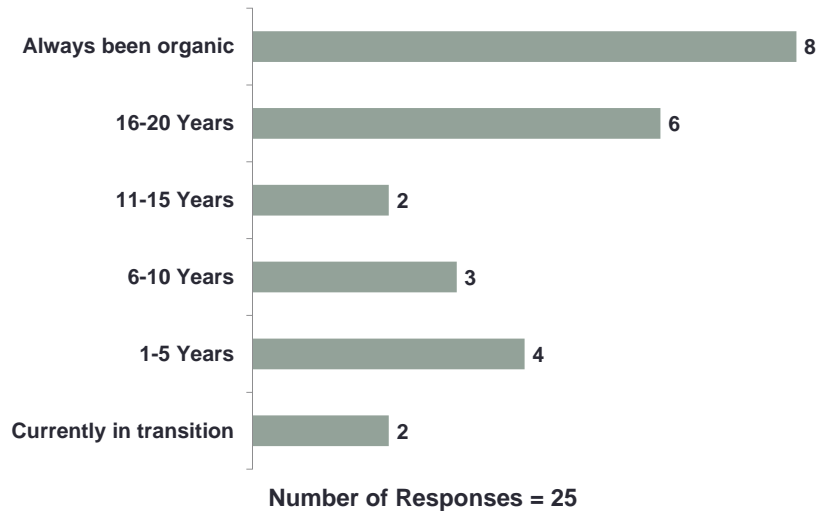
### 36. How useful has the plan been for your operation?



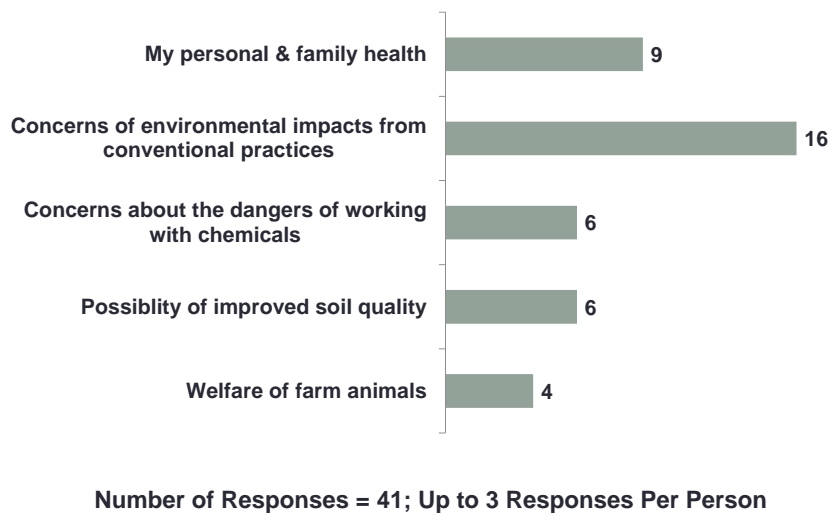
Number of Responses = 18

## Organic Operations

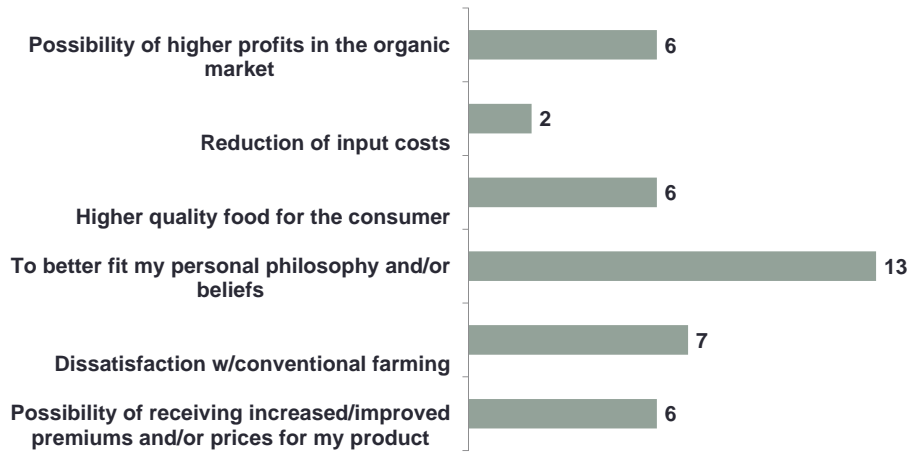
### 37. How long has your farm been organic?



### 38a. 3 factors that influenced decision to farm organically?

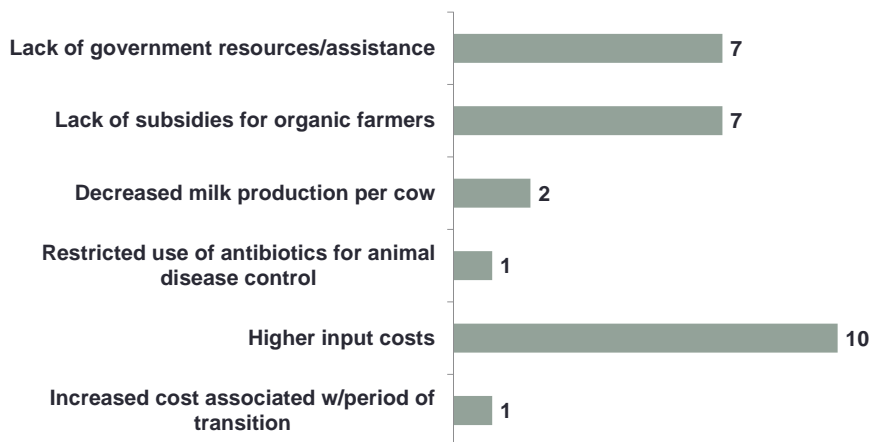


### 38b. 3 factors that influenced decision to farm organically?



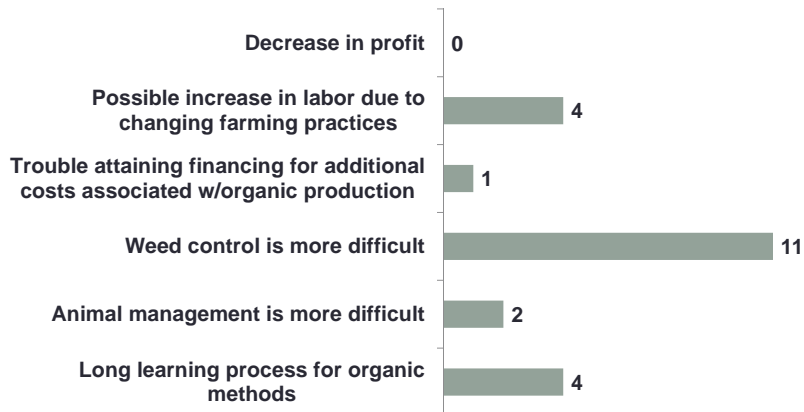
Number of Responses = 40; Up to 3 Responses Per Person

### 39a. Three biggest challenges affecting organic operation?



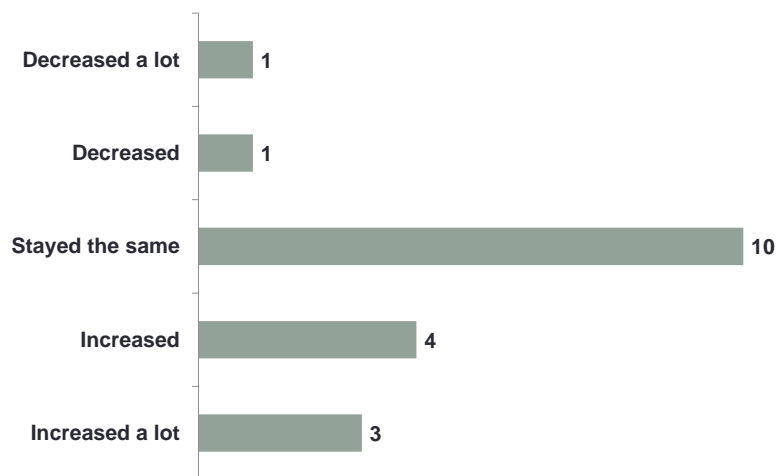
Number of Responses = 29; Up to 3 Responses Per Person

### 39b. Three biggest challenges affecting organic operation?



Number of Responses = 22; Up to 3 Responses Per Person

### 40. Changes to amount of labor required?



Number of Responses = 19

## 41. Return to conventional farming?

Yes = 0

No = 25

### Reasons for not returning to conventional:

- Pay price for conventional milk would not let us maintain a small herd size
- It is not sustainable in the long term
- Expense
- Not necessary
- Don't like the idea of using chemical and roller coaster milk prices that are set by greed and poor government involvement
- We had more health problems with the cows when we farmed conventionally – DA's, ketosis, feet problems, etc. We still would choose to avoid genetically modified crops and herbicides, knowing the effect they have on us and the environment
- Don't agree using round up and round up ready or engineered corn or produce. Health concerns for animals and wildlife.
- Empirical and scientific evidence supporting improved health for land, animals, and people alike
- Conventional is not an option. Unrealistic for Earth's resources and for health of ecosystem
- We were never conventional. We would never change it.
- Weak demand for conventional milk. I am confident that demand for organic products will continue to increase. I am now receiving over \$45.00 per cwt for my milk compared to \$15.00 for conventional milk. I would never milk cows for \$15.00 per cwt for my milk.
- Opposed to putting poison on food.
- My father was organic back in PA in 1970 when I was a boy. It is part of who I am. I do not wish to have the chemicals on myself or my children. I also believe that organic produce is better food in many ways. A large portion of my customer base also prefers no chemical food.

## Reasons for not returning (cont.)

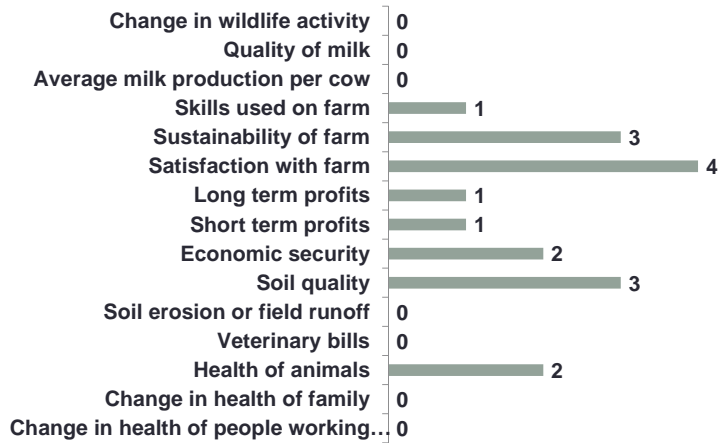
- Conventional farming practices are insane. You know the definition of insanity. In 1976 conventional herbicide use created resistant weeds and now Dupont is going to mix agent orange with round up, why? Also the largest conventional farms receive the most in welfare payments from unwitting taxpayers. Conventional ag is about cash flow and not about clean air, clean water, and clean food. It is in no way regenerative and is not now feeding the planet.
- The organic market is crowded. The conventional market is even more crowded – strictly a go big or go home environment.
- Conventional farming methods are adding roughly 30% to the increased rate of global warming as a result of significantly higher greenhouse gas production. Humans are racing pell mell toward a significant increase in the rate of the 6<sup>th</sup> great extinction event that the Earth is currently experiencing as a direct result of human activities. I recognize that my efforts are not in and of themselves going to significantly impact the crash that is inevitable because of the obscene overpopulation of the Earth by humans; however, perhaps my, and many others, messages will be heard and reacted to in time. Intellectually I realize this is not likely because most people are too all consumed with exponential expansion of their profits to care about the tomorrow they are leaving for their children.
- Chemicals don't need to be on the land.
- The way milk prices are calculated make no sense. Too much influence on price by trade with foreign countries. Do not support CAFO dairying model.
- Negative impact on everything.
- Conventional farming poisons water, feed and people. There are alternatives, so why do it? Society accepts this as part of living cheap and does not mind the later costs of health and loss of fertile soil.

