

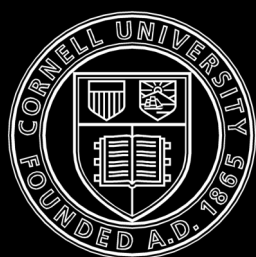
# HARVEST NEW YORK GROWING NEW YORK'S AGRICULTURE & FOOD ECONOMY

## HARVEST NEW YORK

An innovative Cornell Cooperative Extension team that focuses on workforce development and business expansion projects that increase profitability and investment in key sectors of New York's agriculture industry.

## MAXIMIZING CONNECTIONS

Harvest New York Specialists respond to emerging issues and develop new opportunities using the research of Cornell University, the resources of Cornell Cooperative Extension and relationships with partnering organizations statewide.



## 2017 Year in Review

### Program Highlights:

Judson Reid

In 2017, Harvest NY continued to yield impacts for our stakeholders.

- Harvest NY's support of the Western NY Food Hub led to the purchase of \$417,195 of NYS specialty crops from 19 newly on-boarded farmers.
- Strategic Farm Planning reached over 50 farms with site-specific plans to modernize and maximize efficiency while protecting NY's environment. For example, at one farm the implementation of robotics increased output by 35%.
- Farm to School work in Erie County has led to over \$741,000 purchases of NYS grown and raised items, reaching 6,400 students.
- 148 livestock producers, processors, and restaurateurs participated in Harvest workshops and 53 plants contributed to a collaborative Northeast Packing House survey.
- Harvest NY work at farmers markets supported incentive purchasing of over \$400,000 worth of NYS produce.
- Our Dairy Processing Specialists won the International Dairy Foods Association's Food Safety Leadership Award. The program conducted workforce development at 140 NYS dairy foods companies for more than 1000 employees. These efforts support the output of nearly \$14,000,000,000 in direct sales. Check out their evaluation results!
- Our biggest news came in the 4<sup>th</sup> quarter with the beginning of Harvest NY's urban agriculture program in New York City. Our two new specialists hit the ground running, visiting 14 agricultural operations spread across all five boroughs of NYC, growing everything from hops on rooftops to rice and basil in aquaponic systems.



 [@judson\\_reid](https://twitter.com/judson_reid)  
 [Judson.Reid.jer11](https://www.facebook.com/Judson.Reid.jer11)

We would like to thank our stakeholders for their support of this program and encourage you to engage with us on social media.

## By the Numbers



HarvestNY

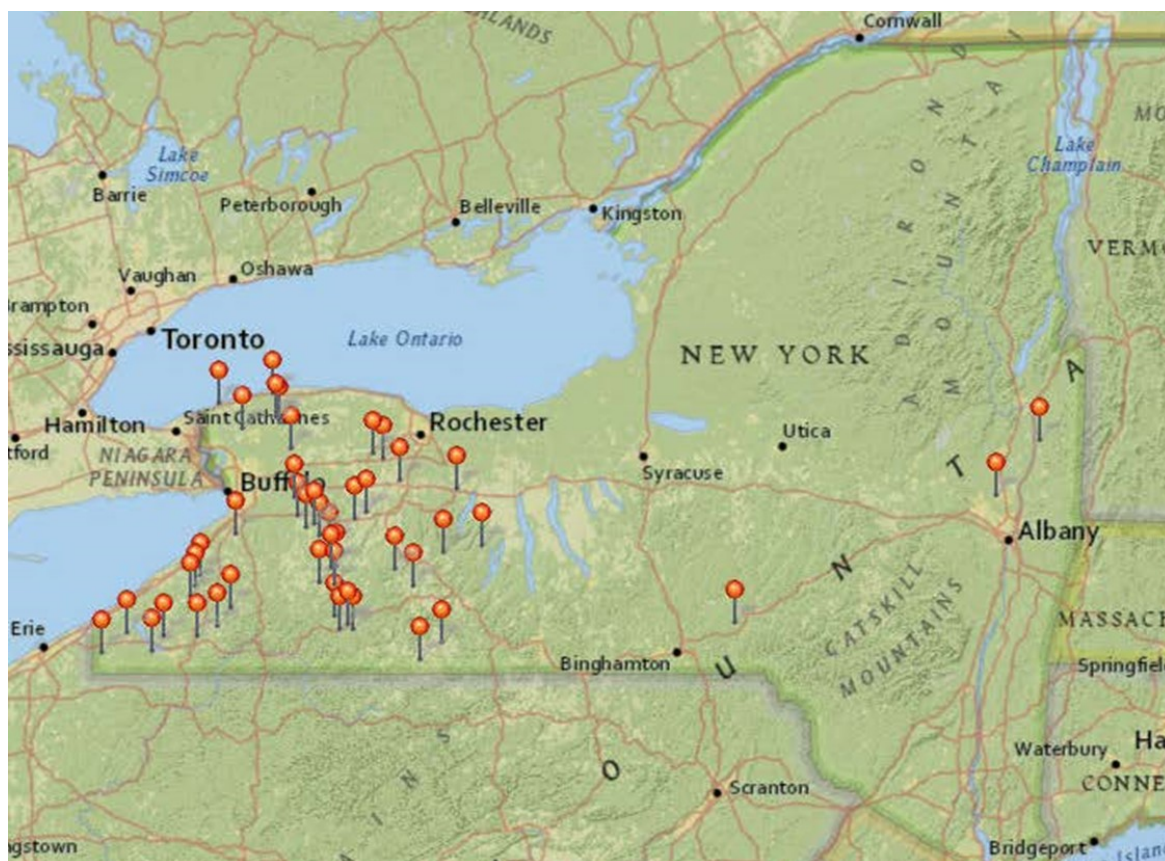
2017 continued to be a busy year for Harvest NY especially in the area of farmstead and facility planning. Here's how the numbers tally.

