

Part I: Survey and Analysis



Introduction

Part I of this plan surveys the major agricultural sectors found within Cayuga County as well as major attributes of the county that impact agriculture such as natural resources and existing land use policies. Part I also analyzes available information with the intent to provide a context and framework for county, town and village decision makers. The Implementation Plan in Part II is heavily based on the information in Part I, which in turn was developed based on information gathered through the plan's steering committee, multiple public meetings and focus groups, and one-on-one interviews with farmers and agricultural business owners.

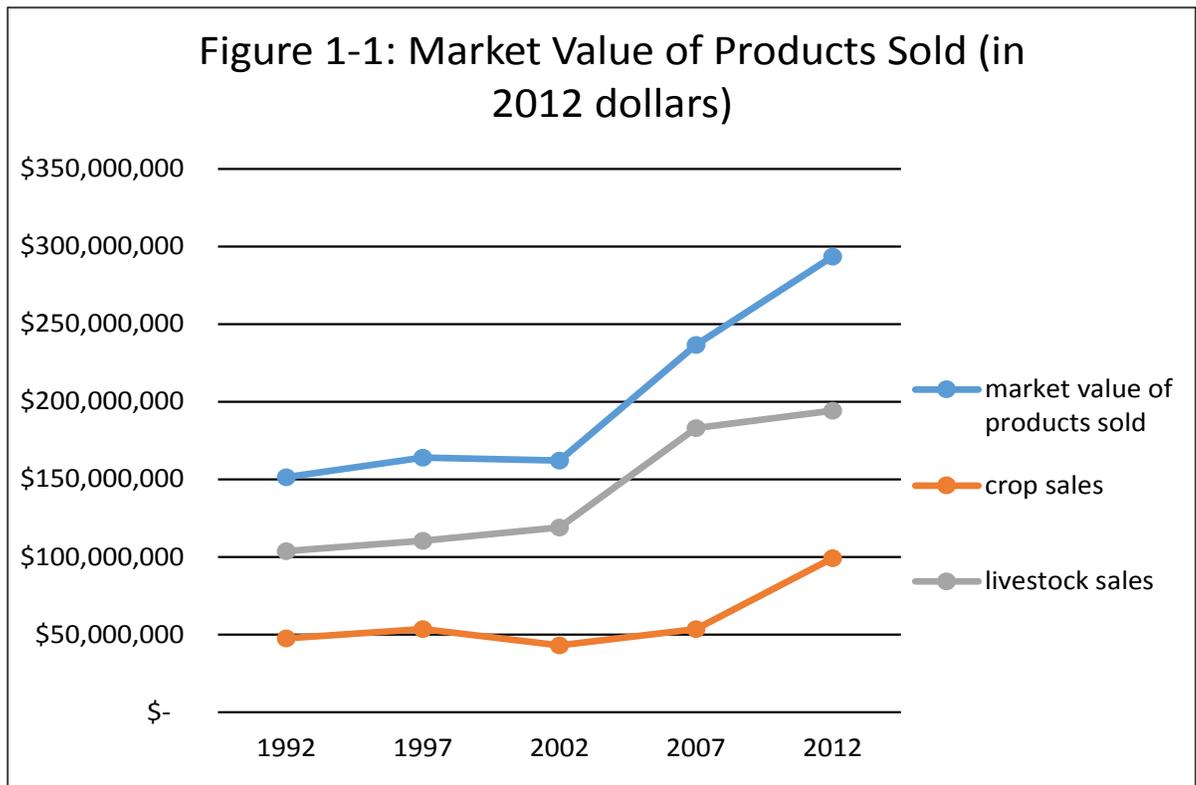
I. Agricultural Activity

This section focuses on the major agricultural sectors found within the county. The analysis begins with a general overview of agricultural activity, including the strengths, opportunities, needs and challenges that can be applied or attributed to all agricultural sectors found within the county. A survey and analysis for each major agricultural sector – specialty crops, dairy and field crops, livestock and agricultural support businesses – are then addressed in more detail, with sector-specific strengths, opportunities, needs and challenges identified for each.

Cayuga County's Agricultural Activity: An Overview

According to the 2012 US Census of Agriculture, Cayuga County ranked second in New York State for the market value of agricultural commodities, valued at over \$293.4 million (Figure 1-1). \$99.2 million was generated from crop sales and \$194.3 million from livestock sales, including milk and other dairy products from cows. 705 farms in Cayuga County harvested 169,969 acres of cropland, amounting to 54% of the county's total land area.

Major agricultural production sectors include field crops and dairy. Combined, these two sectors accounted for nearly \$227 million in 2012, or 77% of total agricultural sales. Overall, Cayuga County ranked first in New York State in the production of grains and soybeans and second in the production of milk and other dairy products. Nationally,



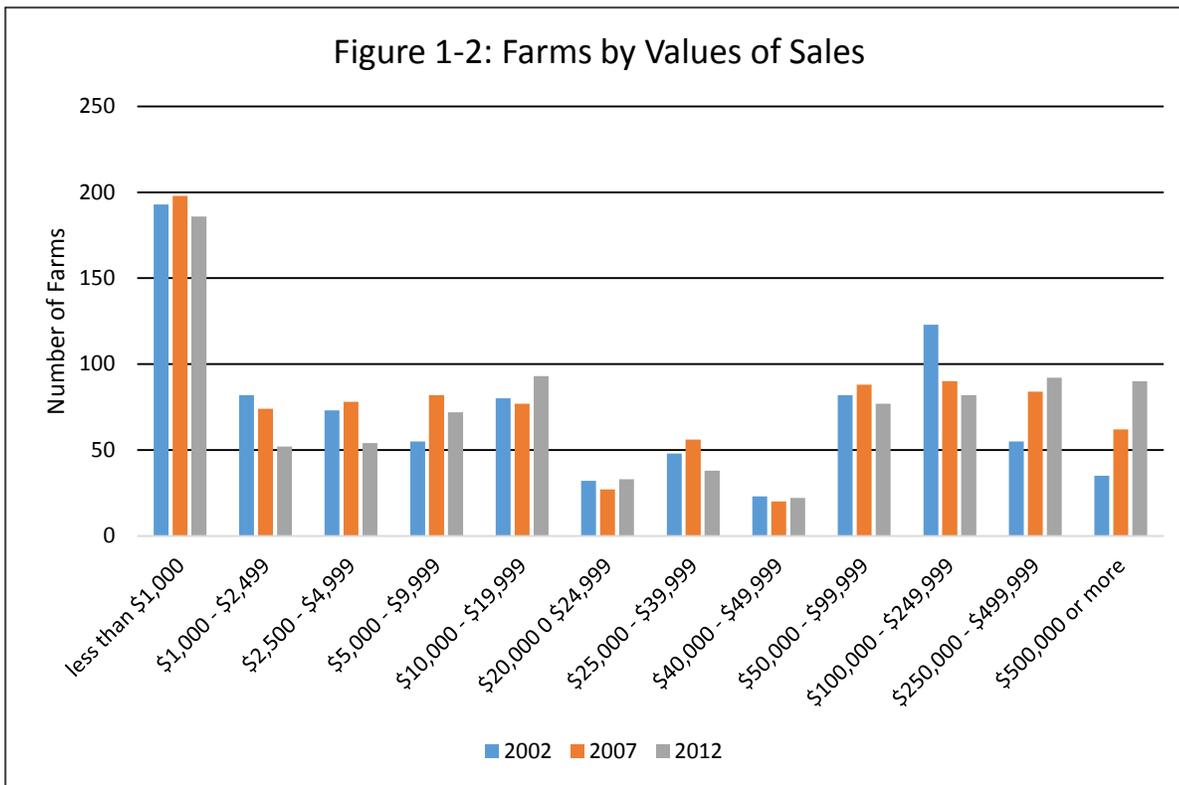
Cayuga County ranked 39th in the production of milk and other dairy products in 2012.