## 42. Benefits from farming organically:

Issue	Increased a lot	Increased	Stayed the Same	Decreased	Decreased a lot
Change in health of people working on farm	0	4	7	0	0
Change in health of family	0	6	6	0	0
Health of animals	2	6	2	0	0
Veterinary bills	0	0	6	1	2
Soil erosion or field runoff	0	0	7	3	1
Soil quality	3	3	5	1	0
Economic security	2	6	3	1	0
Short term profits	1	6	2	1	0
Long term profits	1	7	1	1	0
Satisfaction with farm	4	7	2	0	0
Sustainability of farm	3	6	4	0	0
Skills used on farm	1	5	7	0	0
Average milk production per cow	0	0	2	3	0
Quality of milk	0	4	1	0	0
Change in wildlife activity	0	5	7	0	0
<b>Total</b>	<b>17</b>	<b>65</b>	<b>62</b>	<b>11</b>	<b>3</b>

## 42 a. Benefits from farming organically:

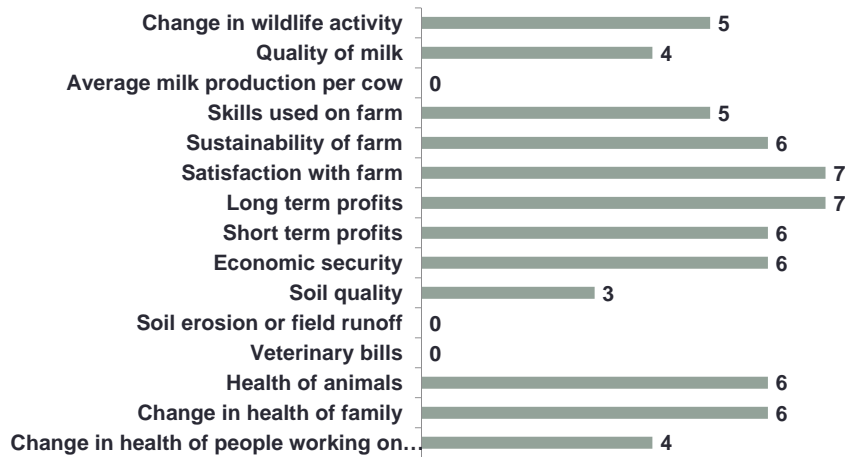
### Increased a lot



Number of Responses = 17

## 42b. Benefits from farming organically:

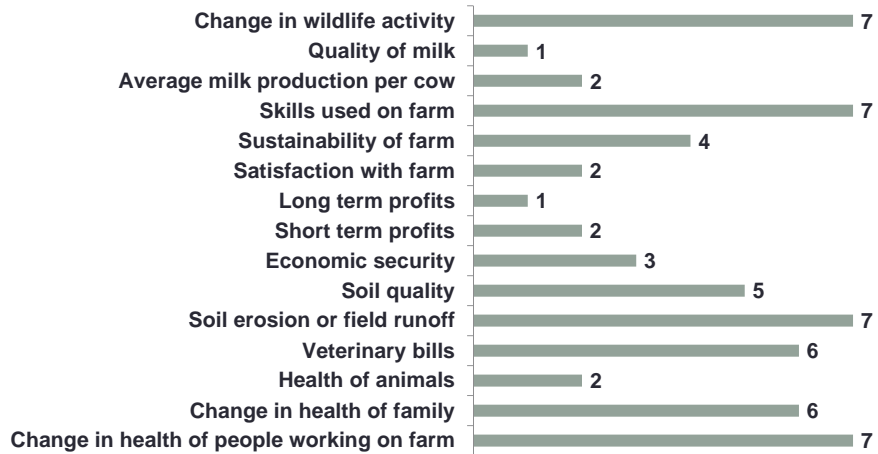
### Increased



Number of Responses = 65

## 42c. Benefits from farming organically:

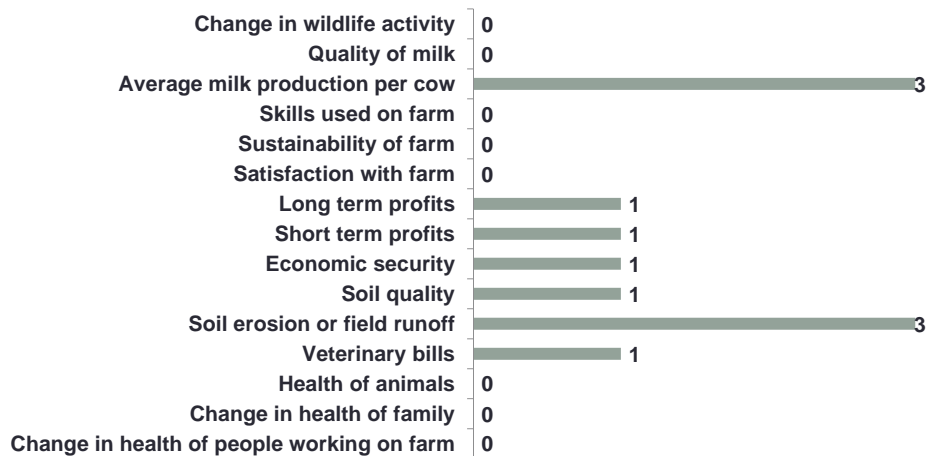
### Stayed the Same



Number of Responses = 62

## 42 d. Benefits from farming organically:

### Decreased

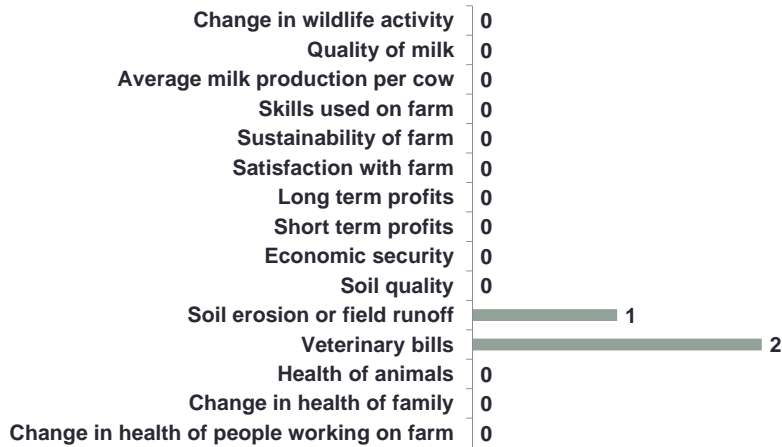


Number of Responses = 11



## 42 e. Benefits from farming organically:

### Decreased a Lot



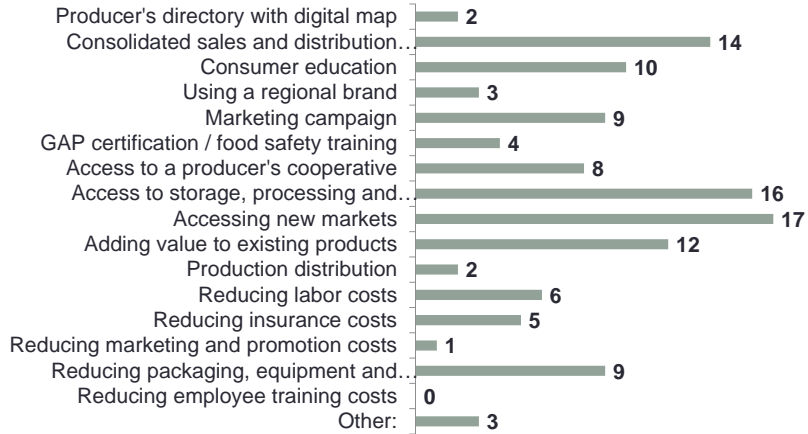
Number of Responses = 3

## 43. Increase or decrease of wildlife on your organic farm?

Type	Increase	Decrease	No change
Deer	8	7	8
Moose	0	0	14
Bear	3	0	11
Coyote	14	1	5
Turkey	12	2	4
Geese	8	2	6
Grassland nesting birds	8	3	8
Other:	2	0	0
<b>Total</b>	<b>55</b>	<b>15</b>	<b>56</b>

## Food Producers

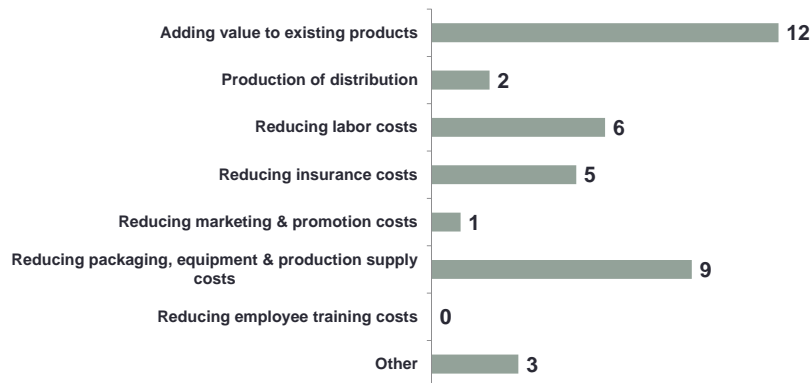
44a. Which three of the initiatives listed below would be most helpful in improving your profitability?



Number of Responses = 48; Other: tree market prices; reduce fuel costs; get beef prices up so we can make a profit – quit importing

## Food Producers

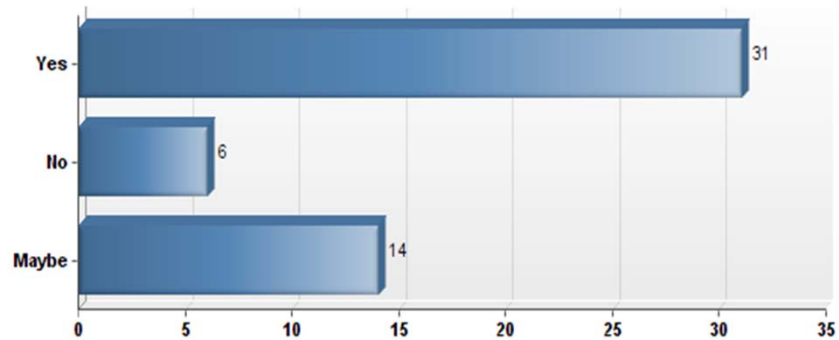
44b. Which three of the initiatives listed below would be most helpful in improving your profitability?



