



**FINAL AGRICULTURE AND FARMLAND PROTECTION
PLAN**

**ADOPTED BY THE OTSEGO COUNTY BOARD OF
REPRESENTATIVES ON SEPTEMBER 6, 2017
RESOLUTION #264-20170906**

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EXECUTIVE SUMMARY

Agriculture has historically been, and will continue to be, one of Otsego County’s most important industries. Agriculture bolsters our economy, helps maintain our county’s rural landscape, attracts visitors, maintains community character, and contributes to the health of our residents. This 2017 Otsego County Agriculture and Farmland Protection Plan (AFPP) will guide County-level policymaking and serve as a reference for agricultural service agencies and organizations, environmental nonprofits, and the farming community as they work to advance the agricultural sector and protect farmland in Otsego County.

To get an idea of just how important farming is to Otsego County, a Cornell University study found that for every dollar of agriculture-related output, an additional 45 cents is distributed throughout the local economy.

Otsego County adopted its first Agriculture and Farmland Protection Plan in 1999. In the 17 years that have passed, agriculture has changed significantly but continues to play a key role in our county’s identity and economy. At the same time, the agricultural sector faces several challenges which could threaten its long-term viability in the county. Some of these challenges, such as the consolidation of the dairy sector, have been around for decades—while others, such as

strengthened environmental regulations, are relatively new. The 2017 AFPP provides a pathway for Otsego County to increase the chances for success and sustainability of its farms and agricultural sectors.

To get an idea of just how important farming is to Otsego County, a Cornell University study found that for every dollar of agriculture-related output, an additional 45 cents is distributed throughout the local economy. The dairy industry is the largest contributor to Otsego County’s agricultural economy. The market value of all agricultural products sold by County farmers in 2012 was over \$66 million! There are roughly 661 workers with a \$5.5 million payroll. The overarching goal of the AFPP is to increase the economic impact of our agricultural sector moving forward.

2017 OTSEGO COUNTY AGRICULTURE AND FARMLAND PROTECTION PLAN: HIGHLIGHTS

The 2017 AFPP provides a 30,000-foot view of the current conditions and challenges regarding agriculture in Otsego County. The planning process was coordinated by the Otsego County Soil and Water Conservation District (SWCD), the Otsego County Planning Department (OPD), and the Otsego County Conservation Association (OCCA) with assistance from several agricultural agencies and organizations. Funded in 2014 by a grant

from the New York State Department of Agriculture and Markets, SWCD formed the Otsego County AFPP Update Committee (AFPPUC), which brought together a broad range of agricultural stakeholders and agencies, as well as non-profit organizations active in agriculture and farmland protection. The Committee gathered community and stakeholder input through four public workshops, two rounds of stakeholder interviews, and extensive secondary research conducted by members of the AFPPUC. Five sector-specific SWOT workshops (Strengths, Weaknesses, Opportunities, and Threats) enabled the Committee to gather additional, detailed input from the community and agricultural stakeholders. The 2017 AFPP is based on this broad range of data.

The Planning Process involved

- 4 public workshops
 - 2 rounds of stakeholder interviews
 - 5 sector-specific SWOT workshops
 - 100s of hours of extensive secondary research by AFPPUC members
-



Photo Credit: T. Capraro

Otsego County has many positive attributes that make it a great place to farm. Otsego County is well-positioned to access the urban markets of the Northeast coast, with a population of 40 million. A growing demand for locally grown food, both here in Upstate New York and on the Eastern Seaboard, makes for a largely untapped market for Otsego County farmers, and the county's excellent soils—especially in the valleys and in the

northern part of the county, and overall positive attitudes about farming at the municipal level serve to create a welcoming environment for agriculture. As our county's economy evolves, the county should capitalize on these advantages to ensure the growth and diversification of Otsego County agriculture.

At the same time, several challenges persist. Low milk prices, small profit margins given high input costs, high property taxes and increasingly complex regulations, an aging farm population without clear farm succession plans, inadequate baseline agricultural data, and the lack of a robust marketing and distribution program for local farm products – the County and agricultural stakeholders must address these challenges directly where possible if agriculture is to prosper here. Especially important is the integration of the agricultural sector into the County's economic development strategy.

The AFPPUC prioritized the development of a plan that is realistic and achievable. The plan provides a vision for Otsego County agriculture going forward, and then identifies six actions and four priority projects, each with strategies for implementation.

RECOMMENDED ACTIONS AND PRIORITY PROJECTS

The 2017 AFPP identifies **seven recommended actions** that will help achieve the AFPPUC's vision of sustained agricultural development and farmland conservation. These are:

- Build organizational capacity in the county to support agricultural economic development and implement policy.
- Revitalize the Otsego County Agriculture and Farmland Protection Board to better address the needs and goals of Otsego County's agricultural sector.
- Support existing and develop new agricultural economic development programs.
- Help Otsego County farmers better market their products.
- Enhance the quality and availability of agricultural data in Otsego County.
- Provide educational programs to multiple audiences and enhance technical assistance to farmers.
- Develop critical farm infrastructure and continuing to protect farmland.

Related to the seven overarching recommended actions, four priority projects were identified as critical to the implementation of the plan. These are:

- Develop a detailed plan to implement the 2017 AFPP across sectors.
- Develop and implement technical assistance programs for agricultural producers.
- Identify and preserve Otsego County's most at-risk farmland.
- Improve the marketability of Otsego County's agricultural goods and services.

INTRODUCTION

BACKGROUND: OTSEGO COUNTY AGRICULTURE AND FARMLAND PROTECTION PLAN

New York State Agriculture and Markets Law provides the Agriculture and Markets Commissioner with the authority to provide financial assistance to county governments and their respective agriculture and farmland protection boards for the development and implementation of agriculture and farmland protection plans. The program objective is to promote local initiatives to identify and protect productive farmland and maintain the economic viability of the State's agriculture industry.

In 1999, Otsego County received a grant from the Department of Agriculture and Markets to develop and adopt its first Agriculture and Farmland Protection Plan, recognizing the important economic and cultural role agriculture plays in the county as well as the potential for loss of viable farmland in the absence of a clear plan. At the time, strong downward pressures on the dairy industry – Otsego's main agricultural industry then – were contributing to the loss of farms and active farmland; the county clearly recognized the lack of a diversified agricultural base. The 1999 plan offered a variety of actions and strategies to meet its recommended goals and objectives. In early 2014, Otsego County Soil and Water Conservation District led efforts to obtain a grant from NYS Agriculture and Markets, with supplemental funding from the Scriven Foundation, to review progress on the 1999 plan and develop an updated plan based on lessons learned. While staffing changes at SWCD slowed the planning process beyond its original timeline, the AFPPUC Committee has produced this 2017 plan, thanks to planning expertise provided by OCCA, Otsego County Planning Department, and others.

2017 VISION STATEMENT

As with the 1999 plan, the primary purpose of the 2017 plan is *“To develop activities and programs that can enhance the agricultural climate and economy of Otsego County.”* In the 2017 plan, however, the Committee felt strongly that the outlined goals must be realistically achievable, and re-worked the vision statement accordingly.

2017 AGRICULTURE AND FARMLAND PROTECTION PLAN VISION STATEMENT

The vision for Otsego County agriculture is to maintain, grow, and initiate new agricultural concepts, practices, and opportunities that are realistically achievable; and to help strengthen existing and new farming operations in order to preserve and nurture the viable farming sector of the County, today and in the future.

Further, the 2017 AFPP sets forth concrete projects, each assigned directly to the agency responsible for implementing them, and establishes accountability for results.

NEED FOR A NEW PLAN

Since the 1999 Plan was adopted, the agricultural sector in Otsego County has experienced significant changes which justify the need to develop a new AFPP. These include:

- A continuing decrease in the number of dairy farms since 1999;
- Consolidation of dairy farming in larger farms, showing small economic growth with an increasing shift to organic;
- Increase in beef farms as percentage of farms overall;
- Increase in specialty grain farms, including hops and barley, to serve the emerging brewery industry in New York State and the County;
- Increased demand for land to serve baseball tourism over the past 15 years leading to rising property values and purchase prices;
- Growth in the number of small diversified farms which produce fish, vegetables, fruit, maple syrup, honey, flowers, mushrooms, pork/poultry/lamb/goat meat, poultry and eggs;
- Reduction in local higher educational opportunities to study agriculture;
- Increasing demand locally and in urban markets for value-added farm products, including farmstead and artisanal cheese, wine, preserves, salsas, sauces, pickles, etc.

Developing the 2017 AFPP provided the opportunity to look at historical data and geographic changes since the 1999 AFPP was completed. The committee reviewed the 1999 Plan goals and evaluated which, in retrospect, were obtainable and which were not. It was evident that while the seven goals were well thought-out, the 1999 plan lacked a detailed strategy for achieving those goals. The AFPPUC committee agreed that some of the 1999 goals are still relevant for today, but in order to achieve them, the county must develop a clear process for doing so.

The rapid growth of the Farm-to-Table movement statewide and the desire for value-added products using locally grown ingredients creates a potentially lucrative market for upstate farmers who can reach downstate consumers.

The preservation of working farms and farmland is vital for the economic stability of Otsego County and for maintaining its rural character. The potential to expand to markets downstate is greater than ever in 2017, thanks to advanced technology and multimedia. The rapid growth of the Farm-to-Table movement statewide and the desire for

value-added products using locally grown ingredients creates a potentially lucrative market for upstate farmers who can reach downstate consumers. One particularly critical task is to balance

preservation of land for agricultural production with growth pressure from the still-growing baseball tourism sector.

The 2017 AFPP includes a review of which action items in the 1999 AFPP were successfully completed, which were not, and why. Based on that information as well as the information gathered from the many meetings, interviews, research, and discussions, the 2017 plan then identifies six realistic and achievable action items that can be accomplished over the next five years. The main goal in selecting these action items was to ensure that the county could easily implement them in a reasonable time frame. The 2017 AFPP also takes a look at how the county's agricultural landscape has changed in order to determine how best the county might work to support the agricultural sector. It also takes into account the needs identified by farmers themselves, in order to better structure grant applications attentive to agriculture economics and land preservation.

THE 2017 AFPP PLANNING PROCESS

The development of the 2017 AFPP was overseen by the Otsego County Agricultural and Farmland Protection Plan Update Committee (AFPPUC). The SWCD, which had originally obtained the grant for the plan update, worked with Otsego County Planning Department to assemble a committee made up of representatives from the farming community, agribusiness, agricultural agencies, and non-profit organizations with agriculture and farmland protection as part of their primary missions. The Committee met several times throughout the plan development period, from 2014 through 2017, in addition to organizing the various events and methods for soliciting public input and feedback.

In a nutshell, the planning process involved:

- Identifying the stakeholders who needed to be involved in the preparation the plan and bringing them together as a working group to provide valuable input;
- Reviewing the 1999 plan to identify the recommendations that were implemented, those that succeeded, and those that failed;
- Preparing and distributing surveys to farmers to gain an understanding of the state of farming from those directly engaged;
- Researching and comparing the agricultural economic climate in Otsego County;
- Researching the issues and concerns of the farming community;
- Completing agriculture audits of townships within the county to determine the level of support for agriculture expressed through land use regulations and to identify any inhibiting factors that could be improved upon;

- Interviewing farm-related businesses through a phone survey to better understand the impacts from loss of agriculture to farm-related businesses, and how they have adapted;
- Attending agricultural sector-specific group meetings, such as Otsego Maple Producers, to understand their involvement and activities underway and their “strength” as a group;
- Organizing all information and data obtained through surveys, focus groups, community meetings, and stakeholder interviews and preparing goals, objectives and action items that are realistic and reasonably achieved;
- Identifying the impacts of climate change to Otsego County and the agricultural sector.

PLANNING FOR THE FUTURE: PUBLIC ENGAGEMENT IN FORMULATING THE 2017 AFPP

Engaging the public and directly affected stakeholders was one of the most important components of the planning process. Working closely with farmers, agricultural agencies, and members of the community helped to build consensus, identify key steps to protect and strengthen Otsego County’s agricultural sector, and foster dialogue about the future of agriculture in the County. The Committee gathered information from a wide range of sources, including members of the steering committee itself, stakeholder interviews, a farmer survey, and several public meetings. Farmers, residents, agribusiness owners, representatives of agricultural agencies and non-profit organizations, and elected officials all had multiple opportunities to provide input to the committee as the plan was developed.

Farmer Survey

To obtain a better understanding of the state of agriculture in Otsego County, the Committee developed a mail survey to capture as much input from farmers as possible. The anonymous survey was mailed in early 2014 to 1,316 Otsego County agricultural producers as identified by property codes, discussion with municipal and agricultural officials, and land-use classifications. By July 2014, 320 responses were received for a response rate of 24 %. An analysis of survey responses by Professor Carlene Ficano can be found at [Appendix X](#).

Stakeholder Interviews

The AFPPUC, with assistance from Hartwick College students, conducted an initial round of stakeholder interviews in October 2014. Because of issues arising from inconsistent data collection methods, the first round of interview results were set aside and a second round of stakeholder interviews, either in person or by phone, were conducted by OCCA in between March 2016 and February 2017. Interviewees represented a broad range of agricultural producers, agriculture-oriented businesses and organizations, academic institutions, and financial institutions. In total, 19 stakeholders were interviewed (see Tables 1 and 2).

| Name | Organization | Location |
|----------------|----------------------------------------|----------------------|
| Larry Althizer | Larry's Custom Meats | Hartwick, NY |
| John Branius | Butternuts Beer and Ale | New Lisbon, NY |
| Rocco Caponi | Brewery Ommegang | Cooperstown, NY |
| Peter Fouth | Hartwick College | Oneonta, NY |
| Danny Lapin | Otsego County Conservation Association | Springfield, NY |
| Ed Lentz | Fox Hollow Farm | New Lisbon, NY |
| Jason Parrish | Roots Brewing Company | Oneonta, NY |
| Heidi Pickett | NBT Bank | Oneonta, NY |
| Ellen Pope | Otsego 2000 | Cooperstown, NY |
| James Powers | Otsego County Board of Representatives | South New Berlin, NY |
| Jamie Reynolds | NBT Bank | Oneonta, NY |
| Darla Youngs | Otsego County Conservation Association | Springfield, NY |

Table 1 Round One of Stakeholder Interviews

| Name | Organization | Location |
|--------------------|----------------------------------------------|----------------------|
| Mark Harvey | Good Fields Farm/The Maiden's Creamery | South New Berlin, NY |
| Tianna Kennedy | Star Route Farm | Worcester, NY |
| Paul Koch | Earth Harvest Farm | Morris, NY |
| Aaron Macleod | Hartwick Craft Food and Beverage Center | Oneonta, NY |
| Don Marsh | Nationwide Insurance: Don Marsh Agency, Inc. | Oneonta, NY |
| Bernadette Ortensi | Ortensi Farm | Richfield, NY |
| Brian Ryther | Mill Hollow Maple | Edmeston, NY |
| Karl Schoeberl | Split Maple Farm | Schenevus, NY |
| Dan Sullivan | Maple Lane Farm | Richfield, NY |

Table 2 Round Two of Stakeholder Interviews

Sector-Specific Strengths, Weaknesses, Opportunities and Threats Workshops

To obtain an in-depth understanding of Otsego County's numerous agricultural operations, SWCD convened five sector-specific Strengths, Weaknesses, Opportunities, and Threats (SWOT) workshops, in-person and via teleconference, between May 2016 and February 2017. The AFPPUC members identified specific producer groups (see Table 3) to take part in each workshop, where participants examined the strengths and weaknesses of their particular agricultural sector, as well as the opportunities that exist and any threats that may face those particular producers.

| Group | Workshop Date |
|-------------------------------------------|---------------|
| Leatherstocking Shepherds Association | May, 2016 |
| Leatherstocking Beekeepers Association | June, 2016 |
| Otsego County Maple Producers Association | January, 2017 |
| Central New York Beef Producers Group | January, 2017 |
| Farmers Market Vendors | January, 2017 |

Table 3 Sector-Specific SWOT Workshops

The Sector-Specific SWOT workshops represented an excellent opportunity for the AFPPUC to gain insights into specific agricultural sectors. Key findings from each of the five workshops are listed below:

Leatherstocking Shepherds' Association | The workshop attendees reported that there were several factors influencing the success of their operations: value-added production, sustainable levels of income, the availability of the agricultural tax exemption, and the ability to keep up with current market trends through membership in the Leatherstocking Shepherds' Association. However, the group identified a lack of critical infrastructure, including slaughterhouses and wool mills, in addition to excessive turnaround times for their products and low product prices as major barriers for their operation. Moving forward, the group emphasized a need for increased levels of producer education with respect to meat production, sheep farming, and better coordination with agricultural agencies serving Otsego County.

Central New York Beef Producers Group | Stakeholders reached during the workshop reported that proper operational techniques (financial management, proper feeding, operational diversity, and conservative growth) were essential for their success. The group, however, identified price fluctuation, limited market control, limited technical capacity, limited access to infrastructure, and a lack of veterinary services as major barriers for the success of the beef industry in the county. Moving forward, the group predicted that there will be an increase in available pastureland, increased market demand via the farm-to-table movement, and better market penetration in urban areas. The group recommended that the County increase support for producer education, financial support for agribusinesses and agricultural agencies, and reduce the tax burden on farmers in the County.

Leatherstocking Beekeepers Association | A majority of the stakeholders reached stated that their operations were primarily conducted out of personal interest as opposed to commercial interest. Primary concerns focused on the deterioration of the New York State Beekeeping Apiary Inspection, a lack of forage habitat, transmission of disease from out-of-state pollinators, and the *Varroa mite*. The group recommended that the County collaborate with SWCD to increase the proportion of pollinator-friendly seeding used during hydroseeding operations; partner with the County and local highway departments to prevent premature mowing; and support grant applications from apiarists seeking to upgrade and/or sustain their operations.

Otsego County Maple Producers Association | Stakeholders reached during the workshop reported that the success of their operations was influenced by the quantity and proximity of sugar maples in the county, manageable operational costs, the proximity of local buyers, and the diversity of fuel available to cook down syrup. The group reported that input and marketing costs represented barriers for the maple sector's profitability. The group also identified fluctuating weather patterns as a major concern. Looking to the future, the group was optimistic, suggesting that the industry will grow, the maple sector will diversify, and there will

be increased entry into the maple sector. The group recommended that the County work with local partners to secure additional grant funds, decrease the tax burden on producers, and partner more with local industries that directly interact with the maple industry.

Otsego County Farmers' Market Group | Stakeholders reached during this workshop reported that the success of local farmers' markets are influenced by a combination of good products, eclectic vendors, and a solid customer base. It was also noted that local farmers' markets have had success marketing their operations. The group expressed concerns on matters related to balancing vendors, products, product diversity and product groups within the market. Stakeholders reported that achieving the proper balance between conventionally produced and organic materials was challenging. Additionally, the group reported difficulty recruiting new vendors and retaining current farmers' market customers. Moving forward, stakeholders said that adapting local farmers' markets to cater toward those preferring locally produced food, maintaining customer satisfaction levels, and meeting local demand in a reliable fashion are priorities. The group suggested that the county could focus on assisting farmers on an individual-by-individual basis to ensure that they meet their yearly production goals. It is anticipated that this action would reduce market prices.

Public Meetings

In addition to stakeholder interviews and SWOT workshops, the AFPPUC held four public meetings (see Table 4) to introduce the 2017 AFPP to community members and to collect feedback on agriculture in the County. The meetings were held in various geographic regions of the County to reach a strong cross-section of Otsego County producers.

The AFFPUC publicized the public meetings through announcements in local newspapers, email, radio, television, and by U.S. mail. The meetings included a detailed presentation on current and future agricultural economic development and farmland preservation tools that could be employed to protect the viability of the County's agricultural sector; and a SWOT analysis to gain direct input from the farming and non-farming community.

| Purpose | Date | Location | Attendees |
|-----------------------------------------------------|---------------|-----------------------------------------------------|-----------|
| Public Meeting #1 | November 2014 | First Baptist Church Burlington, NY | 15 |
| Public Meeting #2 | December 2014 | Town of Otego Town Building Otego, NY | 10 |
| Public Meeting #3 | January 2015 | Richfield Community Center Richfield Springs, NY | 25 |
| Public Meeting #4 | February 2017 | Town of Worcester Town Building Worcester, NY | 6 |
| Presentation to County SWECC | April 2017 | Meadows Office Complex Cooperstown, NY | |
| Presentation to the Otsego County Legislature | TBA | Otsego County Building, Cooperstown, NY | |

Table 4 Locations and Dates of Public Meetings

The primary takeaway from the four public meetings conducted by the AFPPUC was that farmers desired increased support from municipal and county officials. Types of support that were identified included: assistance with matters related to regulatory compliance, letters of support for grant applications, and reductions in their tax burden. Attendees also expressed a desire for additional training on how to comply with changing state and federal regulations—particularly environmental regulations.

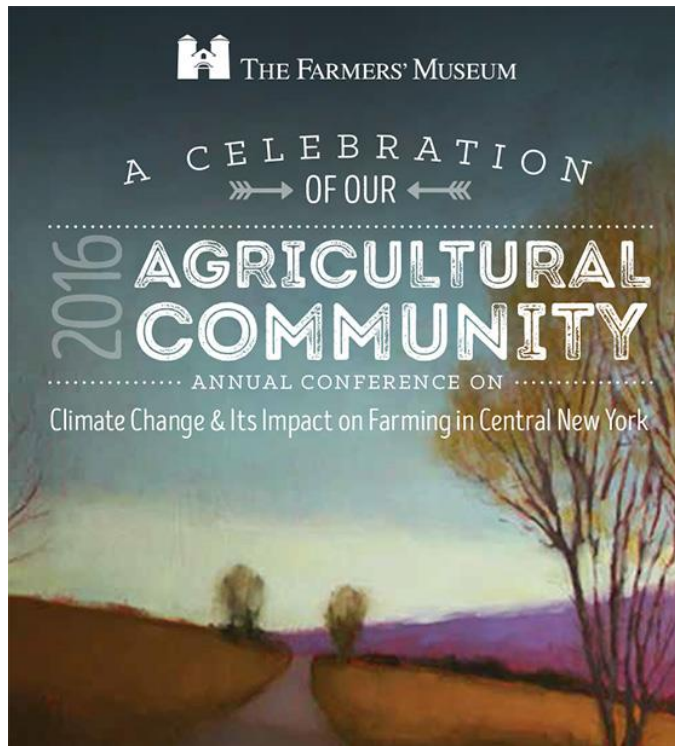
Complementary Efforts

To supplement ongoing public engagement efforts, AFPPUC members attended four agriculture-related events in the region to conduct outreach, identify potential partnerships, and publicize ongoing planning efforts. These events gave members of the Committee the ability to reach a solid cross-section of key local and regional stakeholders to learn about the challenges and opportunities facing producers throughout the state.

