Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program



JULY—SEPTEMBER 2024

Field Tomato Disease Management Programs with OSO Bio-fungicide Shows Promising Results



Tomato plant with high level of foliar disease in untreated control plot.

Teresa Rusinek and Ethan Grundberg, Vegetable Specialists

ENYCHP vegetable specialists Teresa Rusinek and Ethan Grundberg conducted a trial over the 2025 field growing season to evaluate a novel bio-fungicide Oso (Polyoxin D zinc salt). The objective of the trial was to improve disease management in field tomatoes and fine tune organic fungicide programs while potentially lowering copper fungicide inputs. Preliminary results show a significant decrease of foliar disease occurrence in treatments receiving Oso plus the copper-based fungicide Badge X2 and a numeric trend of lower disease levels in treatments receiving only Oso applications. Evaluations will continue next season with treatments refined based on this years' results.



Tomato plant with visibly lower foliar disease in bio-fungicide plot.

Harvesting the Cabernet Franc Clones, Rootstock Trial at the Hudson Valley Research Lab

Jeremy Schuster, Grape/Viticulture Specialist

Harvest is an exciting and busy time of year in agriculture—You get to see the fruits of all the work put in during the growing season to produce a crop; on the other hand, you have to get the crop harvested before the crop is infected or destroyed by disease or weather. Harvesting the Cabernet Franc clone and rootstock trial at the Hudson Valley Research Lab is no different. Cabernet Franc is a cold-tolerant red *Vitis vinifera* cultivar that produces quality wines similar to the more widely known Cabernet sauvignon. To gain wider recognition for the Hudson Valley wine industry, industry stakeholders identified Cabernet Franc as the region's signature grape variety and formed the Hudson Valley Cabernet Franc Coalition in 2016. However, limited information on different Cabernet Franc clones' growth characteristics and winemaking potential were available. To support the wine industry in the Hudson Valley, a Cabernet Franc clonal and rootstock trial was planted in 2018 at the Hudson Valley Research Lab. The trial initially included five clones on three different rootstocks; however, one clone was unavailable during planting. The trial reached full production in 2021, with the harvest in 2024 marking the first growing season with

data collected for the whole growing season. The trial was harvested on September 30th, 2024, with the assistance of 15 people representing ENYCHP, the Hudson Valley Research Lab, and NYS IPM. During harvest, cluster counts and harvest weights were collected, with 1,202 pounds being harvested. Of the harvested yield, 300 pounds were sent to the teaching winery in Geneva, NY, to be made into unfinished wines that members of the Cabernet Franc Coalition will taste in a blind tasting. The data gathered from this trial can assist growers in selecting combinations of clones and rootstocks that are best suited for their vineyard site and winemaking style, in addition to adding to the literature on Cabernet franc. This work is generously supported by the New York Wine and Grape Foundation.



Rest following a successful grape harvest

Investigating Orchard Soil Health and Beneficial Fungi in Eastern NY

Mike Basedow, Tree Fruit Specialist

While we can't see them as easily as the rest of the trees, the roots and soil underneath the tree are critical to the overall health of our orchards. With challenging weather conditions over the past few seasons, growers are increasingly thinking about how they can manage their soils to be more resilient to challenges like drought, waterlogging, and swings in soil temperature.

To help fruit growers achieve these goals, this summer we collected soil samples from orchards around the Eastern NY region. We focused this summer's sampling on the northern Capital Region and Mohawk Valley, including orchards in Essex, Washington, Saratoga, Fulton, Montgomery, and Schoharie counties, since we have a good collection of samples from the Champlain and Hudson Valley at this point.. Data will be analyzed over the fall, and reports will be sent back to growers with suggestions on how they might better manage their orchard soils to increase productivity and increase their climate resiliency. In addition to this research, we collected our second season of field data from our SARE-funded beneficial fungi project site in Clinton County. This year we collected data on water use efficiency and nutrient acquisition, and will collect tree growth data later in the fall.

All of this work culminated in a grower field meeting in Peru on August 15th held at our trial site, and attendees were able to see in person the differences in tree performance between the different fungi treatments. Mike discussed the differences in the fungi products used, and the early performance differences we have seen to date at the site. We also heard from Debbie Aller from the NY Soil Health Program about how to foster healthy orchard soils, and Dr. Kitty O'Neil on how to create climate resilient orchard plans. This event was attended by about 14 people, and attending orchards received three complimentary soil health tests, which Mike will collect in the spring of 2025.



We are excited to continue to work closely with ENY orchards to help them manage high quality, climate resilient orchard soils.

An Abundance of Variety Trials

Chuck Bornt, Vegetable Specialist

During the 2024 growing season we established a sweet potato variety trial (Ulster County), 2 Fall ornamentals trials (Montgomery and Orange Counties) and a heat tolerant broccoli variety trial in conjunction with University of Rhode Island and CCE Suffolk County (Rensselaer County).