**Number of Responses = 38**  
**Up to 3 Responses Per Person**

## Food Producers

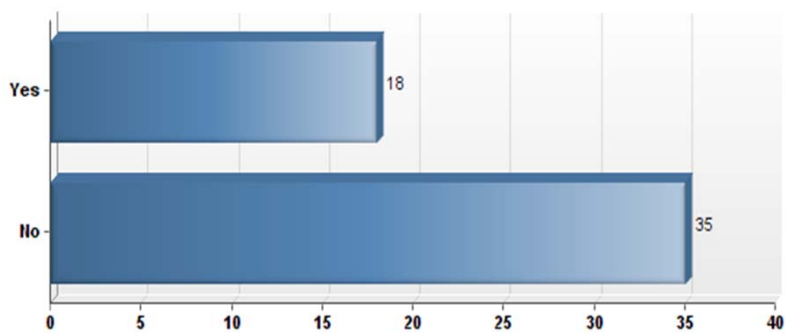
45. Work with other producers to improve profitability?



Number of Responses = 51

## Food Producers

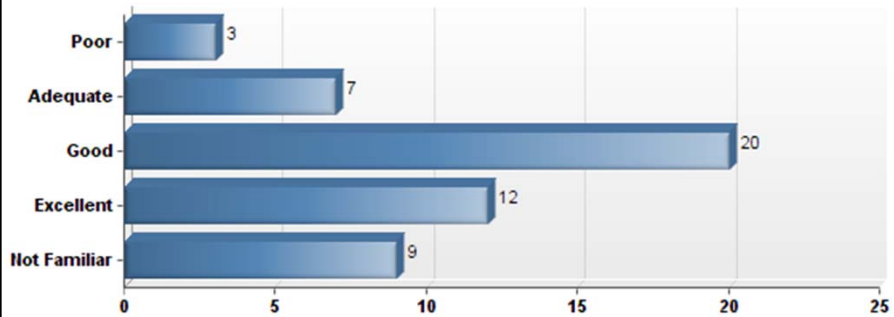
46. Do you do on-farm packaging or processing?



Number of Responses = 53

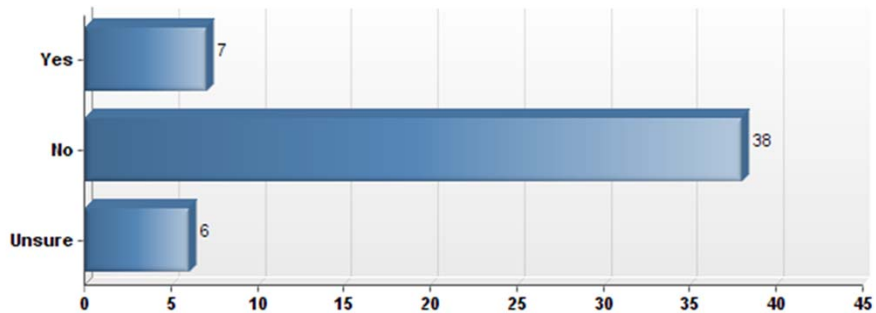
## Food Producers

47. Familiarity with food safety practices:



Number of Responses = 51

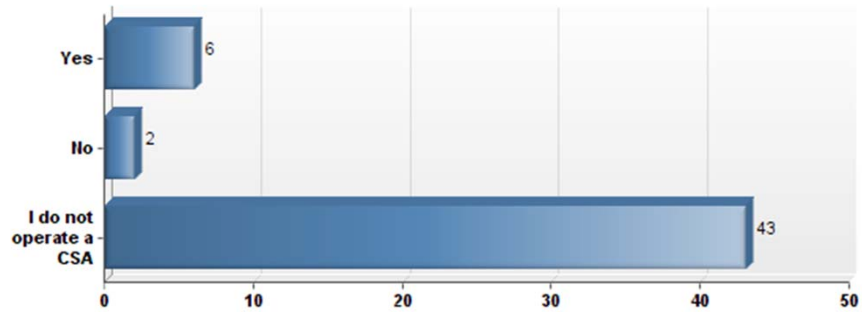
## 48. Do you have a food safety plan?



Number of Responses = 51

## Food Producers

49. Does your business accept Garden Share's CSA Bonus Bucks?

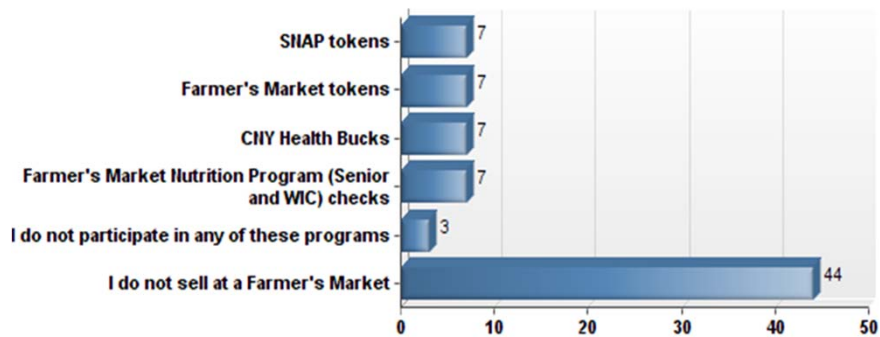


Number of Responses = 51

Question #50 asked if the respondents would be interested in accepting CSA Bonus Bucks, both said no.

## Food Producers

51. What do you accept at a Farmer's Market?



Number of Responses = 75

Farmers were asked if they would be interested in participating in these programs. Two said no. One said "all, but no comprehensive acceptance seminar, varied training."

## Questions, Comments or Suggestions?

Contact:

Matilda Larson  
St. Lawrence County Planning Office

[mlarson@stlawco.org](mailto:mlarson@stlawco.org)  
Tel: (315) 379-2292

Public Safety Complex  
49 ½ Court Street  
Canton, NY 13617

## Agricultural Producers in St. Lawrence County Survey

The St. Lawrence County Agricultural and Farmland Protection Board has partnered with St. Lawrence University on the development of this survey to research and analyze information from the agricultural community.

### Purpose of the Survey

The purpose of this survey is to gather your input about what is needed to build a stronger agricultural industry in St. Lawrence County. In order to develop strategies to support agriculture here, we need to know some information about your farm operation, what challenges you face, and what resources might be helpful to you. The aggregate survey results will be used to help create strategies as part of the revised St. Lawrence County's Agricultural Development Plan.

### Methods

This survey asks you a series of questions about your farm. Some questions will be general and for everyone. Other questions will appear depending on whether you run a produce/fruit farm, a dairy farm, another kind of livestock operation, or another kind of agricultural business. If your operation is organic, officially USDA or not, you will be asked another set of questions. Some questions may appear to be repetitive, but we are assessing a variety of future farm management issues and/or training needs. Lastly, we will ask you to assess your future on your farm as you envision it today. We expect that it will take you about 15 to 20 minutes to answer this survey, depending on what kind of farm operation you have. You must be at least 18 years old to participate. Please complete this survey with those who are responsible for the management of your farm business. Only one survey response per farm, please.

A summary of the survey results will be shared with you if you leave us your contact information at the end of the survey.

Returned paper surveys will be kept by administrative assistants in agency offices until collected by Carrie Johns or her assistant. The returned paper surveys will ultimately be kept by Carrie Johns in her office at St. Lawrence University. Responses from the online surveys will be kept in Johns's Qualtrics account. She and her student research assistant will have access to responses for purposes of analysis.

### Anonymity

Your participation in this survey is completely voluntary. You may omit answering any question if you so choose and you can stop at any time. All of your responses will remain anonymous. If you choose to give us your contact information at the end of the survey, that information will not be connected to your answers. We do not anticipate quoting particular answers, but it might happen. However, your responses are anonymous to us and everyone else.

### Benefits and Risks/Discomforts

Benefits to you are indirect by helping to inform the authors of the revised agriculture development plan of what is important for them to consider. There are no direct benefits or compensation to you. Risks to you are minimal. You may find some questions uncomfortable to answer because you may feel uncertain about the answers. Also, some may seem repetitive, but that is due to design constraints in the program.

### Questions about the research or your rights as a participant

If you have questions about the survey or its intended uses, please contact Keith Zimmerman, Director of County Planning, at [kzimmerman@stlawco.org](mailto:kzimmerman@stlawco.org) or (315) 379-2292 in the St. Lawrence County Planning Office or Dr. Carrie Johns, Environmental Studies Department, St Lawrence University at [cjohns@stlawu.edu](mailto:cjohns@stlawu.edu) or (315) 229-5814. If you have particular questions about the survey or any of the specific questions, please contact Carrie Johns as above.

### Timing of the Survey

This survey will remain available for the month of March 2016. However, you must complete the survey within one week from the date you start it.

### Survey Flow

- Everyone please complete pages 2-5
- Dairy producers please complete pages 5 – the top of 7
- Livestock producers please complete pages 6 – the top of 7
- Food (vegetable/fruit/maple/honey) producers please complete page 9
- If your operation is certified organic or NOFA farmer's pledge, please complete pages 7-8

If you wish to receive Agriculture Plan updates, please provide your email at the end of the survey.

I have read and understand the above consent form and desire of my own free will to participate in this study.

Name Printed: \_\_\_\_\_

Named Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**PLEASE FILL IN OR CHECK THE BUBBLE THAT CORRESPONDS TO YOUR SELECTED ANSWER**

1. In what town is your farm located? \_\_\_\_\_
2. Please identify your role in the farm operation
  - Owner-operator
  - Owner
  - Operator
  - Other: \_\_\_\_\_
3. How old are you?
  - Under 30 years old
  - 30 to 45 years old
  - 46 to 60 years old
  - over 60 years old
4. Please tell us your level of formal education
  - Some high school
  - High school/GED completed
  - 2 year college degree
  - 4 year college degree
  - graduate degree
5. How long have you owned or operated your farm?
  - Less than five years
  - Five to ten years
  - Ten to twenty years
  - More than twenty years
6. Does your farm operation use at least 7 acres and gross at least \$10,000 in annual sales receipts?
  - Yes
  - Unsure
  - No
7. What are your operation's average gross sales over the last five years?
  - Less than \$10,000
  - \$10,001 - \$50,000
  - \$50,001 - \$100,000
  - \$100,001 - \$500,000
  - Greater than \$500,000
8. What is the type and size of your farm operation? Please check all that apply to you.
  - Dairy - number of milking cows? \_\_\_\_\_
  - Livestock for meat- number of animals? \_\_\_\_\_
  - Livestock for fiber- number of animals? \_\_\_\_\_
  - Field Crops e.g. corn, soybeans, hay, oats - types? \_\_\_\_\_
  - Equine - number of horses? \_\_\_\_\_
  - Poultry for meat- types and numbers? \_\_\_\_\_
  - Poultry for eggs- types and numbers? \_\_\_\_\_
  - Maple syrup - number of taps? \_\_\_\_\_
  - Honey/Apiary - number of hives? \_\_\_\_\_
  - Produce such as fruits and vegetables - types and acreage? \_\_\_\_\_
  - Landscaping or horticultural products - types and acreage? \_\_\_\_\_
  - Other agricultural product - type and size? \_\_\_\_\_
9. Please indicate what percent of your sales is generated through the following categories:
  - \_\_\_\_\_ Cooperative / processing company- Please identify
  - \_\_\_\_\_ Restaurants
  - \_\_\_\_\_ Retail Stores
  - \_\_\_\_\_ Institutions (school districts, universities, hospitals, correctional facilities, etc...)
  - \_\_\_\_\_ Auction
  - \_\_\_\_\_ Community Supported Agriculture- How many subscribers?
  - \_\_\_\_\_ Farmer's Market-Please list locations
  - \_\_\_\_\_ Roadside stand
  - \_\_\_\_\_ Direct Sales
  - \_\_\_\_\_ Other- Please identify \_\_\_\_\_