- 332 contacts with 50 farms. These contacts were in the form of site visits and follow-up letters, emails, and phone calls.
- 27 farmstead development or facility plans created and five projects completed. The remaining projects are either in progress, seeking funding – USDA, NYS Ag & Markets, NYSEDA, etc. -, or waiting for a better milk price.
- 1 farmstead and facility plan completed outside of western NY region (Broome County). Fortunately, this plan could be completed without a site visit. Of note, this dairyman could not find the services he required outside of Harvest NY (public or private sectors) for more than 16 months following a catastrophic barn fire in early 2016. (See *Up From the Ashes*, HNY Q4 2017 report)
- Requested as a presenter at the Lifestyle Farming Conference held at SUNY Cobleskill and the Cornell Winter Dairy Management seminars.

- 12 articles composed for the *Ag Focus* newsletter. Many of the articles were reprinted in other county newsletters as well as the *Penn Yan Chronicle-Express* and the *Batavia Daily* which have readerships of 3,900 and 13,700, respectively.
- Where appropriate, have served as a resource for the press, other agencies – FSA, NRCS, SWCD – and other CCE personnel.
- Completed a promotional video of a project completed in the Southern Tier.



[https://youtu.be/bz7SNGP\\_sdw](https://youtu.be/bz7SNGP_sdw)



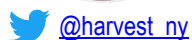
Farm Contacts 2017





## Agricultural Impacts in 2017

Through a combination of new and existing projects, the local foods program area realized significant agricultural impacts during 2017. Bulleted below is a summary of our primary projects:



- Harvest NY supported the continued development and expansion of the Western NY Food Hub. Wrapping up a 2-year USDA Local Food Promotion Program grant, the effort resulted in a number of impacts, to include:
  - o The purchase of \$417,195 of NYS specialty crops, from 19 newly on-boarded food hub farmers;
  - o The expansion and diversification of the food hub's product line, to include the addition of 11 new items, as well as a sizable increase in the purchase of organically grown crops;
  - o The development of various sizing and grading tools designed to assist direct-marketing farmers scale-up to sell wholesale, and
  - o The execution of 4 buyer/grower meetings, with total participation in excess of 200.

In addition to the impacts bulleted above, the Food Hub realized a net profit in both years of the grant, which was a direct result of the new food hub growers.

- Buffalo Farm to School (F2S) wrapped up its third year in June 2017. Total purchases of NYS grown and raised items over the course of the 3-year project exceeded \$741K, which directly benefited over 6,400 students. Harvest NY has been credited as:
  - o Assisting Buffalo Schools by connecting them with local farmers.

- o Helping them to figure out what produce to menu at what time of year, and
- o Working with the distributor to find produce in Western NY that meets the needs of the district.