The Fall ornamentals trials evaluated a number of different types of pumpkins and gourds, with 38 varieties in total. Many of the varieties are new and are not commercially available, so this is a great opportunity for growers to get a look at brand new varieties that they may want to look at themselves next year. We selected two different locations, a northern and southern site, in order for growers, educators and seed industry representatives from a wider area have an opportunity to see the varieties as well as to note any regional differences varieties may exhibit. Although both trials turned out fair, the extreme heat and drought conditions during the month of July really limited fruit production. This was mostly due we feel to pollination issues both from the lack of bees flying (heat) and pollen viability (heat and drought). At the end of September, a twilight meeting was hosted by the team for growers to come and see the varieties for themselves.

The broccoli trial evaluated 12 commercial and experimental varieties of broccoli. These varieties were selected on either their reported heat tolerance or lack of. Heat tolerance in broccoli is very important for growers that are trying to bring broccoli to the market not just into the fall, but late spring and summer as well. Most broccoli varieties do not tolerate the heat very well and either go to flower, have very ununiform heads or do not get to a marketable head size. Finding a heat tolerant variety has become more of a priority for many broccoli growers because the springtime temperatures seem to be getting warmer and he have been facing hotter, dryer summer conditions as well. This information will be shared with our University of Rhode Island and CCE Suffolk County colleagues as well as with growers throughout the winter months via newsletters and meeting presentations.



This was the last year of a three-year sweet potato variety trial where 10 varieties, both commercially and experimental, are being evaluated for not just yield, but quality root production. Entries included several new purple skinned, purple fleshed roots from North Carolina State University, a new maroon skin, white fleshed variety from Louisiana State University and several traditional orange skinned, orange fleshed varieties from Jones Farm in North Carolina. The trial will be harvested in early October and results will be shared with growers throughout the winter months.

Networking and Collaboration at North Country Twilight Meetings

Elisabeth Hodgdon, Vegetable Specialist

This season, ENYCHP organized two twilight meetings in the North Country that offered opportunities for growers and extension in New York and Vermont to network, learn, and share ideas. In August, growers Marisa Lenetsky and Mike Champagne of North Point Community Farm in Plattsburgh hosted a tour of their high tunnels and dairy barn they are renovating into a wash-pack space for their produce. In the past few months, Mike and Marisa have made great strides toward improving the efficiency, functionality, and food safety of their wash-



Farmers discuss the process of turning an old dairy barn into a wash-pack location.

pack barn with support from ENYCHP specialist Elisabeth Hodgdon and UVM Extension Ag Engineering specialists through a collaboration made possible by a USDA Food Safety Outreach Program grant. The evening ended with a social hour for attendees to network. In September, we ended the season with a focus on fall crops with a pumpkin and sweet corn twilight meeting at Drinkwine Produce in Ticonderoga. Host Henry Drinkwine discussed vegetable production on his farm, and ENYCHP specialist Chuck Bornt showed the audience pumpkins from his variety trial. Vermont growers and extension from across the lake joined us for the meeting. Both meetings were made possible in part by a Northern NY Agricultural Development Program grant.

4-H Vegetable Marketing Program Shows Youth Potential Farming Pathways

Crystal Stewart-Courtens, Vegetable Specialist

This year Crystal Stewart-Courtens and Kyle Yacobucci of CCE Fulton-Montgomery worked to renew the long-dormant 4-H vegetable marketing program which was historically run in cooperation with the Golub Corporation. Previously, the program allowed youth to sell cherry tomatoes to local Price Chopper stores. In this program reboot, youth were able to work with local farm owners to market a variety

of products through their farm stands, providing more opportunities for crop diversity and for each family to pick crops that fit into their gardening space.

Twenty-eight youth signed up for the six-session program and learned about planning, planting, and caring for their garden before learning about how to safely harvest produce both for sale and marketing at the fair. Additionally, youth were able to tour local farms and see first-hand what earning a living on farms looks like. As part of the program renovation, Crystal and Natasha Field created revised lesson plans for each class so that other counties would be able to replicate the program if desired.

As we see the average age of farmers continue to creep up, providing youth opportunities to see potential careers in farming and to experience the joy and satisfaction of growing their own vegetables is one way we can potentially encourage more people to consider including farming in their long-term life goals.



Youth practice judging vegetables in preparation for the fair

First Quarter Reflections from the New ENYCH Berry Specialist

Heather Kase, Small Fruit Specialist

Having just passed the 3-month mark on my employment with ENYCHP, it has been a whirlwind. Thus far, I have met growers on their farms and at twilight meetings, attended the NASGA Summer Tours meeting 2024, worked with my WNY counterparts, and have been on Northeast Berry calls —all while simultaneously learning as much as I can about small fruit crops. Coming from the natural enemies industry, where I worked with crops such as vegetables, small fruit, cannabis, and cut flowers, this role as Small Fruit Specialist feels more focused yet far-reaching. Learning more on production, phenology, economics, and other relevant small fruit information has required extensive reading and shadowing. As time goes on, it is exciting to recognize myself recalling information while on field visits or when talking with growers.

The throughline of this past quarter has been my team's support. Whether travelling to meet growers and other CCE specialists, attending twilight meetings, teaching me information or pointing me in the right direction, the support from my team and other teams has helped set me up to hit the ground running. Additionally, the growers that I have met thus far, whether in person or via email/call, have been patient with my newness. I look forward to the years ahead, supporting my growers and team, just as they've supported me.



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