



HARVEST NEW YORK QUARTERLY HIGHLIGHTS Q1 2020

Harvest New York is 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.



Buffalo Farm to School Awards Food Bids to Local Farmers and Small Food Producers in the Amount of \$844,485

Emphasis Placed on Local Sourcing, Food Safety, Environmental Stewardship, and the Humane Treatment of Animals

The Buffalo Farm to School program, with the direct support of Harvest NY Specialist Cheryl Thayer, sent a clear signal to food producers through their most recent round of bidding: while cost is certainly important, it is not the only factor that determines a bid award. Using a value-based purchasing strategy, greater emphasis was placed on local sourcing, food safety, environmental stewardship, and the humane treatment of animals. The strategy proved successful, as all awardees not only source from NY farms, but also received additional points because they:

- Adhered to the highest food safety standards, recognizing the importance of serving students food produced in the safest manner possible.
- Were in closest proximity to the district, ensuring students receive the freshest food possible. Important to this value was drafting a bid that was more inclusive of Buffalo's urban farms, as they are, quite literally, in the backyard of the district's schools, yet often are left out of the bid process due to size and capacity.
- Possessed animal welfare certifications, attesting to the food businesses' commitment to safe and humane animal practices.
- Were New York Grown & Certified, which indicates that the farms being sourced from have been inspected for safe food handling and environmental stewardship.

Of the \$855,485 that was awarded, \$136,050 was awarded to certified Minority and Women Owned Business Enterprises (MWBE) and \$10,580 to organic farms. The six New York-based businesses that received awards were:

- **Eden Valley Growers/Western NY Food Hub**, a 60-year old produce cooperative that works with 25+ local farmers.
- **Wardynski & Sons**, a Buffalo-based family-owned and operated business since 1919, who will be providing the district with custom made local beef products.
- **Groundwork Market Garden**, a MWBE certified organic urban farm on the East side of Buffalo.
- **5 Loaves Farm**, an organic urban farm on the West side of Buffalo.
- **Slate Foods**, Inc., a MWBE New York Grown & Certified agri-producer of local beef and beef products.
- **Empire State Farms**, LLC, an animal protein food-processing venture established by two 3rd generation family farms in Central NY.



Harvest NY Welcomes Western NY Farm to Institution Coordinator to the Team

We are thrilled to welcome Becky O'Connor to the Harvest NY team as our WNY Farm to Institution Coordinator. Before joining Harvest NY, Becky served as the Farm to School Coordinator for CCE Erie County, and prior to that, the Western NY Eat Smart New York Program Manager. Becky is working alongside Cheryl Thayer to expand Farm to Institution programming throughout Western NY, in partnership with county Cooperative Extension offices in Monroe, Wyoming, Genesee, Livingston, Orleans, Erie, and Chautauqua. Farm to Institution support is also available to other counties should there be interest. Becky's email is rao84@cornell.edu.



Farm Manager, Bob Treier, of Bauman's Farm Market in Webster, NY is a grower collaborator of the Eastern Broccoli Project. Photo by Christy Hoepting, CCE Cornell Vegetable Program

Eastern Broccoli Project Market Development Research Underway

Hudson Valley Agribusiness Development Corporation (HVADC), in partnership with Red Tomato and the Cornell Eastern Broccoli Project (EBP) team received a \$50,000 Regional Economic Development Council grant through New York State. Representing the Cornell Eastern Broccoli Project on the core team is Harvest NY Specialist Cheryl Thayer. The project will develop a collaborative plan for the marketing, distribution, and branding of local broccoli that aims to establish a competitive foothold in the marketplace for New York farmers. Red Tomato, who is a food distribution non-profit based out of New England, will take lead on this planning project, with support provided by HVADC and Cornell EBP. The project is currently underway, with an expected completion date of late 2020.