In addition, Harvest NY assisted CCE Erie develop a county-wide F2S program, which will be funded through a NYS F2S grant. The effort will not only enable F2S efforts to expand across the entire Buffalo School District, but will also provide assistance to three other rural school districts in Erie County looking to develop sustainable F2S programs.

- In the beginning of its fourth programmatic year, Harvest NY bid a proud farewell to our continued involvement in the Double Up Food Bucks program, as attributed to the program's tremendous success, Field and Fork Network, the lead agency, was been able to hire dedicated program staff to take Double Up to the next level. Double Up is a nutrition incentive program that matches SNAP purchases \$1 for \$1 at participating sites across Western NY. The Double Up incentive can only be used to purchase fresh fruits and vegetables grown in NYS, thereby promoting healthy eating habits and redirecting federal food assistance dollars into the local food and agriculture economy. Impacts realized over our four-year involvement in the program include:
  - o SNAP & Double Up sales in excess of \$445K,
  - o 90% of consumers reporting that they've increased their fruit and vegetable consumption, and
  - o 61% of participating farmers reporting that they're making more money.

What began as a small pilot in 2014 has not only grown tremendously year after year but has big plans for future expansion in the near future.



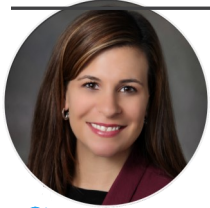
Harvest NY Brings Farm2School to Buffalo

<https://youtu.be/vssTim8odRU>



Pictured: Buyer Grower Meeting, hosting in East Aurora, NY on 9/25/2017

Photo Credit: Carl Moody



## Craft Beverage Industry 2017 Update



[@harvest\\_ny](https://twitter.com/harvest_ny)

Harvest NY has been busy fostering knowledge and cultivating connections in the NYS craft beverage industry.

Listed below is a summary of our 2017 work.

- Advancing the NYS brewery industry has been a big focus of Harvest NY's in 2017 and through the support of an NYFVI grant, we've been able to achieve the following highlights:
  - o Organized multiple Field to Pint tours to better connect the primary members of the supply chain;
  - o Released version two of the Brewery Supply Chain Analysis, an effort that involved surveying malting barley growers, malt house operators, and NYS breweries, to collect, analyze and report market-driven data.
  - o Co-planned and executed the Empire State Barley and Malt Summit, the first state-wide
- event of its kind, which attracted more than 125 key stakeholders, and resulted in the dissemination of technical and educational updates from leading researchers, as well as networking critical to the success of the industry.
- Considerable progress was made on the Classifieds Project, which is an active USDA Local Food Promotions Program project. The primary goal of the planning grant is to engage stakeholders in the NYS farm-based beverage industry to determine if some type of online aggregation platform would enable them to more effectively transact sales with one another. Originally, the intended outcome was to develop a well-vetted concept. However, through the work of the project team, and Applied Sciences Group, we've been able to develop a fully functional online platform, ready to be tested with stakeholders in early 2018.



Field to Pint Tour in Washington County. From L-R: Carrie Woerner, Assemblywoman for the 113th District; Steve Miller, CCE Hops Specialist; Dave Grusenmeyer, Executive Director of NYFVI; Cheryl Thayer, CCE Harvest NY Specialist



## Dairy Processing & Marketing 2017 Review

### Overall Dairy Processing Specialist Programming

2017 was an exemplary year that began with the Dairy Team winning the International Dairy Foods Association's (IDFA) Food Safety Leadership Award. This award honored our achievements in enhancing food safety in the dairy products industry. Our team was selected for its comprehensive approach to improving food safety across the dairy industry and was lauded for its drive to share cutting-edge research conducted by its scientists with the dairy industry. We were very proud to be recognized. IDFA created a video containing the background of our team and activities. The video can be accessed [here](http://bit.ly/cornellfs) or by typing <http://bit.ly/cornellfs> into your browser.

