

HARVEST NEW YORK QUARTERLY HIGHLIGHTS Q3 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.

Funding for Harvest NY has not been continued and the future of this program is in jeopardy. If you support this work and would like to advocate for the team, please contact us.

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Brendan Parker with rows of eggplant at Red Hook Community Farm Y. Photo by Sam Anderson, CCE Harvest NY





Standard Contraction (Contraction)

What's Wrong with my Veggie Plants?

Harvest NY Collaborates with New York City Department of Parks GreenThumb Program to Offer Bilingual Vegetable Diagnostic Online Office Hours

In light of the growing concerns brought on by the global pandemic, more and more New York City residents are taking up gardening to have control over their food supply and build a more resilient food system. The New York City Department of Parks GreenThumb program oversees over 500 community gardens throughout the five boroughs. These community gardens offer crucial access to green space and fresh produce, as well as provide an important opportunity for urban dwellers to gain hands-on experience in production agriculture while being in a city setting.

In an effort to assist gardeners in maximizing production and improving pest and disease ID management skills, Harvest NY Specialists Yolanda Gonzalez and Sam Anderson partnered

with GreenThumb to offer "What's Wrong with my Veggie Plants?" Office Hours for both English and Spanish speaking growers. Over 40 participants tuned in for discussions on management strategies for combating diseased plants and problematic pests, including spider mites, aphids, harlequin bugs, and more. The pest control knowledge obtained by participants will be essential in boosting the production capacity in these gardens, especially given the increased pest pressures due to warmer temperatures in New York City caused by the urban heat island effect.

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URBAN AGRICULTURE

Urban Farms Enjoy an Extended Season by Implementing Pest Management Techniques

New York City's urban vegetable farms face substantial pest and disease pressure; in a mid-season survey of 10 urban farmers this year, 8 named pest problems as their number one source of stress. Harvest NY Urban Agriculture Specialist Sam Anderson works one-on-one with urban farmers on those issues, helping to identify pests and develop integrated pest management (IPM) strategies that suit urban farms' unique challenges—and 2020 has had its share of them.

After a mild winter, many pests got an early start. Summer heat waves favored twospotted spider mite (TSSM), which Anderson has identified as the top pest of tomatoes, cucumbers, eggplant, and beans on NYC urban farms. This summer, he began implementing a Northeast SARE Partnership Grant to work with urban farmers on IPM strategies for TSSM, developing a farmer-friendly scouting program and releasing biocontrols on five urban farms. In 2019, most of these sites' tomatoes had succumbed to TSSM by the last week of August; this year, most farms got one to two additional weeks out of their tomatoes, representing additional revenue of \$500 to \$1,500 for each farm. With lessons learned from this year, Anderson aims to help farms extend their season further in 2021.

Diseases can also be catastrophic for urban farmers. One of these farms faced the additional threat of bacterial canker, which wiped out all of their tomatoes in August 2019. Anderson worked with the farm manager on field hygiene and other best practices for responding to foliar diseases; this year, despite canker appearing again in one area of the farm, they were able to contain it and continue harvesting two-thirds of their tomatoes well into September, adding thousands of dollars of sales compared to the previous year. Another example is basil downy mildew, which in 2018 caused the complete loss of sweet basil at nearly all NYC urban farms by late August. Anderson worked with farmers the past two years to select resistant basil varieties and to improve spacing and air flow in basil plantings. In 2020, out of 12 farms scouted in August, only one case of basil downy mildew appeared—even as it wiped out basil in many nearby community gardens—with one farm even expanding basil plantings to make it their most profitable cash crop.



By controlling two-spotted spider mites, NYC farms were able to get one-to-two more weeks out of their tomato plantings, representing additional revenue of \$500 to \$1,500 per farm.



Containing bacterial canker allowed one farm to harvest 2/3 of their tomato crop well into September, additing thousands of dollars in sales over the previous year when the disease ravished their crop.



Basil downy mildew can be managed by choosing resistant varieties and improving plant spacing to allow for more air flow around plants. Successful disease management can lead to increased sales.

Photos by Sam Anderson, CCE Harvest NY

URBAN AGRICULTURE

Local Procurement Hindered by Emergency Feeding Waivers

The beginning of the 2020-2021 school year is anything but normal, with the return to instruction differing greatly by district and grade level. This has had a significant impact on the way school food authorities (SFAs) operate. SFAs traditionally provide meals to students during the school day through the USDA Food and Nutrition Services School Breakfast Program and/or the National School Lunch Program. Beginning in March, SFAs were granted waivers allowing them to operate either the Summer Food Service Program or the Seamless Summer Option. A December 31, 2020 extension of these waivers and flexibilities* means SFAs may continue to offer children 18 and under two free meals per day, seven days per week, regardless of income. This provides greater access to food for families in need during the pandemic.

