An innovative Cornell Cooperative Extension team that focuses on development projects in the Farm and Food Industries of rural and urban New York.

Quarterly Highlights Q3 2023

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A tour of urban agriculture in Brooklyn gave Harvest NY the opportunity to speak with legislators about the importance of advancing the urban agriculture industry in New York State. See page 7 for details.
Buffalo Urban Farm Day Showcases City’s Flourishing Urban Growing Community

Buffalo’s third annual Urban Farm Day (UFD) took place this year on Saturday, August 26. Seventeen urban farms spanning not only the City, but also neighboring towns, welcomed visitors during this free event. Experienced growers, novice gardeners, and those interested in the local food system were able to take part in both guided and self-guided site tours, in addition to a variety of workshops throughout the morning and afternoon. Topics such as indoor mushroom farming, urban food production, food preservation, therapeutic gardening, composting, and equitable urban growing were among the highlights of the timed workshops. Folks were able to shop farm stands to purchase local produce, make and take native flower bouquets, and enjoy made-to-order pizzas cooked in an outdoor farm pizza oven to cap off the enriching experiences.

Harvest NY Urban Garden Specialist Mallory Hohl, a member of the Urban Farm Day planning committee, in addition to urban farmer and home gardener committee members, began planning this event months in advance, with the help and guidance of the parent group Gardens Buffalo Niagara. Through long standing partnerships, support, and collaboration, the committee secured participation in this day with most of the Buffalo urban farms, a local pay-as-you-go community café, and the University at Buffalo Food Lab.

With hundreds of UFD attendees each year, this event has proven to be an annual end-of-summer highlight for many local Buffalonians, in addition to other local travelers interested and engaged in the urban growing scene in WNY.
Empowering New Community Gardeners

Community gardens often rely on volunteers to produce fresh nutritious food in urban areas despite the inconsistent number of volunteers a garden might attract. This spring and summer, Our New Way Garden, a local non-profit community food access and education program servicing urban areas in Westchester County and New York City began working with St. Christopher's, an organization that provides vital services and support to children, youth and families with special needs, to engage a new wave of volunteers with on-farm experience.

At St. Christopher's Jennie Clarkson Campus, youth with special needs gain experience caring for various farm animals and practice mixed vegetable gardening as part of their therapeutic program and improve independent living skills. After completing the program, most students return to their neighborhoods and 50% of the program participants call New York City home.

Harvest NY's Urban Community Garden Specialist Makela Elvy partnered with Our New Way Garden to increase awareness around transferable job-related skills that participants could leverage to support urban agriculture or seek employment in their community. From April to September, Elvy led workshops for Our New Way Garden's farming interns and St. Christopher's graduating students focused on local food systems, farming techniques, and agriculture careers. Participants gained practical experience throughout the season by planting peppers for Small Axe Peppers Hot Sauce, the company that produces The Bronx Community Hot Sauce and uses a sustainable structure to help fund community gardens throughout New York City.

On-farm experiences and educational opportunities for youth from St. Christopher's. Top to bottom: 1) A student prepares rows in a garden for planting. 2) Students preparing a raised bed. 3) A student identifying agricultural career opportunities. 4) Harvest NY's Makela Elvy teaching St. Christopher's students at Our New Way Garden.
New York City Mayor’s Office of Urban Agriculture Supports Rock Dust Research

The Mayor’s Office of Urban Agriculture (MOUA), led by Executive Director Qiana Mickie, recently met with Harvest NY’s Urban Community Garden Specialist Kwesi Joseph to discuss and observe research on rock dust as a fertilizer and carbon sequester in NYC urban gardens. Kwesi plans to expand upon the rock dust trial that he did previously with Cornell CALS Dean Houlton in the summer of 2022. The research project will collect, measure, and ship plant and water samples throughout the growing season to investigate impacts.

The purpose of the trial is to evaluate if basaltic rock dust will increase the nutrient density of food grown in NYC urban gardens. Most of these gardens grow their food in raised beds consisting of 100% compost. A plant needs 20 elements for growth, but nine of them are trace and not readily available in compost or soil. Basalt is a dark, dense, igneous rock that is composed of many of the trace elements that plants need, especially iron. Basaltic rock is crushed into a powdered form to increase its surface area. This allows the life in the soil to act upon the basaltic rock to release the nutrients locked within it. The life in the soil converts the elements in the rock to a biologically available form that plants can use.