 @AnikaZuber



In 2017, Dairy Processing Specialists held 46 workshops, reached 1007 industry stakeholders

over 140 NYS dairy plants, and had over 13,000 contact hours as a result of workshops alone. The topics of workshops ranged from the Food Safety Modernization Act (FSMA), a regulation which affects the entire food industry-dairy included, to the ins and outs of enzyme coagulation when making cheese. These workshops were held regionally, on campus in Ithaca, and in specific plants. In-plant training can be especially beneficial for the industry because it reduces travel costs for companies, and allows us to tailor information to the company's specific plant and the products that they make. In 2017 Harvest New York conducted 22 in-plant and regionally based workshops. On-site training topics included HACCP (Hazard Analysis & Critical Control Points), Dairy Science and Sanitation, Food Safety Plan Development, Good Manufacturing Practices, Food Defense, and The Science of Yogurt and Fermented Dairy Products and Food Safety Plan Development. The companies (and counties) where Harvest NY Dairy Processing Specialists performed on-site training include: Sorrento Lactalis, Inc. (Erie); Castelli America (Chautauqua); North Country Dairy (St. Lawrence); Summit Milk Products (Seneca); Alpina Foods (Genesee); Perry's Ice Cream (Erie); Reverie Creamery (Chautauqua); East Hill Creamery (Wyoming); Byrne Dairy (Cortland); Beech-Nut (Montgomery). A HACCP course was also held in Jefferson County where Great Lakes Cheese and Upstate Niagara employees were in attendance (Jefferson, St. Lawrence).



Specialists Anika Zuber and Carl Moody at the training conducted at Upstate Niagara's North Country Dairy in North Lawrence, NY.

Photo Credit: Evelyn Hadly-Rockhill



(Pictured) Martin Wiedmann, second from left, the Gellert Family Professor in Food Safety and project manager for the Cornell University Dairy Foods Extension, receives the Food Safety Leadership Award along with Anika D. Zuber, Harvest New York regional dairy processing specialist and Sam Alcaine, right, assistant professor of dairy fermentations. They received the award from Ron Dunford, left, chair of the National Cheese Institute.

Photo Credit: IDFA

Harvest NY Dairy Processing Specialists also performed training on-campus. These trainings covered many topics including Dairy Science and Sanitation, The Science of Yogurt and Fermented Dairy Products, Fluid Milk Processing, Certified Milk Inspector School, Dairy Shrink and Loss, Vat Pasteurization and The Science of Cheese, and Food Safety Plan Development Workshop. Companies participating in these programs include: HP Hood (Steuben, Oneida, Madison, Jefferson), Upstate Niagara (Erie, Monroe, St. Lawrence), Cayuga Milk Ingredients (Cayuga), Stewart's Processing (Saratoga), Dairy Farmers of America (Onondaga), Perry's Ice Cream (Erie), Steuben Foods (Erie), Great Lakes Cheese (Allegany, Jefferson), Chobani (Otsego), Yancey's Fancy (Genesee), and Saputo Dairy Foods (Allegany, Delaware).

The Food Safety Modernization Act also affects small and very small dairy businesses. Harvest New York offered 3 4-hour Preventive Controls seminars offered in Essex, Saratoga, and Erie counties. These sessions gave an overview of the full 2.5 days FSMA program, but in a format that provides a gateway to the regulation for small processors. Specialists have worked one-on-one with several artisan dairy companies on developing facility-specific food safety plans that bring them into compliance under the Food Safety Modernization Act. This is a large change for the artisan community with an increased burden of documentation and record-keeping. Compliance will also be critical to the artisan community for maintaining existing access to markets and gaining access to additional markets where an intense focus on food safety is a requirement for buyers.

Other program highlights included an Internal Auditing training in Erie County with 28 participants, and a Value Added Dairy workshop in collaboration with the Yates County CCE office. Harvest New York Specialists delivered 4 FSMA workshops in Jamaica, Queens this year where the primary audience was Food and Drug Administration (FDA) employees. This was critical because the FDA oversees and inspects food facilities on the requirements put forth by the act and has oversight of dairy plants in New York State.

The work of the Dairy Processing Specialists was broadened by conducting outreach and delivering lectures on various topics related to dairy at the Dairy Center for Excellence; the Western New York Tech Academy; Erie Community College; Western New York Institute for Food Technologists; Western Association of Sanitarians; Canton, Jefferson, Lewis and Erie CCE offices; Genesee Valley Educational Partnership; Greater Southern Tier BOCES; and the Expanded Food and Nutrition Education Program fall update.