Other agricultural sectors include livestock production such as cattle and calves, poultry and eggs, and hogs and pigs; and specialty crop production such as vegetables, fruits, horticulture and floriculture products, honey and maple syrup.

Reflecting a nation-wide trend, Cayuga County is seeing many farms¹ expand to achieve economies of scale while also experiencing a proliferation of smaller farm operations. The number of farms with sales of \$250,000 or more increased from 90 farms in 2002 to 182 farms in 2012. Also between 2002 and 2012, the number of farms with sales between \$100,000 and \$249,999 decreased by 41, from 123 to 82. The number of farms with sales between \$5,000 and \$9,999 increased from 55 to 72 in the same time period (Figure 1-2), perhaps reflecting a trend of new farmers and part-time farmers responding to the increased consumer demand for locally grown food. Overall, the total number of farms in the county has increased slightly since the early 1990's, from 873 in 1992 to 891 in 2012, but has fluctuated over time.

Total farm production expenses rose faster than total net cash farm income from 2007 to 2012; expenses increased 38% while income increased only 25%. The average net income per farm increased 31% in the same time period, from \$62,251 per farm to \$81,572 (Table 1-1). The estimated market value of land and buildings increased by over 50% between 2007 and 2012, from \$2,125 to \$3,215 per acre. Increasing competition for quality farmland throughout the county has squeezed all farmers looking to expand or even to just hold on to leased farmland.

1. As of 1974 the US Census of Agriculture has defined a farm as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.



	2007	2012	% Change
total farm production expenses (\$1,000)	\$165,802	\$229,446	38%
average per farm (\$)	\$177,139	\$257,516	45%
net cash farm income of operation (\$1,000)	\$58,267	\$72,680	25%
average per farm (\$)	\$62,251	\$81,572	31%

There were 1,415 farm operators running the 891 farms present in Cayuga County in 2012. In the same year 251 farms, or 28%, employed a total of 1,448 farm laborers with a payroll of \$27.15 million. Combined, county farms employed 2,863 people in 2012.

Ninety-one percent of the principal farm operators lived on their farms in 2012, yet only 67% of farms had internet access. Inadequate high speed internet has been cited by several farmers as an obstacle for efficient access to information and resources, making it more difficult to effectively sustain or grow their farm businesses and presenting challenges in the development of effective marketing and branding strategies.

Strengths and Opportunities

Agriculture in Cayuga County has many opportunities and exhibits many strengths. Among the strengths cited in each of the three November, 2013 public meetings that were held for this plan are the presence and growth of agri-tourism in the county; good land, soil and water resources; and farmers' proximity to services, suppliers, and support institutions. Farmers working together to create opportunities, the growth of small and diverse farms, and increased production of niche and value-added products were seen as opportunities for county farmers by participants in all three meetings.

The close proximity to major regional markets such as Syracuse, Rochester, and the New York City metropolitan area also present great opportunities, especially for specialty crop and livestock producers that seek to tap into those retail and wholesale markets. The diversity of agricultural production in the county was widely seen as a strength by public meeting and focus group participants, as was the diversity of approaches to farming.

Cayuga County farmers have a history of creating opportunities for themselves, for example, by creating pooling purchasing systems to save money by buying inputs in bulk. There is continued farmer interest to create new collaborations and cooperatives.

Needs and Challenges

Many farmers today face the same or similar challenges regardless of the size or production method of their farms. The cost of land, labor, fuel, and taxes were universally cited as challenges in all three public meetings. Onerous regulatory obligations at the federal, state and local levels were also commonly listed as challenges. These included federal milk pricing, compliance with environmental regulations such as the Clean Water Act, required state permitting procedures such as for digging ditches, local building permitting requirements, confusing state requirements on how processed foods such as cheeses, eggs, raw poultry and meats can be processed and sold, and the need for federal immigration reform to improve access to reliable labor. Participants identified development pressure, access to new markets and local markets, accessing or maintaining capital and financing, and accessing high-quality service providers as challenges, as well as relations between farmers and non-farmers. The lack of accessible educational and training programs for farm management and new technologies were also needs that were identified at each public meeting.

Farmers have reported vandalism of farm equipment, trespassing, dumping, and crop damage by non-farming community members. Overall, there is a common sense among farmers that the general public does not understand agricultural practices nor appreciate the importance of all types of farms to the local economy and our communities' quality of life. This is in contrast to the strong recognition and support that many farmers perceive from local institutions such as the Farm Bureau and Farm Credit East, and government agencies such as the County Department of Planning and Economic Development, County Office of Tourism, County Cornell Cooperative Extension (CCE) and County Soil and Water Conservation District (SWCD). The need for adequate public education and outreach was a common refrain in public meetings and focus groups, as was the need to improve access to agricultural education in most of the school districts that serve the county.

There has been and continues to be a concern by members of both the general public and the farming community regarding some agricultural practices that harm the environment – especially water quality – if they are poorly managed. The three most significant issues identified were nonpoint source pollution caused by improper manure spreading, erosion of agricultural soils into waterbodies and pesticide contamination of water resources.

Inventory of Contributors to Cayuga County's Agricultural Economy

In 2013, the Cayuga County Department of Planning and Economic Development conducted an inventory of contributors to the county's agricultural economy. This inventory identified contributors both within the county and also those outside the county that provide goods or services to county farms. Planning staff referred to county-wide land use and parcel data, searched internet resources, worked with local town assessors and other town officials and consulted with the Agriculture and Farmland Protection Plan steering committee and other resources to identify individual farm operations and agricultural goods and service providers. In total, 972 contributors were identified, including:

- 122 dairies (Map 1-1);
- 272 field crop producers (Map 1-1);
- 228 livestock farms (Map 1-2);
- 242 specialty crop producers (Map 1-3);
- 12 operations that harvest timber (Map 1-3);
- 121 goods and services providers (Map 1-4);
- 43 processors or value-added operations (Map 1-4);
- 6 restaurants that source ingredients from Cayuga County producers (Map 1-5);
- 43 retail outlets of local agricultural products (Map 1-5);
- 6 in-county government or non-government organizations that assist farmers (Map 1-5);
- 54 farms of an unknown type (Map 1-5).

Due to the diverse nature of agricultural production and to the data collection methods employed, it is likely that this inventory underestimates the numbers of contributors in each category. Nonetheless, this inventory reveals the rich variety of agricultural production types and support businesses that make up our local agricultural economy. Farms that have diversified their operations were counted in each category that they fall into.

Cayuga County's Agricultural Activity: Specialty Crops

Specialty crops are defined by New York State as "fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops (including floriculture)." Honey, maple syrup, Christmas trees, herbs and spices also fall within this definition. In 2012, Cayuga County farms generated \$23.2 million in sales, or 23% of total crop sales, from specialty crops such as vegetables, fruits, bedding plants, and cut Christmas trees. The 2013 inventory of contributors to our agricultural economy identified 242 specialty crop producers, distributed throughout the county with clusters in the northern and south eastern towns, and in the central towns surrounding Auburn (Map 1-3). Twenty-four apiaries were identified, as were fourteen maple syrup producers, thirty-three Christmas tree producers, and three hops growers. Fourteen were identified as certified organic.

Many of these producers tend to use a local and regional direct-to-consumer retail business model by selling through roadside stands, farmers' markets, or u-pick systems. Many also engage in tourism-



related activities such as hosting farm tours, setting up seasonal attractions such as hayrides or pumpkin patches, providing event space for festivals or private parties, or participating in the Finger Lakes Sweet Treat Trail or the Cayuga Lake Wine Trail. Several produce enough volume to sell wholesale, while others have formed relationships with local or regional restaurants and grocery stores.