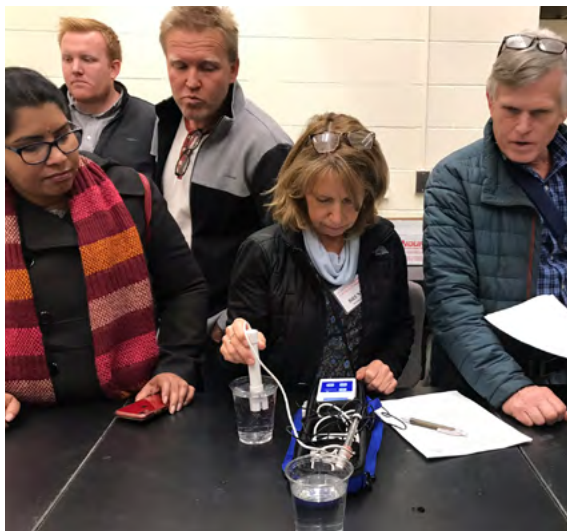


Successful Strawberry Substrate 3-Day Workshop Inspires Growers

In February, Harvest NY's Esther Kibbe organized a workshop focused on growing strawberries in substrate, held in Ithaca. Thirty growers and extension professionals spent 3 days learning about growing strawberries in soil-less (substrate) production systems. Intense lecture portions in the mornings were followed by greenhouse tours and hands-on activities in the afternoons. The workshop was taught by Dennis Wilson of Delphy, a UK and Netherlands based agronomy and education company. His many years of experience working with strawberry substrate growers made him confident in his recommendations of types of containers, substrate mixes, irrigation rates and fertility protocols. Dennis noted that almost all strawberry production in the UK has moved to substrate systems, but the fruit quality improvement means that more than 90% of strawberries in the stores are now grown in the UK, compared to 50% 25 years ago. While converting to substrate production isn't for everyone, growers in Europe find that in addition to better quality fruit, they are able to increase yields, harvest efficiency and attract more labor, compared to soil-based systems. Funding for the workshop came from the New York State Berry Growers Association and participant registration fees.

Cornell's horticulture professor, Neil Mattson, and his team put together a great practical portion to the workshop, using plants and systems set up for graduate student Jonathan Allred's, research on strawberries' light requirements. Workshop participants practiced measuring "drip" and "drain", electrical conductivity, pH and moisture levels in the substrate. There were samples of different types of substrate and media to touch and compare and plants and runners for planting demonstrations (and a chance to try it themselves).

About half of the workshop participants had no experience growing crops in substrate, and the rest had experience ranging from one year to thirty years. All reported that they found the content relevant and most said they would continue or start growing berries in substrate in the future. Participant feedback was extremely positive overall, and most are looking forward to future trainings and tours related to substrate berry production.



Workshop participants using pH and EC meters to test water samples. Photo by Esther Kibber, CCE Harvest NY

"This program was excellent and answered many questions I have been asking for years. Really appreciate the handouts and the clear presentation style and the time and patience spent on questions."

New Developments in Urban Agriculture Soil Management

After gathering samples and analyzing the unique “constructed soils” of New York City’s urban farms in 2018 and 2019, and after discussing these results with colleagues at Cornell Cooperative Extension and the College of Agriculture and Life Sciences, Harvest NY Specialist Sam Anderson is translating the data into best practices for urban farmers. In early 2020, he began to uncover the answer to a problem that had puzzled urban farmers and service providers: Why do standard agronomic soil tests often return exceedingly high levels of nutrients for urban ag soils, yet crops in those soils often exhibit nutrient deficiencies?

The answer appears to lie with soil bulk density. Agricultural soil tests assume a standard bulk density which roughly applies to most rural agricultural soils; however, soils with high organic matter levels have a much lower bulk density, causing standard soil tests to substantially overstate the true amount of available nutrients. In the first quarter of 2020, Anderson began gathering new samples and calculating bulk density of NYC urban ag soils, adjusting previous years’ soil test results accordingly. Based on the initial data, applying bulk density adjustments appears to make agronomic soil tests results far more predictive of future nutrient deficiencies.

By calculating the bulk density for each site, Anderson is now helping farmers to translate their soil test results with adjustments tailored for each urban farm’s unique soils. For at least 18 NYC urban farms growing in soil with over 10% organic matter, these adjustments give farmers the ability to correct nutrient deficiencies before they become a problem and apply amendments with more precision, potentially increasing yields by 50% or more while reducing excess fertilizer use. Through one-on-one technical assistance in the first quarter of 2020, at least 14 NYC urban farmers now have a newfound ability to use soil test results for better fertility management, allowing them to grow substantially more food for their markets and communities.

Cold Frames: A Season Extension Option for Urban Farms

Farmers use structures – high tunnels, greenhouses, row cover and cold frames – to get an earlier start in the spring and extend the season into the fall and winter to increase both yields and profits. Cold frames provide a low-cost, portable structure to harden off seedlings and shield against extreme wind conditions that are often typical of urban rooftop farms. Construction materials may range from concrete blocks, bales of hay, logs, and wood, allowing urban farmers the flexibility to source building materials that are most accessible.

To explore these benefits Harvest NY Specialist Yolanda Gonzalez and Olivia Gamber from Staten Island Urby Farm presented a virtual workshop on cold frames and season extension on Wednesday, April 8 at 5:30pm. Over 17 Zoom participants tuned in to learn about the basic concepts of season extension techniques and hear Olivia share her experience constructing cold frames in an urban setting. Season extension structures, including cold frames, provide urban farmers with the opportunity to sell fresh greens like mâche, claytonia (also known as winter’s purslane), minutina, spinach, and sorrel as part of a winter CSA or winter farm stand, when fresh produce is most in demand.



