Cornell Cooperative Extension
Cornell Vegetable Program

Q2 2025

Quarterly Highlights

The Cornell Vegetable Program (CVP) is a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties: Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Monroe, Niagara, Ontario, Orleans, Oswego, Seneca, Steuben, Wayne and Yates.

The team of Vegetable Specialists provides educational programs and information to growers, processors and agri-business professionals, arming them with the knowledge to profitably produce and market safe and healthful vegetable crops.

Nearly 70 muck onion growers, crop consultants, Cornell researchers and Extension personnel, and private industry representatives from local distribution, seed and pesticide industries participated in the Muck Onion Twilight Meeting in Oswego on June 26, 2025.

1,240
farm visits and direct contacts

19
events & presentations featuring CVP Specialists

528
people attended CVP presentations

CVP Specialists Margie Lund, Elizabeth Buck, and Robert Hadad at this year's potato trial planting.

Potato Variety Trials Benefit the NY Grower

Western New York is home to many of the highest potato producing counties in the state, including Steuben and Wayne counties in the Cornell Vegetable Program (CVP) region, with their production of chipping potatoes and fresh market potatoes, respectively. Growers and processors are in search of the best varieties to grow for their farms to produce high quality potatoes. Cornell University plants multiple on-farm potato variety trials each year, focused on both fresh market and chipping potato varieties. The potatoes tested in these trials are a combination of industry standards and new varieties that are bred for a range of desired qualities including tuber appearance and quality, shape, size, as well as a focus on overall yield.

This year, the Cornell Vegetable Program has continued its small-scale fresh market potato variety trial focused on smaller-scale and mixed vegetable growers who include fresh market potatoes on their farms. This trial includes potato varieties that are already commercially available across a variety of colors and shapes, with the goal of testing varieties in NY to determine how well different varieties might perform for growers interested in including new varieties in their rotations. This year, we are testing a higher number of russet varieties than in the past, as NY growers have expressed interest in growing more russets and would like information on what varieties might work well on their farms. There are many potato varieties on the market, and it can be hard to determine what varieties will work best for NY farmers. This trial can help growers see local results and aid in decision making.

Exploring Benefits of Cover Cropping on Urban Farms

Urban growers typically grow in “constructed” soils- imported soil mixtures that have been built up over time made of materials brought in such as screened topsoil, compost and mulch. When compared to rural agricultural soils, urban agricultural soils are more likely to have a higher organic matter (OM), pH, contaminants, lower bulk density and shallow depth. Cornell Vegetable Program team members Lori Koenick and Judson Reid continue to research best management practices for these high OM urban soils.

One management strategy to support urban soil health is cover cropping. Cover crops offer numerous benefits including reducing compaction, improving drainage, controlling erosion, building organic matter, weed suppression, nitrogen fixation, and attracting beneficial organisms. Cover crop benefits depend on species selection, how long the cover crop is in the ground and the amount of biomass it produces. Cover crop challenges for urban growers include finding species suitable for intensively managed spaces and alternative methods for planting, termination and incorporation beyond heavy machinery.

To investigate effects of cover cropping on urban soils and crop health, this year we are collaborating with a 2-acre urban farm in Erie County to trial using cover crops to build soil health in the farm’s caterpillar tunnels. After noting poor crop health, nutrient imbalances and stunting, the growers decided to rest the tunnels this year and try cover crops to improve soil drainage and alleviate compaction. We are growing a summer cover crop mixture of sorghum-sudangrass, sunn hemp, and crimson clover, planning to terminate in the fall by mowing and tarping, and following with a planting of a winter hardy cover crop mix. To assess impact, we are collecting data on soil health metrics, cover crop biomass, management economics (labor and supply costs), and cash crop yields next summer. This trial will evaluate feasibility and impact of cover crops on urban farms.

High OM soils are not unique to urban farms and can be found on rural farms as well, such as in high tunnels where leaching events are limited, and we see OM and pH continually increase due to grower inputs such as high levels of compost. Any farmer with higher OM soils, can implement the best management practices we are researching and experience improved soil and crop health.

Collaborating grower prepping soil with tilther to create smooth seedbed for cover crop planting. Planting was done by hand broadcasting seed.

Putting on row cover and setting up irrigation after cover crop planting to support quick germination.

Cover crop looking lush two weeks after planting!

Finally! Funding to Support Organic and Urban Brassica Growers to Manage Swede Midge

CVP Specialists Christy Hoepting and Lori Koenick jumped for joy when the news came that their proposal was funded to work with urban and organic farms in adopting integrated pest management (IPM) practices for swede midge and to test whether native entomopathogenic nematodes (EPNs) reduce crop damage. Swede midge is a tiny insect pest that is especially prone to wreaking havoc in small-scale organic brassica vegetables such as broccoli, collards, kohlrabi and kale. Receiving funding has been challenging, because this niche industry tends not to compete well with higher valued industries. Fortunately, under the leadership of Hoepting, she and Koenick teamed up with another swede midge expert and Extension Educator in North Country, Elisabeth Hodgdon, and submitted a 3-year $250,000 proposal to Northeast SARE (Sustainable Agriculture Research and Extension), which was funded in full!

The team hit the ground running this spring. Koenick began working with an organic farm/community garden in Rochester (Foodlink), and two urban farms in Buffalo to monitor this “invisible” pest using pheromone traps and crop scouting to better understand swede midge populations on each farm, and use this information to design IPM programs using ground barriers, crop rotation, netting, and other non-insecticidal strategies. Although several management strategies are available, achieving effective control is as unique as each farm is unique and the greatest successes occur when we work intensively on individual farms. By the end of the project, the team hopes to work with 10 farms. In the North Country, Hodgdon is taking a management strategy developed by Hoepting, the use of ground barriers to crash overwintering swede midge populations to the next level with three on-farm demonstrations. While in Genesee County, Hoepting is trialing native EPNs as a potential management strategy to reduce swede midge in the soil. Finally, the team has begun the process of having existing extension resources, including two fact sheets authored by Hoepting, translated into Spanish, Arabic, Mandarin, and French to reach under-served urban farmers.