In November 2015 and November 2016, AFPPUC members attended the 2nd and 3rd Annual Conferences on Food and Farming (respectively) at the Farmers' Museum in Cooperstown. In 2015, they took the opportunity to speak with Otsego County producers, distribute agricultural stakeholder surveys, and discuss progress on the Agricultural and Farmland Protection Plan. In 2016, the Conference's focus was on climate change and members of AFPPUC met with attendees and conference speakers to hear their perspectives on the challenges Otsego County agriculture faces from the changing climate.

AFPPUC members made a presentation on the AFPP process and progress to the Otsego County Farm Bureau's regular meeting in March 2016. The Committee also distributed SWOT worksheets for members of the Farm Bureau to complete at their convenience.

Finally, AFPPUC members attended the Farmland Finder Catskills' Stakeholder meeting, a "farmlink" workshop hosted by CADE in Delhi in February 2017. Representatives from regional and national agricultural organizations shared lessons learned on linking farmers to landowners, identified the strengths and weaknesses of their respective programs, and shared ideas on potential action steps to strengthen the link between farmers and landowners locally.



Consultation with Agricultural Agencies and Organizations

Throughout the multi-year planning process, AFPPUC representatives met with agencies and organizations involved in Otsego County's agricultural sector, although some agencies were unavailable or unwilling to participate. These consultations allowed the Committee to collect input specifically from those who will be tasked with implementing the plan in the future. In addition, the AFPPUC conducted an internal SWOT and Visioning Analysis and held two meetings with representatives from CCE Schoharie-Otsego.

Regional and Statewide Initiatives and Recommendations Review

As part of the Planning Process, the AFPPUC examined and, in some cases, incorporated a wide range of regional and statewide plans, documents, and initiatives when crafting the 2017 AFPP. This was done to maximize consistency with other plans in the region, encourage horizontal integration with other countywide initiatives, and to encourage vertical integration with relevant statewide initiatives. These included but are not limited to:

- 2016 *Cultivating New York* Report prepared by the American Farmland Trust
- 2012-13 Mohawk Valley Regional Sustainability Plan
- 2016 draft Otsego County Strategic Prioritization Plan
- Mohawk Valley Regional Food Systems Assessment
- New York State Department of Agriculture and Markets' Zoning Guidelines
- 2016 New York State Pollinator Protection Plan
- 2013 Agricultural Survey conducted by Robert Gibson
- Farm Credit East's 2016 Knowledge Exchange Report: *Dairy Industry Reset Post-2014: A Time for Dairy Producers to Take Bold Action*

Internal SWOT Exercise (AFPPUC)

In February 2016, AFPPUC members conducted an internal SWOT exercise focused on agricultural economic development and land protection to gain the varied perspectives of the diverse group of organizations represented on the committee. Members tried to identify what, from their professional perspectives, were the main strengths, weaknesses, opportunities, and threats facing the agricultural sector in Otsego County. The charts on the following page detail the Committee's findings.

Agencies Providing Input into 2017 Plan

CADE
 CCE- Schoharie and Otsego Counties
 New York State Agricultural Mediation Program
 Otsego 2000
 Otsego County Agricultural & Farmland Protection Board
 Otsego County Chamber of Commerce
 OCCA
 Otsego County Farm Bureau
 Otsego Land Trust
 Otsego County Soil and Water Conservation District
 USDA Natural Resources Conservation Service

AFFPUC | The SWOT exercise conducted by the AFFPUC identified a significant need for increased levels of financial and programmatic support from the County government. Budgetary constraints have significantly diminished the ability of agricultural agencies like CCE Schoharie-Otsego and the SWCD to deliver support to key agricultural stakeholders throughout the County. Increased levels of funding and support for these groups could act as a major economic driver moving forward.



SWOT Analysis: Agricultural Economic Development

STRENGTHS

- Market for products at local markets at a decent price
- Community willingness to buy local
- Lots of vacant agricultural land
- Expansion of large farms
- Relatively low development pressure (as compared to areas like the Hudson Valley)

OPPORTUNITIES

- Transportation for local products/ distribution center in Otsego County.
- 'Made in Otsego County' branding.
- Oneonta food hub and Hartwick Craft Food and Beverage Center.
- Taking advantage of New York State Beverage Laws re: hops and barley.
- Proximity to SUNY Cobleskill/Morrisville.
- Assistance program to help existing farmers diversify their operation.
- Connecting consumers with farmers
- Make Otsego County farmland more attractive to new farmers.

WEAKNESSES

- Lack of local agricultural education (BOCES, Ag in the Classroom, etc.).
- Lack of economic development options for existing farmers.
- Lack of consumer awareness about locally produced foods.
- Difficulty maintaining consistent volume and delivery of products necessary for larger restaurants and grocery stores.

THREATS

- Price competition from large-scale/ global producers.
- Aging farm population.
- Young farmers unable to buy land.
- Development pressure in tourist corridors and elsewhere.
- Chesapeake Bay regulations and other state/federal environmental regulations.
- Financial difficulties associated with regulatory compliance.

SWOT Analysis: Land Protection

STRENGTHS

- PDR programs—more state funding and local interest.
- Presence of local agricultural agencies/conservation organizations/engaged community.
- Relative lack of development pressure.

OPPORTUNITIES

- Increased levels of communication between conservation/environmental agencies and farmers.
- Development of environmental compliance resources.
- Higher education institutions to help with baseline data gathering.
- Presence of PDR funds.

WEAKNESSES

- PDR programs can be cumbersome and expensive/time consuming.
- Town regulations may not be farm-friendly.

THREATS

- Compliance with Chesapeake Bay regulations.
- Changes to farming operations due to increased regulatory pressure.
- Downstate prospectors (NY Land and Lakes) buying up viable agricultural land then subdividing it.
- Changing weather patterns.

Meeting #1 with Cornell Cooperative Extension Schoharie-Otsego | In March 2016, the AFPPUC met with the Agriculture Program Leader of Cornell Cooperative Extension to analyze which of the 1999 Otsego County Agricultural and Farmland Protection Plan's goals were achieved. Since the completion of the 1999 plan, New York State, including Otsego County, has made significant strides in publicizing the importance of locally produced food. However, limited budgetary support from the County for agricultural agencies like the Cooperative Extension, coupled with recent declines in milk prices has constrained economic development and innovation in the County's agricultural sector. The meeting also touched on farmland preservation. Attracting and retaining new farmers still represents a major challenge in Otsego County due to a lack of marketing efforts, among other factors. Another major hurdle facing Otsego County farmers is the financial ability to increase production to meet the demand of larger markets downstate. These two barriers make it challenging for farmers to have the capital necessary to implement various farm conservation practices.

Meeting #2 with Cornell Cooperative Extension Schoharie-Otsego | In March 2016, the AFPPUC also met with the Agricultural Community Educator and the Livestock Processing and Marketing Specialist of Cornell Cooperative Extension. In a variation on a SWOT analysis, they divided the discussion into four parts:

CHANGE IN FARMING/CHALLENGES

- \$63 million annual loss in milk sales compared with 1981 levels.
- Significant decrease in dairy operations between 1981 (700) and 2016 (150).
- Aging primary operators and family members moving off the farm.
- Otsego County's topography is a limiting factor on farm size.
- Varying milk prices affecting the viability of dairy operations.

THREATS

- Lack of agricultural infrastructure in the County.
- Leakage of agricultural dollars to outside counties.
- Lack of veterinarians in Otsego County.
- Diminishing multiplier effect of agricultural economic development.
- Erosion of the local tax base.

OPPORTUNITIES

- Increased state-level funding for beginning farmers.
- Farm linkage programs.
- Increased opportunities for partnerships with local land trusts.
- Local farm-to-table/buy local movement.
- Favorable geography and topography for beef operations.
- Market opportunities for haying and direct to market sales.

RECOMMENDATIONS

- Improve financing mechanisms for young farmers.
- Improve access of farmers to educational resources like BOCES, Harvest New York, and SUNY-Cobleskill.
- Improve funding for SWCD.
- Assist municipalities with applications for Payment for Development Rights (PDR)/Conservation Reserve Enhancement Program (CREP) applications.

COMMON CONCERNS IDENTIFIED BY OUTREACH

The AFPPUC identified common concerns related to agriculture through its 2014 stakeholder survey, sector-specific SWOT analyses, stakeholder interviews, and through consultation with countywide agricultural agencies. Farmers expressed a generalized concern that regulation were detrimental to farm operations. This concern was primarily directed toward state and federal regulations, with more specified criticism being directed toward land-use and environmental regulations. Survey respondents felt that environmental regulations, especially, were overly burdensome on farmers. Some of the most pressing concerns associated with the stakeholder engagement process are listed below:

- High property and local taxes are too high.
- Rising input costs and tightening profit margins are putting an economic strain on Otsego County farmers.
- Decreasing financial support for Cooperative Extension has limited their presence and agricultural program offerings.

- The high average age of principal operators and a perceived lack of succession planning at the farm level.
- Compliance costs—both financial and time-related—associated with tightening environmental regulations at state and federal level.
- A perceived lack of support from the County for agricultural support programs.
- Limited exposure for area youth to agriculture and agricultural opportunities in school.
- A limited capacity of small and medium farmers in Otsego County to be able to upgrade their on-farm infrastructure.
- Growing concern about the effects of extreme weather events related to climate change and how it will affect farm productivity.

COUNTY PROFILE: AGRICULTURE IN OTSEGO COUNTY

Historically, agriculture has been the economic backbone of many of Otsego County's more rural municipalities and continues to be a major element of the County's cultural and economic life. While the County's economy has pivoted increasingly toward tourism, healthcare, and the service sector over the past twenty years, agriculture remains an important contributor to the County's economy. Agricultural sales generated locally reverberate throughout the local economy—generating jobs and increasing the overall economic stability of the County.

As the economy continues to evolve, it is critical for planners, elected officials, businesses, farmers, and the public to understand Otsego County's agricultural demographics.

NATURAL CHARACTERISTICS

Otsego County is made up of many hills and valleys. The topography of the county ranges in elevations from a low of 970 feet, where the Unadilla River meets the Susquehanna River in the southwestern tip of the county, to a high of 2,430 feet on an un-named hill about 1.5 miles east of East Worcester almost to the Schoharie County border. The elevations in the stream valleys of the county are at a low of 1,000 feet to over 2,000 feet on the ridge tops and summits. Most of the county is between 1,200 feet and 1,600 feet. The northern portion of the county is in the Ontario Plain physiographic province, and the central and southern portions of the county are at the upper edge of the Allegheny Plateau province. These provinces are generally characterized by limestones which create a cap to the weaker strata below of shales, siltstones, and sandstones. These lower strata can be seen, due to weathering and erosion, as bedrock outcrops and benches along the steeper valley sides and on the summits of hills.

Karst topography, a landscape formed from the dissolution of soluble rocks such as limestone, dolomite, and gypsum, is prevalent in the northern part of the county, and some areas within the karst topography have Farmington and Wassaic soils. Characterized by underground drainage systems with sinkholes and caves, small sinkholes are common, and several small caverns exist

in some areas of these formations. The Red Oneonta Formation, which is named for the flaggy red shale and fine-grained sandstone bedrock, is prevalent in the southwestern part of the county.

Physiology and Geology | The advances and retreats of glaciers during the Wisconsin stage of the Pleistocene era shaped and created the major geologic features and soil types of Otsego County. As the glacier moved southward, hilltops were rounded off, valleys were enlarged and deepened, and eventually filled with glacial till material as the ice receded. Till is an unsorted mixture of sand, silt, clay, and rock fragments -- examples of glacial till soils include Mardin, Wellsboro, and Lewbath. The depth of this glacial till material can vary from a few inches to hundreds of feet depending on the location and elevation in the county.

The county shows signs of both depositional (valley floors) and erosional (uplands/divides) environments. As the glacier retreated, it retreated at different velocities. This created glacial lakes where fine sand, silt and clay particles could settle out and created lacustrine soils such as Scio, Raynham, and the Fonda soil series. Some of the shallower glacial lakes were filled in with decomposing organic material which created peat or muck soils. Examples of these types of soils include Carlisle, Carbondale and Palms, with Sapristis and Aquents being formed within these deposits. As a result of the glacial lakes draining and the rivers stopping to flow, deposition occurred. Remains of these depositional areas, called alluvial fans and deltas, can still be found in many of the county's valleys. Soils that were formed in these alluvial areas include Chenango-fan, Herkimer, Riverhead, Valois and Unadilla.

Hydrology | Over 90 percent of Otsego County is drained southwards by the Susquehanna River and Unadilla River and their tributaries. The remainder of the county, located in the northeastern part, drains north to the Mohawk River. The Susquehanna River system begins at the mouth of Otsego Lake and travels in a southward direction until it is joined by Schenevus Creek and then Charlotte Creek east of Oneonta. At the junction with Charlotte Creek, the Susquehanna River begins to flow in a west-southwest direction along the Delaware County border. The Unadilla River picks up most of the drainage area in the western part of the county, flowing south along the borders of Chenango and Madison Counties. Due to deep cutting over the years, most of the streams in Otsego County have narrow flood plains and steep sides. Floodplains do expand and get larger in the Susquehanna River valley as it moves southwest from Oneonta.

Farmland Classification of Soils | In Otsego County and New York State, there are four designations of soils: Prime Farmland, Prime Farmland if Drained, Farmland of Statewide Importance, and Not Prime Farmland. Prime Farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. The criteria for Prime Farmland are national -- soils must meet specific criteria with respect to several soil properties, including temperature, moisture regime, erodibility, pH, water table, permeability, rock fragment content, and others. Soils that are designated as Prime Farmland if Drained meet all the prime farmland criteria

except for water table, and are suitable for drainage. In New York, somewhat poorly drained soils are designated as prime farmland if drained, if they meet all the other criteria. Criteria for Farmland of Statewide Importance are established within each state. In New York, Farmland of Statewide Importance soils are soils that do not meet all the criteria for Prime Farmland or Prime Farmland if Drained, but are in land capability classes 1, 2, 3, or 4w. In the Soil Survey Geographic Database, soils that do not meet the criteria for any of the above farmland classes are designated as Not Prime Farmland.

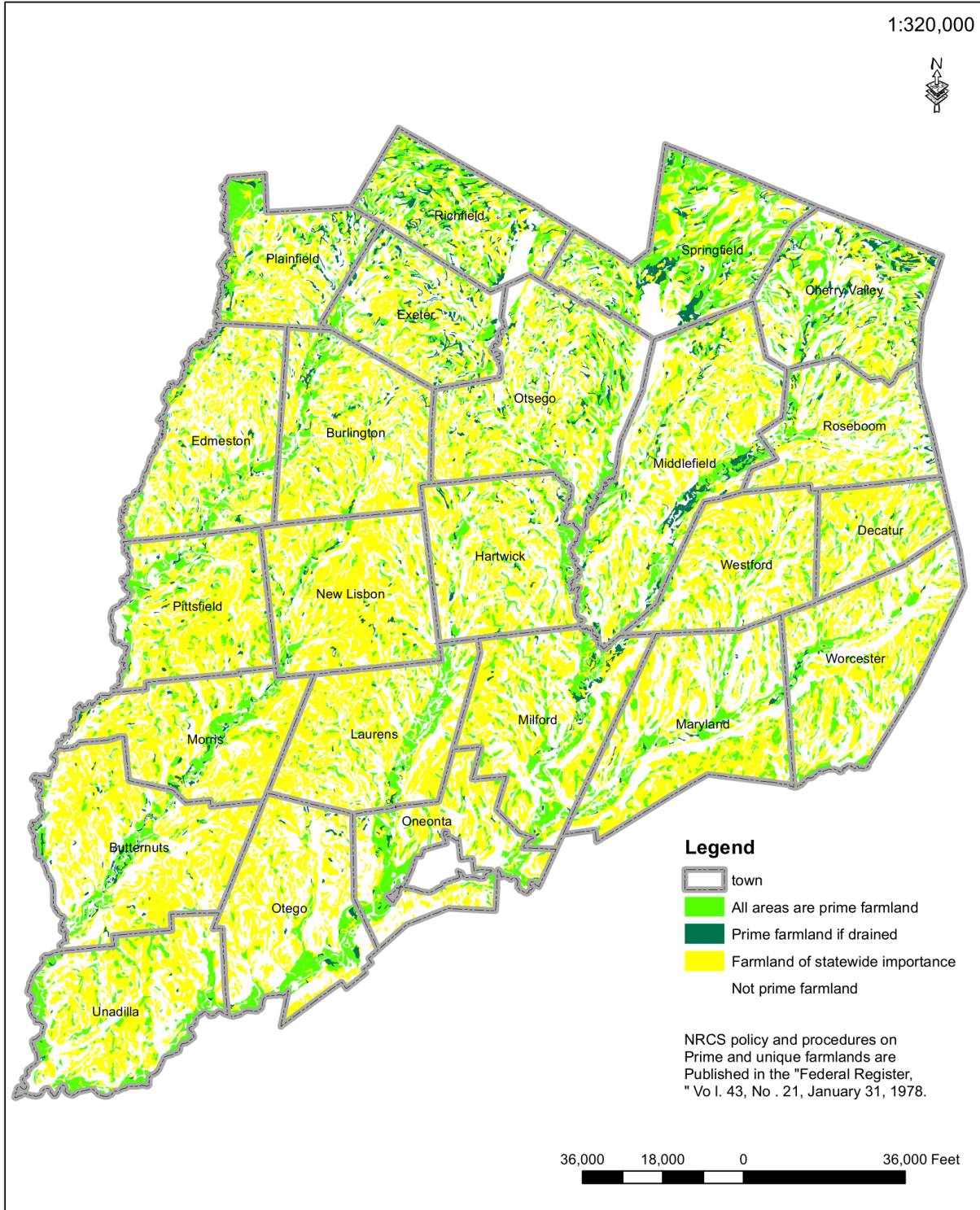


Farmland classifications are used to identify areas of land most suitable to produce food, feed, fiber, forage and oilseed crops. The Natural Resources Conservation Service (NRCS) has national responsibility for the management and maintenance of the resource base that supports the productive capacity of American agriculture, including identifying, locating, and determining the extent of the most suitable land for producing

food, feed, fiber, forage, and oilseed crops. See the following map and table for a breakdown of farmland classifications by Town.

| TOWNSHIP/CLASSIFICATION | ACREAGE | TOWNSHIP/CLASSIFICATION | ACREAGE |
|--------------------------------------|----------------|------------------------------------|----------------|
| Burlington (total acreage) | 28,741 | New Lisbon (total acreage) | 28,621 |
| Prime farmland | 3,683 | Prime farmland | 2,505 |
| Farmland of statewide importance | 13,743 | Farmland of statewide importance | 16,377 |
| Prime farmland if drained | 558 | Prime farmland if drained | 449 |
| Butternuts (total acreage) | 34,774 | Oneonta (total acreage) | 21,420 |
| Prime farmland | 3,237 | Prime farmland | 3,961 |
| Farmland of statewide importance | 16,931 | Farmland of statewide importance | 7,501 |
| Prime farmland if drained | 745 | Prime farmland if drained | 249 |
| Cherry Valley (total acreage) | 26,105 | Otego (total acreage) | 28,724 |
| Prime farmland | 5,750 | Prime farmland | 3,351 |
| Farmland of statewide importance | 6,959 | Farmland of statewide importance | 11,219 |
| Prime farmland if drained | 2,279 | Prime farmland if drained | 392 |
| Decatur (total acreage) | 13,274 | Otsego (total acreage) | 36,773 |
| Prime farmland | 1,692 | Prime farmland | 6,381 |
| Farmland of statewide importance | 6,567 | Farmland of statewide importance | 12,927 |
| Prime farmland if drained | 39 | Prime farmland if drained | 1,334 |
| Edmeston (total acreage) | 28,553 | Pittsfield (total acreage) | 23,434 |
| Prime farmland | 4,340 | Prime farmland | 3,802 |
| Farmland of statewide importance | 11,591 | Farmland of statewide importance | 12,118 |
| Prime farmland if drained | 690 | Prime farmland if drained | 436 |
| Exeter (total acreage) | 20,900 | Plainfield (total acreage) | 18,878 |
| Prime farmland | 3,409 | Prime farmland | 4,128 |
| Farmland of statewide importance | 7,269 | Farmland of statewide importance | 6,664 |
| Prime farmland if drained | 1,512 | Prime farmland if drained | 1,185 |
| Hartwick (total acreage) | 25,858 | Richfield (total acreage) | 20,718 |
| Prime farmland | 3,796 | Prime farmland | 5,474 |
| Farmland of statewide importance | 11,005 | Farmland of statewide importance | 5,818 |
| Prime farmland if drained | 510 | Prime farmland if drained | 2,113 |
| Laurens (total acreage) | 27,483 | Roseboom (total acreage) | 21,046 |
| Prime farmland | 3,593 | Prime farmland | 2,627 |
| Farmland of statewide importance | 13,775 | Farmland of statewide importance | 7,604 |
| Prime farmland if drained | 146 | Prime farmland if drained | 436 |
| Maryland (total acreage) | 33,174 | Springfield (total acreage) | 28,899 |
| Prime farmland | 5,290 | Prime farmland | 9,461 |
| Farmland of statewide importance | 13,268 | Farmland of statewide importance | 7,682 |
| Prime farmland if drained | 219 | Prime farmland if drained | 2,258 |
| Middlefield (total acreage) | 42,040 | Unadilla (total acreage) | 29,553 |
| Prime farmland | 7,157 | Prime farmland | 5,468 |
| Farmland of statewide importance | 14,898 | Farmland of statewide importance | 11,752 |
| Prime farmland if drained | 2,145 | Prime farmland if drained | 162 |
| Milford (total acreage) | 30,148 | Westford (total acreage) | 21,620 |
| Prime farmland | 5,824 | Prime farmland | 2,532 |
| Farmland of statewide importance | 12,229 | Farmland of statewide importance | 10,085 |
| Prime farmland if drained | 680 | Prime farmland if drained | 105 |
| Morris (total acreage) | 24,921 | Worcester (total acreage) | 29,969 |
| Prime farmland | 3,274 | Prime farmland | 4,539 |
| Farmland of statewide importance | 13,031 | Farmland of statewide importance | 11,004 |
| Prime farmland if drained | 650 | Prime farmland if drained | 140 |
| TOTAL COUNTY ACRES | 645,625 | | |

Table 10 Farmland Classification Acreage by Town



USDA Natural Resources Conservation Service
United States Department of Agriculture

This product is generated from USDA-NRCS certified data
Soil Survey Area: Otsego County, New York
Survey Area Data: Version 15, Sep 24, 2016

Map 1 Farmland Classification by Town

AGRICULTURAL LAND USE

Otsego County consists of 24 towns, seven villages and one city, with a total land area of 1,001.70 square miles.¹ According to the 2012 Census of Agriculture, a total of 995 farms and 180,750 acres of farm land existed with an average size of 182 acres per farm. The 2012 report showed 43.7% of agriculture land in cropland, 14.4% pastureland, 28.6% woodland and 9.7% other. A comparison of the 2012 report to 2002 and 2007 is provided below:

| Year | No. of Farms | Total Acreage | Average acreage | % Cropland | % Pastureland | % Woodland | % Other |
|------|--------------|---------------|-----------------|------------|---------------|------------|---------|
| 2002 | 1,028 | 206,233 | 201 | 54.38% | 11.15% | 25.75% | 8.72% |
| 2007 | 980 | 176,481 | 180 | 49.96% | 14.93% | 25.76% | 9.35% |
| 2012 | 995 | 180,750 | 182 | 43.7% | 14.4% | 28.6% | 9.7% |

Table 6 Farms by Acreage and Land Composition

It is important to note that on-the-ground farm numbers differ from those tabulated by the 2012 USDA Agricultural Census. For example, in 2013 Gibson (2013) conducted a farm survey which found that there are currently 584 active farms in Otsego County. This is a significant departure from the 995 identified in the 2012 USDA Agricultural Census. Gibson (2013) collaborated with municipal governments, farmers, and other key stakeholders to plot out the location of each farm in the county. The variation in the number of farms in Gibson (2013) could be explained by a different definition of an “active farm,” as opposed to the Agricultural Census. Further investigation and comparison of the two surveys is warranted.