10. Is your farm organic?
- Yes, USDA certified organic.
  - Yes, but not certified (e.g. Farmer's Pledge).
  - Some organic practices. Roughly how many acres are organic? \_\_\_\_\_
  - Conventional practices only

11. Please indicate the acreage used for your farm operation:

	<i>Owned</i>	<i>Leased</i>
<i>Total Acres</i>		
<i>Acres in corn silage</i>		
<i>Acres in corn for grain</i>		
<i>Acres for alfalfa</i>		
<i>Acres in hay or haylage</i>		
<i>Acres in soybeans</i>		
<i>Acres used for grazing</i>		
<i>Acres used for woodlot/forestry</i>		
<i>Acres used for maple sugar bush</i>		
<i>Acres used for fruits / vegetables</i>		
<i>Acres used for horticulture / nursery</i>		
<i>Acres used for other</i>		

12. In the near future do you anticipate converting any additional acreage into agricultural production?
- Existing tillable acres not currently in use - about how many might you convert? \_\_\_\_\_
  - Shrub land or woodland - about how many acres? \_\_\_\_\_
13. Approximately what percentage of your tillable land is tile drained?
- None
  - All
  - Some (what percent?) \_\_\_\_\_
14. What are the top three sources of information that you use to learn about farm management and production uses?
- Business organizations/cooperatives (please identify) \_\_\_\_\_
  - Vendors
  - Membership organizations (please identify) \_\_\_\_\_
  - Universities and/or Research Institutions
  - Federal, state, or local service agency staff and officials
  - Other farm operators
  - Family, friends or neighbors
  - Other \_\_\_\_\_
15. What are your top three methods for obtaining information that benefits your business:
- In person
  - By phone
  - By email
  - Magazines and newsletters
  - Blogs and online publications
  - Webinars or podcasts
  - Social media (Facebook, Twitter, etc..)
  - Internet searches and websites
  - Radio
  - Television
  - Other

16. How would you rate your access to the area's agricultural support network:

	Poor	Adequate	Good	Excellent	Do not Use
1. Industry vendors and contractors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Equipment sales and service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Farm supplies, feed, and fertilizer companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Financial services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Service agency staff (SWCD, CCE, etc..)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Veterinarians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. General Contractors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Processing facilities (grain, meat, etc...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Nutrition consultants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Dairy cooperative representatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Dairy quality forage contractors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Milk haulers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Manure / Lagoon spreading contractors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Which of the following are the top three issues that affect your business? The next question will show you an additional set of issues. (You may select three or up to three)

- Liability Insurance
- Labor Pay Scale
- Workman's Compensation
- Access to skilled labor
- Immigration policies
- Workforce training
- Access to volunteers
- Access to labor
- OSHA regulations
- Public health regulations
- Access to food safety training
- Other \_\_\_\_\_

18. In this next set of issues, which of the following are the top three that affect your business? (You may select three or up to three)

- Environmental regulations
- Invasive species
- Nuisance wildlife
- Limited growing season
- Drainage
- Animal welfare policies
- Maintaining quality control standards
- Distance to markets
- Limited storage and processing capacity
- Transporting goods to market
- Access to processing facilities

19. Which of the following are the top three economic/cost issues that affect your business? (You may select three or up to three)

- Land prices
- Property Insurance
- Property taxes
- Income taxes
- Insufficient cash flow
- Insufficient demand
- Volatile prices for my product
- Commodity Prices
- Current production capacity
- Energy costs
- High input costs, e.g. fertilizers
- Access to financing
- Other \_\_\_\_\_

20. How would you rate your familiarity with Federal, State and local services that are available to assist your business?

- I do not know what programs or services are available, or where to go for assistance
- I am somewhat familiar with the programs or services that are available
- I am very familiar about the available programs and services, and know where to access them
- I do not use the services or programs that are available to me

21. In this set of topics, what are the top three training topics that would be most helpful for your business? You will see another set of topics in the next question. (You may select three or up to three)

- Farm business management
- Price/cost risk management
- Financial record keeping and analysis
- Succession planning
- Estate planning
- Labor management
- Health insurance
- Improving productivity
- Preparing a business plan
- Value-added processing
- Increasing production
- Food Safety certification

22. In this second set, what are the top three training topics that would be most helpful for your business? (Again, you may select three or up to three)
- Good Agricultural Practices certification
  - Cold climate production technologies
  - Regulatory compliance
  - Certifications
  - Renewable Energy Systems
  - Energy savings
  - Sales
  - Marketing/sales
  - Consolidated sales and distribution
  - Exporting to Canada
  - Agritourism
  - Ecommerce
  - Other: \_\_\_\_\_

23. From the set of dairy-related options below, what are the top three training topics that would be most helpful for your dairy business? (You may select three or up to three) **Answer only if you are a dairy producer**
- Feed bunk management/mixing/ration formulation
  - Feed and forage contracting
  - Forage quality improvement
  - Feed and forage production
  - Basic animal nutrition
  - Animal welfare
  - Mastitis prevention and treatment
  - Calf feeding and young stock management
  - Reproductive management
  - Vaccination, herd health and treatment
  - Heat and cold stress
  - Housing, bedding and ventilation
  - Water availability
  - Parlor facility renovation
  - Herd record keeping
  - Milk and feed price risk management
  - Nutrient management plans
  - Manure handling equipment
  - Regulatory compliance
  - Other \_\_\_\_\_

24. Over the next 15 years, do you anticipate any of the following to your business?

	Less than 5 years	5 to 10 years	10 to 15 years	Not Applicable
1. Continue operations at current capacity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Expand operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Discontinue some production but continue farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Discontinue production and lease the land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Transfer ownership to a family member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Sell the business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Retire and get out of farming entirely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Are any of your children interested in continuing the farm?
- Yes
  - No
  - They are currently in business with me
  - I do not have any children
26. If you intend to sell / transfer the business, do you have a succession plan?
- Yes
  - No
  - Unsure
  - I do not intend to sell / transfer the business
27. Would development of a food hub (processing, packaging, storage, distribution of products) be of benefit to your farm business?
- Yes
  - Maybe
  - Unsure
  - No, it would make no difference
28. If you produce livestock, such as cattle, bison, sheep, or goats, would a local, small-scale, livestock processing facility be beneficial to your farm operation?
- Yes
  - Not sure
  - No

**Answer the following questions only if you are a dairy producer:**

29. What is the size of your milking herd (milking and dry cows)?
- Less than 50
  - 51-99
  - 100-299
  - 300-499
  - 500-999
  - Greater than 1000
30. What is your annual rolling herd average for milk (pounds per cow)?
- Less than 10,000
  - 10,001 - 13,000
  - 13,001 -16,000
  - 16,001 - 19,000
  - 19,001 - 22,000
  - 22,001 - 25,000
  - 25,001 - 28,000
  - Greater than 28,001

**Answer the following questions only if you are a dairy or other livestock producer.**

31. Which of the following grazing practices do you use? Check all that apply.
- No grazing in my operation
  - Grazing Dairy Heifers
  - Grazing Dairy Cows
  - Grazing livestock – Beef, Sheep, Swine,
  - Grazing Horses
  - Grazing Poultry
  - Grazing Llamas, Alpacas
32. Which the following describe your grazing management practices? Check any or all that apply
- Extensive grazing- One large pasture, no rotation.
  - Moderate rotation- More than one pasture, livestock are rotated
  - Intensive grazing- Animals are moved more than once a week
  - Highly intensive grazing- Animals are moved once a day or more
  - No grazing in my operation

33. Over the next 15 years do you plan to install or update any of the following?

	Less than 5 years	5 to 10 years	11 to 15 years	Do not plan this within 15 years
1. Update free stall barn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Update calf/heifer facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Update parlor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Install robotic systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Update transition/dry animal facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Update milk house waste collection and treatment system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Update/expand feed and forage system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Update manure storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Improve silage leachate system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Install tile drainage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Update grazing infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. Which of the following practices are used to handle manure from your livestock? Check all that apply
- Put manure into spreader and spread daily
  - Leave manure in barns / buildings for more than a few day
  - Pile manure on the ground or stacking pad- number of days: \_\_\_\_\_
  - Store in earthen manure structure-number of storage days: \_\_\_\_\_
  - Store manure in lined structure (e.g. concrete / poly lined pit, slurry system, etc...) number of storage days: \_\_\_\_\_
  - Other: \_\_\_\_\_

35. Do you have a nutrient management plan (NMP) or a Certified Nutrient Management Plan (CNMP)?
- Yes
  - No
  - Unsure
36. How useful has the plan been for your farm operation?
- Very Useful
  - Useful
  - Neutral
  - Useless
  - Very Useless

**Answer the following questions *only* if your operation is *certified organic* or *NOFA farmer's pledge*.**

37. How long has your farm been organic?
- Currently in transition
  - 1-5 years
  - 6-10 years
  - 11-15 years
  - 16-20 years
  - Always been organic
38. What are the top three factors that influenced your decision to farm organically?
- |  |  |
|--|--|
| <input type="radio"/> The health of my family and me                                   | <input type="radio"/> Possibility of higher profits in the organic market                                  |
| <input type="radio"/> Concerns about environmental impacts from conventional practices | <input type="radio"/> Reduction of input costs   |
| <input type="radio"/> Concerns about the dangers of working with chemicals             | <input type="radio"/> Higher quality food for the consumer   |
| <input type="radio"/> Possibility of improved soil quality                             | <input type="radio"/> To better fit my personal philosophy and/or beliefs                                  |
| <input type="radio"/> Welfare of farm animals  | <input type="radio"/> Dissatisfaction with conventional farming  |
|  | <input type="radio"/> Possibility of receiving increased or improved premiums and/or prices for my product |
39. As an organic farmer, what are the three biggest challenges affecting your organic operation:
- |   |   |
|---|---|
| <input type="radio"/> Lack of government resources/assistance                           | <input type="radio"/> Decrease in profit  |
| <input type="radio"/> Lack of subsidies for organic farmers                             | <input type="radio"/> Possible increase in labor due to changing farming practices                        |
| <input type="radio"/> Decreased milk production per cow (if you are a dairy farmer)     | <input type="radio"/> Trouble attaining financing for additional costs associated with organic production |
| <input type="radio"/> Restricted use of antibiotics for disease control on your animals | <input type="radio"/> Weed control is more difficult  |
| <input type="radio"/> Higher input costs (e.g. certified grain)                         | <input type="radio"/> Animal management is more difficult   |
| <input type="radio"/> Increased cost associated with the period of transition           | <input type="radio"/> Long learning process for organic methods   |
40. Compared to conventional farming, did the amount of labor (people or time) that is required to operate your farm change?
- Increased a lot
  - Increased
  - Stayed the same
  - Decreased
  - Decreased a lot
41. Would you ever consider returning to conventional farming practices?
- Yes
  - No

Please indicate why you would consider returning to conventional farming practices.

