

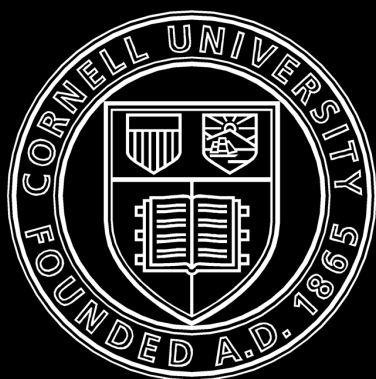
HARVEST NEW YORK GROWING NEW YORK'S AGRICULTURE & FOOD ECONOMY

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.



QUARTERLY HIGHLIGHTS January– March 2019

FARM STRATEGIC PLANNING

Harvest NY Coordinates CAFO Training

Current environmental regulations require farms designated as Concentrated Animal Feeding Operations (CAFO) to have personnel on staff who are certified in the proper application of agricultural wastes – a minimum of one staff member for medium CAFO's and two for large CAFO's. To become certified they must attend a half-day NYS Dept. of Environmental Conservation (NYS DEC) approved training.

Partnering with CCE Steuben County, Pro-Dairy, WNY Crop Management Association, and the Steuben County Farm Bureau, Harvest NY coordinated two half-day sessions – one in Warsaw and one in Bath. Eighty-five farm owners, employees, and consultants from eight counties in Western NY and the Southern Tier were trained in such topics as protecting water quality, spreading under difficult conditions, preventing and handling spills, as well as, proper record keeping.

While the value of compliance with environmental regulations and the avoidance of fines might be determined, the protection of New York's water resources, and by extension the health and safety of its residents are incalculable.

And this just in ...

A colleague just shared with me the results of a Dairy Farm Business Summary she recently completed on a farm that was the recipient of some Harvest NY design assistance for a new freestall and milking center in 2015. In reviewing the records, she noted an average increase in production per cow of 8½% year-over-year since 2016 (they populated the facility in late 2015). This is likely due to not only improvements in cow comfort, but also the nearly 50% reduction in chore time that has allowed them to be more timely with supporting activities such as cropping, feeding, calf care, and the like.



Pictured: Bath NY CAFO Training



Pictured: Warsaw NY CAFO Training

New York Farm to School Feed

Farm to School Program Development Support



Farm to School (F2S) efforts are catalyzing across New York, with much of this recent interest being ignited through Governor Cuomo's [No Student Goes Hungry Program](#), a key provision of

which is the \$.25 per lunch served incentive to those schools that purchase at least 30% of their lunch ingredients from NY farms and food processors (whose product is comprised of 51% NY farm ingredients). Prior to this incentive (for 40+ years), the schools received a stagnant \$.06 per lunch served, so this additional \$.19 is serving as a tremendous driver to localize cafeteria supply chains as much as possible.

This robust incentive, though certainly attainable, will take some work to achieve. Thankfully, there's a plethora of support out there to assist growers, food processors, food distributors, and food service directors. Harvest NY has been leading F2S program development since we formed in 2012. We're happy to share our knowledge and experience across the state, so please feel empowered to reach out should you want to launch or expand F2S programming in your county. Services we can assist with include:

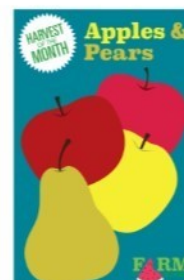
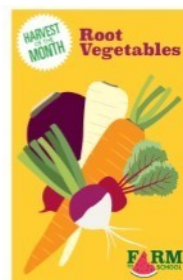
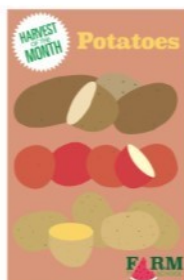
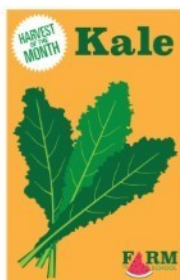
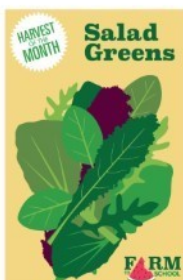
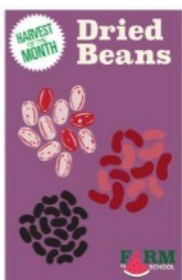
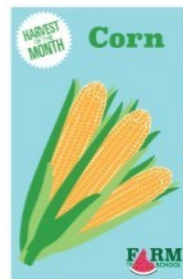
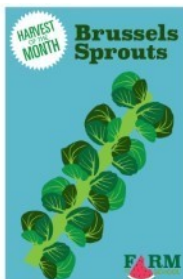
- The soup to nuts of sustainable and effective F2S program development, utilizing evidence-based best practices
- Assistance with finding and sourcing NY farm products and menu (re)development to incorporate them
- Assistance with developing and responding to food service bids that give preference to NY farm products
- Assistance, to growers, in learning how to efficiently and profitably get their products into school cafeterias

- Best practices to bridge the 3C's of F2S: the cafeteria, the community, the classroom

We're certainly not the only ones in NY that can assist. To that end, we compiled a list of F2S contacts across the state. The list, which can be found on [Harvest NY's website](#), includes people that serve in various geographic capacities, ranging from statewide support to regional support, to county-specific support. Please feel free to reach out to any name on this list, as all have committed to being a public resource to those that need assistance. F2S takes a village, and thankfully ours in NY continues to grow.