While some large (500-999 acre) and very large (1,000 acre or more) operations exist within the county, most are between 50 to 500 acres, with a moderate decline in medium sized (50-500 acres) farms between 2002 and 2007. The numbers of small and large-scale farms have remained somewhat steady since 2007.

| Farm Size | 2012 | 2007 | 2002 |
|------------------|------|------|------|
| 1 to 9 acres | 52 | 44 | 53 |
| 10 to 49 acres | 209 | 178 | 142 |
| 50 to 179 acres | 400 | 423 | 421 |
| 180 to 499 acres | 266 | 275 | 325 |
| 500 to 999 acres | 53 | 50 | 78 |
| 1,000 or more | 15 | 10 | 9 |

Table 7 Farming Operations (Source: USDA Agricultural Census)

Table 8 shows the percentage of acreage in farming by municipality, including vacant land, livestock, field/truck crops, orchards, nursery/greenhouse, fish/wildlife, and residential with agriculture.

¹ <https://www.census.gov/quickfacts/table/PST045215/36077>

| Year: 2012 | Total Acreage | No. of farmland parcels | Total acreage of farmland parcels | Percent of Town Area with farmland parcels |
|----------------|----------------|-------------------------|-----------------------------------|--------------------------------------------|
| Burlington | 28,880 | 65 | 6,250 | 21.64% |
| Butternuts | 34,624 | 110 | 5,420 | 15.65% |
| Cherry Valley | 25,651 | 95 | 5,190 | 20.23% |
| Decatur | 13,312 | 18 | 1,495 | 11.23% |
| Edmeston | 28,537 | 113 | 6,081 | 21.30% |
| Exeter | 20,544 | 74 | 5,802 | 28.24% |
| Hartwick | 25,792 | 81 | 3,707 | 14.37% |
| Laurens | 27,264 | 75 | 4,960 | 18.19% |
| Maryland | 33,184 | 78 | 3,714 | 11.19% |
| Middlefield | 42,176 | 133 | 10,871 | 25.77% |
| Milford | 29,504 | 65 | 3,443 | 11.66% |
| Morris | 24,960 | 80 | 3,908 | 15.65% |
| New Lisbon | 28,480 | 41 | 3,328 | 11.68% |
| Oneonta | 21,440 | 10 | 366 | 1.7% |
| Otego | 28,736 | 50 | 3,176 | 11.05% |
| Otsego | 34,688 | 36 | 3,108 | 8.95% |
| Pittsfield | 24,166 | 56 | 3,256 | 13.47% |
| Plainfield | 18,880 | 56 | 3,549 | 18.79% |
| Richfield | 19,776 | 131 | 5,064 | 25.60% |
| Richfield Spr. | 640 | 2 | 83 | 12.96% |
| Roseboom | 21,120 | 56 | 3,535 | 16.73% |
| Springfield | 27,520 | 158 | 9,776 | 35.52% |
| Unadilla | 29,696 | 91 | 6,628 | 22.31% |
| Westford | 21,632 | 75 | 3,842 | 17.76% |
| Worcester | 29,888 | 61 | 3,447 | 11.53% |
| TOTAL | 641,091 | 1,693 parcels | 109,999 acres | 17.016% |

Table 8 Percentage of Farmed Parcels by Town (source: 2012 USDA Agricultural Census)

PROTECTED AND GOVERNMENT LANDS

Within Otsego County the main organizations and agencies responsible for land conservation include OLT, SWCD, the USDA NRCS, the New York State Department of Environmental Conservation (DEC), the New York State Office of Parks Recreation & Historic Preservation (NYSOPRHP) and Otsego County.

There are currently four State Parks managed by NYSOPRHP in Otsego County: Betty & Wilbur Davis State Park (Westford), Glimmerglass State Park (Springfield), Gilbert Lake State Park (New Lisbon), and Robert V. Riddell State Park (Maryland). These parks help preserve open space and provide areas for public recreation including camping, hiking, boating, and fishing.

The DEC began to acquire State Forest lands in 1929 to reforest abandoned farmlands suffering from depleted soils and significant erosion issues. State forests are managed for multiple purposes, including recreation, wildlife habitat, natural resource conservation, and timber

harvesting. Otsego County has 21 State Forests within its borders, totaling approximately 20,200 acres, and managed by the DEC.

Otsego County also owns and manages one county recreational park -- the Forest of the Dozen Dads -- as well as multiple County Forest lands totaling approximately 3,600 acres. The park is managed for public access and recreation while the forests are managed for timber production and reforestation of previously marginal farmlands.

Otsego Land Trust is a non-profit with a mission to conserve the region's woodlands, farmlands and waters, which OLT accomplishes either through land ownership (usually to provide public access, or through conservation easements. Conservation easements are voluntary legal agreements between a landowner and a land trust or government agency which permanently limit uses of the land to protect its conservation values. To date, OLT has conserved over 11,000 acres throughout Otsego County and neighboring counties.

The Soil and Water Conservation District assists farmers in developing and implementing comprehensive farm plans and Best Management Practices. SWCD's does this primarily through the Agricultural Environmental Management (AEM) program. Funded by the state's Department of Agriculture and Markets' Soil and Water Conservation Committee, AEM is a voluntary program available to farmers interested in meeting their business goals while conserving natural resources. SWCD also helps landowners address natural resource issues including erosion control, flood prevention, and non-point source pollution.

The USDA Natural Resources Conservation Service assists farmers with many different natural resource conservation initiatives, including such as Environmental Quality Incentives Program (EQIP) and the Agricultural Conservation Easement Program (ACEP). EQIP provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation, and improved or created wildlife habitat. ACEP helps to conserve agricultural lands and wetlands and their related benefits by protecting working agricultural lands and limiting non-agricultural uses of the land. Under the Wetlands Reserve Easements component, NRCS helps to restore, protect and enhance enrolled wetlands.

Funding for conservation easements are also made available by the Department of Agriculture and Markets' Farmland Protection Implementation Grants (FPIG). The FPIG program is specifically for the conservation of the State's most valuable and vulnerable agricultural soils and farmlands. Eligible applicants include municipalities, Soil and Water Districts and qualified non-profit conservation organizations such as land trusts.

AGRICULTURAL DISTRICT PROGRAM

Since 1971, Article 25AA of the Agriculture and Markets Law (AML) outlining Agricultural Districts has been the centerpiece of state- and county-level efforts to preserve, protect, and

encourage the development and improvement of agricultural land to produce food and other agricultural products.

Several benefits accrue to farm operations conducted within certified agricultural districts. Chief among these are:

- the mandate that state agencies, as a matter of policy, encourage the maintenance of viable farming in agricultural districts;
- the limitation on the exercise of eminent domain and other public acquisitions and the advance of public funds for certain construction activities;
- the limitation on the siting of a solid waste management facility on land in agricultural production;
- the limitation on the power to impose benefit assessments, special ad valorem levies, or other rates or fees in certain improvement districts or benefit areas;
- the requirement that local governments, when exercising their powers to enact and administer comprehensive plans and local laws, ordinances, rules, or regulations do so in a manner that realizes the intent of the Agricultural Districts Law and does not unreasonably restrict or regulate farm operations; and
- the requirement that applications for certain planning and zoning actions affecting a farm operation within an agricultural district or on lands within five hundred feet of a farm operation within an agricultural district, include an agricultural data statement designed to allow the review agency to evaluate the possible impacts of the proposed action on the functioning of the farm operation.

Additionally, the Agricultural Districts Law establishes a land classification system used to assign agricultural assessment values to qualified properties both in and outside of a district; creates a process for the review of agricultural practices; discourages private nuisance lawsuits against an agricultural practice determined to be sound; provides for advisory opinions as to whether particular land uses are agricultural in nature; and requires disclosure to prospective grantees of real property that the property is in an agricultural district. The Agricultural Districts Law also defines the procedure for district creation and review.

Otsego County's Role in the State Agricultural District Program

The County Legislature holds the primary responsibility for creation, review, and management of its agricultural districts. Farmers interested in adding land to a locally approved, state-certified agricultural district should start with contacting their county planning representative to obtain an application form (Complete information on Agricultural District eligibility and enrollment can be found at Appendix H).

The Otsego County Planning Department manages agriculture district reviews, map management and 30-day enrollment. Following completion of the district creation, eight-year review process, or annual inclusion process, the county legislative body submits the plan to the Commissioner for certification.

| District | Certified | Towns included | # Acres in District | # Acres in Farms ² |
|----------|------------|-----------------------------------------------------|---------------------|-------------------------------|
| #1 | 10/25/2010 | Burlington, Edmeston, Exeter, Plainfield, Richfield | 33,798 | 21,699 |
| #2 | 12/31/2007 | Decatur, Maryland, Roseboom, Westford, Worcester | 33,104 | 17,408 |
| #3 | 12/31/2008 | Cherry Valley, Middlefield, Otsego, Springfield | 63,966 | 38,816 |
| #4 | 10/27/2011 | Hartwick, Laurens, Milford, new Lisbon, Oneonta | 27,076 | 17,725 |
| #8 | 12/29/2009 | Butternuts, Morris, Otego, Unadilla | 34,786 | 20,201 |

Table 9 Agricultural District Certifications and Towns Included

Agricultural Districts Assessment Program

The Agricultural Districts Law also provides for reduced property tax bills for land in agricultural production by limiting the property tax assessment of such land to its prescribed agricultural assessment value. Owners whose land satisfies the eligibility requirements may apply for an agricultural assessment.

Agricultural assessments are limited to land used in agricultural production, including cropland, pasture, orchards, vineyards, sugarbush, support land, and crop acreage either set aside or retired under Federal supply management or soil conservation programs. Up to 50 acres of farm woodland is eligible for an agricultural assessment per eligible tax parcel. Land and water bodies used for aquaculture production are eligible, as is land under a structure within which crops, livestock or livestock products are produced. Land visibly associated with the owner's residence is ineligible.

AGRICULTURAL AGENCIES OPERATING IN OTSEGO COUNTY

Otsego County has a diverse range of agricultural agencies and organizations serving its 62,259 residents. These agencies assist farmers with business planning, the implementation of conservation measures, crop insurance applications and much more. Some key agricultural agencies and organizations are listed below:

² RA-114 (11/02) for 2010, 2007, 2008, 2011 and 2009 District Reviews

Otsego County Farm Bureau | The Otsego County Farm Bureau gives farmers and non-farms alike the opportunity to be part of an organization dedicated to supporting and enriching agriculture. It provides an opportunity for individuals interested in the food system, land issues and rural living to join and make their voices heard.

Cooperative Extension | Cornell Cooperative Extension, organized under NYS County Law section 224, utilizes the resources of Cornell University as New York's land grant university for the benefit of county residents and agricultural producers. CCE Schoharie-Otsego links the resources of Cornell University's College of Agriculture and Life Sciences with local farms and agri-businesses by providing educational programs, resources, and educator staff to strengthen agriculture, horticulture, and natural resource enterprises. Information provided to the public is research-based. The Association has an extensive network of partners and Cornell affiliates in which to draw upon. Locally, assistance with dairy, field crops, and forages are provided by the organization's regional dairy and field crop team. Association staff are engaged in agricultural economic development by enhancing local capacity for improving farm profitability and residents' rural lifestyles. In 2016, the organization was a partner in launching Family Farm Day.

Otsego County Soil and Water Conservation District | SWCD is dedicated to implementing programs that protect water and soil quality within Otsego County. More specifically, SWCD works with landowners, land managers, local government agencies and other local entities in addressing a broad spectrum of resource concerns. Locally, SWCD facilitates the Agricultural Environmental Management program, the Ag Non-Point Source Program, and is a partner in Otsego County's Agricultural Plastics Recycling Program.

Center for Agricultural Development and Entrepreneurship | CADE works to connect Otsego, Delaware, Schoharie and area farmers with funding, programmatic, marketing, business planning and other resources. In 2016, CADE partnered with the State University of New York at Cobleskill to launch a Farm and Food Business Incubator. CADE also conducts a series of farm and food business-related workshops intended to increase farm profit, viability, and sustainability. CADE participates in a wide range of agricultural initiatives including but not limited to: The Farm and Food Business Incubator, the Lucky Dog Food Hub, the Hop Aboard Program, assisting farmers with funding applications, connecting producers to New York City markets, and enhancing farmers' access to value added production.

USDA Natural Resources Conservation Service | NRCS collaborates with farmers, ranchers, communities, and other individuals and groups to protect natural resources on private land. NRCS works side-by-side with landowners to identify natural resource concerns and develop unique conservation plans for restoring and protecting these resources. NRCS helps farmers across Otsego County and the nation balance economic goals with the needs of the environment. Locally, NRCS offers many conservation-oriented programs including but not limited to: The Farm Bill-funded Conservation Compliance Program, the Environmental Quality Incentives

Program (EQIP), the Agricultural Conservation Easement Program, and the Emergency Watershed Protection Program.

USDA Farm Service Agency | FSA administers Farm Bill programs including conservation, disaster and price support programs. In addition, FSA offers an array of loan programs including farm operating loans, farm ownership loans, emergency loans and conservation loans. Locally, FSA offers many programs including but not limited to: The Conservation Reserve Program (CRP), the Agricultural Risk Coverage Program, Margin Protection Program, and the Non-Insured Crop Disaster Program.

Otsego County Agricultural and Farmland Protection Board | The AFPB meets yearly to conduct the eight-year review of parcels participating in Otsego County's five consolidated agricultural districts. The AFPB was an active member in the preparation of the 1999 Otsego County Agricultural and Farmland Protection Plan.

OTSEGO COUNTY'S AGRICULTURAL ECONOMY

As economic conditions change and small farms find it harder to compete, it is important to understand the state of Otsego County's agricultural economy today. Key factors are listed below, with more detailed data following. It is important to note that data related to this analysis were primarily confined to publicly available sources and the data listed below should not be used to substitute for on-the-ground analyses.



Agriculture is a small, but prominent part of Otsego County's economy. According to personal income data from the Bureau of Economic Analysis, total Otsego County earnings³ in 2015 amounted to \$1,500,063,000; approximately \$12,401,000 of this was farm earnings. Per North American Industry Classification System (NAICS) specifications, agriculture employed approximately 2.6% of Otsego County's labor force in 2014. The data is reported on a place

of work basis, so the figures reflect the amounts paid by establishments located in Otsego County. By industry, the healthcare and social assistance industry had the largest share of earnings at \$417,481,000.

Otsego County's dairy industry has continued to consolidate. Between 2002 and 2012, Otsego County suffered a 40% overall decline in the number of dairy operations, with a 36%

³ The Bureau of Economic Analysis A defines "earnings," as the compensation of employees combined with proprietors' income.

decrease in the number of cows. Compared to historic dairy production levels, Gibson (2010) estimated average annual economic losses due to the consolidation of the local dairy sector since 1978 amounted to \$63,450,000 per year, not including any multiplier effects associated with agricultural production. The market value of dairy products today accounts for approximately 54% of the market value of all Otsego County agricultural products.

Agriculture in Otsego County has a large economic impact. Agriculture generates what is known as an “economic multiplier effect” when farmers purchase supplies and services from other businesses, and the income earned by employees of those businesses generates successive rounds of spending.⁴ For every additional dollar generated in on-farm agricultural output, an additional 43 cents are generated in non-agricultural industry sectors, such as wholesale trade, agricultural support services, and animal feed manufacturing.



A majority of farm workers reported working less than 150 days. According to data gathered from the USDA Agricultural Census, the number of hired laborers working on farms was 661. However, 365 of these workers worked less than 150 days per year.

Farm workers in Otsego County earn significantly less than their statewide counterparts. Average earning per hired farm worker declined 22.5% between 2002 and 2012, from \$10,745⁵ to \$8,320. Average earnings for Otsego County’s farm workers in 2012 were much lower than those of workers statewide—\$8,320 compared to \$11,989.

Otsego County is primarily comprised of small operations, but large farms are driving growth. Of 995 farms in operation in 2012, a significant majority were small operations. Farms with annual sales less than \$50,000 comprised 77% of all farms. Between 2002 and 2012, Otsego County experienced significant growth in the number of small farms (under 180 acres). Large operations, however, experienced the greatest percentage increase in sales.

Small livestock numbers are growing. Sales related to low-volume livestock in Otsego County have grown significantly between 2002 and 2012. Sales related to hog production, for example, increased 292% and sales related to sheep and goat production increased by 231%.

⁴ Schmit and Bills, 2012

⁵ Adjusted for inflation. Reported in 2012 dollars.

Similarly, inventory figures for hogs increased by 64% while inventory figures for all goats increased by 298%. At the same time, the number of farms with laying hens has increased by 131% from 77 in 2002 to 178 in 2012.

Crop production numbers have grown significantly. Between 2002 and 2012, certain crops have demonstrated significant growth in sales. Sales of other crops, including hay, grew by 204% to approximately \$8 million, and the increase in grain, oilseeds, dry beans, and dry peas increased by 455% to roughly \$9 million, ranking second in sales overall for the County.

Income and Expenses

Income and expenses contribute significantly to the viability of individual farm operations and the agricultural sector, yet are dependent on a wide range of external factors, including local property taxes, regulatory compliance costs, shifts in federal price support programs, and commodity prices, and large-scale shifts in the local, national, and global economies.

In 2012, fewer than half of the county’s 995 farms (409, or 41%) experienced net income gains, with an average net gain per farm of \$62,981. One quarter of the 1,662 operators in the county (408, or 24.5%) reported net income gains, with an average income of \$18,535. Net cash income of farming operations and operators reporting gains increased between 2002 and 2012 while operators reporting net losses decreased over the same period, before controlling for inflation.

| | 2002 | 2007 | 2012 |
|-------------------------------------|-------------|--------------|--------------|
| Net Cash Farm Income of Operation | \$3,983,000 | \$11,801,000 | \$18,442,000 |
| Average per farm | \$3,875 | \$12,042 | \$18,535 |
| Farms with net gains* | 398 | 410 | 409 |
| Average per farm | \$35,663 | \$51,979 | \$62,981 |
| Farms with net losses | 630 | 570 | 587 |
| Average per farm | \$18,017 | \$16,375 | \$12,463 |
| Net Cash Farm Income of Operators | \$3,983,000 | \$11,977,000 | \$18,380,000 |
| Average per farm | \$3,874 | \$12,222 | \$18,473 |
| Farm operators reporting net gains | 412 | 410 | 408 |
| Average per farm | \$35,925 | \$51,979 | \$62,961 |
| Farm operators reporting net losses | 616 | 570 | 587 |
| Average per farm | \$17,583 | \$16,375 | \$12,463 |

Table 13 Net Income/Loss Total and per Farm

*Farms with total production expenses equal to market value of agricultural products sold, government payments, and farm-related income are included as farms with gains of less than \$1,000

Between 2002 and 2012, farm expenditures increased in parallel with farm incomes. Table 14 shows a breakdown of farm expenditures by categories, with agricultural services and feed representing the most significant outlays. Supplies, labor, and fuel costs contribute significantly to farm expenses as well.

| | 2002 | 2007 | 2012 |
|-----------------------------------------------------------|--------------|--------------|--------------|
| Total Farm Production Expenses ^a | \$46,989,000 | \$43,368,000 | \$57,677,000 |
| Average per farm | \$45,447 | \$44,253 | \$57,967 |
| Expenditure categories as a percent of total expenditures | | | |
| Ag Services ^b | 18.5 | 17.1 | 19.8 |
| Animals | 5 | 3.9 | 2.5 |
| Chemicals | 0.9 | 1.7 | 1.6 |
| Feed | 20.8 | 23.1 | 22.4 |
| Fertilizer ^c | 4.8 | 4.3 | 5.4 |
| Fuel | 6.7 | 8.7 | 8.6 |
| Interest | 3.9 | 6.5 | 3.6 |
| Labor ^d | 13 | 7.3 | 10.4 |
| Rent | 1.4 | 2.4 | 3.5 |
| Seeds and Plants | 2.1 | 2.5 | 3.1 |
| Supplies and Repairs | 14.5 | 13.4 | 11.3 |
| Taxes ^e | 8.4 | 9.2 | 7.8 |

Table 14 Farm Expenditures by Category (USDA Agricultural Census)

a: Not including Depreciation

b: Includes custom work, machinery, utilities, and other production expenses

c: Including but not limited to lime, soil conditioners, and manure

d: Includes both hired and contract labor

e: includes property, real estate, and other taxes, excluding those paid by landlords

AFPPUC's stakeholder engagement process confirmed that the property tax burden remains the biggest concern for many Otsego County farmers and farmland owners. While the proportion of tax-related expenses has remained relatively constant between 2002 and 2012, many farmers and farmland owners continue to press for tax relief. It should also be noted that Table 14 does not contain a line item dedicated to regulatory compliance costs, which are often distributed among several other cost categories. Regulatory compliance costs are discussed further below.