In addition and often complimentary to agri-tourism accessory activities are value-added processes that many specialty crop producers engage in to boost sales. Many farm operations also develop their own lines of jams, jellies, baked goods, and specialty products such as honey elixirs and lavender scrubs. These types of products can significantly boost farm sales, but can also require additional marketing and branding efforts to be successful. One sector of value-added processing that is quickly expanding throughout the Finger Lakes Region is winemaking. Wines are produced in Cayuga County by both farmers and vintners who purchase grapes from local or regional producers.

Strengths and Opportunities

The diversity of agricultural production in the county was widely seen as a strength by public meeting participants, as was the diversity of approaches to farming throughout the county. This diversity is certainly evident in farms that grow specialty crops. Cayuga County is home to a variety of specialty crop operations including large wholesale crop producers with their own processing facilities such as Turek Farms and Martens Farms, very small vegetable farms, wineries with bustling tasting rooms, Christmas tree farms that direct market through a u-cut system or ship downstate and many, many others.

Small niche producers of specialty crops are seeing opportunities in the increasing demand for locally grown and organic produce. Public participants perceived that there would be increasing local interest for these types of food, and there is interest by some local specialty producers to increase sales to local and regional households either through farmers' markets or farm stands, or by selling in bulk to grocery stores and other higher-volume outlets. The new Finger Lakes Fresh Food Hub - located just south of Cayuga County in the Town of Groton - presents many new opportunities for fruit and vegetable growers who can provide quality and volume of products sufficient for processing and wholesale.

Needs and Challenges

Smaller-scale producers find it challenging to effectively market and brand their farm products and accessory uses, such as event spaces and farm tours. Specialty crop producers that engage in tourism-related activities to sustain their farm operations sometimes come up against restrictive town and village sign regulations that limit farm visibility to potential customers. Also, while the local interest in locally produced foods does seem to be increasing, local producers still have to compete with "big box" retailers for customers who might not understand the value of locally grown food, or be able to pay what local farmers need to charge for their goods.

Cayuga County's Agricultural Activity: Livestock and Poultry

Excluding milk and other dairy products from cows, livestock and poultry farms generated \$35.47 million in sales in 2012. The 2013 inventory of contributors to our agricultural economy (Map 1-2) identified 228 livestock and poultry producers distributed throughout the county, including 64 producers that raised poultry or eggs, 5 that raised hogs and pigs, 29 that raised cattle or calves, 9 that raised alpaca, 5 that raised goats, and 9 that raised sheep. Seventy-two operations were identified that board or own horses. Forty-five additional livestock operations were identified but their production type is unknown. In 2012, Cayuga County ranked second in New York State in cattle and calf inventory and sales and third in sales for sheep, goats and their products.

A notable trend in this group of farmers is the level of production diversification that is occurring or has occurred. While there are cattle feedlots and larger-scale operations in the county that primarily raise one type of meat animal, many livestock raisers have diversified to raise more than one type, such as beef and hogs, while others have diversified to produce specialty crops such as fruits, vegetables, honey or maple syrup, or value-added products such as cheeses, baked goods and wool yarn in addition to meats.

Likewise, marketing strategies used by this group of farmers vary a great deal. Several beef and hog producers sell freezer meat to the local and regional consumer market, while others process their meats into cuts that are shipped to more lucrative big city markets or sold to restaurants, or sell through cooperative farm labels. Egg producers both sell directly to consumers at road stands and farmers' markets, and to local groceries and restaurants.

Strengths and Opportunities

Many livestock producers also grow field crops such as soybeans and corn, or specialty crops such vegetables and honey. These diverse business models help buffer incomes from fluctuating meat prices and help increase the viability of small or medium-sized farms. Livestock and poultry producers enjoy strong local interest in local meats, poultry, and eggs, and have access to larger regional markets such as Syracuse, Rochester, and the New York City metropolitan area.

A privately-owned mobile poultry slaughtering facility is an available service that farmers can rent to process their birds in preparation for sale. Overall, meeting participants reported that they were able to access adequate poultry meat processing facilities.

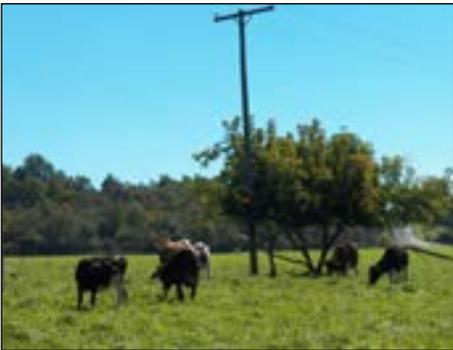
Needs and Challenges

Fluctuations in beef pricing was cited as one challenge that beef producers face. Some are addressing this uncertainty by diversifying their operations. Feed and land prices have also increased in recent years, which cuts into profits and makes it more difficult to earn a living.



One significant limitation that beef, hog and other meat producers are currently experiencing is the inadequate availability of USDA-certified slaughtering facilities that would allow them to sell higher-value cuts of meat, rather than just freezer meat. State-certified facilities are more readily available, but meats processed in these facilities can be sold only as half or whole animal, shutting out many livestock farmers from being able to sell the more lucrative cuts of meat. Cayuga County livestock farmers are interested in a USDA-New York State reciprocal certification that would allow cuts of meat processed in a state-certified facility to be sold within New York State, similar to the reciprocal certification model in Vermont. Without better access to facilities that would enable farmers to sell cuts of meat, livestock farmers will continue to have limited access to larger, more lucrative markets, which in turn limits their business growth potential.

There is a lot of interest from the local community for locally produced meats, but producers have found that locals are not willing to pay as much for local meats as regional markets such as the New York City metropolitan area, which can have higher transportation and marketing costs.



Similar to dairy farms, livestock farms must manage their manure wastes to minimize costs, address the health and safety of their herds, and practice sound environmental stewardship. The ability to safely dispose of nutrient wastes can be a major limiting factor for farmers as it often requires a lot of land for spreading or costly infrastructure such as manure digesters. Fortunately, technical support services and resources are available to farmers to address these needs (see Section II: Agricultural Support Services and Resources).

Cayuga County's Agricultural Activity: Dairy and Field Crops

In 2012, Cayuga County was home to 128 dairy farms that generated \$158.8 million in sales. Many dairy farmers in Cayuga County sell their milk to Dairlea or Byrne Dairy.

Most dairies also grow field crops such as corn, soy and wheat to feed their herds, and also require tracts of land that can be used to spread manure, an unavoidable by-product of dairy production.

Field crops include corn for grain, corn for silage, soybeans, small grains such as wheat and barley, and hay for greenchop or silage. Field crop farmers sell their commodities to firms in upstate New York, the mid-west or Canada. In 2012, 202 farms in Cayuga County had the capacity to store 8.27 million bushels of grain.

The 2013 inventory of contributors to the agricultural economy identified 122 dairy farms (Map 1-1), a handful of which also produced agricultural products other than milk such as beef, poultry and eggs, or vegetables. Some dairy operations also provided services to other farming operations, such as trucking. Even so, Cayuga County dairy farms are moving towards vertical integration of their operations, rather than a diversification of production. For example, instead of hiring someone to spread fertilizer on their fields, some dairy farmers are investing in the equipment to do that work themselves. Dairy farmers look to investments in technology and more sophisticated equipment to cut costs and stay competitive.



Strengths and Opportunities

Cayuga County enjoys very strong, highly productive dairy and field crop sectors. The road and rail systems as well as the county's close proximity to the Port of Oswego are seen as advantages for accessing interstate and international markets, especially for field crop producers. Field crop farmers also have access to large-scale local and regional processors and brokers such as the Genoa Commodities, the Sunoco ethanol plant, Blue Seal, Cargill and Bunge.

Cayuga County dairy farmers have a proud history of collaboration and cooperation to improve their farm businesses. The most notable example of this phenomenon is Cayuga Marketing, LLC, which was initially founded by a group of farmers to get better prices for bulk inputs and has recently launched Cayuga Milk Ingredients, a processing plant in the Town of Aurelius that will take locally produced milk and process it into value-added dry milk products.