Under the Seamless Summer Option and the Summer Food Service Program, SFAs are reimbursed at higher rates than the School Breakfast Program and National School Lunch Program which could help mitigate anticipated SFA budget deficits. However, as Harvest NY's last <u>quarterly report</u> pointed out, school meals during the pandemic tend to favor unitized, preportioned meals compromised largely of preprocessed and pre-packaged items. To further complicate matters, SFAs that gualified for the 30% Initiative cannot receive the increased \$0.19 reimbursement per lunch meal served while operating Summer Food Service Program (SFSP) and that local food purchases made under SFSP do not count toward the 30% Initiative. On the contrary, purchases made under Seamless Summer Option (SSO) gualify toward the 30% Initiative and schools operating SSO are eligible to receive the increased reimbursement. Considered collectively, these factors could deleteriously effect local procurement efforts during the current school year, particularly for programs in the nascent stages of development.

*NOTE: Be sure that applicable waivers and flexibilities apply to NY. Check <u>USDA's Child</u> <u>Nutrition Program: COVID-19 Waiver by State</u>.

Highlight and Promote the Consumption of Locally-Grown Foods in Schools

Customizable Marketing Materials Available for Each District's Use

The Harvest of the Month program highlights and promotes the consumption of locally-grown foods in schools through the use of posters, newsletters, and infographics. Newsletters can be shared with parents and the school community. Infographics and posters can be displayed in the district's cafeterias.

Originally created by the Buffalo Public School District, Harvest New York continues to create generic versions of the materials which are available for download on the Harvest NY website. The materials can be edited and adapted for each district's or program's use.

For questions, more information about editing and printing the materials, or for the Adobe InDesign files, please <u>email</u> <u>Becky O'Connor</u>, Harvest New York's WNY Farm to Institution Coordinator.

Special thanks to Buffalo Public Schools for sharing these resources; graphic designer <u>Julian Montague</u> for creating the materials; and Cornell Cooperative Extension of Erie County's SNAP-Ed nutrition educators for developing newsletter and infographic content.





Mark Sorrells, professor of plant breeding and genetics, Cornell University.

USDA Awards Cornell University \$2M to Support a Value-Added Grains Project

Cornell received a \$2M USDA Organic Agriculture Research and Extension Initiative grant to support a multi-state, value-added grains project. Mark Sorrells, Cornell professor of plant breeding and genetics, is serving as the principal investigator, alongside co-principal investigators from University of Vermont, University of Wisconsin, University of Maine, University of Illinois, Oregon State University, and South Dakota State University.

The project has four objectives:

- 1. Breeding: Evaluate germplasm and develop new varieties of small grains with high market value including food quality wheat, emmer, spelt, einkorn, naked barley, rye, and naked oats for desirable grain processing, culinary characteristics, and nutritional quality.
- 2. Organic management: Optimize grain quality by synthesizing best management practices for seed production, disease control, planting, harvest, cleaning, and storage that are cost-effective and appropriate for organic production.
- 3. Market assessment: Assess and increase opportunities for local and regional organic grain market demand, aggregation, and distribution, in both direct-to-consumer and institutional markets.
- 4. Outreach: Develop an outreach program that connects key stakeholders in organic grains supply systems to each other and with the resources they need.

Harvest NY is supporting objectives 3 and 4, with a specific focus on the demand for value-added grain products by institutional markets. For more information, see the <u>Cornell Chronicle article</u> detailing the research project.



Summer 2020 Blueberry Research to Identify a Cultural Control Method for an Invasive Fruit Fly

Spotted Wing Drosophila (SWD) is an invasive fruit fly that has become one of the most challenging pests for berry growers to deal with. There are currently no cost-effective cultural control methods to prevent SWD infestation in late summer fruit, such as blueberries. Growers must spray insecticides weekly to protect their crop. While spraying will control the pest, it is expensive, and brings risks of overuse of pesticides, loss of beneficial insects and potential health risks to the growers and the public. Esther Kibbe, Harvest NY's berry specialist, secured a mini-grant from the New York State Berry Grower's Association to test the efficacy of a novel non-toxic material developed by researchers at Oregon State University, called "Hydroshield". In laboratory tests, it appears to thicken the skin of fruits like grapes and blueberries, making it more difficult for SWD females to lay their eggs in the berries. Kibbe wanted to test whether this held true under field conditions, and whether this effect would prevent infestation at comparable levels to conventional or organic pesticides.

Kibbe identified Burdick Blueberries, a large U-Pick blueberry farm in Cattaraugus County, as the host for the research. She also partnered with Cornell's Lake Erie Research Laboratory to extract and count SWD larvae from the blueberries. Kibbe marked plots in the blueberry field and sprayed organic, conventional and the Hydroshield materials every week for 7 weeks. Once the berries ripened, she picked fruit from every plot and delivered it to the lab for extraction and larval counts.