Top Commodity Groups by Value of Sales

Otsego County agricultural operations produce a wide range of crops. As evidenced in the chart below, the number of dairy operations decreased significantly between 2002 and 2012. However, comparisons of market value over this period are complicated by inflation, federal price support programs, and year-to-year variations in yield. Therefore, the values listed in Table 15 should be viewed as an estimate of the sub-sector health of various agricultural operations.

| Product | 2002 | 2007 | 2012 |
|-------------------------------|--------------|--------------|--------------|
| Milk and other Dairy Products | \$36,308,000 | \$35,493,000 | \$35,890,000 |

| | | | |
|-------------------------------------------------------|-------------|-------------|-------------|
| Number of Farms | 246 | 186 | 149 |
| Other Crops and Hay* | \$2,647,000 | \$3,992,000 | \$8,058,000 |
| Number of Farms | 329 | 361 | 483 |
| Nursery, Greenhouse, Floriculture and Sod | \$1,900,000 | \$1,411,000 | \$5,266,000 |
| Number of Farms | 46 | 28 | 42 |
| Other Animals and Other Animal Products | \$226,000 | \$198,000 | \$486,000 |
| Number of Farms | 34 | 49 | 46 |
| Grains, Oilseeds, Dry Beans, and Dry Peas | \$1,695,000 | \$2,002,000 | \$9,401,000 |
| Number of Farms | 80 | 113 | 186 |
| Vegetables, Melons, Potatoes, Sweet Potatoes | \$536,000 | \$683,000 | \$599,000 |
| Number of Farms | 41 | 65 | 80 |
| Fruits, Tree Nuts, and Berries | \$164,000 | \$232,000 | \$308,000 |
| Number of Farms | 17 | 36 | 30 |
| Cut Christmas Trees and Short Rotation Woody Crops* | \$430,000 | \$452,000 | \$128,000 |
| Number of Farms | 25 | 28 | 26 |
| Equine (horses, ponies, mules, burros, and donkeys) * | \$584,000 | \$1,645,000 | \$740,000 |
| Number of Farms | 62 | 56 | 53 |
| Poultry (including eggs) | \$30,000 | \$103,000 | (D) |
| Number of Farms | 37 | 116 | 129 |
| Hogs | \$26,000 | \$391,000 | \$102,000 |
| Number of Farms | 42 | 52 | 43 |
| Cattle (including calves) | \$6,635,000 | \$4,432,000 | (D) |
| Number of Farms | 372 | 340 | 329 |
| Sheep and Goats (including products) | \$191,000 | n/a | \$632,000 |
| Number of Farms | 94 | n/a | 86 |
| Aquaculture* | \$103,000 | \$1,645,000 | \$740,000 |
| Number of Farms | 6 | 4 | 1 |

Table 15 Top Commodity Crops by Value of Sales (USDA Agricultural Census)

**Indicates category definitions that have been substantively revised in subsequent censuses.*

(D) Indicates data withheld by USDA to prevent the disclosure of information relative to individual businesses.

Top Crop Items by Acreage

Otsego County's top crop production categories show a sizeable concentration of acreage in land used to produce forage. Forage crop yields have remained relatively stable, except for corn and oat production, which experienced increases in yield per acre of (29.2% and 26.47%) respectively.

| | 2002 | 2007 | 2012 |
|-------------------------------------------------------------------------------|-----------------|------------------|------------------|
| Total Forage (land used for all hay and haylage, grass silage and green chop) | 67,019 acres | 53,881 acres | 51,012 acres |
| Total Number of Farms | 707 | 635 | 637 |
| Total Yield (dry equivalent) | 2.17 tons/acre | 2.52 tons/acre | 2.1 tons/acre |
| Corn for Silage or Greenchop | 12,538 acres | 8,722 acres | 8,583 acres |
| Number of Farms | 232 | 163 | 150 |
| Yield (dry equivalent) | 13.82 tons/acre | 15.00 tons/acre | 14.05 tons/acre |
| Barley for Grain | 367 acres | 173 acres | 77 acres |
| Number of Farms | 11 | 7 | 6 |
| Yield (dry equivalent) | 272.18 bu/acre | 121.97 bu/acre | 45.03 bu/acre |
| Corn for Grain | 5,368 acres | 5,755 acres | 9,826 acres |
| Number of Farms | 86 | 75 | 106 |
| Yield (dry equivalent) | 91.01 tons/acre | 115.61 tons/acre | 117.58 tons/acre |
| Oats for Grain | 1,170 acres | 1,108 acres | 1,318 acres |
| Number of Farms | 63 | 47 | 50 |
| Yield (dry equivalent) | 42.76 bu/acre | 52.27 bu/acre | 54.08 bu/acre |
| Soybeans for Beans | 368 acres | 380 acres | 1,550 acres |
| Number of Farms | 4 | 12 | 26 |
| Yield (dry equivalent) | 40.41 bu/acre | 41.68 bu/acre | 41.68 bu/acre |

Table 16 Top Crop Items by Acreage (USDA Agricultural Census)

| | 2002 | 2007 | 2012 |
|-------------------|--------|--------|--------|
| Cattle and Calves | 37,557 | 24,758 | 23,655 |
| Number of Farms | 527 | 426 | 433 |
| Beef Cows | 2,387 | 2,345 | 2,259 |
| Number of Farms | 204 | 203 | 233 |
| Milk Cows | 16,601 | 11,386 | 10,502 |
| Number of Farms | 274 | 180 | 172 |
| Layers | 2,963 | 4,012 | 4,561 |
| Number of Farms | 77 | 115 | 178 |
| Sheep and Lambs | 2,932 | 2,134 | 1,937 |
| Number of Farms | 99 | 59 | 74 |
| Horses and Ponies | 1,902 | 2,086 | 1,785 |
| Number of Farms | 301 | 309 | 276 |
| Goats | 342 | 946 | 1,362 |
| Number of Farms | 47 | 69 | 68 |
| Colonies of Bees | 528 | 479 | 669 |
| Number of Farms | 32 | 48 | 49 |

Table 17 Top Livestock Inventory Items (USDA Agricultural Census)

Top Livestock Inventory Items

Cattle and calves dominate livestock inventory, 44% of which are milk cows, although Table 17 shows a sizable 36.7% decline in the number of milk cows between 2002 and 2012. This corresponds directly to the decline in the number of dairy operations in Otsego County. Conversely, the county has seen an increase in the number of goats (298.2%) and layers (53.9%).

Characteristics of Operators and Operations

Otsego County's agricultural sector is comprised of mainly white male operators, although the number and proportion of female operators increased by 3.6% over ten years, from 31.4% of farm operators in 2002 to 34.7% in 2012. Minority farm operator numbers remained relatively static between 2002 and 2012. Like many other regions across the state, the average age of principal operators increased from 54.9 years of age in 2002 to 58 years of age in 2012.

| | 2002 | 2007 | 2012 |
|-----------------------------------------------------|-------|-------|-------|
| Total Farm Operators | 1,552 | 1,544 | 1,662 |
| Average Age of Principal Operator | 54.9 | 58.3 | 58 |
| Principal Operator by Gender | | | |
| Male | 853 | 788 | 815 |
| Female | 175 | 192 | 180 |
| All Operators by Gender | | | |
| Male | 1,064 | 1,008 | 1,085 |
| Female | 488 | 536 | 577 |
| Principal Operators by Primary Occupation | | | |
| Farming | 640 | 538 | 570 |
| Other | 388 | 442 | 425 |
| All Operators by Race | | | |
| American Indian or Alaska Native | 9 | 12 | 1 |
| Asian | 1 | 5 | 2 |
| Black or African American | 9 | 7 | 4 |
| Native Hawaiian or Other Pacific Islander | - | - | - |
| White | 1,501 | 1,495 | 1,620 |
| More than one Race | 1 | 4 | 9 |
| All Operators of Spanish, Hispanic or Latino Origin | 23 | 24 | 19 |

Table 18 Select Operator Characteristics (USDA Agricultural Census)

Between 2002 and 2012, farm acreage in full ownership increased 19.8% and farm acreage in partial ownership increased 8%. The acreage rented by tenants also increased 16.8%.

| Full Owners | 2002 | 2007 | 2012 |
|-----------------------------------------------|--------------|--------------|---------------|
| Total Acreage | 83,616 acres | 85,397 acres | 100,230 acres |
| Total Number of Owners | 681 | 650 | 656 |
| Harvested Cropland – Total Acreage | 30,599 acres | 85,397 acres | 83,616 acres |
| Harvest Cropland – Total Number of Owners | 507 | 428 | 416 |
| Part Owners | | | |
| Total Acreage | 88,355 acres | 81,208 acres | 95,743 acres |
| Total Number of Part Owners | 297 | 283 | 295 |
| Owned Land in Farms | 62,512 acres | 49,930 acres | 51,360 acres |
| Rented Land in Farms | 33,231 acres | 31,278 acres | 36,995 acres |
| Harvested Cropland -- Total Acreage | 50,147 acres | 43,361 acres | 48,206 acres |
| Harvested Cropland – Total Number Part Owners | 282 | 259 | 267 |
| Tenants | | | |
| Total Acreage | 8,779 acres | 9,876 acres | 10,260 acres |
| Total Number of Tenants | 50 | 47 | 44 |
| Harvested Cropland – Total Acreage | 5,148 acres | 5,262 acres | 4,427 acres |

Table 19 Farmland Ownership

Farm Employment

According to the 2012 USDA Agricultural Census, 211 farms reporting hired labor in Otsego County employed 661 workers, with a total payroll of \$5,500,000. It should be noted that accurate assessments of farm employment may be difficult to obtain due to the seasonal nature of the work, incompatibilities of traditional employment measurement metrics to farm work, and a tendency of farm operators to underreport farm jobs and income.

| Hired Labor | Number of Farms | Number of Workers |
|-------------------------|-----------------|-------------------|
| Total workers | 211 | 661 |
| 1 worker | 76 | 76 |
| 2 workers | 53 | 106 |
| 3 to 4 workers | 56 | 189 |
| 5 to 9 workers | 16 | 95 |
| 10 workers or more | 10 | 195 |
| Workers by Days Worked | Number of Farms | Number of Workers |
| 150 days or more | 97 | 296 |
| 1 worker | 41 | 41 |
| 2 workers | 28 | 56 |
| 3 to 4 workers | 20 | 68 |
| 5 to 9 workers | 3 | 22 |
| 10 workers or more | 5 | 109 |
| Work Less than 150 Days | | |
| 1 worker | 49 | 49 |
| 2 workers | 41 | 82 |
| 3 to 4 workers | 42 | 140 |
| 5 to 9 workers | 8 | 45 |
| 10 workers or more | 4 | 49 |

Table 20 Farm Business Employment (USDA Agricultural Census)

| Farm Business Organization Types | 2002 | 2007 | 2012 |
|---------------------------------------------------------|------------------|------------------|------------------|
| Family or Individual | 923 (166,362) | 856 (136,610) | 870 (137,451) |
| Partnership | 86 (33,871) | 82 (26,904) | 82 (32,929) |
| Corporation – Family Held | 18 (D) | 32 (11,124) | 24 (9,496) |
| Corporation – Other than Family Held | 1 (D) | 2 (D) | 3 (94) |
| Other (cooperative, estate, trust, institutional, etc.) | - | 8 (D) | 16 (780) |

Table 21 Farm Business Organization Types

SECTOR PROFILES

Agricultural enterprises are the rural economic cornerstone of Otsego County, as they are in many rural New York counties. Otsego County had farm gate sales of \$66.8 million in 2012, earned from diverse agricultural enterprises. In addition to the \$66.8 million in farm sales, an additional \$8 million was generated from farm-related activities, of which \$4.8 million was attributed to agri-tourism.

The Dairy Sector

Dairy farming has been an important agricultural enterprise in Otsego County since the 1870s when the advent of train service allowed for more efficient transportation of milk from farms to creameries. Historically, the county's land topography of rolling hills along with the region's cool northern climate have provided a strong natural fit for hillside grazing and grass and forage production.

In more recent years, a movement of dairy farms away from hillsides to bottomlands and flatter, richer soils has been driven by economic considerations. Bottomlands along streams and the silt loam soils along U.S. Route 20 in the northern portion of the county have been economically favored for forages and grains for dairy feedstocks.

Improved animal genetics and dairy industry competitiveness have, in recent years, led to larger herd size, higher output of milk per cow, and opportunities to utilize improved herd management strategies. In 1977, the average volume of milk produced per cow was less than 12,000 lbs.; today it is more than 22,000.

The dairy sector, unlike others locally, obliges producers to sell milk as price takers, as milk is controlled by milk orders which were created to moderate fluctuations. On the other hand, the costs of production inputs, e.g. purchased or grown feed, are not price-regulated. Farm businesses often find profitability with margins squeezed --the difference between revenues and operating costs.

Fluid milk remains the single highest commodity in revenues for producers. However, milk production and revenues are declining in Otsego County, while production at the state level has increased during the same period according to the USDA Agricultural Census. Otsego County farm gate milk sales were \$40.1 million in 1997; \$36.3 million in 2002; \$35.5 million in 2007; and \$35.9 million in 2012. Milk, as measured by pounds produced, may have reached its highest county output during the decade of the 1980s, with 465.8 million lbs. produced in 1986 alone.

Challenges and Threats

- As farms with small herds have left the industry, other farms have purchased or leased these lands, essentially consolidating natural resources into larger operating farms. About 2 to 2.5 acres of highly productive land is required for each cow. Consequently, a

limiting factor for herd size and the overall growth in county cow numbers is the availability of suitable land.

- The traditional three-year dairy price cycle cannot be relied upon. Producers will need to be flexible in farm business management.
- Environmental regulations can impact the suitability of dairy operations on some lands, particularly with stream non-point source pollution.
- Zoning regulations in areas without the benefit of right to farm ordinances can create conflicts of interest on land use.

Large Livestock Segment, Beef

While dairy cattle are the dominant large livestock enterprise within Otsego County, beef cattle are currently an option for many. In 2012, there was an inventory of 10,502 milk cows in the county. By contrast 2,259 beef cattle were spread across 228 farms, a number largely unchanged since 2007.

The average number of cattle per farm is slightly less than ten, but the distribution is greatly skewed, with several small herds on many farms being typical. With 32% of the county beef population on 170 farms, a distribution of about four cattle per farm is average. Forty-four farms have an aggregate total of 569 cattle, and fourteen farms have an aggregate total of 362.

Historically in Otsego County, the predominant logistics and agricultural value chain has been for milk, with knowledgeable producers, dedicated farm resources, large herds, milk haulers, and milk cooperatives having built production and distribution systems. The beef cattle segment however, has not developed to the same intensity of the local dairy industry. For example, aging and inefficient barns are frequently used for beef production, particularly in small scale operations.

Challenges and Opportunities

Livestock can move through many channels that support differing animal production and finishing models used on farms and, likewise, into varying food systems channels, whether a small retailer or restaurant with local butchers or into large urban markets utilizing high volume production and distribution systems. For upstate farmers, competing with Midwest producers is difficult. One opportunity for Otsego County producers is to establish specialty market offerings, such as grass-fed or organic, or through sought-out specifications, all to meet the unique or specific demands of niche markets.

The challenge and opportunity for Otsego County beef producers is to develop production and marketing systems that create sustainable competitive advantages when compared with other regions. Creating greater economies of scale on farms and through the entire value chain is required as well as developing additional levels of expertise for those who work within it.

An opportunity for increased beef production is suggested in a preliminary break even analysis for meat or protein processing facilities, as described in the Mohawk Valley Food Systems

Assessment. Meat processing includes butchering and value-adding processes such as smoking meats and making sausage and bacon. In the regional Food Systems Assessment, nineteen producers in the Mohawk Valley region expressed interest in value-adding enterprises. As New York State's food aggregation and processing infrastructure continues to be enhanced, as for example with the planned construction of a new farmers' market in The Bronx to support the food logistics from upstate producers, the proximity of downstate markets will become increasingly valuable.

Grains and Field Crops

Almost all grain and agricultural field crops are produced in Otsego County for animal feed or commodity sales. The harvests reported in the USDA Agricultural Census for 2012 and 2007 are similar, except for grain corn. In 2012, corn commodity market prices increased dramatically, and farmers responded by planting increased acreage. Since then, commodity corn prices have declined, but acreage is likely to have remained higher than 2007 but less than 2012. Another crop, soybeans, has received more interest with producers in recent years.

| Crop | 2007 Acreage | 2007 Yield (bu) | 2012 Acreage | 2012 Yield (bu) |
|--------------|--------------|-----------------|--------------|-----------------|
| Grain Barley | 173 | 9,392 | 77 | 3,468 |
| Grain Corn | 5,755 | 665,359 | 9,829 | 1,155,393 |
| Grain Oats | 1,108 | 57,911 | 1,318 | 71,284 |
| Soybeans | 380 | 19,851 | 1,550 | 64,603 |
| Grain Wheat | 88 | 4,883 | 94 | 5,419 |

Challenges and Opportunities

Emerging opportunities and challenges for grain markets are in specific niches. Demand for New York small grains has accelerated because of structural changes and new consumer interests for local foods in the brewery, distillery, and baking industries.

The growth opportunity is emerging as consumers look for regionally produced beverages and baked goods which use New York State produced grains and the state has responded with legislation that has reduced or simplified regulations for production of brewed and distilled beverages. The growth in the brewing and distilling industry is expected to be similar to the growth of the state's wine industry, particularly as developed in the Finger Lakes region. Legislation and consumer trends include the following:

- Surge in the craft beverage industry as a result of legislation passed in New York, beginning in 2007 with New York's Farm Distillery Act. The act established the category for farm distillery licenses which allow micro-distilleries to sell beverages for off-premises consumption. License holders are required to use ingredients of which 75% must be produced in New York.
- In 2012, additional legislation was passed creating the farm brewery license, which allows for craft beer to be sold for on and off-premises consumption from a taproom.

- The Craft Act, passed in 2014 under Governor’s Cuomo’s administration, provided additional benefits for craft beverage producers for serving beverages.
- Growing interest in ancient and locally grown traditional grains. For example, New York City green markets are requiring all baked products sold in their markets to include sourced grains of at least 15% from New York State producers.

FUTURE OF AGRICULTURE IN OTSEGO COUNTY

The future of agriculture in Otsego County is anticipated to vary significantly due to the diversity of the County’s agricultural operations, fluctuating market conditions, and due to the various topographical and geographical constraints facing farm operations. Generally, over the past 20 years, the dairy industry has continued to consolidate, with declines in the number of dairy farms and overall cow numbers. However, it should be noted that the amount of milk production per cow has risen dramatically. The downward trend in the County’s dairy sector has, in part, contributed to an increase in beef operations. Specialty farms such as those producing goats, sheep, llamas, and poultry have seen a significant increase as shown in Table 16. Indeed, it is clear the makeup of the agricultural industry in the County is changing—yet it remains as a key economic driver in the County.

The diversity of Otsego County’s agricultural operations make it poised to capitalize on markets for locally-produced food and specialty products. Farmers must adapt to changing market conditions and should make sure that they are properly positioned to capitalize on new market opportunities. For example, a growing number of wholesalers and large retailers are requesting that agricultural suppliers obtain a Good Agricultural Practices Certification from the New York State Department of Agriculture and Markets.⁶ Both Otsego and Schoharie County have been successful in connecting local and regional stakeholders to a wide range of agricultural operations through annual “Family Farm Day,” events. These events allow area farmers to advertise their products and educate the general public about the products their farms are able to provide. Increase public awareness combined with growing demand from the New York City and Boston markets could create a massive economic development opportunity for farmers across the three-county region.

CLIMATE AND AGRICULTURE

The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is, in addition to natural climate variability, observed over comparable time periods.” In the last decade or so, farmers across the United States have noticed that weather patterns are changing. Weather is becoming more variable and weather extremes are increasing in frequency and intensity. Farmers in the

⁶ A GAP certification is a way for growers to verify that their production and handling practices are in accordance with recommended USDA safety guidelines. To become GAP-certified, a farm must prepare for and pass a GAP audit.

Northeast have been challenged since about 2000 by increases in more extreme weather events, including very heavy rainfall, catastrophic flooding, and unusual periods of drought, high temperatures, and heatwaves. This has spurred producers across the region to adapt their practices to become more resilient in the face of these changes.

Farmers across New York State, including those in Otsego County, will be on the front lines of coping with the effects of climate change. Direct impacts on crops, livestock, pests, as well as the cost of production could potentially cascade throughout the County's economy thanks to the multiplier effect associated with agricultural production.

At the same time, Otsego County's agricultural economy stands to benefit from the longer growing season in addition to new crop varieties that prefer warmer weather. For the purposes of this plan, the effects of climate change on agriculture are distilled into two categories: climate risk and exposure and climate sensitivity.

The changes in extreme weather mentioned above have increased weather-related production risks to such an extent that agricultural scientists now recognize a new type of risk—climate risk⁷. Climate risk is defined as the increased uncertainty caused by more variable patterns of temperature and precipitation and the increase in frequency and intensity of extreme weather events associated with climate change. In addition to climate risk, it is also important to understand climate exposure. The Intergovernmental Panel on Climate Change (IPCC) defines climate exposure as the magnitude and rate of climate variation to which a system is exposed; its sensitivity; and its adaptive capacity.

Key Climate Risks

Too little water/too much water | Over the past several decades, New York State farmers have been struggling with either too much water or too little water. Yield and quality losses due to late summer droughts in future could have a major impact on the agricultural sector.⁸ Increased summer droughts could significantly affect rain-fed agriculture like corn, grain, and silage. Many Otsego County farmers lack the irrigation infrastructure to manage sustained periods of drought. Extreme precipitation events, on the other hand, can result in direct crop damage, delayed spring planting, a reduction in early-season vegetable production, soil compaction because of equipment use on wet soils, and an increase in soil erosion losses. These impacts have already been observed throughout the state.

Temperature | Increased frequency of summer heatwaves can damage the yield and quality of many crops. High summer temperatures can also severely affect the health and productivity of livestock. While warmer temperatures and longer growing seasons may increase yields, insects,

⁷ Lengnick, 2015

⁸ Wolfe, 2011

pests, and pathogens will also increase their geographic reach and longevity. Warmer winters will increase the survival and spring populations of certain insect species as well.

Extreme Weather | Extreme weather events such as hard freezes, extreme precipitation events, heatwaves, and floods can have severe negative impacts on agriculture. Hail, extreme temperatures, flooding and drought have the potential to cause significant crop and profit loss. The frequency and severity of extremes are expected to increase over time due to climate change, though the occurrence of these events will continue to be highly variable. However, because extreme weather events are rare, there is more uncertainty associated with these events than with annual averages such as temperature.

