

HARVEST NEW YORK QUARTERLY HIGHLIGHTS Q3 2021

Harvest New York is an innovative Cornell Cooperative Extension team that focuses on development projects in the farm and food industries of rural and urban New York.





Shiitake Mushroom Logs Head to NYC Urban Farms via the Schooner Apollonia Sailboat



Community Mushroom Educators inoculating logs for shiitake production on July 30-31, 2021. Photos by Yolanda Gonzalez, CCE

For thousands of years, mushrooms have been grown on hardwood logs from sustainably managed forest lands. Their origins trace to parts of China, Korea, and Japan. Shiitake cultivation on logs is one of the oldest known forms of agriculture. Today, log cultivation is increasingly rare, replaced by technology and now many shiitake in the US come from synthetic sawdust "logs" often manufactured in China and shipped over 7,000 miles to New York City.

Yet just upstream from the city are the abundant forests of New York, in need of stewardship, and logs sourced from upstate forests support the livelihoods of foresters and loggers. Species such as Oak and Sugar Maple in small diameters offer little market value but are perfect materials for mushroom cultivation. Many community farms and gardens in New York often have trouble sourcing logs and would benefit from the ability to grow their own mushrooms.

A partnership between the Cornell Small Farms Program, Woodsman Forest Products, Schooner Apollonia, Hudson River Maritime Museum, RETI Center, Harvest NY and Red Hook Community Farms piloted a carbon-neutral 70-mile transport of logs from upstate forests to community farms and gardens in New York City. The delivery of these logs were used in a mass inoculation event on July 30-31 held at Red Hook Community Farms. Over 50 community members, including 10 participants from the SAREfunded Community Mushroom Educator (CME) program were in attendance. Over 260 logs were inoculated over the course of two days and distributed to 12 community farm and garden projects around New York City. Over the next few years, these logs will provide over 1,000 pounds of fresh mushrooms, providing a potential economic value of over \$20,000 (if sold at a market rate of \$20/lb).

URBAN AGRICULTURE

Helping Urban Farmers Recognize When to Hold 'Em and When to Fold 'Em

Removing a Diseased Crop is Sometimes the Best Option

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Many urban farmers enter the field without a commercial agricultural background, bringing their own unique skills while learning some of the production aspects on the fly. Beyond technical knowledge, this also means learning how to make certain prudent but unglamorous calculations. Sam Anderson, an Urban Agriculture Specialist on the Harvest New York team, works one-on-one with urban farmers in New York City, and their late summer conversations often involve one of those calculations: recognizing when it's time to give up on a crop earlier than planned.

For vegetable farmers, plant disease is often the determining factor. One farm in Queens made the decision to remove nearly all of their tomatoes in early September, three weeks earlier than the year prior, due to the increasing presence of bacterial canker. One week after Anderson confirmed the disease, the tomatoes' yield had already dropped by half. Rather than waiting to squeeze out smaller and smaller tomato harvests (as they had the two previous years), the farmer removed the tomatoes early enough to replace them with a succession of salad greens, returning a value of over \$12,000 per acre.

A farm in Brooklyn harvested broccoli and kale plantings several weeks ahead of schedule in response to an early but rapidly-spreading black rot infestation. Waiting even one week more would have likely rendered both crops unmarketable and could have spread to other cruciferous plantings nearby. The decision saved the farm between \$2,000 and \$5,000 dollars this year, and perhaps thousands more by reducing the chances of the disease reappearing next year.

Cucurbit downy mildew (DM) is another potentially season-ending disease for urban and rural farmers alike; in 2021, most NYC cucumbers had significantly declined by mid-August due primarily to DM. With at least 18 commercial urban farms growing cucumbers in the city, often in situations where preventative spraying for DM is not possible or practical, Anderson's late summer conversations with farmers focus on decisions for next year, with most farmers planning to grow resistant varieties and/or to adjust crop plans so they're ready to move on from cucumbers by the time downy mildew appears. In 2022, NYC's urban farmers should be more comfortable than ever at knowing when to hold 'em and when to fold 'em.