Please indicate why you would not consider returning to conventional farming practices.

42. Please indicate if you have seen these benefits from farming organically compared to conventional farming:

	Increased a lot	Increased	Stayed the same	Decreased	Decreased a lot
1. Have you seen a change in the health of the people working on your farm?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Have you seen a change in the health of your family?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Has the health of your animals changed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Have your veterinary bills changed since you've been organic?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Has the amount of soil erosion or runoff from your fields	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Has the soil quality on your farm changed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Has your sense of economic security changed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Did you see a change in short term profits?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Did you see a change in long term profits?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Since transitioning to organic, has your satisfaction with your farm...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Do you believe the sustainability of your farm has...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How much have the skills you use on the farm changed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Has the average milk production per cow...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Has the quality of your milk...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Have you seen a change in wildlife activity on your farm since becoming organic?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. Have you seen an increase or decrease presence of any of the following wildlife on your land?

	Increase	Decrease	No change
1. Deer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Moose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Bear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Coyotes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Turkey	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Geese	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Grassland nesting birds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer the following questions *only* if you are a *food (vegetable/fruit/maple/honey) producer*.

44. Please select three initiatives that would be most helpful in improving your profitability
- Producer's directory with digital map
  - Consolidated sales and distribution with other producers
  - Consumer education
  - Using a regional brand
  - Marketing campaign
  - GAP certification / food safety training
  - Access to a producers cooperative
  - Access to storage, processing, and packaging facilities
  - Accessing new markets
  - Adding value to existing products
  - Production of distribution
  - Reducing labor costs
  - Reducing insurance costs
  - Reducing marketing and promotion costs
  - Reducing packaging, equipment, and production supply costs
  - Reducing employee training costs
  - Other \_\_\_\_\_

45. Would you consider working with other producers to improve your profitability?
- Yes
  - No
  - Maybe
46. Do you do any on-farm packaging or processing?
- Yes
  - No
47. How would you rate your familiarity with the food safety practices that affect your business?
- Poor
  - Adequate
  - Good
  - Excellent
  - Not Familiar
48. Does your business have a food safety plan?
- Yes
  - No
  - Unsure
49. If you operate a CSA, does your business accept Garden Share's CSA Bonus Bucks?
- Yes
  - No
  - I do not operate a CSA
50. Would you be interested in accepting CSA Bonus Bucks?
- Yes
  - No
  - Maybe
51. If you sell at a Farmer's Market, do you accept any of the following: Check all that apply
- SNAP tokens
  - Farmer's Market tokens
  - CNY Health Bucks
  - Farmer's Market Nutrition Program (Senior and WIC) checks
  - I do not participate in any of these programs
52. I do not sell at a Farmer's Market, would you be interested in participating in these programs?
- Yes: Which one(s)? \_\_\_\_\_
  - No
  - Unsure

Thank you for taking the time to answer these questions. If you are interested in receiving updates on the development of the St. Lawrence County Agriculture Plan, please enter your email address. **Your email address will remain confidential** and will only be used to receive Agriculture Plan updates.

Email (optional): \_\_\_\_\_



# Appendix B:

## Public Forum Votes

*Follow the Yellow Corn Road*



*Photo submitted by Kelsey O'Shea*



**St. Lawrence County Agricultural Development Plan  
March 2015 Public Forum Summary**

**Improve and diversify the agricultural business environment 151 Votes**

<b>Recommendations:</b>	<b>Subtotal</b>	<b>Votes</b>
<b>1) Protect and promote our agricultural assets</b>	<b>47</b>	
Diversify and improve distribution network, incl. roads, rail and Seaway		35
Take advantage of our proximity to the St. Lawrence Seaway		5
Expand broadband availability		1
Land in the county is affordable		3
We offer a rural setting with low population density		1
Our community is farm-friendly		2
We need to improve community awareness about agricultural practices		
There is an established business network that supports ag operations		
We have access to agriculturally-literate lending institutions		
Good education and technical assistance from CCE, SWCD, NNADP, etc.		
<b>2) Preserve and expand value-added production</b>	<b>37</b>	
Increase our value-added capacity		18
Take care of the value-added production facilities that are still here		10
Establish a new meat processing facility		8
Establish and maintain a website to attract new businesses		1
Market our agricultural assets to agribusiness corporations		
Promote the availability of ag resources and services		
<b>3) Address regulations that affect business operations</b>	<b>37</b>	
There is too much regulatory scrutiny		13
Change NYS Drain Tile regulations requiring stamped plans		8
State resources should focus on other sources that affect water quality		8
Additional resources are needed to improve manure storage and mgt		
Address Certified Kitchen Requirements that hamper maple production		4
Advance food sovereignty law to address certified kitchen requirements		3
Educate state regulators about ag policymaking		1
USDA Food Safety regulations affect small local facilities		
Eliminate maximum cap of producers for Farm to School Program		
Improve communication between ag agencies & offices		

**St. Lawrence County Agricultural Development Plan  
March 2015 Public Forum Summary**

**Improve and diversify the agricultural business environment 151 Votes**

<i>Recommendations:</i>	Subtotal	Votes
<b>4) Address our tax burden</b>	<b>15</b>	
There is a high cost of doing business in NYS		7
Property and school taxes are high		7
Taxing jurisdictions rely heavily on property taxes for revenue		1
Lower the \$10,000 threshold to qualify for agricultural assessments		
<b>5) Make the most of our natural resources</b>	<b>8</b>	
Protect and take advantage of our access to abundant land with clean water		8
Consistent seasonal climate		
Good climate for dairy, forage and maple production		
Poorly drained soils that respond well to drain tiling		
Access to a local source of lime to alter pH levels in soil		
Invasive pests threaten agricultural production		
<b>6) Strengthen and diversify agricultural production</b>	<b>7</b>	
Diverse agricultural land uses e.g. tillable, pasture, uplands, timber, etc.		3
Growing demand and rising prices for organic grain for feed		3
Established dairy industry with large production volume		1
We produce a diversity of agricultural products		
Promote growth in emerging crop and small livestock production		
Expand biofuel production		

**St. Lawrence County Agricultural Development Plan  
March 2015 Public Forum Summary**

**Diversify and improve access to consumer markets**

**80 Votes**

<b>Recommendations:</b>	Subtotal	Votes
<b>1) Expand our market base outside the area</b>	<b>27</b>	
Improve access to outside markets that can afford our local products		25
Increase e-commerce		1
Large geographic distances to major US markets		1
Our local market is constrained by lower incomes		
Diversify our consumer base		
<b>2) Create a Regional Brand</b>	<b>24</b>	
Improve marketing for local products		18
Create a North Country Brand		6
<b>3) Strengthen the local market</b>	<b>16</b>	
Create a food hub		10
Educate the consumer about the true value of locally produced foods		4
We have a small local market for organic products		2
GardenShare connects producers to consumers		
Expand farmers markets		
<b>4) Increase exports to Canada</b>	<b>7</b>	
We are in close proximity to large Canadian markets		3
Export agricultural products to Canada		3
There are large geographic distances to major US markets		1
It's difficult to access the Canadian market		
<b>5) Strengthen and Expand Agritourism</b>	<b>6</b>	
Strengthen agritourism		5
Expand the new wine trail		1
Build on visitor experience to encourage repeat visits		

**St. Lawrence County Agricultural Development Plan  
March 2015 Public Forum Summary**

**Meet the education and training needs of new and existing farm operators 71 Votes**

<b>Recommendations:</b>	<b>Subtotal</b>	<b>Votes</b>
<b>1) Prepare a new generation of farmers</b>	<b>60</b>	
We have an aging generation of farmers		
Take advantage of, and transition to an emerging generation of farmers		3
Sustain our farming culture and resilience		
<b>A. Through Primary and Secondary Schools</b>		
Partner agribusinesses with schools to expose students to ag career opportunities		16
Take advantage of the resurgence in ag education		8
Incorporate technology in agricultural learning opportunities		5
Revitalize FFA chapters across the county		4
Teach agricultural curriculum in schools		1
Accessing and attracting skilled labor is a challenge		
<b>B. Through Post-Secondary Institutions and Beyond</b>		
Assist new and emerging businesses with access to capital		13
Establish a farmer mentoring program		5
SUNY Canton's agricultural curriculum is under development		3
Replicate incubator farms that are established in Vermont and Maine		2
<b>2) Maximize the utilization of technology and innovation to reduce costs and increase production</b>	<b>11</b>	
Accelerate the utilization of farm technologies		5
Adopt innovative methods to reduce production costs		2
High Energy Costs Affect Production		2
Improve the ability to meet changing consumer demands		1
Labor costs are high		1
Limited growing season affects production volume		
Increase production by extending the growing season through technology and innovation		
Invasive pests threaten production		

# Appendix C:

## Protecting Prime Farmland

*Blake and Carmen Gendebien's Farm on Five Mile Line Road in Lisbon, NY*



*Photo by Blake Gendebien*

## **Soil Classifications**

### Soils Suitable for Cultivation:

- Class 1 Few limitations that restrict use
- Class 2 Some limitations that reduce choice of plants or require moderate conservation practices
- Class 3 Severe limitations that reduce choice of plants, or require special conservation practices, or both
- Class 4 Very severe limitations that restrict choice of plants, or require very careful management, or both

### Soils Not Suitable for Cultivation:

- Class 5 Little or no erosion hazard, but other limitations that are impractical to remove
- Class 6 Severe limitations and generally unsuitable for cultivation, largely used for pasture
- Class 7 Very severe limitations and unsuitable for cultivation, primarily used for grazing
- Class 8 Limitations that preclude use for commercial crop production and restricted in use

### **Availability of Soil Classes in St. Lawrence County**

Class	Farmable?	Acres	%	% Farmable
2	Y	164,266	10%	
3	Y	207,272	12%	
4	Y	248,324	14%	36%
5	N	184,854	11%	
6	N	569,190	33%	
7	N	308,256	18%	
8	N	28,796	2%	
Not Assigned	N	3,458	0%	64%
	Total	1,714,414		

### **Distribution of Soil Classes by Location**

Classes	SLC	US
1 & 2	10%	23%
3 & 4	26%	35%
5 - 8	64%	42%

## **Prime Farmland as Defined by USDA**

Land with the best combination of physical and chemical characteristics to produce food, feed forage, fiber, and oilseed crops. It possesses an adequate and dependable supply of moisture; a favorable temperature and growing season; acceptable acidity and alkalinity; acceptable salt/sodium content; and contains few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods; and is either not frequently flooded during the growing season, or is protected from flooding. Slopes range mainly from 0 to 6 percent. **Less than 1 in 5 acres in the county is, or can be prime farmland.**