Weed and Pest Pressure | Increases in temperature and precipitation rates are likely to increase the northward reach and longevity of pests, pathogens, and weeds. Longer growing seasons and warmer winters may increase the number of insect generations per year, increase the spring population of overwintering insect species, and lead to the earlier arrival of migratory insects. Increased winter temperatures are likely to result in more pathogens surviving the winter and earlier infestation of plants in spring. Higher temperatures are also expected to increase the northern reach of invasive weeds like kudzu. Also, higher atmospheric carbon dioxide concentrations may increase the ability of weeds to resist pesticides like glyphosate (Roundup).



Non-climate risks can also magnify the effects of climate change on Otsego County's agricultural sector. For instance, the ongoing consolidation of the dairy sector combined with fluctuations in the price of milk has placed a significant economic strain on Otsego County dairy producers. At the same time, rising input costs, including but not limited to those related to energy, feed, and fuel, have also affected the competitive ability of Otsego County farmers. Farmers must remain aware of changing consumer preferences, global market forces, and international competition as well—all of which could diminish the ability of farmers to effectively respond to the effects of climate change.

Climate Exposure

The Third National Climate Assessment, conducted in 2014, found that, over the century, the average temperature in the Northeast has increased approximately two degrees Fahrenheit, with average precipitation levels increasing roughly five inches. Compared to the rest of the country,

the Northeast, on average, has experienced the greatest increase in precipitation.⁹ Over the next thirty years, it is expected that higher temperatures, longer heatwaves, warmer and more variable winter and spring weather, more dry periods and drought, and more frequent heavy rains and damaging storms will create increasingly stressful conditions for agricultural production throughout the Northeast.

Equity and Environmental Justice Concerns

While all farms across Otsego County will be affected to some degree by climate change, particular agricultural sectors, sub-regions, and crops will be more at risk from exposure to climate change and burdened by the effort and costs associated with climate change.¹⁰ The dairy industry, for example, economically and culturally important to the county yet continually subject to outside pressures, will experience additional strains as it works to adapt to the effects of climate change.

Additionally, small family farms are one of the groups most at-risk from the effects of climate change. Because of their size, they may lack the capital to invest in on-farm adaptation measures, such as new infrastructure, drought-resistant crop varieties, or increased water applications.¹¹ Small dairy farmers already face severe competitive pressure due to rising production costs and persistent low prices, and climate change is likely to exacerbate this pressure.

Climate Sensitivity

Climate sensitivity is the degree to which a system is affected, either positively or negatively, by the effects of climate change, which could be, on one hand, accelerated crop growth rates, or, on the other, significant crop losses due to drought or flooding. Agricultural systems (crops, livestock, and people) are especially sensitive to the effects of climate change.

Crops | Changes in water availability and temperature can impact key plant processes like photosynthesis and respiration.¹² These processes dictate a given crop's yield and growth rate. Seasonal fluctuations in temperature can alter crops' dormancy and vernalization periods making them more susceptible to extreme temperature events or extreme precipitation events. Changes in water availability can also affect a given crop's productivity. Drought conditions can limit crop productivity as these crops must expend energy maintaining key vital processes. Soil saturation from too much water, on the other hand, can reduce crop productivity by limiting oxygen levels in the root zone.

⁹ Horton et al, 2014

¹⁰ Wolfe et al., 2011

¹¹ Ibid.

¹² Lengnick, 2015

Livestock | Temperature and humidity are the biggest climate change factors affecting livestock.¹³ Livestock can generally withstand gradual changes in temperature, however, prolonged periods of extreme temperatures can significantly affect their health and productivity. Prolonged periods of cold can lead to increases in mortality for outdoor livestock operations, particularly during birthing season. Heat stress also poses a threat to livestock operations -- it can lead to lower milk production, reduced calving rates, and increased risk for other health impacts, which often persist long after heat waves subside.¹⁴ A 2003 study¹⁵ estimated that economic losses due to heat stress for New York State's livestock sector totaled \$24.9 million per year.



Natural Resources | Farms create and sustain broad ecosystems important to the environment. They encompass biological processes that capture, store, and recycle solar energy; the regulation of soil quality; crop nutrient release; regulation of water quality and quantity in the landscape; pest suppression; pollination, biodiversity conservation; and carbon sequestration services. Water is especially critical to agricultural productivity. Changes in temperature, reductions in snowpack, and shifting precipitation patterns have already resulted in adverse impacts across the United States. Locally, increases in heavy precipitation events will negatively affect water quality due to increases in sediment and nutrient loading into Otsego County's many waterways. Increased fluctuations between drought and prolonged precipitation during the summer will also alter the way in which Otsego County farmers manage their operations.

Built and Human Resources | The uncertainty associated with climate change will likely bring new challenges to farmers across the county, including potential damage to infrastructure, financial stability of farming operations, and difficulty of farm managers and labor in responding to changing climate conditions.. New crop pests, shorter windows for fieldwork, variable yields, and changing markets associated with crop production are all factors that will challenge farming operations in the coming years. Extreme temperature events may affect the ability of farm work to be completed efficiently, while extreme weather events could result in damage to essential farm infrastructure. Climate change is also expected to increase operating, maintenance, and overhead costs in many production systems—especially for farmers seeking to integrate adaptive measures into their day-to-day operations.

¹³ Lengnick, 2015

¹⁴ Wolfe et al., 2011

¹⁵ St. Pierre et al, 2003

EMERGING TRENDS AND ISSUES

Succession Planning

Farmers are critical components of the food system. According to the 2012 USDA Agricultural Census, farmers in New York make up 0.5% of the state’s total population and this population group is aging. In Otsego County, farmers make up approximately 2.6% of the labor force. According to the American Farmland Trust, 2.1 million acres of New York’s farmland are owned and operated by farmers 65 and older. More significantly, the American Farmland Trust estimates that over two-thirds of the state’s agricultural land base is owned and operated by farmers older than 55. Figure 9 shows a breakdown of primary operators by age

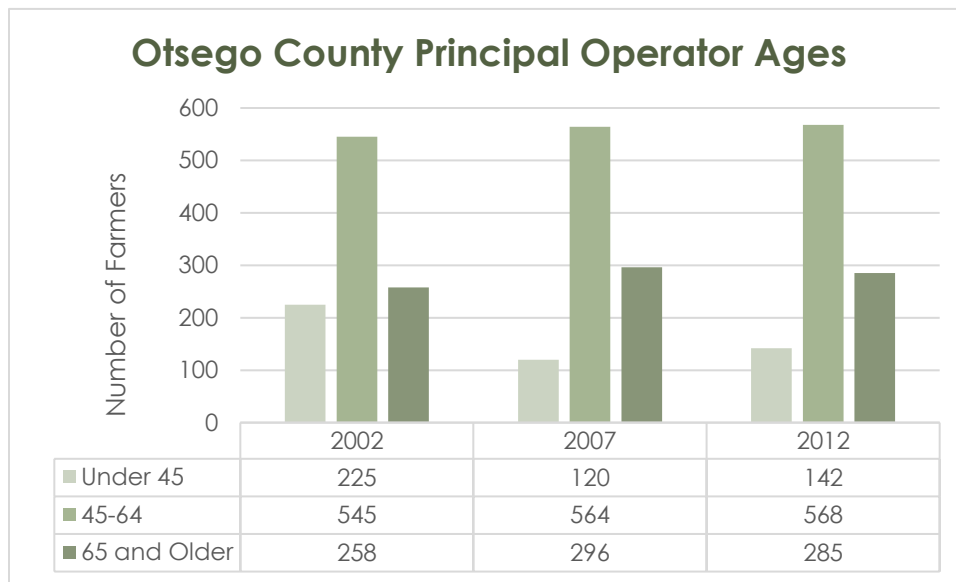


Figure 1 Age of Principal Operators in Otsego County

In Otsego County, 63.6% of primary operators are over age 55, with an average age of primary operators of 58. The absence of a successor on these farms could lead to a significant amount of land changing hands over the next 20 years. In a special tabulation using USDA Agricultural Census Data, the American Farmland Trust estimates that 92% of farmers statewide are operating without an identified successor. The American Farmland Trust further found that the national average age of landowners renting out farmland is 66.5 and these landowners expect to transfer approximately 14% of their land in the next five years. Identifying successors and implementing effective succession plans should be a top priority for Otsego County moving forward.

Chesapeake Bay Clean-Up Goals

The Chesapeake Bay is the largest estuary in the United States. The watershed is 64,000 square miles in area, including portions of six states: Delaware, Maryland, New York, Pennsylvania,

Virginia, West Virginia, and Washington D.C. In New York, the Chesapeake Baywatershed is made up of the Susquehanna and Chemung River watersheds. The Susquehanna River begins in Otsego County and flows approximately 444 miles south to the mouth of the Chesapeake Bay in Maryland. According to the New York State Department of Environmental Conservation, the Chemung River flows along the western portion of the Southern Tier and joins the Susquehanna River in Northern Pennsylvania. Overall, the Chesapeake Bay watershed encompasses 19 New York counties.

In 1992, the Upper Susquehanna Coalition (USC) was formed to address nonpoint source water quality issues in the headwaters of the Chesapeake Bay watershed. Consisting of 19 Soil and Water Conservation Districts (16 in New York and three in Pennsylvania), in 2006, the USC transitioned to a pure Conservation District Coalition using a Memorandum of Understanding (MOU) based on New York and Pennsylvania state law that allows Districts to enter multi-district agreements. The Tioga County Soil and Water Conservation District is designated in the MOU as the USC Administrator, responsible for all contractual and other legal obligations.

In 2010, the U.S. Environmental Protection Agency (EPA) established the Chesapeake Bay Total Maximum Daily Load (TMDL) to address water quality problems in the Chesapeake Bay caused by excess nutrients and sediments. The TMDL establishes a limit on the amount

of sediment and nutrients that can enter the bay. All six states, including New York, have been tasked with working together to meet the goals outlined in the TMDL and are working on implementing Watershed Implementation Plans (WIPs) that describe how each state will go about improving water quality in the Chesapeake Bay.

In 2013, the DEC, in partnership with the Department of Agriculture and Markets, Cornell University, and the USC, developed New York's WIP. In 2016, the EPA released an update on New York State's progress toward meeting the EPA's two-year milestones associated with the Chesapeake Bay TMDL. It indicated that New York has struggled to make progress toward reducing nitrogen and other agricultural loads identified by the 2012 USDA Agricultural Census. New York also failed to meet BMP Implementation criteria for grass buffers, conservation plans



Photo Credit: Otsego County Soil and Water Conservation District

or conservation tillage. However, New York was successful in preparing draft Concentrated Animal Feeding Operations (CAFO) General Permits under both the Federal Clean Water Act (CWA) and state authorities, in addition to successfully implementing two rounds of funding for the Agricultural Nonpoint Source Abatement and Control Program.

Locally, compliance with Chesapeake Bay cleanup goals has placed a strain on farmers and the SWCD. Farmers have to expend significant amounts of resources to implement Bay cleanup goals—fueling local frustration toward environmental regulations, in general. Anti-regulation sentiment also is a limiting factor for farmers participating in voluntary conservation programs intended to help agencies like the SWCD meet the Chesapeake Bay TMDL requirements. There is also concern regarding the flexibility of the TMDL threshold overall, with stakeholders arguing that New York should not be held to the same cleanup standards as states lower in the Chesapeake Bay Watershed.

Regulatory Compliance

Throughout the planning process, stakeholders expressed significant apprehension related to regulatory compliance. Regulatory compliance represents both direct costs (e.g. equipment and plan development) and opportunity costs (e.g., foregone benefits), both of which can have negative impacts on farm business operations. For example, CAFO permitting regulations require dairy operations seeking to expand to more than 300 cows to develop a comprehensive nutrient management plan, in addition to designing and constructing capital projects related to manure collection, storage, and wastewater/stormwater management. Given the long-term uncertainty surrounding CAFO regulations, and the volatility of milk prices, many dairy operations have chosen not to expand their operation even if they have the capacity.

Farmers contacted during the planning process were frustrated by onerous local land-use regulations and variance in how these local laws were administered. Over 50% of respondents to the stakeholder survey identified regulatory compliance as a “major concern.” Many of the stakeholders were worried that protective requirements in local zoning laws, like preparing a visual assessment for an on-farm solar energy system, would limit their ability to expand and improve their operations. Some stakeholders expressed a desire for regulatory abatement with an emphasis on reducing the time commitment (e.g., paperwork) associated with regulatory compliance.

Utility-Scale Solar Energy Development

Large-scale solar projects, such as community solar and investor-owned solar systems on farms, have expanded rapidly throughout New York and the U.S. Governor Cuomo’s Clean Energy Standard combined with favorable state-level policies oriented toward solar energy development has significantly contributed to the uptick in solar projects across the state.

According to the Solar Energy Industries Association (SEIA), these projects can use approximately six to seven acres for every megawatt of solar installed. For example, a 10-

megawatt project would require 60 to 70 acres of land. As a result, solar companies routinely contact farmers and other landowners to obtain sufficient land to develop a financially viable project. Developed properly, solar leases can provide farmers with much needed revenue from fallow or nonproductive agricultural land. However, SEIA strongly encourages landowners to consult legal counsel before entering any lease agreement.

Many municipalities in Otsego County have been caught off guard with respect to properly planning for solar development occurring within their boundaries. Towns across New York State, like the Town of Sharon in Schoharie County, have enacted moratoriums on solar energy development to give municipalities more time to think about how utility-scale solar facilities factor into future development patterns. In 2016, the OPD hosted a workshop with the New York SUN Photovoltaic (PV) Trainers Network to educate municipal officials about the planning processes associated with solar energy development. In 2017, both the Town of Springfield and the Town of Oneonta are considering adopting solar facility laws geared toward regulating the orientation, size, and placement of solar energy systems. The OPD has created a website with information for members of the public and municipal officials to understand how to prepare for utility-scale solar energy development which can be accessed at: <http://www.otsegocounty.com/depts/pln/SolarResourcesforMunicipalities.htm>.

Low Market Prices

Low market prices—especially the price of milk—represent a major issue facing Otsego County producers. According to a 2016 Farm Credit East Report,¹⁶ milk price trends are going into uncharted waters. In the past, the report states “it was generally accepted that there was a three-year milk price cycle consisting of one year of moderate prices followed by a year of very strong prices and then a year of weak milk prices. After a near record year in 2014 for the price of milk, prices declined sharply 2015 and 2016. With a surplus of milk in the dairy market, analysts are unsure as to when there will be any increase in the price of milk.”

Gibson (2010) estimates that since 1978 the loss in dairy farms and cows has resulted in an average yearly economic loss of \$63,450,000. Dairy producers across the region have had to implement a wide range of austerity measures such as delaying the purchase of farm infrastructure and equipment, drawing less from farm profits, and having family members secure additional income streams to help small- and medium-sized dairies. The 2016 Farm Credit East Report recommended that farmers scrutinize on-farm practices, costs, and expenditures while taking advantage of technical assistance from local agricultural agencies. Locally, CCE Schoharie-Otsego, CADE, and Farm Credit East all assist farmers seeking to address issues related to low market prices.

¹⁶ Farm Credit East report

Buying and Selling Local Foods

Otsego County hosts two thriving farmers' markets. Founded in 1991 by the nonprofit organization Otsego 2000, the Cooperstown Farmers' Market serves as a year-round outlet for more than forty local farmers and producers. The Oneonta Farmers' Market, 'proudly vendor-run' since 2009 and also year-round, currently hosts twelve farm and food enterprises. Both markets operate on Saturdays (Cooperstown adds Tuesday markets for July and August) and are popular with locals, tourists and vendors.

Since 2014, Lucky Dog Hub has been aggregating and transporting farm goods from Otsego, Delaware, Sullivan, and Schoharie counties and delivering directly to farm-to-table restaurants and high-end groceries, primarily in New York City, enabling small family farms without the capacity to truck to the city an opportunity to access New York's largest market. As of April 2017, the Lucky Dog Hub serves 40 farms: 12 vegetable producers, 12 livestock producers, 3 egg producers, 3 maple/honey producers, 3 specialty producers (flowers, pasta, chocolate), and 7 dairy producers.

For over two decades, Regional Access has operated as a community-oriented, grassroots company, built on a vision of providing ecologically responsible, locally grown food in Upstate New York. Though the operation is in Ithaca, the trucks service Otsego County and are a viable intrastate logistics opportunity.

Oneonta Downtown Revitalization Initiative

In July 2016, Governor Andrew Cuomo announced that the City of Oneonta had been chosen as the Mohawk Valley Region's winner of the Downtown Revitalization Initiative (DRI) competition. Oneonta is now one of ten communities statewide that each receive \$10 million; these funds are designed to catalyze growth and redevelopment, and to ensure a vibrant downtown and a thriving economy. An important component in the Revitalization Plan is the Otsego Now plan to include a Food & Beverage Innovation Center or Market Street Food & Craft Beverage Innovation Area. The demand for regional high-quality food and farm products is robust and continues to grow. The DRI award to Oneonta will attract, incubate and support farm and food entrepreneurs, which is needed to scale production from the Mohawk Valley and Northern Catskills regions and begin to meet the demand for high quality locally-grown foods.

As the DRI progresses, the authors of this plan hope to support initiatives such as this that encourage agricultural economic development, specifically as they pertain to urban-rural farm and food business linkages.

One infrastructural gap in the farm and food sector around Oneonta is the lack of a local co-packing facility to make value-added products and connect them to a larger metro market. A 20c-licensed facility located in the Food and Beverage Innovation Center would be a key asset to the

entire New York City foodshed, generating significant opportunities for participating farm and food entrepreneurs.

Farm Linkage

The term ‘linkage’ has been used to denote “relationships and interactions between tasks, functions, departments, and organizations that promote flow of information, ideas, and integration in achievement or shared objectives.” In other words, linkages help with continuity between partnering entities to achieve shared goals. The term represents a culture of collaboration and communication, however formal or informal, between organizations to facilitate change. It’s a culture of warm vs cold hand-offs with clients and projects, so no one is lost between funding cycles or between support agencies. In a largely grant-funded non-profit agricultural support sector, these sorts of collaborations are critical to maintain programmatic continuity so that we might continue to promote farm viability and success regionally, and nationally.

Two areas particularly well-suited to collaborative models of support are farmland access and preservation and value chain facilitation. With proper stewardship, farmland, itself, is a sustaining renewable resource that endures the tenure of farmers and outlasts support agency lifespans. As previously mentioned in the plan, increased pressure for development, and the aging out of the current farming community are two key challenges facing the future of agriculture. To keep land in production, every support agency must step up to help promote, recruit and train new farmers, ensure they have access to land, and ensure that that land stays in agriculture. Each agency plays a part.

Value Chains

A new model of organization is beginning to pop up in the agribusiness sector that seeks to merge social mission objectives with core business operating principles.¹⁷ Known as food value chains, these businesses engage in transparent, collaborative business planning and exchange of market intelligence and business knowhow among chain partners.

Value chains are “strategic alliances between farmers or ranchers and other supply-chain partners that deal in significant volumes of high-quality, differentiated food products and distribute rewards equitably across the chain.”¹⁸ Food chains derive their value from efficiency gains resulting from close coordination among supply chain partners, higher prices earned through marketing of differentiated food products, and a set of shared values articulated by chain participants that directly responds to consumer demands and interests.

Participating in food value chains can yield concrete economic benefits. Improvements in farm income can catalyze economic activity on the local level. Farmers who retain a higher share of

¹⁷ Diamond et al, 2014

¹⁸ Ibid.

consumer expenditures through food value chain participation tend to have more discretionary income to spend on local suppliers of goods and services. A 2012 study by the American Independent Business Alliance (AIBA) found spending at locally owned businesses generates greater direct local economic benefit than equivalent spending at chain-operated establishments.

REGIONAL SNAPSHOT: NORTHERN CATSKILLS

Despite famously narrow profit margins, farm businesses should not be viewed as a marginal economic addition to a healthy rural economy, but rather can be, once again, the cornerstone of that economy. The 2012 USDA Agricultural Census shows that the average farm size in Otsego County is 182 acres. The relatively small size of the average Otsego county farm makes it particularly vulnerable to development pressure, but their size is also their defining virtue. Unlike industrial farms with absentee owners, where profits leave communities, small farms have a multiplier effect on the local economy. A 2008 study¹⁹ found that small farms (gross income of \$100,000 or less) made almost 95% of farm-related expenditures within their local communities. Furthermore, small farms are social incubators -- owners live onsite and keep profits in the community, while farm workers reverse migration trends and often stay on in the community as small business owners. The entire rural economy pivots around agriculture. Loss of farm businesses makes it more difficult for related agribusiness infrastructure to survive.

“The findings of 15 studies in New York showed that agriculture and open space cost towns only \$.29 for every \$1.00 paid in taxes (a net benefit), while residential space costs towns \$1.27 for every \$1.00 paid in taxes (a net loss).”

--*American Farmland Trust*

Not only do small scale local farms provide open space value, preserve our agricultural heritage and lifestyle (simultaneously providing the authenticity factor for agri-tourism initiatives), and provide top quality local food; but they save rural communities tax dollars. According to the American Farmland Trust, “Farms reduce demand for public services and associated

property taxes. Farm and forest lands have a net tax profit, because they pay little in taxes while demanding far less in costly municipal services. The findings of 15 studies in New York showed that agriculture and open space cost towns only \$.29 for every \$1.00 paid in taxes (a net benefit), while residential space costs towns \$1.27 for every \$1.00 paid in taxes (a net loss).”²⁰

For the past five years, food culture has become the impetus for tourism in the Northern Catskills. In a September 2014 article entitled ‘Catskills are New York’s new Culinary Retreat,’ and again in September 2016 in “Where in the World to Eat,” *Condé Nast Traveler* touted the Catskills as a prime destination for culinary adventures, citing the trend towards fresh and local

¹⁹ 2008 Pew Commission Research Study

²⁰ (AFT Cultivate NY report p.15).

farm-to-table establishments and the scavenger hunt-like fun of finding these gems in small towns, rather than urban centers.

With increased demand comes increased production and new institutions and traditions. In the last five years, the Northern Catskills region has seen the establishment of the Lucky Dog Hub in Hamden serving Delaware, Otsego, Schoharie, and Sullivan county farms' transportation and last-mile delivery needs to New York City. The popularity of Air BnB stays, an increase in tourism traffic, intra-Catskills collaboration, new networks forming with food institutions in the city – all help to enliven the food culture scene at large and have galvanized interest in new farm and food enterprises as exciting business opportunities.