When the trial is completed and the data is collected, MOUA will be vital to the dissemination of the data to policy makers and urban gardeners. The three short-term goals of the trial are:

- Rock dust will be recognized as a broad-spectrum fertilizer for trace nutrients.
- Rock dust will be accepted as an essential ingredient for improving soil health, plant health and increasing plant nutrient density.
- Rock dust will increase plant resistance to disease and pest, thus increasing the yield and quality of food grown in NYC urban gardens.
Small-Scale Compost Solutions in the Big City

Converting organic waste into compost has both environmental and economic benefits for community gardens that range from reducing the use of fertilizers and their associated costs, to combating climate change in historically disadvantaged neighborhoods known as environmental justice areas. The Department of Sanitation's Compost Project (DSNY) makes compost available for community gardens to use at no cost, which results in soils with high organic matter values being the most common growing medium in New York City. However, due to the high demand for compost each season, the availability of compost through DSNY varies throughout the season.

In early August, Makela Elvy, Harvest NY Urban Community Garden Specialist, organized and led a two-part educational series with Partnership for Parks Foundation and New York Restoration Project to discuss various aerobic composting methods that gardeners can use to process organic waste at their respective gardens. Part 1 of the series focused on soil characteristics, soil health and management practices to maintain good soil health quality in community gardens with high levels of organic matter. Part 2 focused on comparing small-scale composting systems that would make processing organic waste possible in community gardens. During this interactive workshop community gardeners practiced processing organic waste for a passive hot box system at Rodale Pleasant Park Garden, and how to use compost as a soil amendment.
The 2018 Farm Bill authorized the development of a new Urban County Committee pilot program. County Committees, comprised of a small group of farmers elected by their peers, historically support the USDA's FSA (Farm Service Agency) by reviewing farm program applications and being a conduit of information between the USDA and local farm communities. Seventeen new Urban County Committees will welcome urban growers to this position for the first time. In addition to new Urban County Committees (UCOCs), the USDA is launching 17 new Urban Service Centers. New York City is one of the new Urban Service Center locations and I am working closely with that office and our local UCOC to communicate potential opportunities to New York's urban ag team.

This new program speaks to USDA's recognition of the benefits of urban agriculture and commitment to supporting urban growers. As part of this investment, the USDA awarded a grant to Virginia State University, with a sub-award for Cornell Cooperative Extension to specifically develop training and educational materials for FSA and USDA employees to learn about urban agriculture. The goal is to create widespread acceptance of urban agriculture at the FSA to better inform the agency's support for urban growing. I will be building this training.

Anyone working with urban growers will indirectly benefit from this work, so please feel free to reach out to me to learn more about the project! Email me at kpk59@cornell.edu.”
New York State Legislators Tour Urban Farms in Brooklyn

This summer, Harvest NY Specialists Yolanda Gonzalez, Kyle Karnuta, Kwesi Joseph, and Judson Reid joined Assembly members Zinerman, Williams, and Lupardo (Chair of the NYS Assembly Committee on Agriculture) on a tour of urban agriculture in Brooklyn. The tour, attended by over 20 community members and stakeholders in urban ag, was an opportunity to highlight the work of local urban farm initiatives and schools promoting sustainable agriculture.

As the first stop on the tour, the group visited Hattie Carthan Community Garden, a BIPOC-led community garden and market located in the 56th Assembly District serving the Bed-Stuy community since 2009. This urban farm project is named after environmental icon, Hattie Carthan, whose legacy as a community advocate is carried throughout the mission of the organization. The second stop on the tour was Brooklyn Magnet School of Eco-Activism, featuring a tour of the hydroponic garden by the students.

After spending the morning in Zinerman’s district, the afternoon was spent exploring Assembly member Williams’ 59th District. The first stop in Williams’ district was James Madison High School, which included a visit to the school’s garden created by their FFA Chapter. The final stop of the day included a visit to the Genovesi Environmental Center, consisting of learning labs, an urban farm, and a greenhouse with a hydroponic and aquaponic system.