### **Prime Soils in St. Lawrence County**

Prime?	Acres	%
Prime	137,142	8%
Prime if Drained	188,571	11%
Statewide Importance	205,714	12%
Total	531,427	31%

→ *The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, less productive and cannot be easily cultivated.*

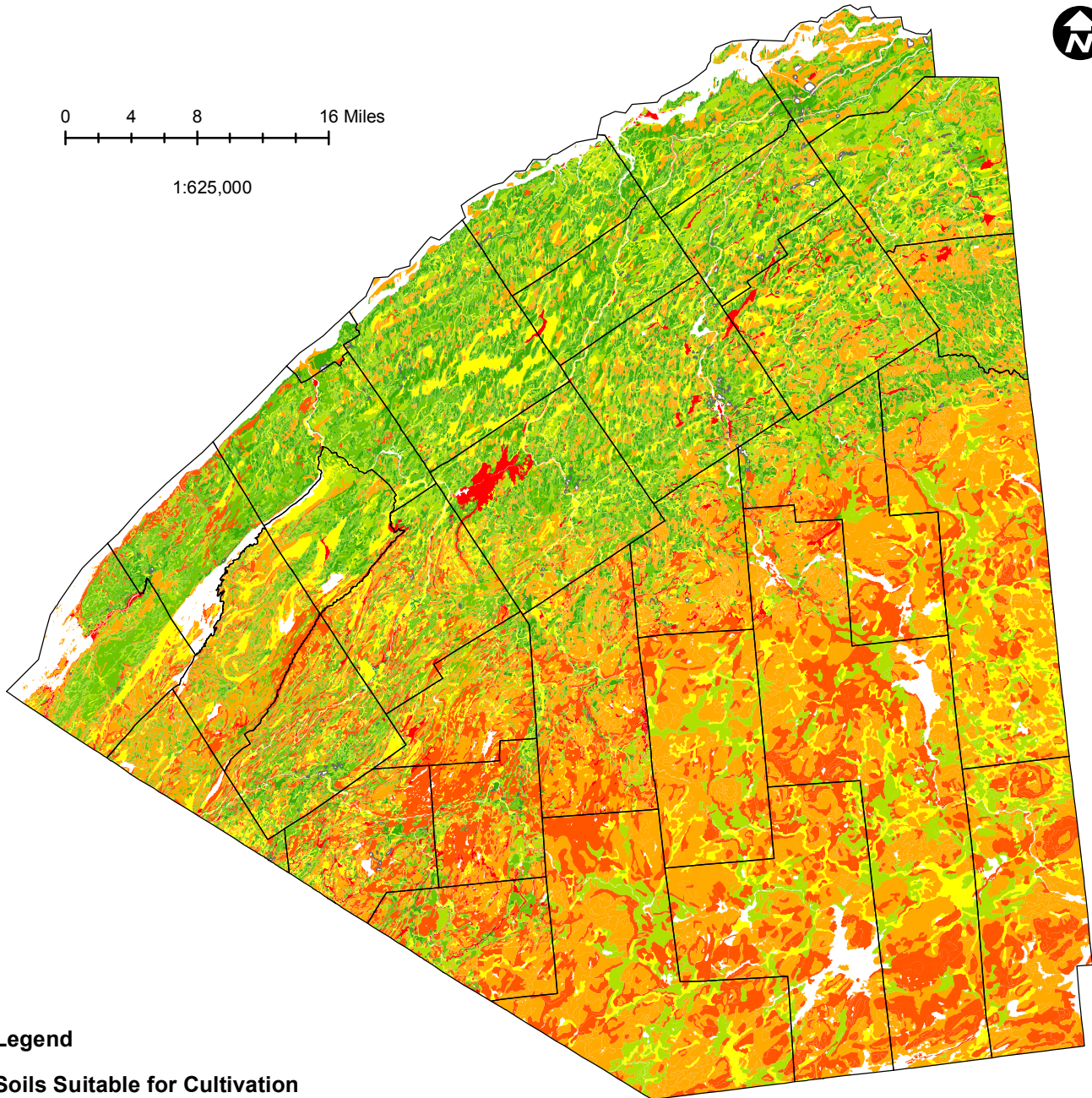


# Soil Class Distribution in St. Lawrence County






0 4 8 16 Miles

1:625,000







## Legend

### Soils Suitable for Cultivation

-  Class 2: Some limitations that reduce choice of plants or require moderate conservation practices
-  Class 3: Severe limitations that reduce choice of plans or require special conservation practices, or both
-  Class 4: Very severe limitations that restrict choice of plants, require very careful management, or both

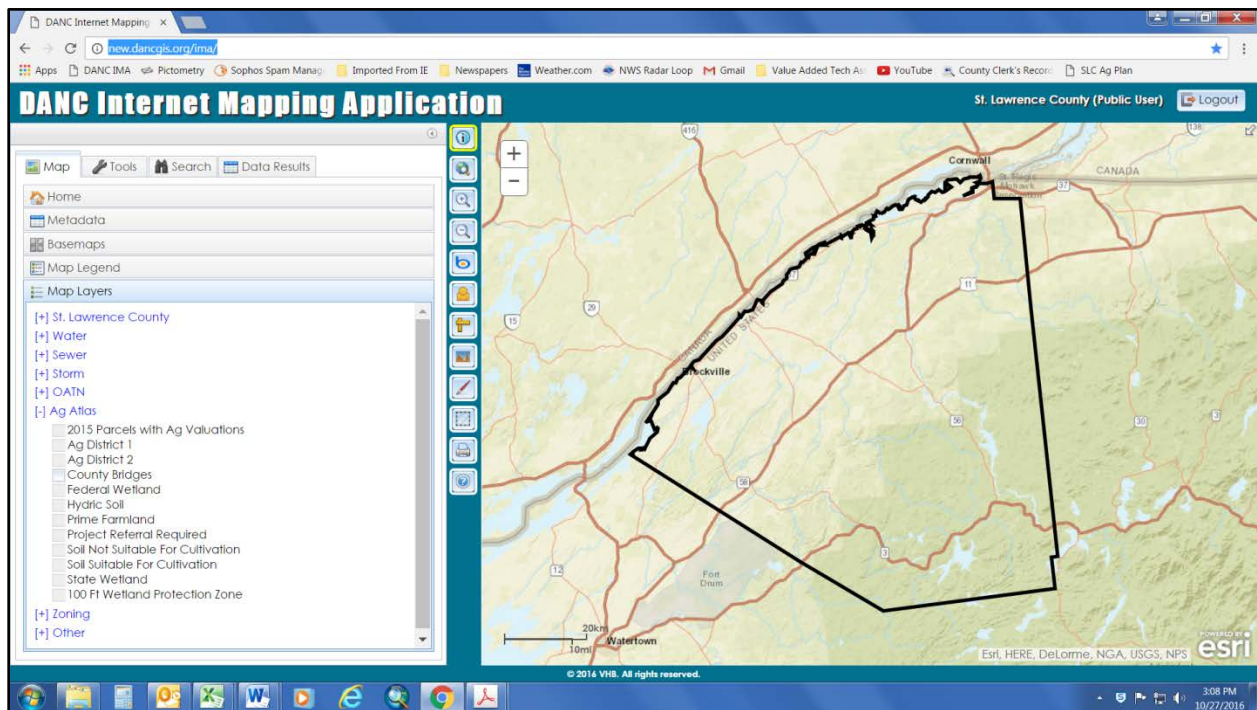
### Unsuitable Soils

-  Class 5: Little or no erosion hazard, but other limitations that are impractical to remove
-  Class 6: Severe limitations; generally unsuited for cultivation, largely used for pature
-  Class 7: Very severe limitations; unsuited for cultivatation, primarily used for grazing
-  Class 8: Limitations that preclude use for cultivation, and restricted in use

 Town boundary

The County's Ag Atlas  
can be accessed online at:

<http://new.dancgis.org/ima>





# Agricultural Data Statement

Circle: TOWN VILLAGE CITY OF : \_\_\_\_\_ Date \_\_\_\_\_

**Instructions:** To be completed when requesting a special use permit, site plan approval, use variance or a subdivision approval for a parcel within 500 feet of a farm operation located in a State-certified Agricultural District. Online property information is available at: [new.dancgis.org/ima](http://new.dancgis.org/ima). A copy of this Agricultural Data Statement must be included with the referral to the County Planning Board.

Applicant	Property Owner (if different from applicant)
Name: _____	Name: _____
Address: _____	Address: _____

1. Project Address: \_\_\_\_\_

Tax Map Number (Parcel ID): \_\_\_\_\_

2. Type of Application: (check one or more)

Special Use Permit;  Site Plan Approval;  Use Variance  Subdivision Approval

3. Project Description: \_\_\_\_\_

\_\_\_\_\_

4. Is this parcel in an Agricultural District?  No  Yes Agricultural District Number \_\_\_\_\_

5. Is this parcel farmland or part of a farm?  No  Yes

6. Are prime soils present?  Prime  Prime if Drained  Soil of Statewide Importance

7. Does the parcel receive an agricultural valuation?  No  Yes

8. Is the parcel tile drained?  No  Yes

9. All farms within 500 feet of project location (attach additional sheets if necessary):

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Address: \_\_\_\_\_ Address: \_\_\_\_\_

Farmed?  No  Yes Farmed?  No  Yes

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Address: \_\_\_\_\_ Address: \_\_\_\_\_

Farmed?  No  Yes Farmed?  No  Yes

\_\_\_\_\_  
Form Prepared By

\_\_\_\_\_  
Applicant Signature

Reviewed by: \_\_\_\_\_

\_\_\_\_\_  
Signature of Municipal Official

\_\_\_\_\_  
Date

**Appendix D:**

**Guidelines for Farm Friendly Land Use  
Regulations & Audit**



*Photo submitted by LouAnne King*

## **Guidelines for Land Use Regulations to Protect Farmland**

Based on Excerpts and Recommendations from  
Katherine Daniels at the New York Planning Federation  
and  
George Franz at Cornell University

The following guidelines for farm-friendly land use regulations are taken from three documents provided by the Department of Agriculture and Markets. They are: A review of the Town of Marbletown's zoning and subdivision ordinances, and a review of the Town of Shawangunk's zoning and subdivision ordinances by Katherine Daniels; and a review of the Town of Homer's zoning regulations by George Franz. All excerpts are attributed to either author, with a handful of recommendations attributed to Matilda Larson from the St. Lawrence County Planning Office. These guidelines are intended to be used by municipalities when revising local land use regulations which can help promote agricultural production in their communities.

### **Intent of Farm Friendly Land Use Regulations:**

Zoning is one of the key tools utilized to implement the vision set forth in a community master plan, protect community character, and maximize the return on public investments in infrastructure and to protect valued land and open space resources. For decades however zoning regulations have emphasized the development of land. Across the state towns are recognizing that zoning has traditionally relegated agriculture to secondary status compared to other land uses such as non-farm residential, commercial and industrial development. This prevailing practice tends to view agriculture as a secondary useful activity pending the anticipated development of the land to its "highest and best use," and not as a valuable long term contributor to the local economy and quality of life in the community (Franz).