## Dairy Processing & Marketing 2017 Review

### Dairy Workforce Development Evaluation Plan

Given that the dairy industry is New York's number 1 agricultural industry, we know it is critical to support it from cow to the cup. The dairy processing specialists have an established program to support this vital industry. The program has a record of educating over 1,000 participants each year through a variety of workshops aimed at each sector of the industry including, milk receivers, milk & plant inspectors, fluid & cultured product plant employees, and even retailers. 2017 lent itself to a deeper dive into the Dairy Specialists' programming through an evaluation plan. The evaluation plan was created to assess our workforce development programs, specifically our workshops. The purpose is to evaluate the ways the Dairy Workforce Development Program is valuable to the attendees and businesses who send employees. An implicit assumption of this program is that by participating in the program, attendees are gaining knowledge surrounding dairy manufacturing. We know this by consistently pre and post-testing all participants. We are interested in determining the impact our program has on participants' success in their current or future positions. We are also interested in evaluating the value of this program to the plants in New York State.

Many companies consistently send employees to a variety of training workshops over the course of a year. Because of this, we are confident that the programming is valuable but are interested in the ways in which it is valuable to companies and participants. On the following page, you can find a breakdown of the survey we invited participants to take 1 year after going through one of our courses, as well as the survey we provided to the leadership of several plants in New York who frequently send employees to our workshops.

#### Cornell Cooperative Extension Harvest New York

**14.7 BILLION LBS**



of milk produced in 2016 from

**620,000 COWS**

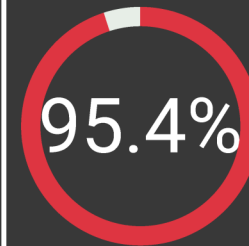


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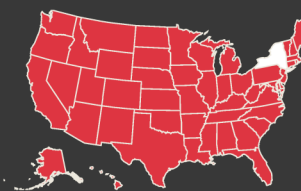
**4,624 FARMS**

### New York's Dairy Industry



Of milk received at New York State Dairy Plants comes from New York State Sources

#### New York's National Production Ranking



**#1**



**#3**



**#4**



Cottage Cheese: 186,193,000 lbs  
Sour Cream: 262,734,000 lbs  
Yogurt: 669,254,000 lbs  
Cream Cheese: 280,070,000 lbs or 30.8% of U.S. production

Milk: 14,765,000,000 lbs which would equal 17,093,023 Gallons

Cheese: 801,262,000 lbs

#### Dairy Processors in New York



**362** Dairy Plants in New York



**\$13,954,577,500** In Direct Economic Output



**63,410** Direct Jobs  
**\$2,909,530,600** Direct Wages



**5.6** jobs created for every job created by dairy processors

#### Cornell Cooperative Extension Harvest New York

### 2017 Impacts

Conducted **46** workshops

Trained **144** food companies through workshop on Food Safety or Dairy Science topics

Interacted with **1,007** food industry workshop participants

Generated **13,727** contact hours

#### SOURCES

<http://www.idfa.org/resource-center/dairy-delivers> - <http://idfa.guerrillaeconomics.net/reports/e8068ef0-036c-428a-9391-7249009965c6?>  
<http://publications.dyson.cornell.edu/outreach/extensionpdf/2014/Cornell-Dyson-eb1404.pdf> - <https://www.usda.gov/nass/PUBS/TODAYRPT/daryan16.pdf>  
[https://www.nass.usda.gov/Quick\\_Stats/Ag\\_Overview/stateOverview.php?state=NEW%20YORK](https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=NEW%20YORK)

#### CREATED BY

Anika Zuber | Harvest New York



@HarvestNY



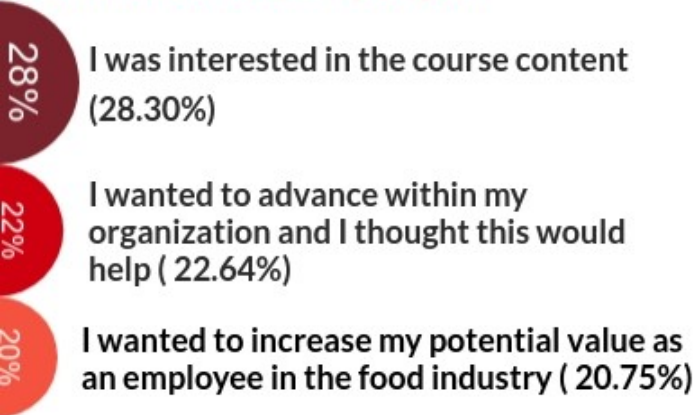
@Harvest\_NY



Dairy Processing & Marketing 2017 Review

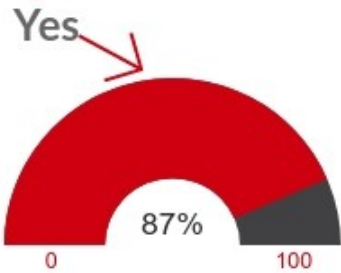
# Participant Responses

"What motivated you attend the Dairy Foods Extension class(es) this past year? "



Did you learn anything at the course(s) that changed how you do your job?