Photo Credit Tom MacGregor

Also in the past five years, local governments and agricultural support agencies have facilitated these trends by increasing access to capital via Microenterprise Grants in Delaware and Otsego counties. Crowd-sourced micro-funding projects such as Kiva.org, Kickstarter, and GoFundMe have bridged access-to-capital gaps that regular lending institutions could not risk financing. Further support for food and farm businesses via workshops, working groups, marketing and branding

help, and technical assistance with business and production have aided in the professionalization of the new generation of farm start-ups.

Finally, young farmers themselves are organizing to engage with policy decisions that will affect the future of small farm viability. Two years ago, a group of farmers created a Catskills' chapter of National Young Farmers Coalition, an organization whose current federal campaign aims to:

- Champion student loan forgiveness for young people who enter agricultural careers;
- Prioritize conservation easements that protect farmland affordability within the Agricultural Land Easement (ALE) Program's National ranking criteria;
- Expand and improve training for new farmers;
- Make FSA loan programs work for young and beginning farmers;
- Fund beginning farmer Individual Development Accounts;
- Offer tax credits for selling or leasing land to a beginning farmer.

And its state campaign aims to:

- Prioritize conservation easements with affordability language and succession planning in Purchase of Agricultural Conservation Easement (PACE) funding;
- Provide tax incentives for landowners who rent or sell land to beginning farmers;
- Legalize apprenticeships and protect young farmers;
- Offer competitive grants to beginning farmers;
- Help make healthcare affordable for farmers.

If current barriers-to-entry such as access to land and capital are addressed regionally, it is an exciting time to begin a farm enterprise in our three-county region.

BENCHMARKING OTSEGO COUNTY

Data presented in this section compares Otsego County against two of its peers—Schoharie and Delaware Counties and, in some cases, compares it to New York State averages. The data used in this section rely heavily on the USDA Agricultural Census. As such it is important to note that the data may differ from on-the-ground conditions. This is because individuals self-select to complete the Census survey, certain respondents may be more accurately described as “hobby farmers,” and because the USDA has an intricate system of identifying non-respondents. Therefore, the data shown below should only be used as an estimate of how Otsego County compares against its neighbors and should not substitute for the findings generated in any localized study. Some of the main findings from this analysis are discussed below.

Total Land in Farms (Acres)

The USDA Agricultural Census indicates that in 2012, of the three counties, Otsego County had the most land in farms (180,750 acres) compared to Delaware (145,608 acres) or Schoharie County (98,369 acres). Figure 1 shows that all three counties experienced declines in terms of the total land in farms between 2002 and 2012.

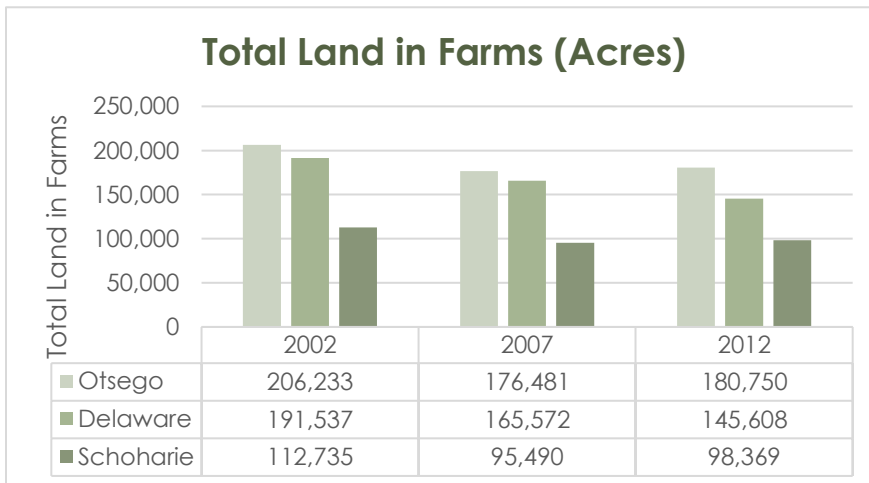


Figure 2 Total Land in Farms (acres) by County

Number of Farms

As seen in Figure 2, Otsego County has the highest overall number of farms compared to Delaware and Schoharie Counties. It is important to note potential discrepancies in this figure, however. A 2013 survey²¹ found that Otsego County had only 580 farms in operation.

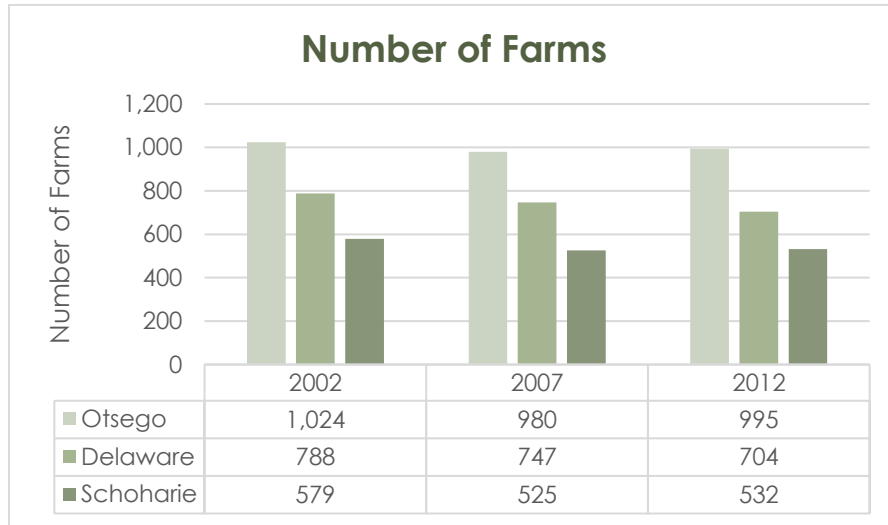


Figure 3 Number of Farms by County

Average Acre per Farm

Figure 3 shows a comparison of the average acreage of farms in the three-county region, with an additional benchmark against New York State levels. In 2012, Otsego County had the lowest average acreage per farm at 182 acres. The average acreage per farm according to the 2012 USDA Agricultural Census, was 202 acres per farm.

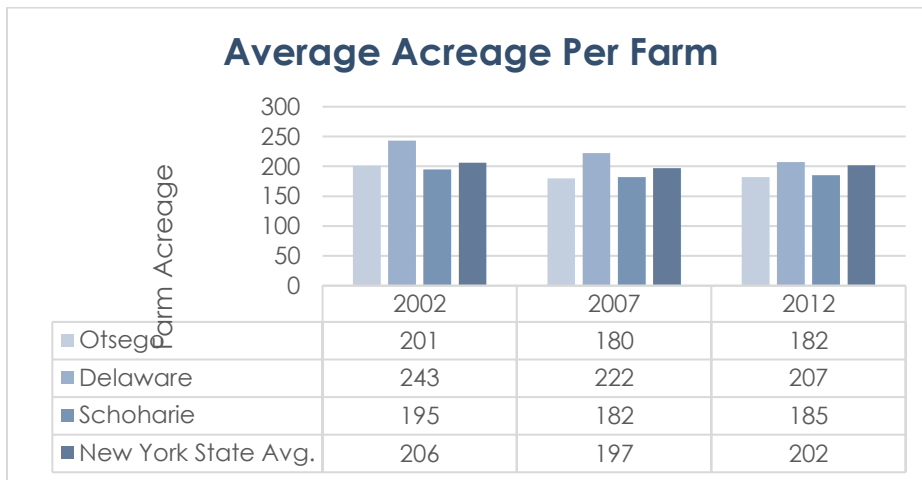


Figure 4 Average Acreage per Farm, by County

²¹ Robert Gibson 2013

Percentage of Farms Greater Than 500 Acres

In 2012, farms over 500 acres comprised 6.8% of both Schoharie and Otsego County’s farm base by percentage. Delaware County had the highest percentage of farms over 500 acres, with 9.5%. Delaware County was the only county to exceed New York State averages of 8.4% of farms over 500 acres.

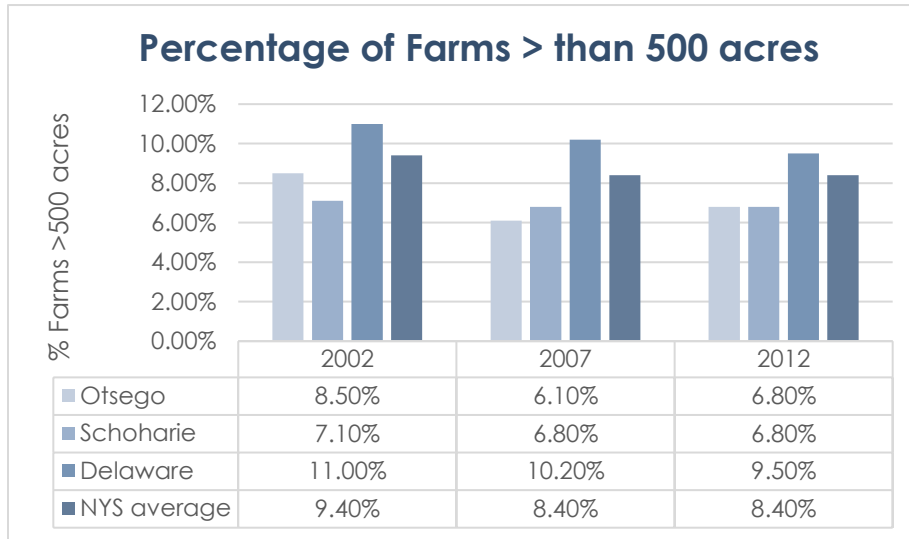


Figure 5 Percentage of Farms Greater than 500 Acres

Total Farm Sales (Adjusted for Inflation)

Otsego County had the highest level of sales in 2012, with \$66,760,000. Between 2002 and 2012, both Otsego and Schoharie county experienced increases in total farm sales while Delaware County’s total farm sales decreased.

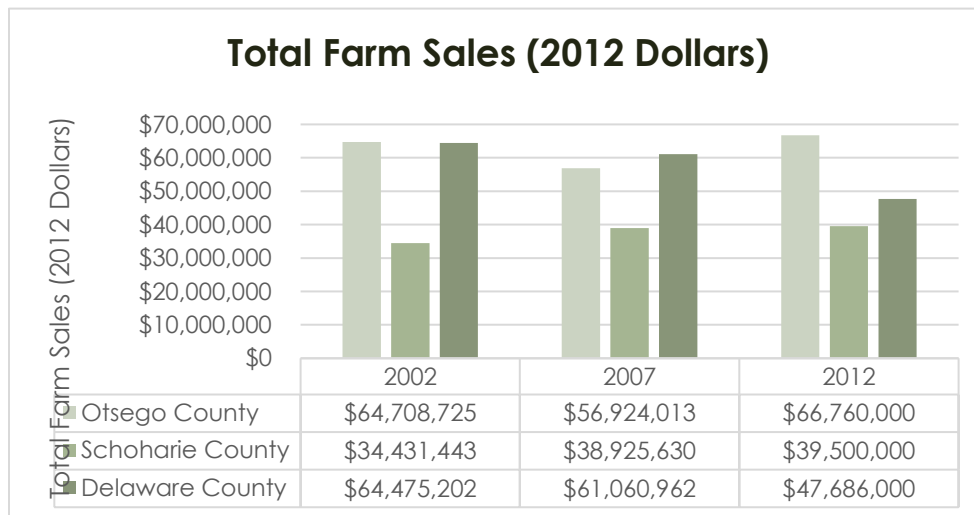


Figure 6 Total Farm Sales, Adjusted for Inflation

Average Sales per Farm (Adjusted for Inflation)

Otsego County ranked last in terms of average sales per farm at \$67,095 per farm in 2012. Schoharie County was the only county to experience a significant increase in average sales per farm—however, sales per farm figures for all three counties were much lower compared to their statewide counterparts.

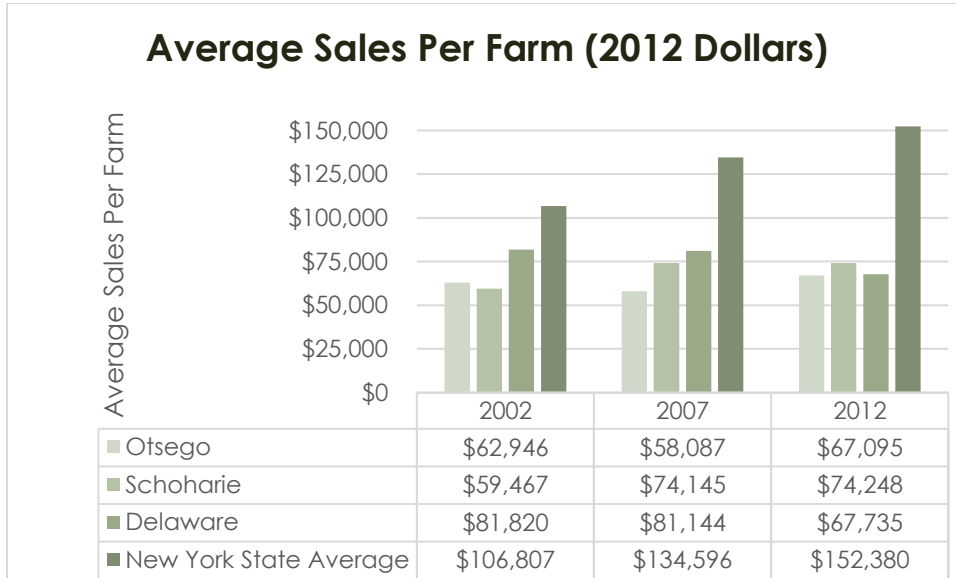


Figure 7 Average Sales per Farm (2012 Dollars)

Percentage of Farms with Net Gains

In 2012, Otsego County ranked second with respect to the percentage of farms reporting net gains (41.1%). The percentage of farms reporting net gains for all three counties in 2012 fell below the New York State average of (44.20%).

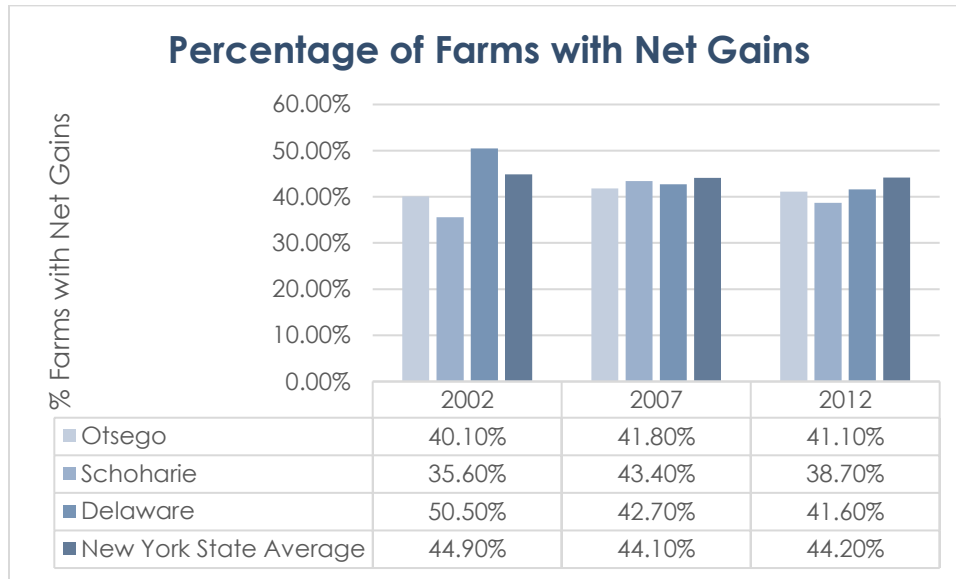


Figure 8 Percentage of Farms with Net Gains

Average Production Expense per Farm (Adjusted for Inflation)

In 2012, Otsego County had the second highest average production expense per farm at \$58,335. Schoharie County was the only county of the three to have a decline in average production expenses per farm, decreasing from \$67,560 in 2002 to \$49,066 in 2012. Both Otsego and Delaware County experienced very slight increases in that category over the same period.

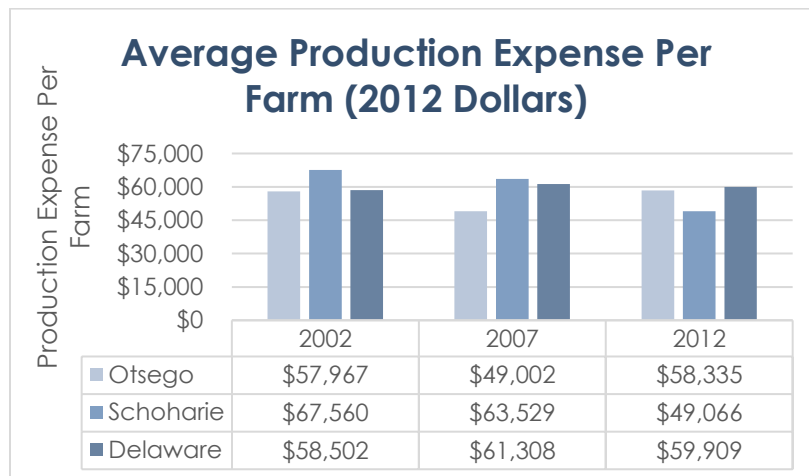


Figure 9 Average Production Expense per Farm (Adjusted for Inflation)

LAND USE POLICIES AND THE IDENTIFICATION OF FARMLAND TO BE PROTECTED

COUNTY-WIDE PLANNING EFFORTS

Otsego County municipalities are beginning to implement formal planning mechanisms and official policies to advance farmland protection. It can be said with confidence that every municipality in Otsego County is supportive of agriculture; however, the ways in which they support it varies based on the municipality's size, location, planning support, and the presence or lack thereof of local regulations. This section will briefly describe the activity that has occurred at both the county and local level including planning, regulations, and local economic development projects.

As empowered by New York State Law, land use authority resides at the local level. Therefore, the role of the Otsego County Government remains at the planning and project levels. The 1999 Otsego County Agricultural and Farmland Protection Plan, combined with several regional planning projects, has led to a number of agricultural planning initiatives. These include but are not limited to:

2017-19 Otsego County Draft Strategic Prioritization Plan | In 2016, Otsego County, in partnership with the Laberge Group, prepared a draft of the County's Draft Strategic Prioritization Plan. The draft plan established a strategy toward a better future and more effective county government. The plan developed a vision based on input from a wide range of stakeholders, including members of the County's Board of Representatives, the County's municipalities, the public, and other key stakeholders. With respect to agriculture, the draft plan identifies growing the agricultural economy based upon diversity and innovation, and maintaining the ecosystem services that enable a strong agricultural economy, with forestry, clean water, and natural beauty as top priorities. The plan can be accessed at: <http://www.allotsego.com/wp-content/uploads/2016/05/The-Laberge-Plan.pdf>

Mohawk Valley Regional Food System Assessment | The Mohawk Valley Food Systems Assessment study, conducted in 2016 by Cornell Cooperative Extension and New Venture Advisors, illustrated that many of the economic impediments of local agricultural growth are shared across commodities and agricultural enterprises. The scope of the assessment included the counties of Fulton, Herkimer, Montgomery, Oneida, Otsego and Schoharie. Per the assessment, Otsego County producers have some advantages when compared statewide, including transportation to and from markets by means of Interstate 88, which bisects the county. In the forward to the assessment report, Cornell Cooperative Extension suggested broad means to fuel economic growth in the region. These included providing capital to support the entry or expansion of farms, agri-businesses, and value-added food processors; supporting market readiness development; and developing expert knowledge at the regional scale.

2013-2018 Otsego County Hazard Mitigation Plan Update | In 2013, Otsego County, in partnership with H2O Partners, updated the county's Hazards Mitigation Plan. This update examined 10 hazards, including the impact of climate change on the severity of these hazards. In regard to agriculture, the hazard mitigation plan identified drought, extreme temperature, disease transmission, and flooding as major risks to the local agricultural sector. The plan can be accessed by clicking the following link:

http://www.otsegocounty.com/depts/pln/documents/2013-2018OtsegoCountyHMAP_000.pdf.

Mohawk Valley Regional Sustainability Plan | In 2013, Otsego County, in partnership with the counties in the Mohawk Valley region, developed the Cleaner Greener Mohawk Valley Regional Sustainability Plan. The Plan developed several objectives intended to improve the economic development and environmental wellbeing of the communities in the Mohawk Valley. With respect to agriculture, the plan developed several indicators, to be reassessed in 2015, 2025, and 2050, to measure the region's agricultural and forestry sector's progress toward its sustainability goals. These include but are not limited to NYSERDA's Agriculture Energy Efficiency Program; achieving no net loss of cropland across the region; increasing the average net operating income of farmers; increasing the number of food processing facilities in the region; and increasing the number of farms with a direct sales component in the region. The plan can be accessed by following this link:

<http://www.sustainablemohawkvalley.com/documents/home/Mohawk%20Valley%20Sustainability%20Plan.pdf>.

LOCAL-LEVEL PLANNING EFFORTS

Otsego County's municipalities are diversified when it comes to land use regulations. New York State is a "home rule" state, allowing for the adoption of local law by municipalities and not regional planning. Home rule provides municipalities the right to implement local laws addressing land use, or not. Local land use laws are based on a municipality's comprehensive plan and the vision of the community.

In 2010, 2011, and 2012, the county was facing the potential for high volume hydraulic fracking. Many communities realized that, in order to enact local laws addressing fracking, they needed to revisit their comprehensive plans before proposing a local law. Several towns and communities updated their comprehensive plans during this period – the Towns of Burlington, Hartwick, Maryland, and New Lisbon, and the Village of Otego, are just a few of those.

Other regulatory issues can emerge when farm operations are enrolled in New York State's Agriculture District Program. The Agricultural District Law limits unreasonable local regulations on farm operations located in Agriculture Districts that also meet the requirements of the Agricultural Value Assessment.

In addition to the actual language in local regulations, proper administration of these laws is also important. The administration of local land use regulations often determines how effective the

laws are. Many communities in Otsego County do not have farm representation on planning boards, zoning board of appeals, or even town boards. At a minimum, encouraging farmers to serve on local boards will help inform local planning decisions.

Farm Friendly Land-Use Policies

OPD led the AFPPUC’s efforts to audit the local zoning regulations, site plan, subdivision, and right-to-farm laws of five Otsego County municipalities.²² These towns included Butternuts, Cherry Valley, Hartwick, Milford and Otsego.