Farm to School Program Work Team Launches

A new statewide F2S Program Work Team (F2S PWT) launched in early 2019, being co-led by: Mo Tidball (CCE Seneca County), Cheryl Thayer (CCE Harvest NY), Violet Stone (Cornell Small Farms Program), Kacey Deamer (Cornell Small Farms Program, LRFS), Heidi Mouillesseaux-Kunzman (Cornell LRFS, Community and Regional Development Institute), Julie Raway (Broome Tioga BOCES, New York School Nutrition Association, and the National Farm to School Network), Stephanie Hsu (Farm to Institution NYS, American Farmland Trust), and Anu Rangarajan (Cornell Small Farm Program, LRFS). The F2S PWT was formed to connect and support those working to advance F2S in NY through research and education, shared learning, collaboration, and peer support. Exciting things to expect from the PWT in the coming year is a revamped statewide F2S website, quarterly educational webinars, and the first-ever, statewide F2S conference. Another value the PWT affords is an active listserv, connecting members to one another across the state. To learn more about the PWT and become a part of it, as it's open to anyone, please contact Mo Tidball via email at mmt65@cornell.edu.



Speaking of resources, did you know you could use all of the marketing materials generated through the Buffalo F2S program? Posters like the ones above, plus infographics and nutritional newsletters are available for 13 items. They can be found on [Harvest NY's website](#).

Local beef, it's what's for lunch in Buffalo

Buffalo Public School students were treated to something a little special this Valentine's Day, in a promotional event that exemplified the core tenets of our Buffalo Farm to School (F2S) program: local procurement, food systems education and community engagement. The Valentine's Day event was an addendum to our annual F2S Chef Competition, which pairs students up with local Chef's and challenges them to create a school lunch that highlights the use of locally farmed ingredients while adhering to the USDA nutritional guidelines. After going through a three-week culinary arts training program, the students are paired up with a local chef the day of. The 'basket' ingredients this year were locally raised beef and locally grown winter squash. Chef Andy Montesano and this team of students took 1st place at the challenge with their butternut squash infused meatloaf, topped with a honey ketchup glaze. This award-winning dish made its cafeteria debut on Valentine's Day to 5,000 students, aged K-8. Prior to lunch service, 2nd graders were treated to a special learning journey, with beef as the star of the show. The morning began with a fun and engaging nutrition education lesson provided by Cindy Phillips, of the NY Beef Council, and followed with a cooking demo provided by Chef Andy.

The Buffalo F2S program, which catalyzed in 2014, has primarily been focused on the purchase of local produce, with local proteins always an end goal, but one that existed further down our timeline, namely due to infrastructure constraints and staff capacity, common barriers to F2S expansion in institutional kitchens. This event, which was intended to be promotional and educational in nature, ended up being the necessary baby step to instill in the food service staff, the knowledge and confidence that handling raw proteins safely and efficiently was in fact, an attainable next step in our F2S program. As a result, Buffalo F2S released in February, a geographic preference bid, requesting 130,000lbs of NY ground beef. This signals a significant expansion of our F2S program, as we are now hoping to source the center of our plate from NY farms. Stayed tuned for our next quarterly report to find out who won the bid and what the dollar value equates to. For more information on the Valentine's Day event, please check out local news coverage of it [here](#) and if you'd like to test Chef Andy's recipe, it can be found on [Buffalo's F2S website](#). Fun fact, I prepared the recipe for my kids, ages 5 and 2, and never have I seen plates of butternut squash cleared so fast!



Pictured: Cindy Phillips of the [New York Beef Council](#) teaches 2nd graders about the nutritional value of beef. Did you know beef is high in protein, zinc and iron? These 2nd graders now do! Effective and sustainable F2S programs hinge on the strength of community partners. We're grateful to have agricultural associations, like the NY Beef Council, lend their resources and expertise, in this case, helping us to forge the critical link between the cafeteria and the classroom.



Pictured: Julia Van Loon of [Slate Foods](#) has been instrumental in helping schools source the center of the plate from NY farms. A resident of NYC, Julia journeyed to Buffalo to assist Chef Andy Montesano serve West Hertel Academy students his 1st place winning dish, butternut squash infused meatloaf, prepared with beef from Slate Foods. Another great example of how meaningful partnerships further advance the pillars of our F2S program; in this case, another critical link in effective F2S programming, that of the cafeteria and the community.