Rural communities also tend to zone extended lengths of highway or areas around interchanges for large scale commercial development. This practice can result in commercial sprawl along main highways within the community that can detract from its rural character, compete with historic businesses in hamlet center and encourage economically unsustainable businesses that may thrive for a few years but then close, leaving an empty shell building on the landscape. The practice can also send a message to farmers that their operation is a transitory land use until the arrival of a "highest and best use." This can lead to disinvestment in land and buildings by farmers (Franz).

The amount of land zoned for commercial uses to the exclusion of agricultural uses may be excessive given a rural community's population and low to moderate potential for future growth. Generally smaller rural communities "overzone" for commercial development within their boundaries by zoning land for commercial develop far above and beyond what their population can economically sustain, or even desire (Franz).

A review of land use regulations can identify and revise land use/zoning regulations that appear to subordinate agricultural uses to the interest of other land uses, particularly for non-farm residents (Franz).

### **Purpose for Land Use Regulations/Zoning:**

Under the authority and purpose for a community's zoning/land use regulations, reference the preservation and protection of agricultural uses (Daniels).

### **Agricultural Zone:**

Create an agricultural zone with its primary purpose to protect agricultural activities and farmland (Daniels). Such a zone promotes agriculture as the pre-eminent land use within the district (Franz) and is given priority over residential and other uses (Daniels). The purpose of the zone should state it is an area where agricultural practices are undertaken and may conflict with residential uses, and this is expected (Daniels).

*1<sup>st</sup> Example:* The purpose the AG - Agricultural Zone is to: "...protect agricultural lands and uses from incompatible land uses and to limit non-farm residential, commercial and industrial uses to those areas that are best suited by reason of their requirements for public services..." (Franz).

*2<sup>nd</sup> Example:* "The general purpose and intent of the AGR-Agricultural district is to protect the agricultural land resources and rural agrarian character of the Town of Scott, to promote, as much as possible, the continued economic and operational viability of agricultural enterprises in the Town of Scott, and to provide opportunities for rural residential and other compatible development within an agricultural environment" (Daniels).

Unlike strictly resident, commercial or industrial zoning districts, agricultural zones can still accommodate compatible land uses such as residential development and recreational uses (Franz).

Quantify the land area of all uses for a clear understanding of the extent of agricultural uses that are present in a community, ex: agricultural fields and farm operations cover approximately 87% of the town's land area (Franz and Larson). Establish the boundaries of an agricultural zone by identifying: farm operations with agricultural valuations; farmland according to local assessor records; prime soils and satellite imagery (Daniels and Larson).

### **Definitions:**

Definitions for agricultural uses and agricultural lands should be consistent with, and reference New York Agriculture and Markets Law Section Section 301 (11) (Franz).

*Agriculture:* The use of land, buildings, structures, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise or a hobby, and including commercial horse boarding operations as defined in the Agriculture and Markets Law Article (AML) 25-AA, Section 301 (11) (Franz).

Other suggested definitions to include in a zoning schedule (Daniels):

*Agri-tourism:* u-picks, CSAs, road stands, orchards, maple sugar shacks, cideries/distilleries/wineries/craft breweries, greenhouse operations, corn mazes, hay rides, pumpkin patches, seasonal events, school programs, weddings and parties, farm markets, bakeries, farm stores and restaurants, bed and breakfasts, and farm stays.

*Farm-support businesses:* A retail or wholesale enterprise operated as an accessory use to an active farm on the same premises providing services or products principally utilized in agricultural production, including structures, agricultural equipment and agricultural equipment parts, batteries and tires, livestock, feed, seed, fertilizer and equipment repairs, or providing for wholesale or retail sale of grain, fruit, produce, trees, shrubs, flowers or other products of agricultural operations (Franz). Examples include: slaughterhouse, community kitchen, timber processing, wood mills, furniture making, etc.

*Farm-compatible businesses:* Home occupations; child or adult care center; outdoor recreation (define); and small-scale contractors employing fewer than four persons who are not resident-relatives and engaged in plumbing, heating, electrical, landscaping, refrigeration, or masonry; pest control or janitorial contracting; etc (Franz).

#### **Uses Permitted by Right:**

Since a typical farm operation is not open to the general public, requiring site plan review is an unreasonable burden. Instead, allow agricultural uses as permitted by right (Franz); agricultural uses along with one- and two-family homes should be exempt from site plan review (Daniels).

#### **Site Plan Review vs Special Use Permits:**

There is a great potential to introduce a number of farm-related uses that can help farmers stay on the land by providing options for supplemental means of income (Daniels). These uses may be open to the general public (Franz) and include agri-tourism (CSAs, u-picks, roadside stands, banquet halls, bed and breakfast, etc.); farm-support businesses (slaughterhouse, community kitchen); and other farm-compatible businesses (home occupation, child/adult care center, bakery, retail business, etc). Farm-related uses that are open to the general public can be subject to site plan review (Daniels and Franz). Site plan approval is a mechanism by which a municipality can ensure that the health and safety of the general public and patrons of such businesses are protected; ensure that adequate facilities for parking and safe ingress and egress from public highways are provided; and that potential adverse impacts of such businesses or large events are mitigated (Franz).

Uses that require Special Use Permits traditionally present characteristics and intensities that may have significant adverse impacts on surrounding properties and the community in general. Such uses usually include high-traffic generators such as fast food restaurants, large-scale shopping centers, industrial complexes or institutional uses. The intent of Special Use Permits is to ensure the potential impacts of such developments are mitigated through conditions that are set on the approval. Requiring site plan

review instead special use permits sends a positive message to the farm community that agriculture is a valued land use, and not a problem land use (Franz).

### **Non-Agricultural Uses:**

Often a number of uses are allowed in an agricultural zone that potentially conflict with agriculture because they are either growth-promoting or too intense, including: public and private schools, multiple-family dwellings, and planned development overlays (Franz). Designate and concentrate locations for non-agricultural uses in hamlets and central business districts to minimize the conversion of farmland into non-agricultural uses and prevent sprawl along county and state highways.

Map housing density by census block, and overlay land use classifications from real property records (Larson).

There are a number of uses allowed in the R-Ag District that potentially conflict with agriculture because they are either growth-promoting or too intense, including: public and private schools, multiple dwellings and planned development groups. These uses should be considered for removal from the District. The Town should also consider amending the Purpose statement for the R-Ag District to say that the extension of public sewer and water lines to this District is not allowed (Daniels).

### **Agricultural Data Statements:**

For all subdivisions and uses subject to site plan review or special use permit that are within 500' of a farm operation in an Agricultural District, the completion of an Agricultural Data Statement by the applicant, to be examined by the Planning Board as a part of the subdivision/site plan review should be identified as a requirement (Daniels).

### **Legal Notice Requirements:**

Include a completed copy of the Agricultural Data Statement as a part of the legal notice requirement (Daniels).

### **Subdivision Review:**

During sketch plan conferences between Planning Boards and applicants, the location, size and type of farmland should be included as an element of the physical features that are depicted in sketch plans or preliminary subdivisions (Daniels). Utilize the County's Internet Mapping Application to depict the location of prime soils, soil classes, hydric soils and wetlands in a community (Larson).

Allow for the creation of cluster subdivisions to preserve open space, existing farms, prime soils and soils of statewide importance.

### **Maximum vs. Minimum Lot Size:**

A two-acre minimum lot size and outright permitted use of single family residences encourages the conversion of farmland to residential uses (Daniels and Franz). Consider a maximum - rather than a

minimum - lot size instead. A maximum lot size can reduce the amount of agricultural land that is converted to a non-agricultural use. A maximum lot size of two acres, or the minimum acreage necessary for an approved on-lot septic system, whichever is less, is usual.

### **Setbacks:**

Zoning requirements such as excessive setbacks and review processes can be burdensome to a farm enterprise and discourage farmers from investing in operations that can sustain their long term economic viability. These restrictions appear to subordinate agriculture uses to the interest of other land users, particularly non-farm residents. It can be particularly problematic when a rationale is not provided to justify the excessive setbacks (Franz). Setbacks for farm structures should be consistent with setbacks for residences (Daniels).

The NYS Department of Agriculture and Markets has determined the following setbacks between agricultural and non-agricultural uses to be reasonable:

- 100' between liquid or semi-solid manure land application and an existing residence
- 35' between injected liquid manure application and an existing residence
- 100' between lined (e.g. synthetic, concrete, or imported, compacted clay) manure storage facility or fabricated unit and an existing well
- 300' between an unlined, self-sealing manure storage facility and an existing well
- 200' between manure land application and a new well, with the burden on the land owner and well driller (not the farm operator).
- 100' between new barnyards, silos, barn gutters, livestock confinement structures, animal pens and an existing well
- 100' between barnyards, silos, barn gutters, animal pens and a new well
- 200' between a storage area for a manure pile and a new well
- 1,500' between slaughter facilities and an existing residence
- On-farm wind turbines that do not produce more than 110% of a farm's electrical needs can be setback five times the rotor diameter between the turbine base and any human-occupied building
- On-farm wind turbines may be setback 1.1 times the combined height of the tower and blades from property lines and power lines

### **Signage:**

There should be the opportunity for farm enterprises that are accessed by the general public to be able to advertise their presence to the motoring public (Franz). Allow for an off-premise sign to be posted along a roadway to inform the motoring public of their proximity to a farm based enterprise (e.g. "Smith's Apple Orchard ¼ mile ahead").

### **Junkyards:**

The dismantling, storage and salvaging of farm machinery or vehicles not in running condition and the storage of such items on a farm premises is identified by the Department of Agriculture and Markets as a legitimate agricultural practice. Exempting junkyards that are accessory to a principal agricultural use

of the premises from local junkyard regulations conforms with Section 305-a of Agriculture and Markets Law (Franz).

**Farm Worker Housing:**

Prohibiting manufactured homes for farm worker can be considered an unreasonable burden on a farm operation in a State-certified agricultural district. Manufactured housing has also been deemed as a form of affordable housing by the Division of Housing and Community Renewal. Local zoning regulations should permit manufactured homes in an agricultural zone to remain consistent with Agriculture and Markets Law (Franz). Building and health code requirements administered by the local code enforcement officers continue to apply.



## Farm-Friendly Audit of Land Use Regulations

Issue	Yes	No	Notes
<b>Zoning:</b>			
Does the regulation's purpose statement include a discussion of agriculture, or promoting or preserving agriculture specifically?			
Does the zoning establish a local agricultural zoning district, agricultural overlay district, or special use district for agriculture?			
Does zoning allow agriculture as a permitted use by right in any district?			
Does zoning allow for accessory uses such as greenhouses, barns, garages, equipment storage, etc permitted as of right?			
Does zoning prohibit agriculture in any district?			
Does zoning require special use permits for agriculture or ag-related uses in any district?			
Does the zoning encourage higher density or commercial growth in core farm areas or where a NYS Agricultural District exists?			
<b>Permitted Uses:</b>			
Are farm-related definitions broad and flexible and not confined to a certain number of acres or income earned?			
Are any ag-related uses required to get a special use permit or go through site plan review?			
Does the zoning allow farms to have more than one business or offer flexibility to accommodate the needs of agricultural businesses?			