For the purpose of the Farm-Friendly Analyses (FFAs), the AFPPUC utilized a farm-friendly audit checklist developed by the New York State Department of Agriculture and Markets. The checklist identifies numerous land-use criteria that should be contained within local zoning, site plan review, and subdivision regulations in order to maximize their conduciveness to agriculture. A sample of questions contained the checklist is provided below.

| Audit of Local Zoning and Land Use Laws | |
|-----------------------------------------|---------------------|
| Town | Geographic Location |
| Butternuts | Southwestern |
| Cherry Valley | Northeast |
| Otsego | Central |
| Milford | Southern |
| Hartwick | Central |

Table 22 Geographic Distribution of Audited Municipalities

| Audit of Land Use Regulations (Zoning, Site Plan, Subdivision) in _____ | | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| | Yes | No | Notes |
| Does the regulation’s purpose statement include a discussion of agriculture, or promoting or preserving agriculture specifically? | | | |
| Does zoning allow agriculture as a permitted use by right in any district? | | | |
| Does zoning prohibit agriculture in any district? | | | |

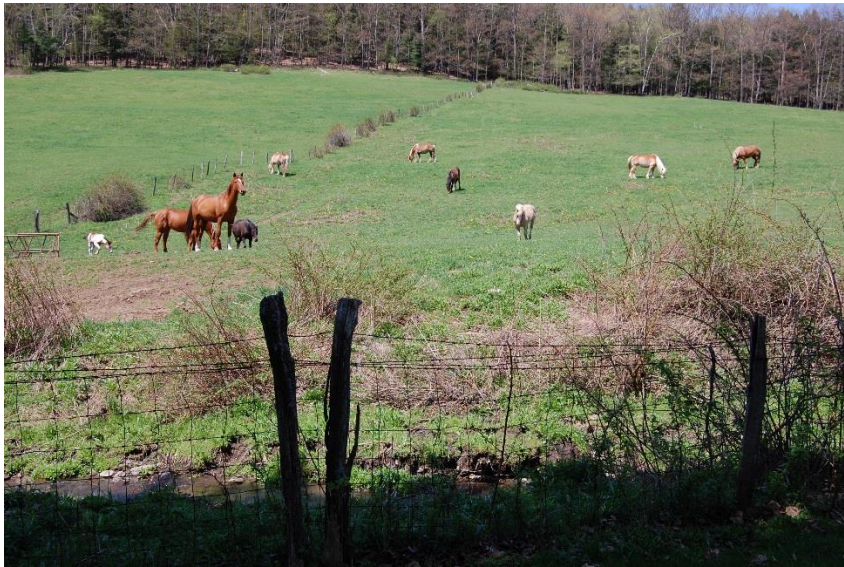
Figure 10 Sample of Farm-Friendly Audit Questionnaire

²² Right-to-Farm laws were measured in a binary, yes-or-no, fashion.

Summary of Audit Findings

The county acknowledges the fact there are many municipalities with comprehensive plans that are ten to fifteen years old and require updating. The county also recognizes the difficulty of part time-volunteer boards and restricted budgets of local towns and villages, and that other priorities are more urgent.

In completing the five audits for the communities in Otsego County, it was clearly recognized that there is minimal identifiable and aggressive planning for the preservation of viable, active farmland and agriculture activities. Few of the five towns even include definitions of farm, agriculture, etc. or mention an agricultural statement as a requirement for review. Although most



of the regulations include “clustering” as an option for subdivision, there is no zoning or district that insist clustering occur. It is typically left up to the applicant to decide. Clustering can be a strong tool for preserving prime agricultural land and lands available to crops on a lease basis. It should also be noted that many of the regulations were more than ten years old and should be updated.

Implementation of clustering in towns reviewing subdivisions is either limited or extinct in Otsego County. The Town of Cherry Valley’s regulations had a greater sense of support for agricultural activities; referencing the NYS Agriculture and Markets Article 25AA law and requiring an agricultural data statement with any subdivision within an Agricultural district. Table 23 summarizes the findings from the audit in tabular format.

| Farm Friendly Criteria | Number of Ag-Friendly Land Use Laws |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adopted zoning regulations? | Yes - three out of five. |
| Adopted site plan regulations? | All five have adopted site plan regulations. |
| Adopted subdivision regulations? | All five have adopted subdivision regulations. |
| A Right-to-Farm Law? | Three out of five have a Right-to-Farm Law. |
| Agriculture as a permitted use by right in any district? | Three municipalities have zoning with clauses for temporary permits for farm stands and some exempted site plan review for the same. In general, the consideration of any type of review for agriculture included farm stands requiring a site plan review. |
| Agriculture prohibited in zones other than hamlets, villages or commercial areas? | None prohibit agriculture in zones. They stipulate ag-related actions like a "farmstand" may require a special use permit |
| Any density restrictions for commercial growth presented in agricultural areas or NYS Agricultural Districts? | Three municipalities have zoning with a Residential Ag District prohibiting commercial activities. Where subdivision proposals and site plan reviews were in an allowable zone, but in an agricultural district, the standard process was to have the applicant prepare an Agricultural Data Statement during the review process. No municipality used density control restrictions other than limiting the percentage of structure-to-land-development tool. |
| Is there an agricultural zoning district, overlay, or special use district for agriculture? | No municipality included a special agriculture overlay or special use district. The typical zoning district is the RA-Residential Agricultural zone. The Town of Otsego, has a section re: Heirloom Barns and Buildings older than 60 years requiring site plan review to ensure restoration and protection of historic and rural character. |
| Definition of agricultural structures, farm worker houses etc. in the zoning, site plan review and/or subdivision local law? If so, flexibility to accommodate the needs of agricultural businesses? | Three of five municipalities included definitions in their zoning regulations for Ag-related activity; one included a Right to Farm section emphasizing "unreasonable restrictions" to farm operations within Agricultural Districts. The standard practice is to require a special use permit for farm stands. |
| Non-traditional or retail-based farm businesses allowed in a district or ag zoned district? Can a farmer set up a brewery on site and sell products onsite? | One municipality (Otsego) mentions that Farm Supply Stores are an allowable use under Special Use Permit in the GB-1 District. In Hartwick, permitted uses in the RA commercial district allow for customary retail shops and restaurants and other eating places within enclosed buildings. Any unenclosed retail or restaurant requires a special use permit. Butternuts site plan regulations state accessory or agricultural structures are exempt from site plan review as well as the sale of produce or temporary structures related to the sale of produce. |
| How many planning boards have farmers as members? | Three of five municipalities had farmers serving as members on their planning boards. |
| Do the Town's regulations require an agricultural data statement as per AML 25-aa as part of an application for site plan, subdivision or special use or other zoning? | Two of five municipalities request an Agricultural District Statement when projects are within 500' of a farm operation in an Ag District. The County reviewing agency, under General Municipal Law 239, requires a statement as part of a complete application. |
| Require placement of an agriculture disclosure statement on plans or plats when development takes place in a NY-certified Ag district? | Nothing was specifically found in any of the five audits that required such a statement to be placed on plans or plats. |
| Are ag-related uses required to get a special use permit or go through site plan review? | Two of five municipalities (Butternuts and Otsego) have statements exempting certain types of agricultural activities such as gardening, timber harvesting, and produce sales, and related temporary structures from site plan review. In the Otsego's RA-1 and RA-2, agriculture is an allowable use along with forest management, and in their GB districts, for buildings and farm supply retail under special use permits. |

Table 23 Results of Audit of Five Municipalities

Initial Action Items to Consider | To supplement the findings in this section, municipalities should regularly audit their current local land use ordinances to see if they are ag-friendly, and compare the regulations to their comprehensive plan to see if the preservation of agriculture and farmland is identified.

If not, the municipality should review their comprehensive plan and its last update and focus on where the community stands in regards to preservation of agriculture and farming before initiating changes to their regulations without a comprehensive plan that identifies farming as a goal in their community.

Secondary Action Items | Once the comprehensive plan identifies preservation of farming and agriculture as a goal for the community, the following recommendations will provide for supportive land use, site plan and subdivision regulations to preserve agriculture.

- Work with the SWCD to identify prime soils in the town as well as all active farms and farmland currently being used for agriculture.
- Prepare a map showing the prime soils, active farms and Agricultural Districts for consideration in re-zoning these particular areas as “farm preservation districts” or identified lands which are economically viable for agricultural use.
- Consider a district to require clustering only in the identifiable lands from the research provided by SWCD. This would allow for these productive lands to remain open and available for farming and/or crop use.
- Develop or amend existing regulations that focus on the preservation of agricultural land. Some helpful items to include are listed below:
 - Adopt a Right-to-Farm Law in the community if one is not already on file.
 - Require an Agricultural Data Statement for site plan, subdivision, and land-use zoning proposals within the identified “viable farm” lands in the community.
 - Require the applicant to identify all active farms and/or tillable land within an identifiable radius of the proposed project to consider a project’s impact on an existing farm and/or the impacts potentially directed by an adjacent active farm to the proposed use.
 - Reduce subdivision requirements to farms that are subdividing to relatives and/or onsite workers as long as the properties do not significantly decrease the viable farmland.

IDENTIFYING PRIORITY FARMLAND TO BE PROTECTED

Circular 1500 Article 25 Section 324 (a) and (b) of the NYS Agriculture and Markets Law outlines specific requirements that county Agricultural and Farmland Protection Plans must meet when developing a plan. Plans must consider the location of any land or areas proposed to be protected, and include an analysis of the following factors concerning any lands proposed to be protected:

- Value of [the land] to the agricultural economy of the county;
- Open space value;
- Consequences of possible conversion; and
- Level of conversion pressure on the lands or areas proposed to be protected.

Satisfying the requirements listed above will allow the plan to act as a valuable resource for Otsego County municipalities as they develop, administer, and amend local land use regulations and make local planning decisions. Further, as Otsego County pivots toward a more tourism and service-oriented economy, it will be critical that prime farmland is protected in the face of changing development patterns and development pressure.

Land Evaluation Site Assessment (LESA) Model of Otsego County

In February 2017, OCCA partnered with SUNY Oneonta to create a GIS-based mechanism to identify and prioritize farmland for conservation. OCCA assigned GIS researcher, Carl Vricella to spearhead the creation of a GIS-based model to meet NYSDAM guidelines. The AFFPUC agreed that using the NRCS’ Land Evaluation Site Assessment (LESA) method would be capable of satisfying the criteria specified in Section 324 A and B for farmland conservation. Meetings between OCCA and SUNY Oneonta representatives were held regularly between February and May 2017. Given the technical nature of this analysis, OCCA and SUNY Oneonta relied on assistance from online forums such as Reddit and the GIS Stack Exchange. This allowed the AFFPUC to effectively crowdsource creative solutions to the analytical roadblocks present in the LESA process.²³

Using the LESA approach, OCCA and SUNY Oneonta identified Land Evaluation (LE) factors and broke the Site Assessment (SA) factors into two categories: SA-1 and SA-2 factors. In a basic sense, this allowed the AFPP to evaluate the quality of the land for agricultural production and analyze various external factors that could affect the suitability of the land for agriculture. Table 24 details the LE and SA factors used in this analysis.

| Land Evaluation | Site Assessment 1 | Site Assessment 2 |
|--------------------------------------------|----------------------------------------|------------------------------------------|
| National Commodity Crop Productivity Index | Distance to protected farmland | Distance to County and State-owned roads |
| NRCS Farmland Classification | Distance to other agricultural parcels | Distance to agricultural districts |
| | Distance to floodplains | |
| | Distance to light districts | |
| | Distance to wetlands | |
| | Distance to streams | |
| | Parcel Size | |

Table 24 LESA Factors

²³ Reddit proved instrumental in solving several Python and GIS-related issues that arose with the construction of the LESA model. Future researchers, should utilize online forums as a resource when embarking on similar analyses.

Farmland parcels were identified using the following criteria:

- Parcels in the “100”, “241”, and “324” property code range.
- Parcels receiving an agricultural assessment.²⁴

As part of the 2017 AFPP process, OCCA and SUNY Oneonta discussed the relative importance of these criteria, along with other possibilities. The LESA approach allowed Vricella to evaluate and rank useable land area in Otsego County based on the mappable criteria, apply a score for each criterion, and weight it in accordance to its effect on agricultural production.²⁵ A weighted average scoring system is used in this analysis. The weighting process is described in detail in Appendix C.

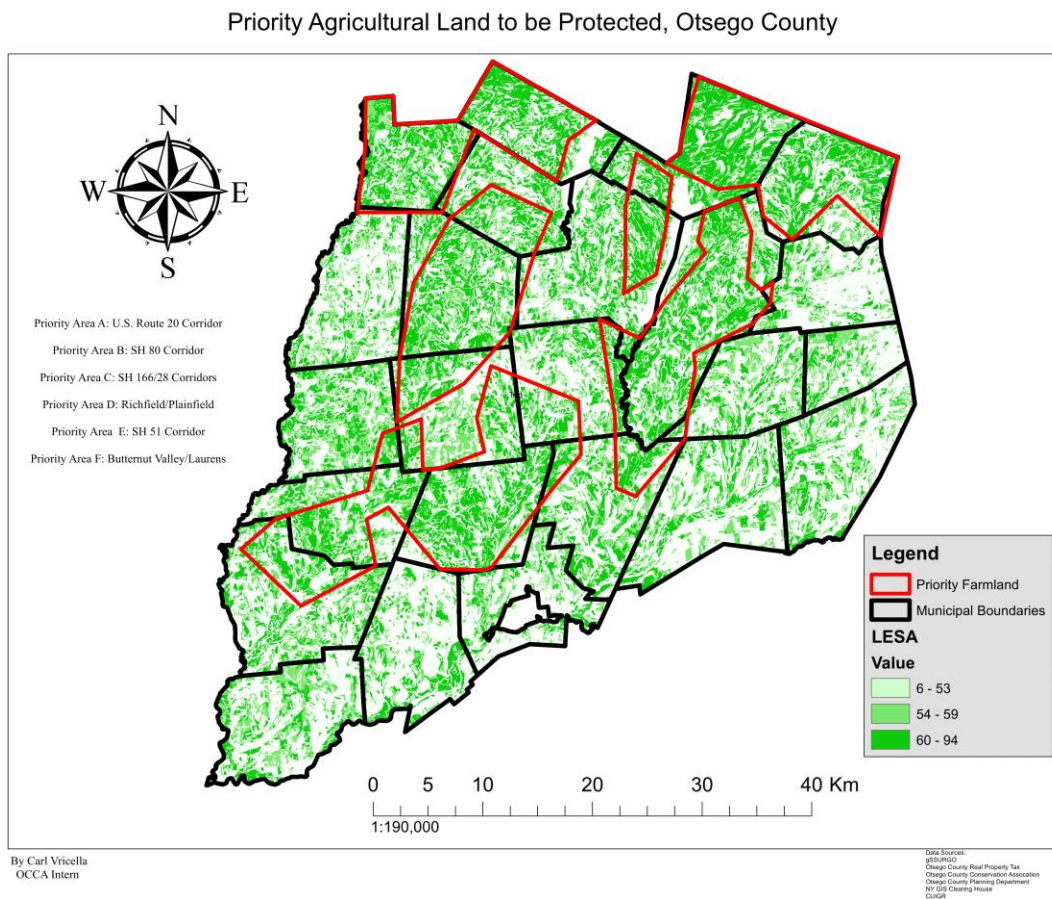


Figure 11 Examples of High Priority Farm Operations to be Protected

Green indicates high priority areas for agricultural production, while white indicates high risk or unsuitable areas for agricultural production.

²⁴ Parcels wholly within village or city boundaries were excluded from this analysis. I-88 was also excluded from this analysis as well.

²⁵The Committee found that agricultural viability can vary within a certain parcel. OCCA and SUNY Oneonta’s analysis accounts for this variability. Parcels, therefore, will have multiple scores within their boundary.

Figure 11 above shows the total score of each ten-meter cell in the county: areas in the county that satisfied more of the positively weighted criteria received higher scores, while areas that triggered negatively weighted factors received lower scores. All agricultural land in Otsego County is important, yet those that received higher scores meet more of the important farmland criteria.

Green areas typically refer to land with optimal crop productivity and soil characteristics near positive environmental and land use factors (e.g., proximity to other agricultural parcels, protected land, and land within an agricultural district). White areas could refer either to land with poor soil characteristics or land in close proximity to negative site characteristics (e.g., proximity to heavily traveled roads, hamlet boundaries, etc.) The Committee hopes landowners and policymakers will use this map to prioritize farmland conservation efforts in the green areas. Examples of such applications at the county level would involve referring to the LESA Map during the review of land use decisions for inter-municipal and countywide impacts through GML Section 239-m. It should be noted that this analysis provides an estimate of the location of land suitable for agricultural production. Alterations to the weights and criteria used in this analysis could change the outcome of the model's output.

The LESA analysis led to the AFPPUC identifying six priority areas for conservation, as listed in Figure 11. They are:

- The U.S. Route 20 Corridor;
- The State Highway 80 Corridor;
- The State Highway 166 and State Highway 28 Corridors;
- The Richfield Springs/Plainfield area;
- The State Highway 51 Corridor; and
- The Butternut Valley/Laurens area.

It must be noted that these areas were identified as being “high priority areas” based on the inputs to the LESA model. Onsite inspections and soil analyses should be done to verify the accuracy and adequacy of the LESA outputs.

POLICY RECOMMENDATIONS AND PRIORITY PROJECTS

POLICY RECOMMENDATIONS

Below are the policy recommendations that resulted from the planning process, as well as discussion of how these recommendations can be implemented. This section identifies specific, achievable actions that can be implemented in Otsego County as well as the specific action steps necessary to bring about those programs and projects. Finally, this section identifies the high priority projects that should begin immediately after adoption of the plan.

Recommendation #1: Build organizational capacity in the county to support agricultural economic development and implement policy.

Successful implementation of this plan will require sustained collaboration between multiple agencies and organizations operating in Otsego County, as the experience with the 1999 AFPP has shown that without a central coordinator, even the best-intentioned efforts can fall short. The County government, its Agriculture and Farmland Protection Board, the farm community, agriculture and environmental non-profit organizations, and many others will all play important roles implementing these initiatives. Tasks related to implementation must be distributed efficiently; communication must be frequent and open, and thorough monitoring and reporting needs to be considered when formulating an implementation approach for this plan. Similarly, there is a significant need to have a central location for all of the agricultural data in Otsego County. Easy accessibility of data will only serve to enhance the analytical capacity and responsiveness of Otsego County's agricultural agencies.

Given the number of agricultural agencies and organizations operating in Otsego County, it is important to develop a clear organizational communication framework to implement the plan. While the County Board of Representatives adopts and oversees the implementation of this plan, the day-to-day work will fall to a number of agencies and organizations. Plan implementation needs to be led by an on-the-ground component—ideally an agriculture implementation specialist working in conjunction with a task force comprised of agricultural agency representatives and members of the farm community.

- The Otsego County Board of Representatives shall hire an agriculture implementation specialist to oversee the fulfillment of plan objectives and policies. In addition to implementing the plan, the agriculture implementation specialist shall enhance and sustain communication between agricultural agencies and organizations operating Otsego County.

Concurrently, the County Board of Representatives shall create a long-term working group known as the Implementation Task Force (ITF) and organizational structure to implement the plan. This should be a working group made of AFPPUC representatives

and key farm community members. The working group should be established to accomplish specific tasks, with realistic time frames, regular reporting, and clearly identified roles. Open and frequent communication will represent a key to success of this working group to avoid duplicating work, to share ideas, and to work collaboratively to solve issues facing the County's agricultural sector.

- The AFPPUC should identify and jointly apply for additional financial support for local agricultural agencies in Otsego County. This initiative can be achieved through the preparation of consolidated grant applications. The AFPPUC should carefully coordinate these applications to ensure consistency with the goals of the Mohawk Valley Regional Economic Development Council. Attention should be paid to staffing needs, budgetary issues, partners, time frames, and cost obligations. The AFPPUC should regularly communicate with the Mohawk Valley Regional Economic Development Council so that they understand the needs of Otsego County's agricultural sector.
- The AFPPUC should support businesses and organizations aiding with farm succession planning to ensure the longevity of Otsego County agricultural operations.
 - Bring stakeholders together to coordinate farm succession information. Create a farm business directory which includes organizations dealing with all aspects of farm succession: attorneys, accountants, banks, insurance agencies, land banks, real estate companies, etc.
 - Pursue funding for the New York State Agricultural Mediation Program.
 - Request a special tabulation from USDA National Agricultural Statistics Service to better understand farmer demographics.
 - Develop a coordinated publicity campaign stressing the need of farm succession planning county wide.
- Work with local colleges to strengthen agricultural internship and career opportunities in Otsego County.
 - Find ways to enlist faculty, students, and staff at local colleges to create, develop, and disseminate agricultural data.
 - Work with local colleges to increase the visibility and penetration of locally produced foods and beverages on campus.

Recommendation #2: Support existing and develop new agricultural economic development programs.

- Continue to apply for Consolidated Funding Application (CFA) funding with a focus on the Otsego County Agricultural Microenterprise grant program.
- Identify other public and/or private funding sources willing to leverage funding with the

Agricultural Microenterprise Grant Program.

- Bring Good Agricultural Practices (GAP) workshops to Otsego County.
- Explore the development of an Otsego County Farm Link Program.
- Explore the feasibility of creating a countywide farm apprenticeship program like the Collaborative Regional Alliance for Farmer Training (CRAFT) in the Hudson Valley or Rogue Farm Corps in Oregon.

Recommendation #3: Help Otsego County farmers better market their products.

- Seek CFA funding to explore the feasibility of creating a commercial food hub in the northern part of Otsego County.
- Create and implement a comprehensive marketing strategy to attract new farmers, consumers, and agribusinesses. An important component of this strategy will be participation in coalition-building with existing national advocacy projects such as The Greenhorns and the National Young Farmers Coalition.
- Research available funding to engage Destination Marketing Corporation of Otsego County (DCMOC) to develop a public relations campaign highlighting agriculture in Otsego County.
- Hold periodic farm tours for all elected officials and representatives in the county and develop targeted materials educating county representatives on the importance of agriculture in Otsego County.

Recommendation #4: Enhance the quality and availability of agricultural data in Otsego County.

- Continue to provide GIS data that will help visualize and map agricultural assets and enterprises.
- Provide and/or seek monetary support for CCE to maintain and update the 2013 study conducted by Bill Gibson.
- Orchestrate annual roundtable discussions, with the Otsego County Farm Bureau as facilitator, to obtain feedback on the plan, the status of various agricultural programs, emerging trends, and new challenges facing the county's agricultural sector.
- Identify and jointly apply for additional financial support for local agricultural agencies in Otsego County.

Recommendation #5: Provide educational programs to multiple audiences and enhance technical assistance to farmers.

- Seek funding for the development of an “Ag in the Classroom” program in Otsego County schools.
- Bring sector-specific producers together to determine interest in and economic potential for infrastructure for value-added projects. This would include dairy, fibers, meats, and crops.
- Encourage participation in producer programs (producer groups) by listing them in the agricultural directory and listing them on the DCMOC website or other related webpages.