First Quarter Program Updates

Grocery store shelves are stocked with foods from all over the world. Having a global economy includes food, and food produced in New York is traveling all across the country and beyond. These global opportunities come with food safety challenges. How do retailers across the world know that their imported foods meet proper food safety standards?

In 2000, food industry leaders collaborated to address this issue by creating a set of standards that are recognized worldwide as being the foundation for food safety. Collectively, these standards are referred to as the Global Food Safety Initiative (GFSI) standards. In the United States, many companies have employed a program called Safe Quality Foods (SQF) to help them meet these GFSI standards. SQF is a certifying body with its own set of standards that goes above and beyond regulatory requirements. SQF facilities are audited annually to ensure their food safety and quality programs adhere to the GFSI standards.

It is imperative that our dairy processors score well on these audits to stay competitive because many of their customers are requiring SQF or GFSI certification. Facilities that receive an SQF score of 70-85% receive a “C – complies”, but are required to have a six-month surveillance audit to ensure that they are remaining compliant to the GFSI standards. Any plant receiving a score of 69% or less, fails their audit and has its certification withdrawn. Plants are required by their customers to provide a copy of their certificate as well as their score annually. The better the plant scores on their audit, the more likely they are to retain their customers. Grocery chains and wholesale customers are placing more emphasis than ever before on food safety, and they are using this auditing tool to ensure their stores are stocked with GFSI compliant food. This has become so important, that many plants have full-time staff hired with the sole responsibility of managing GFSI programs.

The Harvest NY dairy processing specialists have worked with multiple plants across the state to help them prepare for their SQF audits. These preparations were comprised of various activities such as:

- Holding food safety and quality workshops
- Conducting On-site food safety and food quality plan reviews
- Performing on-site mock audits
- One-on-one consultation for plan development

The above activities target multiple levels of personnel in facilities. Management commitment to food safety and quality is critical. It is also crucial for plant staff to fully understand the set of standards, or code, that the SQF auditors will be expecting the plant to meet or exceed. Our workshops are held to instruct dairy plant employees about the code and best practices for

organizing materials to help audits run smoothly. SQF has become such a large focus for maintaining business for dairy plants, that we held a workshop in January titled, “Improving Audit Outcomes”. This workshop covered how to best prepare for audits, what auditors are looking for, and common pitfalls plants can avoid.

Dairy processing specialists trained in the SQF code are able to perform a mock audit, about 3 to 4 months prior to the actual audit to identify opportunities for improvement. The mock audits help the staff prepare by running through an actual audit scenario. After some mock audits were completed, plants requested one-on-one consultation to address areas that were identified as critically important for their upcoming audit. The one-on-one trainings were crucial in one facility to help develop staff that had recently been promoted to new roles.

The work of the Harvest NY dairy processing specialists has helped many plants significantly improve their audit scores. One NY cheese plant saw a 6-point jump in their score from 2018–87% to 93%. Meanwhile, a NY yogurt plant saw their 2018 score of 86% jump to 96% in 2019. In fact, the staff from the yogurt plant stated that the on-campus training “set us off on the right foot”. The plant will be able to leverage their newly acquired “E-excellent” rating to obtain new customers in addition to retaining their current customers. This will help NY State maintain its status as the #1 producer of yogurt in the country.

Harvest NY dairy processing specialists will continue to assist our dairy plants looking to improve or maintain their SQF audit scores.



Pictured: Participants working on food safety plans at Yancey's Fancy

Cornell Cooperative Extension

Harvest New York

Workshop	Participants Location	
Preventive Controls for Qualified Individuals	14	Watertown, NY
Improving Audit Outcomes	15	Ithaca, NY
Dairy Science and Sanitation	32	Ithaca, NY
Food Defense	12	Ithaca, NY
Artisan Food Safety Planning	12	Plattsburgh, NY
Value Added Products	13	Watertown, NY
Dairy Basics	10	Pittsford Dairy Pittsford, NY
Hazard Analysis Critical Control Points	23	Yancey’s Fancy Corfu, NY
Allergen Training	23	HP Hood Vernon, NY
Environmental Monitoring Programs	3	Keeseville, NY

10 Workshops—157 Participants representing New York State farms and businesses

Spawning an Interest in Specialty Mushrooms in NYC

Cultures around the world have revered mushrooms as a vital source of nutrition and healing for centuries. For contemporary farmers, mushrooms can be much more than an emerging and lucrative niche crop; they offer communities opportunities to address issues of unequal access to land, infrastructure, and capital, which are all identified barriers to equity and justice in food production.