Analysis of the data shows that conventional products did the best job of managing the pest, with very low levels of infestation throughout the project. The Hydroshield product and organic sprays were not significantly different than the untreated control. There were some aspects of the spraying and harvesting procedures that did not follow recommended practices, and likely increased the pest pressure, such as leaving ripe and over-ripe fruit on the bushes week to week. However, this is common in U-Pick operations in WNY, raising concerns that organic spray programs are not providing effective control on these farms.

While Hydroshield seems to not be as effective as hoped under field conditions, Kibbe hopes to explore this and other products further, to identify safer, more affordable and sustainable methods of managing this destructive pest. Kibbe will present the results of this project at the Empire State Producers Expo in January, as well as in an article to be published in the NYS Horticulture Society's Fruit Quarterly journal.



Amy Edwards (on right), owner of Burdick Blueberries, was excited to be a part of this research, though she wishes the organic products were more effective. Getting weekly larval counts encouraged her to stay on top of her own treatment program. <u>Photo from</u> Burdick Blueberries on Facebook

BERRY PRODUCTION

Carolina's Ice Cream: Bringing Peruvian Flavor to New York

<u>Carolina's Ice Cream</u> brings Peruvian flavor to the community of Peekskills, NY. It started as an idea while Carolina McDowell was eating at a Peruvian restaurant a few years ago with her family. She noticed there was no Peruvian ice cream, especially one made of Lucuma, a honey sweet fruit perfect for tropical ice cream. Inspired by her desire to share Peruvian flavors with others, she researched ways to bring Lucuma to New York. Eventually, she obtained clearance to import Lucuma from a farm in the mountains of Peru to New York. Carolina also had to learn how to make ice cream and spent a lot of time visiting various ice cream manufacturers.

Her initial steps toward the business of making ice cream and developing her own product were challenging. In order to economically produce Lucuma ice cream, she used a contract manufacturer to make her product under the "Carolina's Ice Cream" brand name. Carolina was responsible for all of the marketing and eventually began to sell her delicious product to local C-town supermarkets and grocery stores in predominantly Hispanic communities. Her ice cream became very popular in Peruvian restaurants through New York's metropolitan area. Native Peruvians were very happy to find a familiar tropical flavor available in ice cream.

When Carolina realized she wanted to independently control production and start her own business, she reached out to Harvest NY Dairy Processing Specialist, Karen Ospina. Ospina worked with Carolina to provide information on what is required to produce a safe and unique ice cream product and how to develop plans to make her dreams a reality. Ospina assisted Carolina's Ice Cream in developing essential documentation for obtaining a New York State Department of Agriculture and Markets Licence. The development of Good Manufacturing Practices and Standard Operating Procedures help to ensure food safety and consistency.

After receiving clearance from New York State Department of Agriculture and Markets, Carolina opened her first ice cream shop in August 2020 and Lucuma is her principal ice cream flavor. Now, Carolina is the owner of a successful business where culture, flavor and ice cream are proudly reunited.





Dairy and Food Safety Virtual Workshops



28 Participants

ا Preventive Controls for Human Food Participants | High Temperature Short Time Pasteurization

50

16 Participants | Safe Quality Foods 84 Participants | Dairy Science and Sanitation 40 Participants | Hazard Analysis Critical Control Points (HACCP) Food Safety Planning

10 Participants | Virtual Sensory Training

DAIRY FOOD PROCESSING

Produce Auction Continues to See Increased Sales

In May 2018, the St. Lawrence Valley Produce Auction held its first produce auction in North Bangor. Between 2018 and 2019 the auction had a 38% increase in sales. Two years later, no one could have predicted that a global pandemic would have occurred and disrupted the local food supply chain. This disruption has led to an increase in consumers looking to source local food from local farmers. This year, the auction has seen an increase in new buyers, product prices, and sales (see chart). Many of the new buyers are looking to source local

St. Lawrence Valley Produce Auction Percent Change (Increase or Decrease) from 2018 to 2020 Sales (\$)



products they were unable to grow for their own farm stand and/or supplement product because of increase demand from consumers.

Harvest NY continues to support the St. Lawrence Valley Produce Auction through farm visits, providing updates on COVID-19 state regulations, and tracking sales throughout the growing season. Growers base future production decisions on which products did well at the auction in previous years. Tracking the produce auction sales has helped growers make key decisions based on what products (fruit, vegetable, flowers, etc.) are profitable. The data that is tracked contains over 60 products (tomatoes, pumpkins, onions, etc.) that includes product varieties, price, date, quantity, lot size, color, and grade.



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