Recommendation #6: Develop critical farm infrastructure and continue to protect farmland.

- Continue to advocate for and seek funding for expanding broadband internet to underserved Otsego County customers.
- Encourage SWCD to develop and publicize communication resources related to EPA regulations and the importance of meeting Chesapeake Bay Cleanup Goals.
- Assist Town Boards in redefining their land use regulations to encourage housing for farmworkers.
- Consider a resolution to support the legalization of farm apprenticeship programs which would protect young farmers.
- Support municipalities who are willing to adopt a Right to Farm Law.
- Partner with regional stakeholders to obtain funding to conduct a climate risk vulnerability assessment on Otsego County’s agricultural sector.
- Support ongoing farmland conservation efforts by OLT by helping to identify additional sources of funding.
- Encourage the Agriculture Implementation Specialist to work closely with OLT to develop “pre-application” materials and seek farms interested in applying for FPIG funding.
- Provide links to various farmland conservation programs and include them in the farm business directory.
- Initiate policy that would provide tax incentives for landowners who rent or sell land to beginning farmers. Nebraska and Iowa have adopted innovative programs to provide tax

incentives to landowners who lease or sell land to a beginning farmer.

- OPD should utilize the Otsego County LESA model when evaluating 239-m referrals.
- Work with SWCD, local highway departments, and Otsego County farmers to implement pollinator-friendly best management practices.

PRIORITY PROJECTS AND IMPLEMENTATION TABLE

This section prioritizes some of the most urgent, achievable policy recommendations identified above. These priority projects will act as the foundation for achieving successful agricultural outcomes.

First and most importantly, there is a significant need to develop the organizational capacity to implement the recommendations contained in the plan and to monitor the outcomes on an ongoing basis.

Second, it will also be important for agricultural agencies, conservation groups, and local governments to develop and implement technical assistance programs that will help farmers be successful now and into the future.

Third, identifying and preserving Otsego County's most at-risk farmland will be crucial in terms of sustaining the county's agricultural economy.

Lastly, agricultural agencies, conservation groups, economic development agencies, and the private sectors must continue to work together toward improving the marketability of Otsego County agricultural goods and services.

Some of the priority projects can be achieved in the short-term and are low cost, however, others are more complex and will require more funding. Many of the priority projects address more than one policy recommendation. The recommendations listed above and contained herein are interconnected, thus successful implementation will require sustained collaboration among all parties involved. Although priority projects are listed below, that does not stop the County and its partners from starting on any of the other projects recommended in this plan. It is very likely that agencies such as Cornell Cooperative Extension, Otsego County Farm Bureau, CADE, and SWCD could work on several projects concurrently. The tables on the following pages should act as a checklist to focus efforts so as to ensure that the most important projects receive the attention they deserve.

| PRIORITY PROJECT #1: DEVELOP ORGANIZATIONAL CAPACITY TO IMPLEMENT PLAN | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|
| Action Steps | Target Date | Lead Agency/ Organization | Partners | Cost | Local, Regional or Both |
| Create AFPP Implementation Task Force (ITF) and hire Ag Implementation Specialist | September 2017 | Otsego County Board of Representatives | N/A | Moderate to high | local |
| Identify AFPP Implementation Task Force chair and assign responsibilities | October 2017 | ITF | CCE SWCD AFPB OCCA CADE OLT Otsego 2000 OPD Otsego Now OC Chamber of Commerce OC Farm Bureau | Low | local |
| Develop annual work plan for project implementation | January 2018 | ITF | | | |
| AFPP Implementation Task Force to report on progress to Board of Representatives | Quarterly | Ag Implementation Specialist/ ITF | | | local |
| The County should continue support for CCE, SWCD, and other critical ag programs with the expectation they participate in the AFPP Implementation Task Force and help support the actions outlined in the plan. | Annually | Otsego County Board of Representatives | | | local |

| PRIORITY PROJECT #2: DEVELOP AND IMPLEMENT TECHNICAL ASSISTANCE PROGRAMS | | | | | |
|------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------|------------------|------------------------|
| Action Steps | Target Date | Lead Agency/ Organization | Partners | Cost | Local/ regional |
| Create one-stop shop for agricultural data in the county. | June 2018 | OPD | CADE, CCE, OCCA, Otsego County Chamber of Commerce | Moderate to high | Both |
| Create the Otsego County farm business directory | June 2018 | Otsego County Chamber of Commerce | CADE, CCE, OPD, Otsego 2000 | Moderate | Both |
| Jointly apply for funding through CFA process to develop ag-related technical assistance program database. | 2018 CFA Cycle 2019 CFA Cycle | Ag Implementation Specialist ITF | Otsego Now, Otsego County Chamber of Commerce, Mohawk Valley Regional Economic Development Council | Moderate | Regional |
| Enhance and sustain collaboration and communication among agricultural agencies. | Ongoing | Ag Implementation Specialist ITF | ITF | Low | Both |
| Encourage Otsego County producer participation in CADE/SUNY Cobleskill's Farm and Food Business Incubator. | Ongoing | CADE | Farm Bureau, Otsego Now, OPD, Otsego 2000 | Moderate | Both |
| Conduct biannual audits of local land use regulations to ensure their farm friendliness | 2018 2020 | OCCA | OPD, Farm Bureau | Moderate | Local |

| PRIORITY PROJECT #2: DEVELOP AND IMPLEMENT TECHNICAL ASSISTANCE PROGRAMS (con't) | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|---------------------------------------|--------------------------------|------------------------|
| Action Steps | Target Date | Lead Agency/ Organization | Partners | Cost | Local/ regional |
| Enhance the availability of technical services available from CCE for farm and agribusiness enterprises, including dairy, livestock, field crop, commercial fruit and vegetable, and general agriculture production enterprises, and farm business management | 2018-2019 | Otsego County Board of Representatives | CCE | Moderate to high based on need | Regional |
| Increase County support for on-farm conservation projects | Annually | Otsego County Board of Representatives | SWCD, NRCS, OLT | Moderate to high based on need | Local |
| Provide additional farm succession planning workshops | Biannual | CCE | Nationwide Insurance Don Marsh Office | Low to moderate | Both |
| Continue supporting Otsego County's agricultural microenterprise program | Annually | OPD | Otsego Now, CADE, Farm Bureau | Low | Local |

| PRIORITY PROJECT #3: IDENTIFY AND PRESERVE OTSEGO COUNTY'S MOST AT-RISK FARMLAND | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------|------------------------------------------------------|-----------------------------------------|------------------------|
| Action Step | Target Date | Lead Agency/ Organization | Partners | Cost | Local/ Regional |
| Include links to various farmland conservation programs on the County website and in the farm business directory | Ongoing | Ag Implementation Specialist ITF | NRCS SWCD OPD OCCA OLT Otsego 2000 | Moderate to high based on funding needs | Local |
| Identify and jointly apply for funding for farmland conservation programs with local and regional land trusts | Ongoing | Otsego County Board of Representatives | Ag & Farmland Protection Board, OPD, OCCA, OLT, | Low | Both |
| Explore feasibility of creating a Farm Link program similar to the one in the Hudson Valley or partnering with ongoing efforts in Delaware County | 2019 | CADE | OLT, OCCA, SWCD, OPD, Ag & Farmland Protection Board | Moderate | Regional |
| Conduct a biannual census of agriculture similar to Gibson (2013) | 2019 | CCE | OCCA CADE OPD | Moderate to high based on funding need | Local |

| PRIORITY PROJECT #4: IMPROVE THE MARKETABILITY OF OTSEGO COUNTY'S AGRICULTURAL GOODS AND SERVICES | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------|------------------------------------------------------------------------|------------------------------------------|------------------------|
| Action Step | Timeframe | Lead Agency/ Organization | Partners | Cost | Local/ Regional |
| Advocate for and seek funding for broadband internet to underserved Otsego County | Ongoing | OPD | Otsego Now OC Chamber of Commerce CADE, Otsego 2000, Farm Bureau | High | Local |
| Research funding to engage DCMOC to develop a public relations campaign highlighting Otsego County agriculture | 2019 | Ag Implementation Specialist ITF | Otsego County Chamber of Commerce, Otsego Now, OPD, OLT | High | Regional |
| Seek CFA funding to for feasibility study for commercial food hub in the northern Otsego County | 2019 | Ag Implementation Specialist ITF | CCE CADE OCCA Otsego 2000 | Moderate to High based on funding needs. | Local |
| Bring sector-specific producers together to gauge interest and economic potential for infrastructure for value-added projects. | Annually | CADE CCE | OC Chamber of Commerce Otsego 2000 | Low | Local |
| Otsego County will continue to provide GIS data that will help visualize and map agricultural assets and enterprises. | Ongoing | OPD OCCA | Otsego Now | Low | Regional |
| Bring GAP workshops to Otsego County | Annually | Cooperative Extension | Ag & Markets, CADE, OCCA | Low to medium | Both |
| Hold farm tours for elected officials and representatives and develop targeted materials on the importance of agriculture in Otsego County. | Annually | Farm Bureau, SWCD, Cooperative Extension | OCCA, Otsego 2000, Otsego County Chamber of Commerce | Low | Regional |

POTENTIAL FUNDING SOURCES

Opportunities for Partnerships

Otsego County has a history of longstanding, productive partnerships, many of which are related to agriculture. County staff members have led or participated in partnerships such as the Water Quality Coordinating Committee, the Otsego County Agricultural and Farmland Protection Board, and the Otsego Now Agricultural Microenterprise Grant Program. Quasigovernmental organizations like SWCD serve as a member of the Upper Susquehanna Coalition. Local nonprofit agencies like CADE regularly partner with higher education institutions like SUNY Cobleskill to carry out vital agricultural initiatives. Each of these partnerships deal with critical issues or causes that are important to the long-term viability of the agricultural sector.

Some of the priority projects and recommended actions identified above will depend on these existing partnerships, while others will require exploring new opportunities throughout the local agricultural sector. In general, some of the recommended actions that focus on improving overall agricultural economic conditions in the county may require new approaches that respond to the recent changes in economic development programs at the local, regional, and state levels.

Moving forward, it will be important to explore agricultural economic development initiatives with the Mohawk Valley Regional Economic Development Council (MVREDC). Members of the MVREDC represent key allies with respect to advocating for state funding resources for public and private projects. In its 2016 MV500 Proposal, the MVREDC identified three key agricultural economic development strategies:

- Maximizing production and increasing market share by modernizing marketing and distribution infrastructure of Mohawk Valley agricultural products, enabling 50% of farms to become profitable by 2020;
- Investing in next-generation farmers and closing the skills gap between hard-to-place workers and agricultural, craft brewing, and food processing opportunities, achieving a 15% increase in the percentage of agribusiness workers and farm operators between the ages of 18-35 by 2020; and
- Creating an environment for innovation and entrepreneurship in agribusiness and agrisciences by increasing the percent of food manufacturing firms to equal the percent of farm product sales by 2030.

Other potential partners may leverage one another's staffing capabilities, access to funding resources and organizational contacts. Partnerships with CADE could extend its organizational reach into the western and northern portions of Otsego County. Partnerships with OCCA could assist Towns with the removal of unnecessary regulatory impediments to local farmers.

Partnerships with NRCS and SWCD could increase the penetration and implementation of key on-farm conservation practices.

In addition to agency and organizational partnerships, taking advantage of existing and new networking opportunities between and among the county's farmers, distributors, and consumers could also improve the viability of farming operations. For example, Otsego County's Family Farm Day, the Otsego County Chamber of Commerce's Agricultural Roundtable, and SWCD's Farm Tour all represent important opportunities for local farmers to increase their visibility in the county. The implementation of the recommended action steps above would have Otsego County's agricultural stakeholders hosting an information clearinghouse, organizing and participating in agricultural working groups, improving communication within the agricultural sector, and expanding agricultural support services. Each of these actions offer opportunities for networking and the development of new partnerships that could enhance farm viability.

Plan implementation often hinges on funding assistance from the public and private sector. However, fiscal constraints among public agencies and the public sector can make financing opportunities competitive and difficult to obtain. Frequent changes in funding levels, funding priorities, eligibility conditions, and equity requirements can make assistance programs difficult to understand. The list below is not intended to be fully inclusive. Rather, it is intended to act as a starting point for those interested in implementing the recommended actions and priority projects identified in in this plan.

New York State Funding Opportunities

New York State Department of Agriculture and Markets Farmland Protection Implementation Grant (FPIG) Program | The FPIG program has been offered by the New York State Department of Agriculture and Markets since 1996 to fund the Purchase of Development Rights (PDRs, or conservation easements) on farmland that is at risk of being lost to development. The grant program is highly competitive, with nearly \$700 million requested by farmland owners, but only about \$300 million appropriated and \$140 million dispersed over its 20-year history. Funds derive from the Environmental Protection Fund (EPF) which is mainly funded by the Real Estate Transfer Tax. Eligible entities which can apply on behalf of farmland owners include county or local governments, Soil and Water Conservation Districts, and qualified non-profits (land trusts). However, a letter of support is required from the local County Agriculture and Farmland Protection Board for each application.

Farmland is evaluated for funding based on four main criteria:

- Preserve “viable agricultural land” as defined in section 301 of NYS Ag & Markets Law;
- Situated in areas facing significant development pressure;

- Serve as a buffer for a significant natural public resource containing important ecosystem or habitat characteristics; or
- Have considered future physical climate risk due to sea level rise; storm surges, and/or flooding due to extreme weather events.

https://www.agriculture.ny.gov/rfps/FPIG13/RFP0111_FPIG_Rnd_13.pdf.

New York State Department of Agriculture and Markets Agricultural Nonpoint Source Abatement Program | The goal of the Agricultural Nonpoint Source Abatement and Control Program is to reduce and/or prevent nonpoint source pollution from agricultural activities in watersheds across the state. The program utilizes the Agricultural Environmental Management (AEM) framework and provides cost-share funds through Soil and Water Conservation Districts for activities, plans, and implementation of Best Management Practices Systems. Proposals for funding are accepted from Soil and Water Conservation Districts, or a group of Districts acting jointly, who will be referred to as “Project Sponsors.” More information can be found at: https://www.agriculture.ny.gov/rfps/AGNPS_R23/R23_RFP.pdf.

New York State Department of Agriculture and Markets Municipal Agricultural and Farmland Protection Planning Grants | Pursuant to Article 25-AAA of Agriculture and Markets Law, the purpose of this program is to fund local initiatives that are intended to maintain the economic viability of New York State’s agricultural industry and its supporting land base, and to protect the environmental and landscape preservation values associated with agriculture. Eligible applicants include New York State municipalities that are located within a county which has established an agricultural and farmland protection board. Two municipalities may apply jointly. If applying jointly, one municipality must be designated as the lead municipality for contract purposes. Maximum funding is \$25,000 to each municipality or \$59,999 to two municipalities applying jointly. More information can be found at: <https://www.agriculture.ny.gov/rfps/MuniGrant/AGRICULTURE%20AND%20MARKETS%20Request%20for%20Applications%20SEPT%2024%20doc2.pdf>.

New York State Department of Agriculture and Markets Good Agricultural Practices (GAP) Certification Assistance Program | Many major retailers, wholesale buyers, foodservice companies, restaurants and schools now require produce suppliers to provide third-party certification of adherence to Good Agricultural Practices and Good Handling Practices. The New York State Department of Agriculture and Markets is offering to reimburse growers and handlers the cost, up to \$750, of GAP and GHP audits, as well as the costs of water testing. Funding for this program is available on a first-come, first-serve basis and is provided by the USDA Specialty Crop Block Grant Program. More information can be found at: <https://www.agriculture.ny.gov/rfps/GAP/2012/GAP-Certification.pdf>.

Empire State Development New Farmers Grant Fund | This grant fund helps beginning farmers improve farm profitability through one or both of the following goals: expanding and/or diversifying agricultural production, and/or extending the agricultural season; and advancing

innovative agricultural techniques that increase sustainable practices such as organic farming, food safety, reduction of farm waste and/or water use. Eligible farmers/farms must meet the following criteria:

- A farm operation located wholly within New York State which produces an agricultural product as defined by the guidelines;
- The farm operation must have a minimum of \$10,000 in farm income from sales of agricultural products grown or raised on the farm as reflected in 2015 tax returns;
- All owners must be New York State residents of at least 18 years of age;
- As of April 1, 2016, all owners must be in the first 10 years of having an ownership interest in any farm operation; and
- All owners must materially and substantially participate in the day-to-day production of an agricultural product grown or raised on the farm operation.

More information can be found at: <https://esd.ny.gov/new-farmers-grant-fund-program>.

Empire State Development Healthy Food and Healthy Communities Fund | The New York Healthy Food and Healthy Communities Fund is a \$30 million statewide program created to provide grants and loans for food markets in under-served communities. By providing financing to supermarket and grocery operators, the program will increase the availability of nutritious food choices for the 1.7 million New Yorkers who lack access to stores with healthy food options. The program is two-fold: it meets the financing needs of market operators that plan to operate in these communities and do not have access to financing through the conventional credit market. It also supports the direct development of jobs. It will assist market operators in low-income neighborhoods who do not have access to financing to bring nutritious foods to those in need, enhance distribution for New York State growers, and create new markets and retail jobs. More information can be found at:

<https://esd.ny.gov/businessprograms/healthyfoodhealthycommunities.html>.

Empire State Development Fund Economic Development Fund (EDF) | The EDF offers financial assistance for projects that promote New York State's economic health by facilitating job creation and/or retention, or increased business activity in the state. EDF funds assist with construction, expansion and rehabilitation of facilities, acquisition of machinery and equipment; working capital, and training full-time, permanent employees. More information can be found at: <https://esd.ny.gov/empire-state-economic-development-fund-program>.

Regional Funding Opportunities

Otsego Now Agricultural Microenterprise Grant Program | In support of the needs of these existing and emerging agricultural ventures, Otsego Now has established the Agricultural Microenterprise Program, a \$170,000 fund which makes available grants of up to \$35,000 to assist small businesses (five or fewer employees including all owners) in financing the costs of

starting or expanding their agriculture-related business operations. Grant funds require a 10% match, and may be used to offset a portion of the working capital, inventory, and machinery/equipment expenses of the business project. Acquisition, construction, or renovation expenses will be considered, as appropriate, for inclusion as matching expenses. More information can be found at: <http://otsegonow.com/projects/agricultural-microenterprise-grant-program/>.

Federal Funding Opportunities

USDA Beginning Farmer and Rancher Development Program | The Beginning Farmer and Rancher Development Program provides grants to organizations for education, mentoring, and technical assistance initiatives for beginning farmers or ranchers. Funding priority will be given to partnerships and collaborations led by or including non-governmental, community-based organizations and school-based agricultural, educational organizations with expertise in new agricultural producer training and outreach. At least five percent of funds will support programs and services that address the needs of beginning farmers or ranchers and farm workers desiring to become farmers or ranchers. At least five percent of the funds will support programs and services that address the needs of veteran farmers and ranchers. More information can be found at: <https://nifa.usda.gov/funding-opportunity/beginning-farmer-and-rancher-development-program-bfrdp>.

USDA Natural Resources Conservation Service (NRCS) Conservation Reserve Program | The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with federal, state, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation. CRP is administered by the Farm Service Agency, with NRCS providing technical land eligibility determinations, conservation planning and practice information. Additional information can be found at:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/?cid=stelprdb1041269>.

USDA Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program | EQIP is a voluntary program that provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve soil, water, plant, animal, air and related natural resources on agricultural land and non-industrial private forestland. EQIP may also help producers meet federal, state, tribal, and local environmental regulations. Owners of land in agricultural or forest production or persons who are engaged in livestock, agricultural or forest production on eligible land and that have a natural resource concern on land may apply to participate in EQIP. Additional information can be found at: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/>.

USDA Farm Service Agency Direct Farm Ownership Loans | These loans assist farmers with purchasing and/or expanding their farm operations. FSA's Direct Farm Ownership Program is comprised of three types of loans: the regular Direct Farm Ownership Loan; the Direct Farm Ownership Joint Financing Loan; and the Direct Farm Ownership Down Payment Loan. More information can be found at: <https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-ownership-loans/index>.

USDA Farm Service Agency Direct Farm Operating Loans and Micro-Loans | FSA's Direct Farm Operating loans are a valuable resource to start, maintain, and strengthen a farm or ranch. For new agricultural producers, FSA Direct Farm Operating Loans provide a gateway into agricultural production by financing the cost of operating a farm. FSA direct loans are financed and serviced by the Agency through local Farm Loan Officers and Farm Loan Managers. The funding comes from Congressional appropriations as part of the USDA budget. Additional information can be found at: <https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-operating-loans/index>.

USDA Rural Business Enterprise Grants Program | The Rural Business Development Grant program provides targeted technical assistance, training, and other activities to develop or expand small and emerging private, rural businesses that will employ 50 or fewer employees and have less than \$1 million in gross annual revenues. RBDG funds must be used for projects benefitting rural areas or towns outside of the urbanized periphery of any city with a population of 50,000 or more. Generally, grants range from \$10,000 to \$500,000, and there is no cost sharing requirement. More information can be found at: <https://www.rd.usda.gov/programs-services/rural-business-development-grants>.

USDA Value-Added Producer Grant Program | The Value-Added Producer Grant program helps agricultural producers enter into value-added activities related to the processing and/or marketing of new products. The goals of this program are to generate new products, create and expand marketing opportunities, and increase producer income. Applicants may receive priority if they are a beginning farmer or rancher, a socially-disadvantaged farmer or rancher, a small- or medium-sized farm or ranch structured as a family farm, a farmer or rancher cooperative, or are proposing a mid-tier value chain. Grants are awarded through a national competition. Each fiscal year, applications are requested through a notice published in the Federal Register and through an announcement posted on Grants.gov. More information can be found at: <https://www.rd.usda.gov/programs-services/value-added-producer-grants>.

USDA National Institute of Food and Agriculture Community Food Projects Competitive Grants Program | The primary goals of the Community Food Project Program are to:

- Meet the food needs of low-income individuals through food distribution, community outreach to assist in participation in Federally-assisted nutrition programs, or improving access to food as part of a comprehensive service;
- Increase the self-reliance of communities in providing for the food needs of the communities;
- Promote comprehensive responses to local food access, farm, and nutrition issues, and
- Meet specific state, local or neighborhood food and agricultural needs, including needs relating to:
 - equipment necessary for the efficient operation of a project;
 - planning for long-term solutions;
 - or the creation of innovative marketing activities that mutually benefit agricultural producers and low-income consumers.

More information can be found at: <https://nifa.usda.gov/funding-opportunity/community-food-projects-cfp-competitive-grants-program>.