### Farm-Friendly Audit of Land Use Regulations

Issue	Yes	No	Notes
Are farm stands, farm retail markets, agri-tourist businesses, breweries, etc. allowed?			
Are farm processing facilities such as community kitchens, slaughterhouse, etc. allowed?			
Does the regulation define agriculture, agricultural structure, farm worker housing, agri-tourism, agri-business?			
Are farm stands limited to selling just products from that one farm? Do they need a site plan review or special use permit?			
Are non-traditional or retail based farm businesses allowed in a district or agricultural zoned district? For example, can a farmer set up a brewery on site and sell products onsite?			
Does the regulation define and allow for farm worker housing? Are mobile homes allowed as farm worker housing?			
Are personal wind mills and solar panels allowed for farms? With permits or permitted as of right?			
<b><i>Development Standards:</i></b>			
Do standards exist that require the PB or ZBA to evaluate impacts of a project on agriculture?			
Are innovative development patterns that preserve farmland encouraged, allowed, or mandated (conservation subdivision, clustering, TDR)?			
Do any design standards exist to direct building envelopes to areas on a parcel that would still allow farming to occur on remaining open spaces?			

### Farm-Friendly Audit of Land Use Regulations

Issue	Yes	No	Notes
Are buffer zones between farmland and residential uses required for new construction or subdivision?			
Are off-site or on-site signs allowed to attract and direct people to farm stands?			
Are silos and other farm structures exempt from heights requirements?			
<b>Review Process:</b>			
Do application requirements include asking for submittal of information or maps about farming that might be taking place on or near the project parcel? Whether it is in an agricultural district? What farming activities take place on or near the site? Whether prime farmland soils are present?			
Does the community require placement of an agricultural disclosure statement on plans or plats when development takes place in a NY certified agricultural district?			
Is an agricultural data statement as per AML25-aa required as part of an application for site plan, subdivision, special use or other zoning?			
Does the community have a farmer sitting on their Planning Board?			

**St. Lawrence County**  
**Ag Plan Public Outreach & Consultation**

Task	Group	Plan Element	Date
Public Forum in Stockholm	General Public	Public Forum	03/09/15
Public Forum in Lisbon	General Public	Public Forum	03/18/15
Public Forum in Gouverneur	General Public	Public Forum	03/23/15
Present Public Forum Summary to Ag Plan Stakeholders	Ag Plan Stakeholders	Public Forum	04/14/15
Present Public Forum Summary to AFPB	Agriculture and Farmland Protection Board	Public Forum	04/30/15
Present Economic Profile to Ag Plan Stakeholders	Ag Plan Stakeholders	Economic Profile	05/27/15
Consult with Ag Plan work group re Ag Survey questionnaire	Ag Plan Stakeholders	Ag Survey	06/15/15
Consult with Highway Engineer to map County Bridge Status	County Highway	Ag Atlas	06/24/15
Consultation with CCE and SWCD staff re Ag Survey questionnaire	CCE and SWCD	Ag Survey	07/16/15
Present Economic Profile to AFPB	Agriculture and Farmland Protection Board	Economic Profile	08/06/15
Teleconference with DANC to upload Ag Atlas	Development Authority of the North Country	Ag Atlas	08/19/15
Consult with SLU GIS Director to design Ag Atlas	St. Lawrence University	Ag Atlas	09/10/15
Consult with Highway Engineer & Supt to map County Bridge Status	County Highway	Ag Atlas	09/16/15
Consult with Highway Engineer to map County Bridge Status	County Highway	Ag Atlas	09/22/15
Consult with SLU GIS Director to design Ag Atlas	St. Lawrence University	Ag Atlas	09/24/15
Economic and Land Use Presentation at Local Govt Conf	Municipal Planning and Zoning Boards	Economic Profile	10/13/15
Consult with Farm Credit East & CCE Staff re Ag Atlas content	Farm Credit East and CCE	Ag Atlas	10/19/15
Consultation with DEC Region 6 Forester	Department of Environmental Conservation	Land Analysis	10/22/15
Present soils and prime farmland analysis to AFPB	Agriculture and Farmland Protection Board	Land Analysis	11/05/15
Consultation with AFPB re Ag Survey questionnaire	Agriculture and Farmland Protection Board	Ag Survey	11/05/15
Present Land Analysis and Ag Atlas to CPB	County Planning Board	Land Analysis	11/12/15
Promote Ag Survey at Agrimark Annual Gouverneur Mtng	Agrimark	Ag Survey	12/02/15
Promote Ag Survey at Agrimark Annual Canton Mtng	Agrimark	Ag Survey	12/03/15
Meet with Madrid Planning Board re Land Use Case Study	Madrid Planning Board	Farm friendly land use regulations	12/09/15
Ag Atlas photo op with Watertown Daily Times	Media	Ag Atlas	12/10/15
Consultation with AFPB re Ag Survey questionnaire & timeline	Agriculture and Farmland Protection Board	Ag Survey	02/05/16
Ag Survey questionnaire posted online	General Public	Ag Survey	03/01/16
Ag survey deadline extended	General Public	Ag Survey	04/18/16
Land Use Analysis with Madrid Planning Board	Madrid Planning Board	Farm friendly land use regulations	06/06/16
Land Use Analysis with Madrid Planning Board	Madrid Planning Board	Farm friendly land use regulations	08/04/16
Ag Survey presentation to CCE Ag Leadership Team	Cornell Cooperative Extension	Ag Survey	08/23/16
Ag Survey public information session	General Public	Ag Survey	09/01/16
Ag Survey interview with WPDM radio	Media	Ag Survey	09/01/16
Ag Survey presentation to Local Foods Advisory Group	Cornell Cooperative Extension	Ag Survey	09/06/16
Present farm friendly land use regulations to County Planning Board	County Planning Board	Farm friendly land use regulations	09/08/16
Present farm friendly land use regulations to Madrid Planning Board	Madrid Planning Board	Farm friendly land use regulations	09/15/16
Consultation with ESD re Export Ready services for producers	Empire State Development Corporation	Goals and Actions	09/15/16
Consultation with IDA, CCE and SWCD Senior Staff	IDA, CCE, SWCD	Goals and Actions	09/19/16
Consultation with DEC Region 6 Forester	Department of Environmental Conservation	Land Analysis	09/19/16
Consultation with SWCD County Forester	Soil and Water Conservation District	Land Analysis	09/21/16
Ag Survey presentation to SWCD Board of Directors	Soil and Water Conservation District	Ag Survey	09/22/16
Ag Survey presentation to CCE Board of Directors	Cornell Cooperative Extension	Ag Survey	09/27/16
Consultation with IDA, CCE and SWCD Senior Staff	IDA, CCE, SWCD	Goals and Actions	10/14/16
Ag survey presentation to Farm Bureau	Farm Bureau	Ag Survey	10/18/16
Present Land Analysis to Environmental Management Council	Environmental Management Council	Land Analysis	10/19/16
Consultation with IDA, CCE and SWCD Senior Staff	IDA, CCE, SWCD	Goals and Actions	10/21/16
Consultation with IDA, CCE and SWCD Senior Staff	IDA, CCE, SWCD	Goals and Actions	10/26/16
Distribute Legal Notice announcing public hearing	Municipalities, County official newspapers	Entire Draft Plan	10/27/16
Distribute draft report to project stakeholders	Project stakeholders and interested public	Entire Draft Plan	10/28/16
Distribute press release announcing draft plan and public hearing	Local media	Entire Draft Plan	10/31/16
Interview with NCPB re Draft Ag Plan	Media	Entire Draft Plan	10/31/16
Ag survey presentation to Farm Credit East	Farm Credit East	Ag Survey	10/31/16
Conduct Public Hearing on Draft Ag Plan	Agricultural and Farmland Protection Board	Entire Draft Plan	11/03/16

**St. Lawrence County  
Agricultural Development Plan**

**Project Contributors**

<b>Organization</b>	<b>Representative(s)</b>
Agricultural and Farmland Protection Board	Bob Andrews
Board of Legislators	David Forsythe
Cornell Cooperative Extension of SLC	Patrick Ames / Regional Ag Team
County Planning Board	Brian Murray
Development Authority of the North Country	Michelle Capone / Star Carter / Christina Illingworth
Department of Environmental Conservation	Steven Sherwood
Environmental Management Council	Kendall Lawrence / John Tenbusch
Farm Bureau	David Fisher / Jon Greenwood
Farm Credit East	Nancy Putman
FFA	Carol Wright
GardenShare	Gloria McAdam
Industrial Development Agency	Tom Plastino
Municipal Planning Board	Joe Finnegan
Never Tire Farm	Ray Bowdish
Ogdensburg Bridge and Port Authority	John Morrison
Real Property Tax Office	Darren Colton / Jim Race
St. Lawrence BOCES	Patty Gilbert
St. Lawrence County Chamber of Commerce	Brooke Rouse
St. Lawrence County Grange	Hubert Brothers
St. Lawrence County Highway Department	Don Chambers / Andy Willard
St. Lawrence County Planning Office	Matilda Larson / Denise Russell
St. Lawrence Maple Producers Association	Doug Thompson
St. Lawrence University Env. Studies Department	Carrie Johns / Kyle Curry
St. Lawrence University GIS Lab	Carol Cady / Sean Gannon
Senator Patty Richie's Office	Mike Schenk / Alex Bush
Small Business Development Center	Dale Rice
Soil and Water Conservation District	Dawn Howard / Raeanne Dulanski / Matt Brown
Workforce Development Institute	Greg Hart

**St. Lawrence County  
Agricultural Development Plan**

**Project Sponsors**

New York State Department of Agriculture and Markets	\$	13,500
SUNY Potsdam Walker Research Fellowship Program	\$	4,938
St. Lawrence County Planning Office†	\$	4,250
Farm Credit East	\$	2,000
Cornell Cooperative Extension of St. Lawrence County†	\$	1,925
St. Lawrence County Soil and Water Conservation District†	\$	1,925
Sweetgrass Foundation	\$	1,000
Ogdensburg Bridge & Port Authority	\$	500
Cargill	\$	400
Stewarts Shops	\$	150
Legislator Kevin Acres	\$	100
Robert & Diane Andrews/Andrews View Farm*	\$	100
Community Bank N.A.	\$	100
Dairy Farmers of America/Dairy Lea	\$	100
Development Authority of the North Country	\$	100
David Fisher/Mapleview Dairy*	\$	100
GardenShare	\$	100
Jon Greenwood/Greenwood Dairy*	\$	100
Jon Greenwood/Farm Bureau	\$	100
Horizon Dairy	\$	100
Steve McKnight/River Breeze Farms*	\$	100
Poulin Grain	\$	100
Reggie Sapp/Red Wagon Farm*	\$	100
Joe & Barbara TeRiele*	\$	100
Sue Rau & Andy Soutar/Drumlin's End Farm	\$	50

*\*Indicates current or former member of the AFPB*

*†Indicates in-kind contribution of staff time*