Harvest NY has partnered with Farm School NYC and Cornell Small Farms Program to offer a six-week course that trains new and experienced farmers in the background, techniques, and economics of farm scale indoor commercial mushroom production and explores the ethnography and social justice aspects of growing mushrooms. Over 20 students have signed up to learn about

mushroom cultivation, harvesting and marketing and to receive spawn and guidance to try mini mushroom experiments at home. In addition to co-facilitating the Indoor Specialty Mushroom Cultivation course with Farm School NYC, Harvest NY specialist Yolanda Gonzalez and urban mushroom grower and educator Jie Jin co-facilitated a presentation, "Urban Growing Mushrooms in Gardens and at Home," at this year's GreenThumb Grow Together Conference on March 30, 2019 to over 60 attendees.

This workshop offered gardeners and farmers of all sizes insight into a wide range of both outdoor and indoor growing methods for mushroom production, incorporating mushrooms into many existing gardens and urban farm systems to offer healthy, nutritious, and medicinal food to people and communities across New York City.



Pictured: Farm School students participating in the Indoor Specialty Mushroom Cultivation course.



Pictured: Participants of Green Thumb's Grow Together Conference attending the mushroom workshop.

NYC Agricultural Soil Survey Enters Second Year

At more than 30 sites across New York City, urban farmers grow vegetables in some sort of soil. Some of these farms grow directly in the underlying soil, but the majority do not, due to concerns about soil contamination or quality, or because the location is on a rooftop or paved surface. These sites grow in "constructed soils," usually meaning some combination of purchased topsoil and mature compost—or nothing but compost, in some cases.

In order to better understand the unique soils used in New York City's urban farms, Harvest NY specialist Sam Anderson started the NYC Survey of Agricultural Soils in 2018, with plans to expand the survey in 2019. After obtaining soil and plant tissue analysis from ten urban farms in NYC, preliminary findings for the survey's first year are now available on the [Harvest NY website](#).

Initial results have raised interesting new questions about characteristics and best practices for constructed soils used in urban agriculture. Soils tend to have high levels of organic matter in comparison with most of the state's agricultural soils, as well as very high levels of nutrients such as calcium, magnesium, and

phosphorous. Should these soils be managed more like a standard agricultural soil, or like a muck soil, or even like potting soil? What is an ideal pH for vegetable production in these soils? How are high levels of certain nutrients impacting the uptake of other nutrients, if at all?

With expanded participation and more data in 2019, we aim to find some answers to these questions, and ultimately to develop new best management practices directly applicable to unique soils used in urban agriculture.



Pictured: Soil samples from the ten participating urban farms in 2018, arranged by organic matter percentage.

First Quarter Program Updates

Northern NY Producer Products at the International Restaurant and Foodservice Show of New York

On March 3-5 the International Restaurant and Foodservice Show of New York was held at the Javits Convention Center in NYC. This show brings in approximately 20,000 visitors from the Northeast and 550 exhibitors from all over the world. This year nine Northern NY farmers from Jefferson, Lewis, Oswego, and Clinton counties sent product down to the show. Farmers received many praises and new markets for their products. Harvest NY, CCE Lewis County, and CCE Jefferson County sent representatives to help promote the Northern NY farmers products. This opportunity was made possible through funding support from the North Star Food Hub. The North Star Food Hub is a four-county (Jefferson, St. Lawrence, Lewis, and Oswego) regional food hub initiative to help farmers expand market opportunities.



Pictured: CCE Harvest NY at the International Food Show in NYC with CCE Jefferson County and CCE Lewis County

Photo Credit: Lindsey Pashow

Produce Safety Alliance Food Safety Training

Harvest NY continues to support food safety training for the Food Safety Modernization Act (FSMA). In March, Harvest NY hosted a 2-day FSMA training in North Bangor at the St. Lawrence Valley Produce Auction. This training brought together 27 farmers from Franklin, Jefferson, and St. Lawrence counties. Farmers spent the first day and a half learning about food safety and the second half writing food safety plans. These attendees are planning to meet again in April to continue their work on food safety plans. This event was made possible through funding support from the Northeast Center for Advance Food Safety, Produce Safety Alliance, and NYS Agriculture and Markets. In addition to this training Harvest NY specialist also served as a Produce Safety Alliance trainer at the Eastern New York Fruit and Vegetable Conference (36 participants) and Broome County (14 participants).

marketing, and farmers markets. These programs reached approximately 24 farmers across Northern New York, and were intended to prepare farmers for the upcoming marketing season.



Pictured: St. Lawrence Valley Produce Auction

Northern New York Marketing Workshops

Harvest NY continued to provide educational marketing support in Northern NY. This support included teaching and facilitating a variety of marketing programs across the region. The workshops that were offered focused on agritourism, general

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