URBAN AGRICULTURE





Cover crops are a green manure, and a way to "compost" without composting.



Community and Soil Revitalization

Good Shepherds Garden, founded in the early 1990s in Brooklyn, NY, was once a thriving community garden. However, over the years, members relocated, died, or stopped attending garden. In an effort to regain community interest, Good Shepherd Garden had 24 raised garden beds built this summer, each 9ft by 4ft, and filled the beds with fresh compost. However, with the beds being built late into the growing season, the garden was not reopened for membership and some of the beds remained unused.

On Saturday, September 18, Kwesi Joseph, an Urban Gardens Specialist for Cornell Cooperative Extension, Harvest NY hosted a Cover Crop Workshop at the gardens which was attended by 15 members of the neighborhood. The goal of the workshop was to inform the (potential) garden members that the soil will leach nutrients over the winter when it rains but that can be prevented by growing certain types of plants.

The founding member of the garden, Ms. Jamison, was reluctant to grow cover crops because, in the past, rye was used as a cover crop and she had a difficult time removing it from her raised bed in the spring. To alleviate such concerns, instead of using rye as the cover crop, Joseph encouraged the use of field peas and oats because they die during the winter. The attendees of the workshop spread cover crop seeds in the new beds.

All of the attendees of the workshop indicated that they would be interested in becoming a member of the garden. Each member will be provided with one of the new beds, giving them 36 sq. ft. of garden space to grow their own food, flowers, and most importantly, their sense of community.

Building More Resilient Urban Agro-Ecosystems in Monroe County through Community Gardens

Rochester is Home to 50+ Urban Gardens Serving Vulnerable Populations

CCE Harvest NY is dedicated to combining research and outreach to foster innovative urban farming methods that improve ecological resilience and meet urgent food needs through community education, engagement and empowerment. Enriching activities and projects throughout the city of Rochester are open to the public for participation; this summer provided unique smaller gatherings.

Volunteer Days at Sunshine Gardens

To spur local engagement in community gardens, Sunshine Gardens on North Street hosted Volunteer Days in September. Community members gathered to plant lilac trees, weed strawberry beds and learn proper bed maintenance, and harvest vegetables.

Children were encouraged to spray paint border blocks around non-edible gardens. Harvest NY Urban Gardens Specialist Alison Espinosa led many of the educational opportunities and also inspected the abandoned beehive for mites or other activity.





Feel Your Way: Weeding with Visual Challenges

The South East Area Coalition (SEAC), in collaboration with 490 Farmers, held a sensory garden event on August 21, 2021, to provide demonstrations for 'Weeding with Visual Challenges.' SEAC's Kiki Smith led the workshop and demonstrated how to use sensory technology apps to assist in plant identification and offer planting/harvesting tips. Participants learned how to use taste, smell and touch to identify different plants too. Cornell Cooperative Extension of Monroe County offered support to the event through Urban Gardens Specialist Alison Espinosa who discussed garden maintenance and community resources. Plus, Espinosa and a SNAP Educator discussed healthy ways to prepare their harvest!



URBAN GARDENS

Buffalo Farm to School Celebrates Cultural Diversity

Celebrating Cultural Diversity with Buffalo Farm to School will enhance Buffalo Public Schools' existing Farm to School Program (F2S) by introducing a focus on cultural relevancy. The primary goals of the project are to meet the dietary needs of the diverse student body by serving more culturally appropriate menu options, and to support NY's BIPOC farmers by proving a stable marketplace for their farm products. Project partners currently include <u>Buffalo Public Schools</u> (BPS), <u>Providence Farm Collective, Food for the Spirit, Urban Fruits & Veggies, D'Youville College, the Buffalo School of Culinary Arts and Hospitality Management, and three Cornell Cooperative Extension offices: <u>Harvest New York, Erie County</u>, and the <u>Cornell Vegetable Program</u>.</u>

Launching as a pilot in a small handful of the district's 65+ buildings, activities included in this Initiative are:

- Identifying the cultures around which programming will be focused
- Working with BIPOC farm partners on logistics associated with selling to Buffalo Public Schools
- Providing on-farm technical assistance to new farm partners
- Developing culturally-relevant recipes and incorporating items produced by new farm partners
- Designing educational programming for district students delivered through the lens of food, culture, and agriculture
- Training adult leaders from within the BPS community on positive youth development around cultural relevancy and local food systems
- Training BPS culinary students on newly developed recipes, which will be served from the BPS Farm to School to You Food Truck

Foodservice staff, educators, students, family members, farmers, and community-based organizations will come together to engage in shared learning and understanding to develop a program that benefits new farm partners and celebrates the district's rich cultural diversity.