The tour gave Harvest NY the opportunity to speak with legislators and urban growers about the importance of urban agriculture and the role that Harvest NY plays in providing education and technical assistance for urban farmers and gardeners in New York City. It was also an opportunity to engage with lawmakers about the work of Harvest NY in publishing the Study of Urban Agriculture in New York State and the importance of advancing the industry as a whole.
Unique Field Guide for New York City’s Vegetable Pests

When an urban farmer tries to identify an insect pest, they won't necessarily find any information about it. Some of New York City's most prevalent pests of vegetable crops—such as harlequin bug and twospotted spider mite—are usually discussed in university resources as pests in other regions or only in specific settings, such as in the southern U.S. or in greenhouses. Others—such as cabbage whitefly and pigweed flea beetle—are rarely mentioned at all. At the same time, urban farmers have consistently indicated a strong interest in improving their insect ID skills; in a recent survey of NYC farmers and gardeners, a plurality of respondents listed insect and disease ID as their top learning priorities.

Arthropod Pests of NYC Vegetables Guide Released

In response, Urban Agriculture Specialist Sam Anderson, with Amara Dunn of the New York State IPM Program and with funding from the Toward Sustainability Foundation, set out to write a field guide specifically tailored for the thousands of farmers and gardeners of New York City. Now, over 350 print copies of Arthropod Pests of NYC Vegetables are making their way into urban growers' hands. An online version, including a Spanish translation, are also in the works.

The 25 entries in the guide—mostly insects, with a few other arthropods (and a mollusk) making appearances—emphasize the most common and impactful pests reported by urban farmers and observed across the city by Anderson and other CCE colleagues. The guide is designed as a scouting aid, noting where each pest is most often found on the plants (leaves, stem, fruit, etc.); what signs to watch for (adults, larvae, damage, etc.); and including photos of the damage caused, not just the insects themselves. Each entry indicates whether the pest is specifically for indoor environments in NYC (such as greenhouses and vertical farms), outdoor farms and gardens, or both. This is also one of the first Extension guides in the country to discuss spotted lanternfly as a significant pest of vegetable crops.

Scouting and identification are crucial first steps in implementing integrated pest management. By equipping and encouraging urban farmers and gardeners to do it themselves, we can start a large new audience down a path of responsible, science-based stewardship.
Supporting Minority and Women Business Enterprises (MWBE) in New York State

The minority and women owned business enterprises (MWBE) certification program was created to provide opportunities for women and minorities who wish to participate in state contracts and procurement activities. It was enacted as a part of the New York State Executive Law Article 15-A, which outlines the goals and requirements for the MWBE program. One of the key components of this program is the MWBE 30% goal, which represents a commitment by the state government to award at least 30% of its contracts to certified minority and women-owned businesses. Although the State has been able to meet the 30% goal in the past few years, utilization rates in commodities like agricultural goods remain low. This is mainly attributable to the limited number of agricultural and food businesses having MWBE certification. Out of the 9,844 MWBE certified firms, only 34 are certified under the Agricultural Crops and Grains, Including Fruits, Melons, Nuts, Vegetables, and Food commodity codes.

We developed a survey that sought to understand the landscape of MWBEs as part of a larger project in collaboration with the NY Food Hub Collaboration, and to develop informed educational material. Out of the 132 survey responses received, a majority, accounting for 68%, were unaware of the MWBE certification program. Among the 32% who were aware of the program, 68 individuals indicated that they had previously sought certification. However, it is noteworthy that only six respondents successfully obtained a NYS MWBE certificate. A prevalent issue mentioned by most participants was the perceived complexity and lack of clarity in the certification process.

In response to survey results, Precious Tshabalala of Harvest NY participated in a panel discussion at the inaugural New York State Food Policy Council Summit took place at the CNY Philanthropy Center in Syracuse. The panel discussion was entitled “Fostering Entrepreneurship and Promoting Fair Employment in the Food Economy,” which delved into strategies for bolstering minority and women-owned businesses in the food sector. The discourse centered on initiatives aimed at advancing our food system, with a particular emphasis on technical support and efforts geared towards achieving equity in the food system. The summit, in essence, served as a catalyst for meaningful dialogue and actionable steps towards a more inclusive and equitable food landscape in New York State.