Needs and Challenges

Similar to livestock farms, dairy farms must manage their manure wastes to minimize costs, address the health and safety of their herds, and act as sound environmental stewards. The ability to safely dispose of nutrient wastes can be a major limiting factor for farmers as it often requires a lot of land for spreading or costly infrastructure such as manure digesters. Fortunately, support services and resources are available to farmers to address these needs and many farmers take advantage of them.

Cayuga County's Agricultural Activity: Agriculture-Related Support Businesses

Cayuga County is home to a diverse array of agricultural service and goods providers. These support businesses include trucking; private consulting services; equipment sales and repair; veterinary services; slaughtering and butchering facilities; auctioneers; grain mills; grain brokers; seed, fertilizer, and pesticide suppliers; and others. The 2013 inventory of contributors to the county agricultural economy identified 121 support businesses both within and near the county that conduct business with county farms (Map 1-4). Farmers have observed a decline in the number of support businesses in the county over the past several decades. This is possibly due to the changing economics of agricultural production.

Strengths and Opportunities

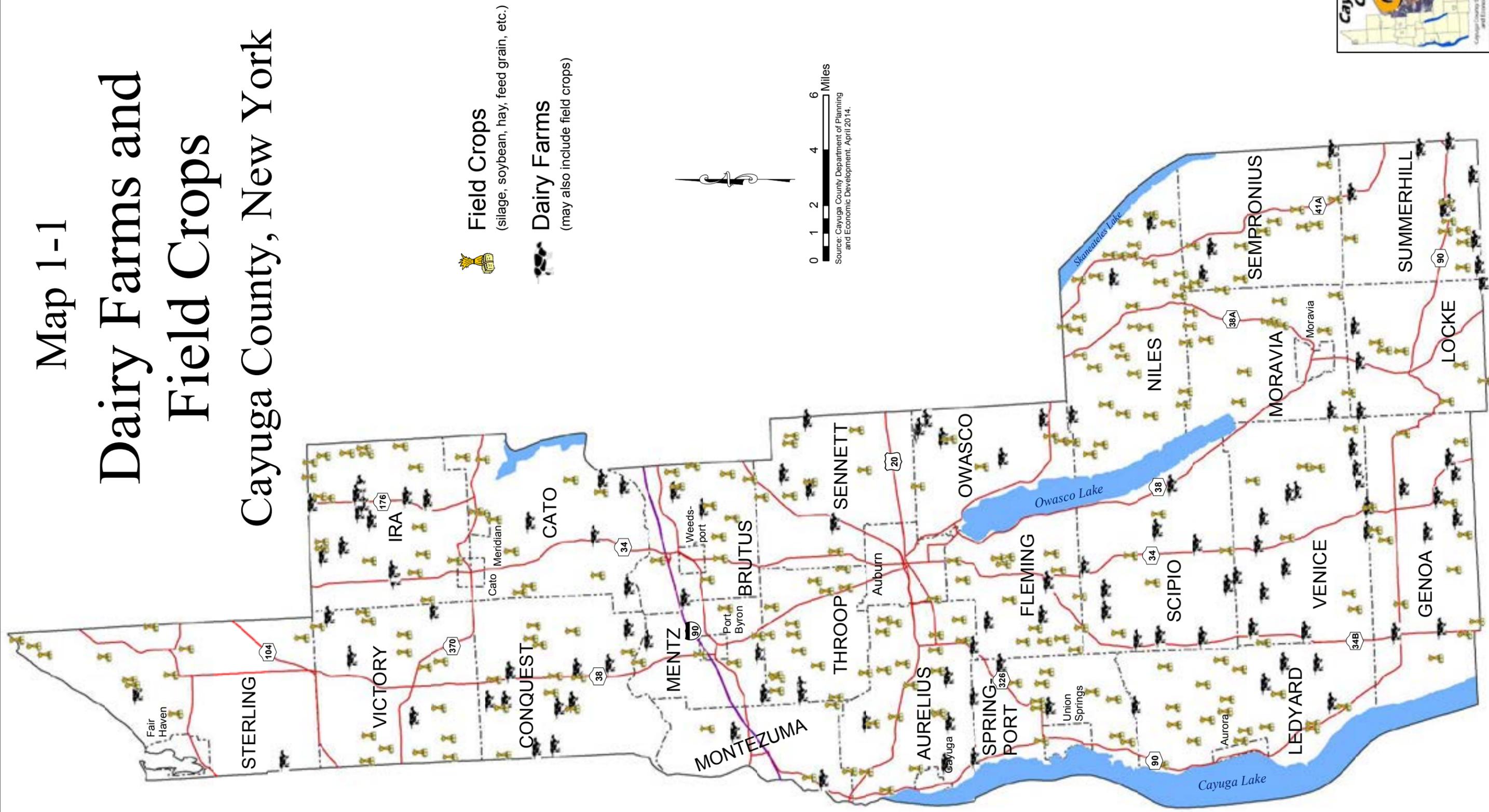
The County's strong agricultural sector means that area farmers continue to enjoy a variety of support services that cater to their needs. Even so, there are opportunities for additional service and goods providers to establish in Cayuga County. The Cayuga Economic Development Agency (CEDA) can help additional support businesses locate facilities, identify loans and grants for which they are eligible, and develop business plans.



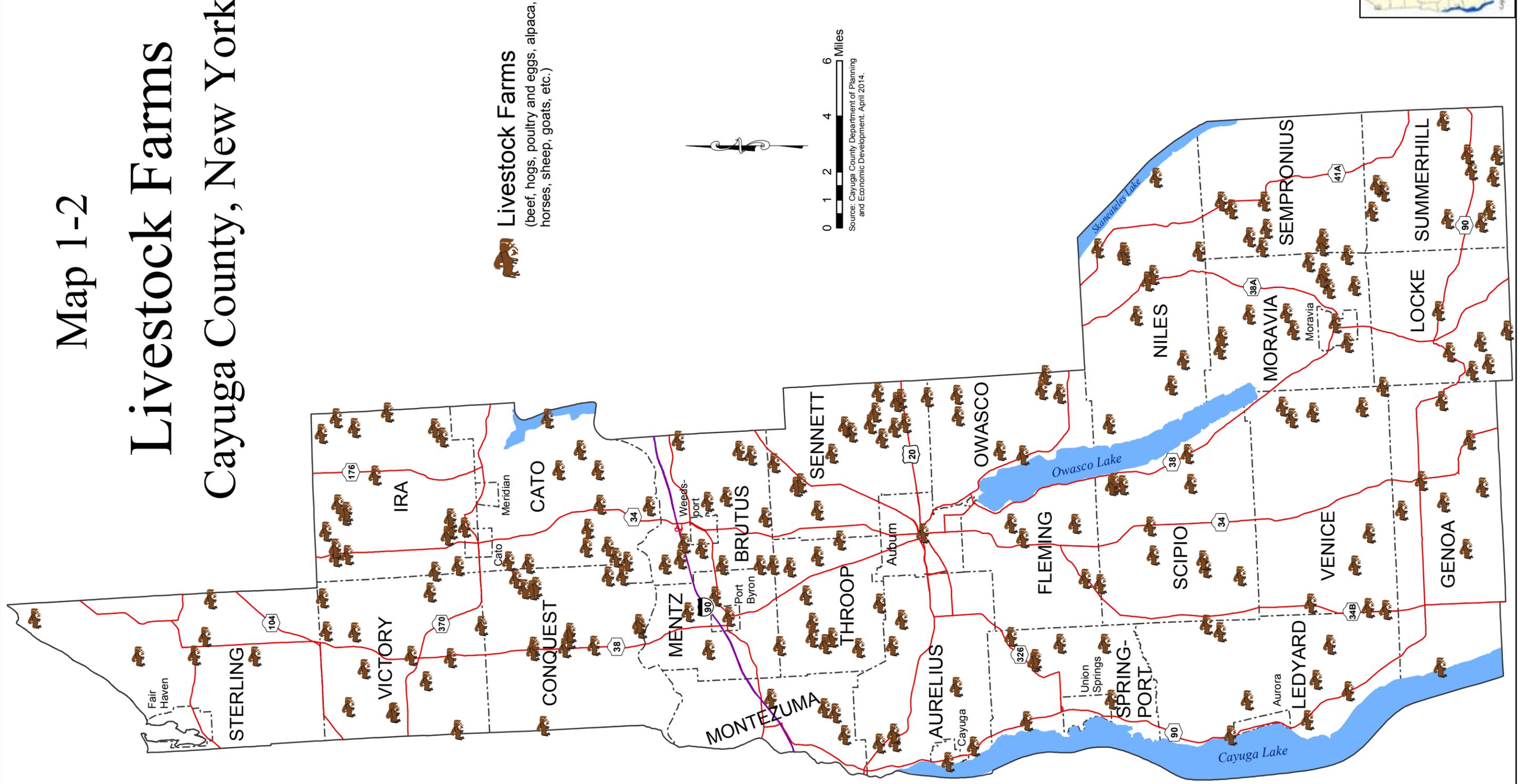
Needs and Challenges

Modern farm equipment can be quite sophisticated, requiring complicated set-ups and troubleshooting when problems arise. It can be challenging at times for farmers to access adequate support for these sophisticated machines, primarily due to a shortage of workers with the requisite specialized skill set. Rising gas prices can make it increasingly difficult to operate trucking services, especially since milk pricing is fixed and grain is a fungible commodity. Some public participants also mentioned that the availability of veterinary services was limited for livestock.

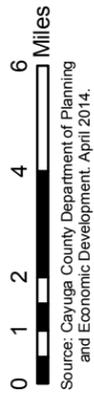
Map 1-1 Dairy Farms and Field Crops Cayuga County, New York



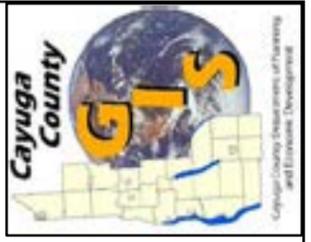
Map 1-2 Livestock Farms Cayuga County, New York



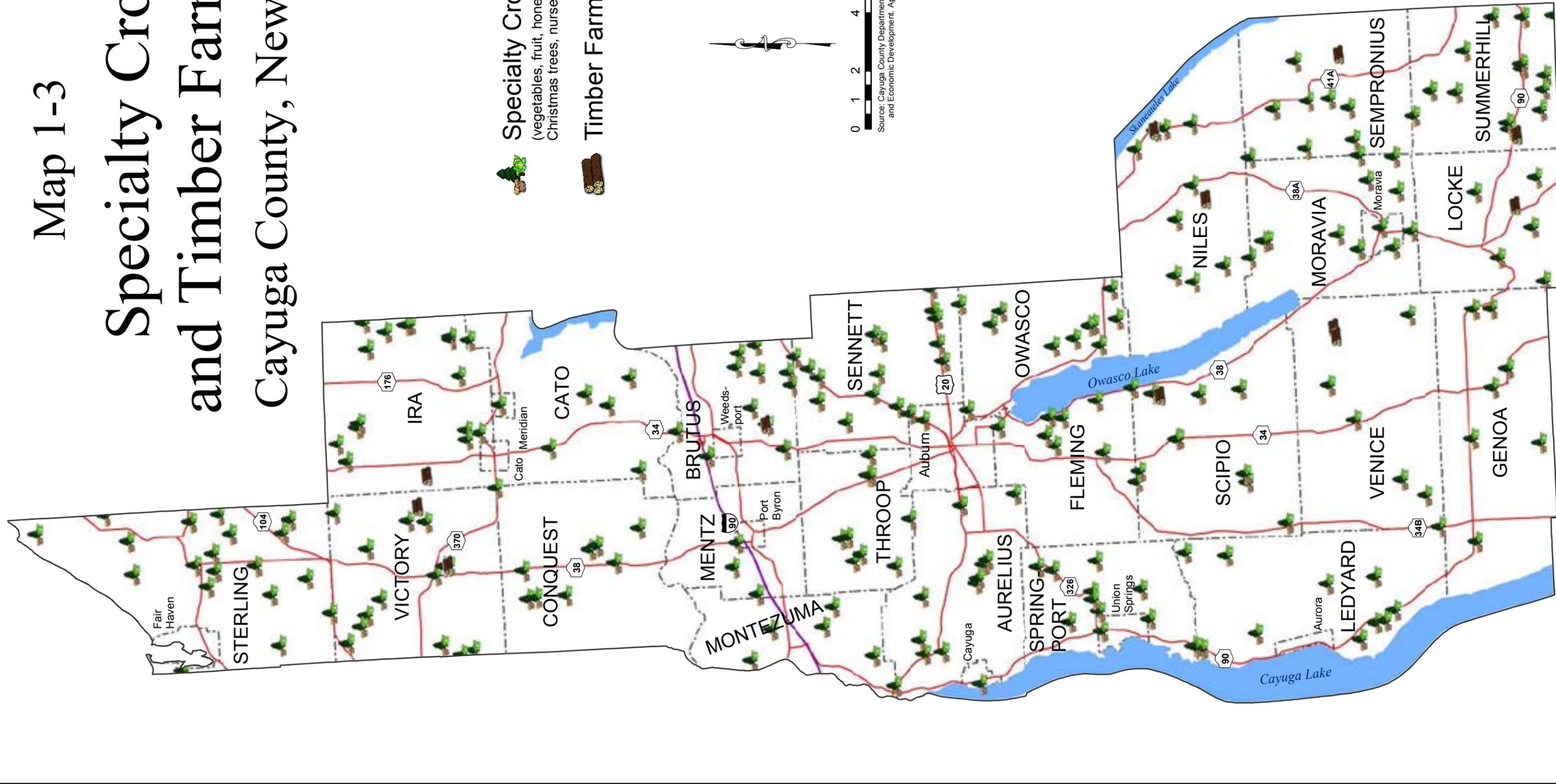
Livestock Farms
(beef, hogs, poultry and eggs, alpaca, horses, sheep, goats, etc.)



Source: Cayuga County Department of Planning and Economic Development, April 2014.

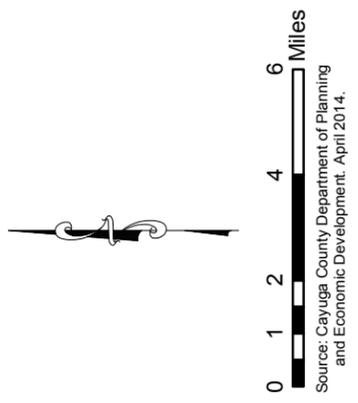


Map 1-3 Specialty Crop and Timber Farming Cayuga County, New York

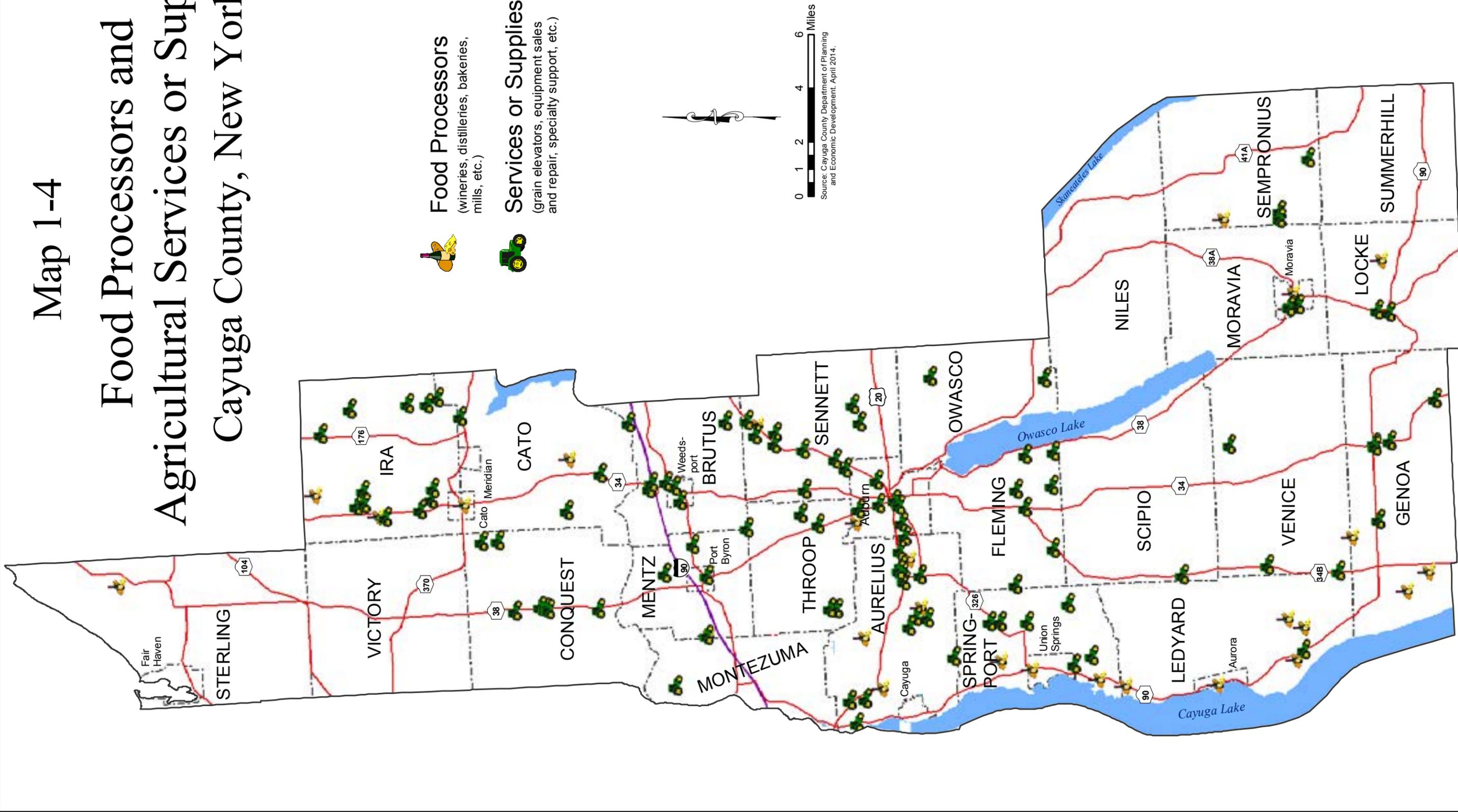
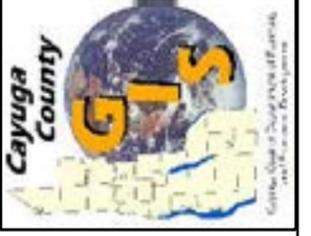


 **Specialty Crop Farming**
(vegetables, fruit, honey, maple syrup,
Christmas trees, nurseries, etc.)

 **Timber Farming**



Map 1-4 Food Processors and Agricultural Services or Supplies Cayuga County, New York



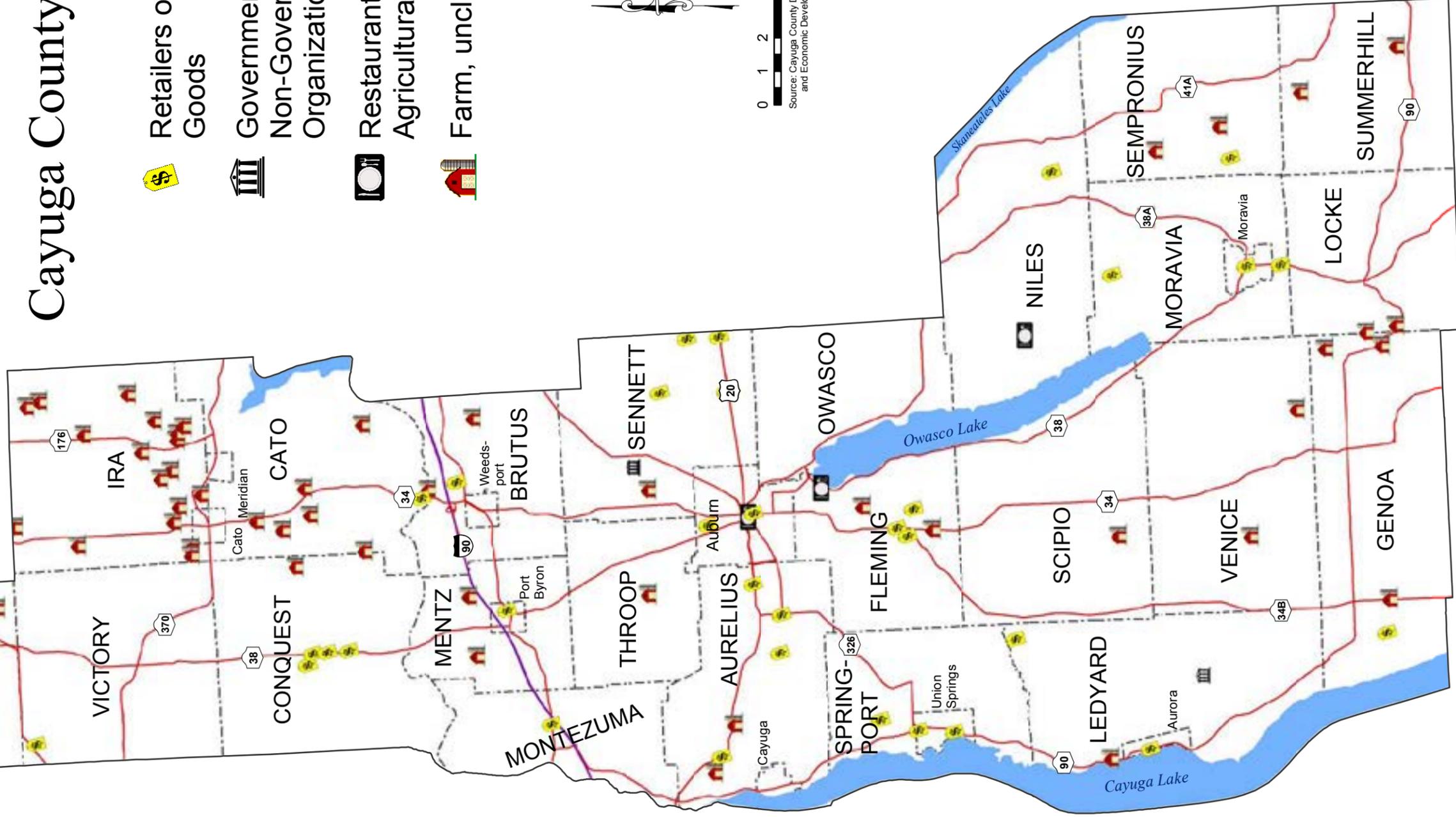
- Food Processors**
(wineries, distilleries, bakeries, mills, etc.)
- Services or Supplies**
(grain elevators, equipment sales and repair, specialty support, etc.)



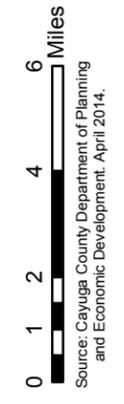
Map 1-5

Restaurants, Retailers, Governmental Organizations, Non-Governmental Organizations, and Unclassified Farms

Cayuga County, New York



-  Retailers of Local Agricultural Goods
-  Governmental and Non-Governmental Organizations
-  Restaurants that Serve Local Agricultural Goods
-  Farm, unclassified



II. Agricultural Support Programs and Resources

Market Access and Branding

How Cayuga County farmers access markets depends a lot on their type and scale of production. Field crops grown by dairy and livestock farms are mostly consumed on-farm, while field crop-only farms often sell to large-scale processors or commodities firms throughout upstate New York, the Midwest and Canada, such as Genoa Commodities, Sunoco and Bunge. Many small farms are diversified, producing a combination of livestock products, specialty crops, and value-added products. For farms with this business model, marketing and branding their diverse offerings may become more challenging or complicated, requiring an even greater time commitment. Specialty crop and livestock producers have many avenues in which to market their products, each with their own limitations and opportunities. Livestock farmers sell freezer meat to the local and regional consumer markets or cuts of meat to the local, regional and national retail markets, depending on their access to USDA-certified slaughtering facilities. Some specialty crop and livestock producers depend on seasonal farmers' markets such as those in Auburn, Skaneateles and Syracuse for their income, while others pre-sell shares of their products to local consumers through a community supported agriculture (CSA) arrangement. Still others set up road side stands, on-farm stands, u-pick systems, or sell their goods at farm stores such as Vitale's Farm Market, Morgan's Half Acre Produce, or Owen Orchards. For those farmers that produce enough volume, they may look to sell wholesale to a variety of regional or national buyers.

Strengths and Opportunities

The local food movement is continuing to gain momentum and increase consumer demand for local specialty, livestock and value-added products. This trend has resulted in an uptick in the number of restaurants, schools and other institutions interested in sourcing ingredients locally and regionally. The interest in locally produced food has also led to increased government support and funding for farm-to-school programs at the federal and state levels that are intended to increase consumption of fresh, wholesome, locally produced foods in school meals.

Food hubs have gained a lot of support from both farmers and state policymakers, and can be a great tool for specialty crop growers in particular to help access new markets. In their most basic form, food hubs are aggregation and distribution facilities (warehouses) that act as drop-off points for local produce where it is aggregated and sold at wholesale prices to local and regional buyers. Food hubs often also provide value-added processing such as chopping, dehydrating, packaging, freezing, and labeling. Several food hubs exist in upstate New York, including the Finger Lakes Fresh Food Hub in Groton, just south of Cayuga County, which was built in 2013.

The increasing interest by visitors and locals alike to feel a connection to where and how their food is grown has led to the rapid growth of agri-tourism in the Finger Lakes region. Public participants viewed

agri-tourism as a great opportunity to increase and diversify farm sales, improve small farm viability and strengthen the overall local agricultural economy. Some Cayuga County farmers are capitalizing on this trend by hosting farm tours, teaching classes about sustainable agriculture, providing gathering spaces for private parties and community events, and other agri-tourism opportunities such as winery tasting rooms and farm restaurants.

The Cayuga County Office of Tourism, Department of Planning and Economic Development and others are working to develop a way-finding signage system for the entire county, so that main attractions such as wineries and historic sites are easier for visitors to navigate to.

County farmers can take advantage of marketing assistance from the Cayuga County Office of Tourism, which features farms, wineries, and farm-to-fork venues on its website and in videos and other promotional materials. Many agricultural operations in Cayuga County participate in the Finger Lakes Cheese Trail, Finger Lakes Sweet Treat Trail, or the Cayuga Lake Wine Trail that attract thousands of visitors each year. Finger Lakes Culinary Bounty promotes agriculture in the Finger Lakes region by organizing an annual harvest dinner, workshops and networking events to foster farmer-chef connections, while the monthly magazine *Edible Finger Lakes* features local farms, foods, events and recipes to attract and inspire.

Needs and Challenges

Although agri-tourism activities can increase the sustainability and viability of a farm business, they can also require specialized skills and large financial and time investments for effective marketing, branding and business planning.

Agricultural producers that seek to attract passers-by and tourists to their farms are sometimes limited by restrictions to off-site and on-site sign usage along town, village, and state roads. While some local municipalities have few or no restrictions on signs or other land uses, others heavily restrict signs and agriculture-related accessory uses such as farm stands, tasting rooms, or use of on-farm event spaces for private parties (for more information about farm-friendly land use policies, please see Part I Section V: Municipal Land Use Policies and Appendix C).

Public meeting and focus group participants discussed the limitations they have experienced in accessing new or bigger markets. Specialty crop and livestock producers in particular expressed interest in selling to local and regional institutions and restaurants, and accessing wholesale markets, but successes in accessing these markets have been mixed and are constricted by a number of factors. First, accessing such markets often means complying with additional regulatory oversight such as Good Agricultural Practices (GAP), which requires increased financial and time investments. Several producers also expressed frustration in connecting with restaurant chefs, who often have very limited time, or inclination, to seek out local food producers. As mentioned previously, some livestock farmers have limited market access due to the shortage of USDA-certified slaughterhouse facilities.

Business Planning and Financial Assistance

In order to establish, grow and maintain a business, access to capital and financial assistance in the form of grants and loans is often essential, as is sound business planning. There are several non-profit organizations and government agencies, both within and near Cayuga County, that provide business and financial support to farmers and agriculture-related businesses. A few are discussed below.

Strengths and Opportunities

The Cayuga Economic Development Agency (CEDA), partially funded by Cayuga County, is a business development service provider that serves all new, existing and potential businesses in Cayuga County, by providing financial and technical business assistance. CEDA also serves to connect businesses with other existing resources in the area. Its 2011 strategic plan identified agriculture as a priority industry group and listed several action items to help support and strengthen this sector, including exploring the feasibility of establishing a fund to protect farmland using a set aside fee from property transfers; establishing an Agricultural Economic Development Working Group to support local farms; and working to support and establish farmers' markets throughout the county.

The Farm Viability Institute based in Syracuse assists with farm business planning and offers grants to help farms grow into sustainable enterprises. Groundswell, a non-profit organization in Ithaca that helps small and sustainable farmers launch farm businesses, offers a business planning course for beginning farmers. Cornell Cooperative Extension (CCE) runs the Small Farms Program which offers classes, workshops, trainings and resource materials to help farmers. Finger Lakes Culinary Bounty serves as a sort of regional chamber of commerce for farmers and agri-tourism businesses, raising awareness in the general public about locally produced foods and holding networking events and workshops for agricultural producers and processors.

There are opportunities in the county to further streamline existing services and create a target marketing strategy to reach out to the agricultural community so that agricultural businesses can take full advantage of them. A closer collaboration between these service providers and agricultural businesses may be able to identify ways to accomplish this, and could lead to the creation of more specialized or targeted programs that better meet the needs of this unique group of businesses.

Needs and Challenges

While there are many federal and state financial support opportunities available to county farmers, public participants expressed frustration with the difficulty in obtaining assistance through these avenues. Public participants also perceived limitations in seeking loans through private banks, which sometimes try to make farms fit into a more conventional business model that requires assurances in future revenue streams, an impossible feat for farmers.

Public participants shared that while there are many resources available to them, it is challenging to find someone to meet with face-to-face who can help them navigate the many grants and other available resources.

While there are several entities that provide business planning support, networking and leadership growth opportunities, marketing assistance, business loans and grant assistance to the general Cayuga County business community there seems to be a disconnect between these more mainstream resource options and existing agricultural businesses.

New and Young Farmers

The Cayuga County Farm Bureau Young Farmers and Ranchers Program has about two dozen members between the ages of 18 and 35 years, but as there is no universal definition of “young farmers” it is impossible to determine the actual number of them operating or working on farms in the county. Similarly, the term “new farmer” can have different meanings to different people, but generally operators with less than 10 years of experience are commonly described as “new.” Whatever these terms mean to each individual, public participants identified multiple challenges and difficulties that hit “new and young farmers” particularly hard, such as the struggle to compete with more established farmers for farmland, acquiring capital and financing to establish or grow their farm businesses, the need for experienced mentors and the lack of local educational and training opportunities.

Despite these challenges and the increasing average age of principal farm operators in the county (the average age increased from 50.2 years in 1992 to 56.5 years in 2012), young and new Cayuga County farmers are indeed taking over family farms, entering the work force as farm workers, or starting their own farms or agriculture-related businesses. The county’s strong agricultural base means that new and young farmers will likely continue to play an important role on farms into the future.

Strengths and Opportunities

Experienced farmers in Cayuga County are often willing to assist their newer farmer neighbors and colleagues in gaining the experience needed to farm successfully. This support and cooperation among farmers is a great asset to the community, but there are many opportunities for these mentoring relationships to be cultivated and expanded upon to help bring new farmers into the county and ensure their success.

Public participants who self-described as a new or young farmer expressed interest in additional local networking opportunities. The Farm Bureau and Cornell Cooperative Extension could assist in facilitating these connections. There are also opportunities for new and young farmers to get more involved in other business networking and development organizations such as the Cayuga County Chamber of Commerce’s Ignite Program for professionals under 40.

Public participants discussed the increasingly important role of sophisticated technology and computer systems in agricultural production, which may be an effective way to interest some young people in agriculture-related careers.

Agricultural education programs at BOCES, the Southern Cayuga School District and the Moravia Central School District and their Future Farmers of America (FFA) chapters provide valuable education and

training to high school students. After declining for several decades, the number of FFA chapters and members have enjoyed a record-breaking national resurgence of popularity. FFA has an important role to play, both in terms of teaching all young people about the importance of agriculture and in terms of educating new generations of farmers. Increasing agricultural educational opportunities for all school age children and increasing FFA membership in the county is a great opportunity to reach young people who may not otherwise have an opportunity to discover an interest in an agricultural career.

The CCE Beginning Farmers Program and the Northeast Beginning Farmers Project offers webinars, videos, and other resources geared towards beginning farmers.

Needs and Challenges

As mentioned above, public participants identified several needs and challenges that new and young farmers face, such as the struggle to compete with more established farmers for farmland, acquiring capital and financing to establish or grow their farm businesses, the need for experienced mentors and the lack of local educational and training opportunities.

There is a lack of agricultural programs for high school graduates available locally. Graduating high school students interested in pursuing agriculture-related studies must leave the county to do so. This was identified as a limiting factor for some students who are interested in pursuing agricultural careers but who are not ready to leave home right after high school. The availability of college-level coursework in local higher education institutions would address this need and also serve as an opportunity to expose new students to potential careers in agriculture.

Local high school and college students who are interested in careers in agriculture need more internship and work opportunities on farms and in agriculture-related businesses. While it is no secret that farming is hard work, many students also recognize that it is possible to have a rewarding and satisfying career in agriculture. Providing the right work experiences for interested students can make a big difference as they make choices that affect their futures.

The inverse of this struggle to provide mentorship and internship resources to those interested in becoming farmers is the sense that young people in general lack an interest in farm work or careers in agriculture-related disciplines. This disinterest is compounded by a lack of understanding and appreciation of agriculture by the general public, including some local officials, parents and school leaders. This agricultural illiteracy prevents many young people from getting exposed to agriculture-related careers, and the next generation from gaining agricultural literacy, even in a place with a large agricultural presence like Cayuga County.

While state and federal grant, loan and support programs exist for farmers in the early stages of launching their agricultural careers, some public participants reported that some programs such as the USDA Farm Service Agency's Beginning Farmers and Ranchers Program are cumbersome or poorly supported so that they are not as effective as they could be in providing assistance to those who may qualify.

Environmental Stewardship and Technical Assistance

Farm operators in Cayuga County take their role as stewards of the natural resources that their farms depend on seriously. They understand the importance of maintaining healthy soil, air, and water, which are vital not only to farming but also to the community as a whole. Farmers often implement Best Management Practices (BMPs), techniques that have consistently shown to be an effective and practical means of preventing or reducing the amount of pollution generated by nonpoint sources² to a level compatible with water quality goals and other environmental stewardship goals. The proper selection of BMPs is a critical component to protecting local resources and is a main focal point during the farm planning process. Farms are assisted in this process by the Cayuga County Soil and Water Conservation District (SWCD), which strongly encourages farms to follow the USDA - Natural Resource Conservation Service (NRCS) BMPs. The Cayuga County Cornell Cooperative Extension (CCE) and the USDA - NRCS are also valuable resources for county farmers in improving their farm management practices.

There is on-going concern throughout the county, both within the farming community and the general public, regarding the environmental impacts of some agricultural practices, primarily on water quality. These practices include manure spreading - especially during winter months when the ground is frozen - that can lead to the runoff of manure into the lakes and their tributaries; erosion of agricultural soils and associated sedimentation of the lakes and their tributaries due to tilling before heavy rains or on steep slopes; and pesticide applications that can contaminate ground and surface water. Unfortunately, while many farm operations develop farm plans to successfully carry out BMPs that address these concerns and others, not all do.

Strengths and Opportunities

Cayuga County farmers enjoy access to dedicated technical advisors in several agencies that provide assistance critical to the creation and maintenance of successful, well-managed and environmentally responsible farms. Cornell Cooperative Extension of Cayuga County currently has two dairy and field crops resource educators on staff. Cayuga County SWCD support staff includes a nutrient management specialist and a grazing specialist. In addition, the SWCD administers the Agricultural Environmental Management (AEM) Program and a prescribed grazing program (the GRAZE Program), conducts agricultural land assessments and reviews nutrient management plans. It also regularly seeks grant funding opportunities that enables farms to participate in cost share programs that provide funding for the

2. Definitions of terms from the US Environmental Protection Agency: Nonpoint source pollution generally results from land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. The term "nonpoint source" is defined to mean any source of water pollution that does not meet the legal definition of "point source" in section 502(14) of the Clean Water Act, which defines "point source" as any discernible, confined or discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating crafts, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.

implementation of BMPs. The Cayuga Regional Digester plant, managed by SWCD, helps county dairy farms manage their waste by accepting manure and processing it into electricity and heat.

Many of the grants available for implementation of farm management plans require compliance with the NRCS BMPs. Crop insurance and government subsidies may also require that certain BMPs are followed. Concentrated Animal Feeding Operations (CAFOs) are required to follow nutrient management plans. However, unless a farmer chooses to participate in certain government programs or qualifies as a CAFO, there is no requirement compelling him or her to follow BMPs or create a farm plan.

Needs and Challenges

The county enjoys good water quality overall, but regular monitoring and management must continue to ensure that quality is maintained. The New York State Department of Environmental Conservation's (DEC) Priority Waterbodies List includes waterbodies and segments of waterbodies in the county with well documented, potentially resolvable, high priority problems and issues. These waterbodies and segments include those considered "impaired waters," "waters with minor impacts" and "threatened waterbodies." Cayuga County has 22 segments or waterbodies listed. Causes of water quality issues in the county include nutrient loading due to agricultural, municipal, or urban/storm water runoff; algal or weed growth; siltation and sedimentation; pathogen contamination from septic tanks and agriculture; pesticides; and historic industrial contaminants.

Nonpoint source pollutants are regulated by the DEC but those regulations can be difficult to enforce due to state budget restrictions and the struggle of proving the source of a pollutant. A challenge for the DEC is to better enforce regulations on those who violate the regulations without creating a stifling regulatory atmosphere for the majority of farmers who strive to follow BMPs and implement sound farm plans.

While there are grant opportunities to assist farms with the planning and implementation of BMPs, these funding programs are very competitive and rarely have enough money to assist all interested farmers. At times, some farmers may delay the implementation of some BMPs that are prohibitively expensive.

Farm plans vary in terms of their quality and thoroughness. Farm planners are trained and credentialed, but the quality of a plan depends a great deal on the level of detail and care that goes into developing it. There is also no guarantee that farm managers will follow the farm plan once it is in place.