"I am new to the dairy industry and the information presented helped me understand certain processes faster as opposed to just learning it on the job."



"Now I am the leader implementing the topics seen at the extension course in (my) organization"

"It made me feel proud to be a part of the food industry. Although it can be stressful, it is more often very rewarding."

# Employer Responses

Top 3 reasons companies sent employees to our courses:



When asked, "Have you observed direct application of skills or knowledge after participating in our training?"



Of respondents said yes



"Employees who attend the training come back looking for ways to incorporate new ideas into our systems"

## Highlights for 2017


[urbanag.nyc](http://urbanag.nyc)

[@SamAnderson](https://twitter.com/SamAnderson) CCE

[samwanderson](https://www.instagram.com/samwanderson)

[@ygonzalez27](https://twitter.com/ygonzalez27)

[yolandagonzalez27](https://www.instagram.com/yolandagonzalez27)

October 2017 marked the beginning of Harvest NY's urban agriculture program area in New York City. Urban Agriculture Specialists hit the ground running, visiting 14 agricultural operations spread across all five boroughs of NYC, growing everything from hops on rooftops to rice and basil in aquaponic systems. Harvest NY specialists also met with key service providers and other urban agriculture stakeholders in all five boroughs, as well as further afield, attending the Cornell CEA Entrepreneur

Conference in Ithaca and the National Urban Extension Leaders Semi-Annual Meeting in Nashville, TN.

## Additional highlights:

- Specialists participated in NYC urban agriculture events, including the annual NRCS Local Work Group meeting, NY Small Business Development Center's Access to Capital event, the Urban Soils Symposium, and participating in a panel at City and State's Politics of Food event.
- Through meetings with Cornell faculty and staff from CALS, CCE NYC, Cornell Tech, and the Healthy Soils, Healthy Communities project, Harvest NY specialists opened the door for new collaborations. One such collaboration will include participation in a National Science Foundation grant studying feasibility and impacts of controlled environment agriculture with investigators at CALS and in collaboration with the Association for Vertical Farming.
- Harvest NY set up a working relationship as technical service providers for a new 1+ acre rooftop farm installation at the Javits Center, the busiest convention center in the US.
- In order to determine 2018 and future programming, Urban Agriculture Specialists began an inventory of NYC urban farming operations and a needs assessment for NYC urban agriculture.



Pictured: Rooftop cover crops at the Brooklyn Grange

Photo credit: Sam Anderson



Pictured: Site visit to Oko Farms, an outdoor aquaponics operation in Brooklyn, NY

Photo credit: Yolanda Gonzalez





## 2017 Year-End Report

Starting in February 2017, and finishing after eight months of boots-on-the-ground data collection, a collaborative survey of

Tufts, Columbia and Cornell Universities has been completed. There are a total of 67 USDA red meat plants in NY, CT, MA, VT, RI, NH, ME, and Northern PA. 53 plants were interviewed which generated significant qualitative and quantitative data.

Survey questions were focused on processing capacity, distance animals travel to the plant, labor issues, strengths, daily constraints, and fees for processing.

The survey is part of a larger project with Cornell University, Tufts University, and Design & Urbanism Architectural. LLC, on a research project titled, 'Overcoming Supply Chain Barriers to Expanding Northeast Ruminant Meat Production'. This project will examine the supply chain barriers to small and medium scale production of ruminant meat in the Northeast. The research project will implement research, extension, and education activities in pursuit of these three major objectives.

The research project will use quantitative modeling to understand the temporal and spatial dynamics of ruminant animal production, slaughter capacity, and distribution to markets in New York and New England; as well as, improve understanding of both constraints and potential capacity among producers, processors, and policymakers and develop strategies for confronting barriers and realizing capacity for production. The results of the survey will be available late winter 2018. Throughout the months of the survey, 107 members of the packing plant industry contributed to the work.