In addition, Harvest NY will be hosting an Informational Session on November 29 at CCE Broome to educate producers and distributors to provide attendees with a comprehensive understanding of the MWBE program, its benefits, how it contributes to the broader mission of inclusivity and economic growth and share some available resources.
Stakeholders Gather at the Hemp *Cannabis sativa* Field Day

This year's **Hemp Cannabis sativa Field Day** was a huge success. The event started with seminar-type talks by Dr. Daniela Vergara, CCE Harvest NY Emerging Crops Specialist—the event organizer—and Dr. Brandy Young from *Certainty Analytical Labs*. These talks dealt with the biochemistry of the *C. sativa* plant, and the importance of testing for the growing industry in New York.

There were panel discussions that touched on diversity and inclusion in the Cannabis industry moderated by Carlene Pinto from Latinas Grow, and the problems faced by industry members moderated by Brad Racino from NY Cannabis Insider. This last discussion made it to a [publication](#) by Mr. Racino.

The event finalized with a tour of Cornell University's high-cannabinoid Cannabis fields, which included participation of Cornell University, Cornell Cooperative Extension, and the USDA personnel.

This diverse event included people of color, women, and the various stakeholders from the New York State cannabis industry including farmers, educators, entrepreneurs, and the presence of the School of Industrial and Labor Relations (ILR) with attorney Cecilia Oyediran, and the Office of Cannabis Management (OCM) with Osaze Wilson.
Low Toxicity Pesticide Trial in Strawberries

Strawberries are a perennial favorite for New York State growers and consumers. This versatile crop can adapt to a range of production systems, from straw-matted rows to gutter production in high tunnels. However, fungal diseases are a frequent cause of crop loss in strawberry production. As a high-value crop often enjoyed fresh, growers are often pressed to find inputs with low toxicity that are also effective at managing the diseases at hand.

Harvest NY Berry Specialist Anya Osatuke partnered with the lab of Cornell Plant Pathologist, Dr. Kerik Cox to trial a new option for strawberries: the Prime Superior formulation of Beauvaria bassiana. This biological product has been found to encourage plant immunity in other crops and is being evaluated as a broad-spectrum plant protectant. It is being compared against the Bonide formulation of copper octanoate—another broad-spectrum fungicide and bactericide—and an untreated control. ‘Albion’ strawberries grown on plastic mulch are being scored on the incidence of diseases including fungal leaf spot, bacterial leaf spot, botrytis gray mold of the fruits, and anthracnose mold of the fruits.

New Ag Climate Resiliency Specialist Joins Harvest NY

“Hello! My name is Savanna Shelnutt, and I recently joined Harvest NY as an Ag Climate Resiliency Specialist based in the Hudson Valley.

I grew up in rural North Texas and became interested in rangeland conservation and evaluation through FFA which led me to study Plant and Environmental Soil Science at Texas A&M University. During my time as an undergraduate, I worked in labs focused on cotton breeding and soil microbiology, affording insight into the struggles of producers and the power of agriculture as a mitigating force against climate change.

In 2019, I moved to Ithaca and joined Dr. Larry Smart’s lab at Cornell as a research technician where I managed hemp and biomass willow breeding trials. I later began my master’s degree in horticulture and focused on evaluating high-cannabinoid hemp production systems in NYS, conducting several on-farm trials in conjunction with CCE during this time. Through this opportunity I saw first-hand the great work that Extension does in the state, contributing to the longevity and stability of producers.

In my role with Harvest NY, I will partner with farmers, CCE personnel, and other external stakeholders like Scenic Hudson to provide programming that will increase farm resiliency and empower producers to take an active role in mitigating and adapting to climate change. My areas of interest include integrated grazing systems and soil carbon sequestration.”
Statewide Coalition Building for Climate Mitigation and Adaptation in Agriculture

After forming in the spring of 2023 in response to CCE educators’ interest in expanding climate-related work to meet audience need, the Agriculture and Climate Change Program Work Team (PWT) is making progress. This broad group of extension agents, service providers, and researchers has coalesced around goals of network capacity building and collaborating on educational materials for farmers and land managers across New York State.

The work team currently has 47 members—including participants from CCE county associations, regional teams, a variety of Cornell departments and centers, NY FarmNet, NYS Water Resources Institute, NYS Department of Agriculture and Markets, NYS Department of Environmental Conservation, Natural Resources Conservation Service, and agricultural nonprofits around the state.

While there are emissions resulting from agriculture in New York State, the Agriculture, Forestry, and Other Land Use (AFOLU) sector also contributes to removing atmospheric carbon dioxide via sequestration (Figure 1). At the August 16th Agriculture and Climate Change PWT meeting, Jenifer Wightman, Cornell, presented on the “SMART” matrix framework for evaluating opportunities for greenhouse gas mitigation and sequestration across working land in the state.