This Initiative is made possible through the support of a USDA Farm to School Implementation Grant.

LOCAL FOOD DISTIBUTION

30% NY Initiative Resources Aid Schools in Qualifying for Increased Reimbursement

Harvest NY, in partnership with Farm to School collaborators, released a flurry of new resources designed to help K-12 public schools qualify for the 30% NY Initiative. The 30% NYS Initiative: Opportunities, Barriers, and Pathways to Success webinar, hosted by Harvest NY's Cheryl Bilinski and Becky O'Connor, along with Cassandra Bull of CCE Allegany County, provided an overview of the 30% NYS Initiative: Opportunities, Barriers, and Pathways to Success report. The report, which will be released in winter 2021. is an analysis of procurement data from 53 of the 57 school food authorities (SFAs) that qualified for the 30% NYS Initiative during the 2019-20 school year, supplemented by responses to surveys completed by Food Service Directors that illustrated how they



Photo from NY School Nutrition Assocation

adjusted their purchasing practices in preparation for the 19-20 school year. A combined analysis of the 30% procurement data and the survey results shed light on procurement trends, varying pathways, best practices, and strategic approaches to successfully achieving the 30% NYS Initiative.

The CCE Farm to School Program Work Team sponsored and contributed content to a <u>special</u> <u>edition of NY School Nutrition Association's Fresh Bites e-magazine</u>, focused on the 30% NY Initiative. The special edition includes 30% NY Initiative participant testimonials, a breakdown of how one district calculates their local procurement budget week to week, a taste test guide, and a mini podcast series featuring interviews with five SFAs that qualified for the initiative. The e-magazine serves as a catalog of tools and testimonials that can be shared with school food service professionals, administrators, elected officials, and beyond.

And finally, Harvest NY released an <u>updated tutorial</u> of the <u>30% NY Initiative Eligible Product</u> <u>Database</u>, and updated guidance on the <u>30% NY Initiative documentation requirements</u>. The NY Product Database is a collection of products that qualify for the 30% NY Initiative and are widely available for purchase by School Food Authorities (SFAs) for use in their lunch programs, and the guidance details what documentation is required in different purchasing scenarios. Both tools can be found on the <u>Cornell Cooperative Extension Farm to School</u> webpage.

For more information about Harvest NY's Farm to School work, contact our Farm to Institution Coordinator, Becky O'Connor.

A New Way to Prepare Strawberry Beds?

Anaerobic soil disinfestation (ASD) is a way to manipulate soil microbes to fumigate the soil. ASD has been used successfully in vegetable crops, such as tomatoes, and this summer we began testing how well it works for strawberries.

How Does Anaerobic Soil Disinfection Work?

ASD requires a carbon source to be worked into the soil. The soil is then flooded and let to collect the fumes of decomposition for about a month. The fumes will hopefully kill nematodes, fungi, and weed seeds.

Anaerobic Soil Disinfection Trial in Strawberries

In a multi-farm trial led by Extension Specialist Laura McDermott of the CCE Eastern NY Commercial Horticulture Program, with research assistance from Anya Osatuke of CCE Harvest NY, fuel sources of brassica seed meal, alfalfa meal, and molasses were evaluated against an untreated control. In addition, a Ridomil Gold drip treatment was tested for comparison. Trials were conducted in strawberries grown on plastic and straw mulches, on organic and conventional farms. Anaerobic soil disinfection efficacy was evaulated in terms of number of weeds sprouting in the soil and aboveground plant health.

Plant health was evaluated non-destructively two times per growing season. Disease incidence was expressed as a percentage of the total aboveground plant that appears healthy. Leaves that displayed symptoms of leaf spot also were counted as healthy. Each field site was scored by the same researcher throughout the study.

Our preliminary evaluation of plant health at the conventional, plasticulture research site found that alfalfa seed meal is close to Ridomil Gold SL in regard to plant health effects. 62.3% of strawberries in the treatment were healthy when planted in soil treated using ASD with an alfalfa seed meal carbon source. 65% of strawberries were healthy when planted in soil treated by Ridomil Gold SL, a conventional soil drench. This is in comparison to the untreated control, where 55% of strawberries were healthy.

We will continue to evaluate plant health for another year to gain a more complete understanding of these treatments on strawberry performance.



Percent Healthy Plants at Conventional, Plasticulture Trial Site

BERRY PRODUCTION

Plant health illustrations by Anya Osatuke



Extending the Season in Northern NY with Brassica Crops

Northern New York Agriculture Development Program Grant Secured to Support Research and Farmer Education

Two Cornell Cooperative Extension regional agriculture teams, Harvest NY and Eastern NY Commercial Horticultural Program, secured \$18,703 in funding this year from Northern New York Agriculture Development Program to support the project, "Extending the Season in Northern New York with Brassica Crops". The purpose of the project is to help growers gain knowledge about another potential crop to add to their farm for production in a high tunnel. Brassica crops are coldtolerant crops which makes them ideal for overwintering and early spring high tunnel production. The research and education will focus on sprouting broccoli and miniature cabbage. Although the program takes place in northern New York, the research can be applied across the state.

Grant collaborators Elisabeth Hodgdon, Lindsey Pashow, and Judson Reid will provide the following support to farms:

- Conduct a research trial on sprouting broccoli and miniature cabbage, plus a radish and mustard cover crop trial.
- Food safety training
- Farm visits and produce auction support
- Brassica School
- Marketing workshops and one-on-one farmer support
- Creating an enterprise budget

This summer, Hodgdon, Pashow, and Reid worked together to visit farms across northern NY. The research trial is progressing nicely. Workshops and food safety trainings are planned for this fall and winter.

Related Trainings

Food Safety Modernization Act (FSMA) Farm Food Safety Training (virtual) October 20-21 December 8-9

Marketing Workshop Series (virtual) Finding Markets – September 15 Pricing – October 13 Market Evaluation – November 3

Brassica School (Lewis County) October 27

<u>Contact Lindsey Pashow</u> for details.

AG BUSINESS DEVELOPMENT

Contact Us



Sam Anderson Urban Agriculture Specialist

781-366-5939 <u>swa39@cornell.edu</u> Twitter: <u>@SamAnderson_CCE</u> Instagram: <u>urbanag.nyc</u>



Kwesi Josepth Urban Gardens Specialist

718-809-2781 <u>koj7@cornell.edu</u> Instagram: <u>composterkwesi</u>



Cheryl Bilinski Food Systems/Farm to School Lead

607-592-9507 <u>cbt32@cornell.edu</u>

Makela Elvy

347-804-5820 mje55@cornell.edu



Anya Osatuke WNY Berry Specialist

607-752-2793 <u>aco56@cornell.edu</u>



Lindsey Pashow Ag Business Development and Marketing Specialist

518-569-3073 <u>lep67@cornell.edu</u>

Judson Reid Regional Vegetable Specialist, Team Leader

585-313-8912 <u>jer11@cornell.edu</u> Twitter: <u>@Jud_Reid</u> Facebook: <u>Judson.Reid.jer11</u>

Daniela Vergara Emerging Crops Specialist

812-219-0172 <u>dv255@cornell.edu</u> Twitter: <u>@cannagenomics</u> Instagram: <u>cannagenomics</u>



Alison Espinosa Urban Gardens Specialist

Urban Gardens Specialist

585-813-5026 ame94@cornell.edu Instagram: rootworkerscroft





Yolanda Gonzalez Urban Agriculture Specialist

516-305-0358 yg88@cornell.edu Twitter: @ygonzalez27 Instagram: urbanag.nyc



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