Anne from Queens County Farm holds up the top of a cold frame, constructed with concrete sides growing kale, lettuce, spinach, and cilantro. Photo by Yolanda Gonzalez, CCE Harvest NY



Comfortable stalls with 100% usage.

Cow Comfort: Key to ‘The Next Pound’

Low farm gate milk prices are nothing new; it has been in the news for more than four years now. Fortunately, there has been a slight rebound in recent months, and farm owners are using this reprieve to pay down debt and/or make improvements. Many are coming to the conclusion that the best way forward is not through increased production but through improved production efficiency. In other words, how do we decrease the cost to produce a hundredweight of milk?

Many have already fine-tuned their production, harvesting, and storage of homegrown feeds, their milking systems are top-notch and well maintained, and their genetics have been maximized. No, the next pound, or pounds, of milk are going to have to come from improvements in cow comfort. More specifically, this means updating and upgrading the facilities where she is housed. Many of the existing freestalls were constructed in the 1970’s and ‘80’s, and nearly all the tiestall barns long before that. These were state-of-the-art in their day but we know so much more now and the animals themselves have gotten so much larger since then. The old stall dimensions and ventilation systems are frequently inadequate.

One farm, for example, understands that high-producing dairy cows require a minimum total lying time of 12 hours per day. Working with Harvest NY, they’ve undertaken an updating and upgrading of the interior of their main freestall barn which was constructed in 1974. Gone are the torn mats and mattresses, the broken stall dividers, undersized stalls, inadequate waterers, and the hard concrete surfaces. In their place are deep-bedded sand freestalls, new and properly mounted stall dividers, as well as new, larger waterers that are more accessible and easier to clean. The new stalls are designed for improved durability and serviceability. Moreover, stall usage is now 100% and animals are lying down in them rather than just standing. It’s too early to assess the full impact of this as the project is ongoing and the herd is crowded into the remaining three quadrants as each one is remodeled.



Inadequate waterer in under-used and poorly maintained freestalls.



Clean, adequately sized waterer.
Photos by Tim Terry, CCE Harvest NY

Offering Customized Services to Dairy Food Processing Facilities of All Sizes Across New York State

Harvest NY Dairy Processing Specialists reach a wide variety of food processing facilities ranging in size, scale, and business stage. Helping small businesses with new product development, teaching existing food processing employees about food safety and food quality, and speaking with entrepreneurs interested in dairy processing are important activities that support the dairy processing sector in New York State.

Across the State, the Harvest NY team works directly with dairy processors, assisting them with food safety programs that are customized to their facility, their products, and their process. This is a key service for new businesses and start-ups.



"The team at Cornell and Harvest NY have been critical to our success as a new small-batch creamery. They have been with us every step of the way - including our initial pilot runs and early production batches, our plant design and construction, and up through to our full production ramp. The Harvest NY team has worked very closely with us on new product development and troubleshooting as well. We also participate in the VSL program where we get extremely valuable and actionable feedback on our products. As a small business, these resources would normally be way beyond our reach financially. The value that this committed team delivers to us is priceless!"

- James Munn, Owner, Black River Valley Naturals

Harvest NY Works with Institute for Food Safety to Develop Industry and Consumer Resources for COVID-19



Institute for Food Safety
at Cornell University

There is no evidence that COVID-19 is transmitted through food. Communicating science-based information assists the agriculture and food industries maintain business continuity, and helps keep consumers safe. Harvest NY has been working with the Institute for Food Safety to create online resources for the food industry and consumers.

Guidance documents have been created for food processors and food handling businesses to adapt for their individual businesses, and a Frequently Asked Questions page is continuously being updated to reflect the latest information. The Institute has also been holding virtual office hours to answer questions from the food industry. Food businesses from across the country have been utilizing these resources.

For consumers, a Frequently Asked Questions page has also been developed as Cornell Food Scientists began receiving questions from consumers on how they should be handling their food during the pandemic. Our team has been communicating key information to consumers on the DOs and DON'Ts of food handling.

You can access this resource by visiting <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/food-industry-resources/>

Supporting New York's Agriculture and Food Economy from a Distance Due to COVID-19 Pandemic

Harvest NY Specialists Remain Available for Remote Guidance

Due to social distancing guidelines associated with the coronavirus, we have suspended in-person workshops but are still available for consultation. Questions or thoughts? Please reach out!

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