![Figure 1](image)

**Figure 1.** New York State greenhouse gas emissions and removals by Intergovernmental Panel on Climate Change (IPCC) sector for the period 1990-2020. Emissions are reported as million metric tons of carbon dioxide equivalent (mmt CO₂e) using the 20-year global warming potential (GWP20). AFOLU= Agriculture, Forestry, and Other Land Use. The authors reported a likely anomalous decline in emissions from 2019 to 2020 as a result of the COVID19 pandemic. Source: New York State Department of Environmental Conservation. 2022. [2022 Statewide GHG Emissions Report: Summary Report](https://www.dec.ny.gov/environment/60899.html).

Future Agriculture and Climate Change PWT meetings will focus on developing collaborative programming that will help farmers and land managers build resiliency into their operations while contributing to the state’s goal of reducing greenhouse gas emissions by 40% by 2030 and 85% by 2050.
Cut Flower Industry Ready to Blossom in New York State

The cut flower industry continues to grow in New York and cut flower farmers continue to eagerly seek out educational opportunities. On Monday, August 14, the Cut Flower Summer Intensive Program was held at Birdsong Community Gardens in Hamden, NY. Thirty-eight cut flower farmers from across New York gathered for the full-day intensive workshop. Topics included:

- Scouting for Pests and Diseases – Betsy Lamb, NYS Integrated Pest Management, Cornell
- Weed Suppression and Season Extension – Carly Crimm, CCE Delaware County
- Cut Flower Marketing – Lindsey Pashow, CCE Harvest NY
- Harvest and Post-Harvest Considerations – Jess Beretz, Farmhouse Floral Design

Beyond the formal presentations, flower farmers were able to gain hands-on experience from scouting flower gardens and working with season extension materials. A floral design competition pitted flower farmers against each other for design inspiration and bragging rights. Throughout the day, the farmers networked and shared experiences with each other.

The event concluded the Northeast Extension Risk Management grant, “Mitigating Risk in Cut Flower Production”, $42,000 (Crimm). Over the duration of the 18-month grant, there were over 52 contact hours with a total of 367 webinar participants (1,521 registered participants) in the Production Risk Management for Flower Farmers webinar series, 38 attendees at the Summer Intensive Flower Program, and over 40 participants in the Catskills Regional Agricultural Conference.
Cornell University, led by Dr. Mark Sorrells, CALS Professor of Plant Breeding, and in partnership with other states and community-based partners, received a second Organic Research Extension Initiative (OREI) grant, in the amount of $3,347,535*, titled Value Added Grains for Local and Regional Food Systems. This project will develop new varieties and add value and knowledge in the production and marketing of specialty food grain crops to improve organic farm economics with the goals of increasing their utilization and enhancing biodiversity and sustainability. Harvest NY will be supporting Objective 3: Assess and increase opportunities for local and regional organic grain market demand, aggregation, and distribution. Specifically focused on New York institutions, Harvest NY will provide education to food service providers about these grains, how to menu them, and where to find them. Other activities include conducting a demand side analysis of public institution’s current use of grain-based products and cultivating business-to-business relationships in the New York grain supply chain.

This research group also received funding from an OREI grant in 2020**, for a similar scope of work, with the second award building upon the body of research. (See Harvest NY Q3 2020 report, page 5, for details.) As a part of the first OREI award, the University of Maine and Harvest NY administered a survey to institutional food service providers. The purpose of the survey was to better understand the current food preparation activities of institutional food providers, barriers to procuring and utilizing certain food items, and institutional interest in a variety of grain and bean products. One hundred sixty-three responses were recorded, with ~84% of them from New York institutions. A full analysis is still underway, but some high-level findings that informed Harvest NY’s role in the second OREI grant include:

- A lack of familiarity among the kitchen staff with specific grain products (Figure 1).
- Institutions would consider substituting NY grain products for dishes typically prepared with rice, but again, a lack of familiarity was noted when asked to answer that question.

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Figure 1. Institution’s Kitchen Staff Familiarity with Certain Specialty Grain Products

![Figure 1: Institution’s Kitchen Staff Familiarity with Certain Specialty Grain Products](image-url)
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