Other highlights for 2017; Harvest NY is now training the Animal Food Industry for the Food Safety Modernization Act Animal Food rule. This past year 74 industry leaders were trained to become Preventive Control Qualified Individuals with co-instructor Cooperative Feed Dealers. Harvest NY is also training our USDA meat and poultry plants for Hazard Analysis Critical Control Point (HACCP) regulations. Throughout 2017, 63 industry professions were trained and certified in HACCP.

Harvest NY worked with SUNY Cobleskill's meat lab, Cornell University Dairy Foods extension, local Cooperative Extension offices to offer meat processing and charcuterie workshops throughout New York State. 148 producers, processors, and restaurateurs participated in these workshop throughout 2017.

Working with USDA, Cornell University, and CCE Otsego County, ninety-five producers were educated and assisted with cattle grading for the two Feeder Calf Pool Sales. Harvest New York is aiming to increase the profitability of the state's meat industry, and through workshops, individual interactions, and trainings, we are bringing producers, processors, and consumers together to help grow the meat industry in the State of New York.




Photo Credit: Mackenzie Waro



Harvest NY Cured Meats Workshop

<https://youtu.be/u1XYaijhT5w>



 [Lindsey Pashow](#)

## Northern New York Craft Beverage Industry—Year in Review

Over the past year, Harvest NY continued to work with the craft beverage industry across northern NY. Currently, there is an increased interest in starting breweries, wineries, and distilleries. Each of these potential businesses brings in a new niche to the craft beverage industry in northern NY. Here are some program highlights:

- The Winery Cost Establishment report and interactive spreadsheet were created with input from Cornell Economist Miguel Gomez, to help potential and current wineries determine costs associated with establishing and expanding a winery in northern NY. This report and interactive spreadsheet were presented during a workshop in St. Lawrence County. A participant was asked if they gained new information from the cost evaluation program to make an appropriate decision about establishing a winery "yes, that establishing a winery is extremely labor intensive and expensive." When participants were asked the cost of establishing a winery pre and post workshop. The pre-workshop cost was between \$20,000 to \$25,000 while the post-workshop was \$158,000 to \$250,000. The report can be found on the [Harvest NY website](#) for viewing.
- Harvest NY provided educational support on the development, establishment, and expansion of the current craft beverage industry. This included site visits, assistance with licensing applications (state and federal), and understanding regulations. The support lead to two wineries opening in 2017.
- "CCE Harvest NY has been helpful when we have questions or doubts on certain areas especially with labor. It is also a resource place for any information that we need with regards to

education, seminars and the events that are on-going in NYS. CCE Harvest NY will show us the right person to address our questions."-Erwin Kalmar and Norlia Asma-Kalmar (Four Maples Vineyard, Champlain)

- A Hard Cider Supply Chain Analysis survey was created and administered throughout NYS. This survey is intended to help hard cider operations and NYS apple growers determine market demand for hard cider apple varieties. A final report will be released at the beginning of 2018.
- A short educational video was created to provide information regarding the developing wine industry in northern NY. The video focuses on the unique cold climate grapes, wine styles, and Champlain Valley American Viticultural Area.

### St. Lawrence Valley Produce Auction

Harvest NY continues to support the development of the St. Lawrence Valley Produce Auction in northern New York. A produce auction is an aggregation and marketing service that allows family farms to participate in a wholesale fruit and vegetable economy. It allows the farmer to concentrate on growing a good product and less time marketing. Currently, there are seven produce auctions in New York State and none in northern New York.

- In October 2016, the first exploratory meeting was held in Franklin County to determine if starting a produce auction in northern NY was of interest to the local communities. Response was positive and enthusiastic. An additional meeting was held in December 2016 to establish a board of directors that would move forward with finding a location for the auction and start the establishment of the auction.
- Over the past year, Harvest NY has worked with the produce auction board and CCE Franklin County on the establishment of a produce auction in northern New York.
- Harvest NY has provided support through the creation promotional materials (brochures and postcards), site visits, arranging meetings, and providing produce auction establishment information.
- In 2017, the board decided to set up an S-corporation and designate the produce auction the "St. Lawrence Valley Produce Auction".
- Currently, around 1,500 shares have been sold at (\$100 per share). They are projected to sell 2,000 shares.
- At the November 21st meeting there were 58 people from Franklin and St. Lawrence Counties to discuss the next steps to making it a successful produce auction.
- The St. Lawrence Valley Produce Auction plans to open in time for Mother's Day 2018 featuring flower sales.



Photo Credit: James Monahan