Over the winter, the team plans to educate Plain organic produce auction communities to ensure their understanding of swede midge biology and then guide their proactive adoption of IPM practices to ensure that swede midge never causes economic losses in their brassica crops. Other key personnel collaborating on this project are CVP fresh market Specialist, Elizabeth Buck, and Agriculture Educator of CCE Yates County, Caroline Boutard-Hunt.

Swede midge research site in Genesee County. Each cage contains SM-infested ground that has either been treated or not treated with entomopathogenic nematodes (EPNs). SM trap catches and damage to broccoli over 4 plantings in 1.5 years will be compared to see if EPNs have any effect on reducing SM populations and subsequent crop damage.

Professional Development for Extension Educators on Local Food Availability and Food Insecurity

Robert Hadad, CVP Specialist and co-chair of the Cornell Regional and Local Food Systems PWT, teamed up with Craig Kahlke of the CCE Lake Ontario Fruit Team to create a professional development meeting for regional Cornell Extension personnel highlighting the work being done in the region by two outstanding non-profit groups taking different approaches to dealing with fresh local food availability and food insecurity. FarmWorks from Hamburg, NY and the Providence Farm Collective were the main speakers. The event space host, the Blue Barn Cidery, is run by the Wilder-Pearson family whose farming heritage dates to 1811. This newest generation has taken wholesale orchards to add a PYO berry operation as well as undertaking of creating craft ciders and turned this all into part of an event-space restaurant facility featuring locally grown foods and beverages. The county Extension attendees came away with fresh ideas and new resources to build strong programs for their constituents.

CVP Specialist Helps NY Farm Viability Institute Assess Grant Applications

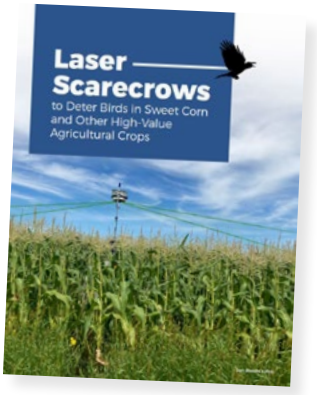
Fresh Market Vegetable Specialist Robert Hadad served as a NY Grown and Certified grant reviewer for the NY Farm Viability Institute. In June, the review of grant applications from across the Southern Tier and all of Western NY was finished. Significant funds will be given out to many local farm projects. Projects focused on important innovations improving productivity and efficiencies that will have a major impact on local food sales and improve profitability for our region's farms.

Video Series Released

In May, the Cornell Vegetable Program released a new video series that summarizes and demonstrates the team's on-farm research to manage birds in sweet corn using laser scarecrows. The videos were filmed on location at Hansen Farms, Stanley, NY (Ontario Co.).

The 7-part Laser Scarecrows to Deter Birds in Sweet Corn playlist integrates a grower perspective with background and tips from research conducted by Cornell Cooperative Extension. The series is posted on the Cornell Vegetable Program YouTube channel: https://www.youtube.com/user/ccecvp. A shorter complication video is also available.

The new videos complement a written fact sheet from this project, Laser Scarecrows to Deter Birds in Sweet Corn and Other High-Value Agricultural Crops.



Research support was provided by The New York Farm Viability Institute Project FVI 20 048 and USDA AMS Specialty Crop Multi-State Program Award AM190200XXXXG001.

An Inclusive Approach to Pesticide Safety Trainings

Typical pesticide training courses are long, expensive, lecture-style series offered once or twice a year and in very few locations statewide. Many growers face financial, time, language, and other barriers that prevent them from accessing pesticide safety trainings. Additionally, many small, organic, and limited resource pesticide applicators don't realize that they should also be learning pesticide safety concepts because of a common misconception that organic pesticides don't pose risks to the applicators and handlers.

There is a broad need to improve access to pesticide safety training by changing the model from stand-alone course series to impactful lessons embedded into existing events taught more often and closer to the growers. Pesticide applicators are also reporting that pesticide safety topics are easier to learn and apply at home when the content is delivered in more relatable, digestible and engaging formats.

CVP Specialist Buck recruited specialists from the SWNY Dairy Livestock Field Crops team, the Lake Erie Grape Program, and Cornell IPM to join her in developing and delivering educational curriculum that will meet these needs.

We're creating series of short, hands-on, active-learning lesson plans and toolkits to teach pesticide safety and risk reduction practices to undertrained applicators in the Finger Lakes, western NY and northwest PA. These Grab n' Go lesson plans can be taught as stand-alone topics inserted into existing grower events. They can also be stacked together to create workshop-length modules for more focused training events. The pesticide safety lessons will address four fundamental themes that are key to reducing risk:

- Personal Protective Equipment
- Non-applicator & Environmental Safety
- Math and Mixing
- Calibration & Safely Troubleshooting Sprayers

The work is supported by an 18-month, $74,996 grant from the Northeast Extension Risk Management Education program. Lesson plans are already being developed. We look forward to piloting some of them at upcoming summer meetings!

This is material is based upon work supported by USDA/NIFA under Award Number 2024-70027-42540.

NORTHEAST EXTENSION RISK MANAGEMENT EDUCATION

USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE