

Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program



APRIL—JUNE 2022

Sprayer Workshops Prove Popular

Laura McDermott, Berry Specialist

In late June, two workshops aimed at helping growers understand the importance and nuance of air blast sprayer calibration were held in the mid-Hudson Valley and in Champlain region (pictured above). Over 60 growers attended the workshops, primarily tree fruit, grape and berry growers, but also a few sweet corn farmers. George Hamilton, an emeritus extension associate from the University of New Hampshire, has formed a private consulting company that works with growers to revamp their spray programs and understand the intricacies of spray deposition and efficacy. George demonstrated a patternator, which is equipment that helps monitor the deposition of pesticide spray in the planting. The host farmers gained an entire re-tooling of sprayers as George spent many hours making sure that the sprayer was ready for the 2-hour workshop at each location. The average estimate for cost savings after the sprayer modification at the two farms was between \$14 - \$44/acre per spray application. Definitely worth doing! CCE ENYCHP will sponsor or co-host 3 boom sprayer calibration workshops in late July that will be held in the north country and the Capital District. DEC recertification credits have been available for all the workshops.

SARE Research and Extension Grant Sponsors Strawberry Research at the Cornell Willsboro Research Farm

Elisabeth Hodgdon, Vegetable Specialist

The month of June marked a busy strawberry season for the team at the Cornell Willsboro Research Farm in Essex County. ENYCHP team members Elisabeth Hodgdon, Andy Galimberti, Laura McDermott, Natasha Field, and Mike Basedow harvested strawberries for a SARE Research and Education Grant project that finally came to fruition after a delay in field work due to the pandemic. The strawberries, planted in June 2021, were established as part of a replicated experiment testing the efficacy of various winter protection materials on berry yield. In winter 2021-2022, the plots were covered with either a lightweight, heavyweight, single or double layer row cover. Performance of these row cover materials was compared with traditional straw mulch and an uncovered control treatment. Increasingly, growers in eastern NY are opting to use row covers in lieu of straw for their ability to allow light to plants, generating more growth during the spring and resulting in earlier harvests. In Willsboro, our harvests revealed widespread cold damage in plots due to the harsh winter and cold spring temperatures into April. Plots covered in straw produced visible increases in yield and berry quality. As the strawberry season winds down, the team will analyze the data collected in order to develop recommendations for growers. The experiment will be replicated again in winter 2022-2023 using a second planting of strawberries established by the team in early June.



The Return of In-Person Meetings

Crystal Stewart Courtens, Vegetable Specialist

Folks seem to be ready to venture out to meetings again, and we've been offering plenty of opportunities for farmers to attend! This quarter alone saw at least 12 field meetings throughout the region. Some of the options this spring included a greenhouse meeting in the Mohawk Valley with Dr. Betsy Lamb, multiple pesticide update meetings throughout the region taught by team members, and a field meeting in Columbia County with Dr. Meg McGrath. It's been great to bring expertise back to the region from other parts of the state, and to bring growers together to share information and camaraderie. We're looking forward to many more in-person meetings throughout the growing season!



On-Farm Walk and Talk Highlights Results of ENYCHP Bloom Thinning Work

Mike Basedow, Tree Fruit Specialist



Mike showing growers how to measure flower styles for the pollen tube growth model.



Champlain Valley growers walking through the trial to see the differences in return bloom firsthand.

Up in Peru, Forrence Orchards has been bloom thinning with ammonium thiosulfate (ATS) for the last few seasons. In 2020, Mike Basedow received grant funding through the Northern New York Agriculture Development Program to help them fine tune their thinning practices using the pollen tube growth model, and computer based growth model that helps growers determine when to apply the ATS to their trees for more accuracy in their thinning.

In 2021 we got very good results from our Honeycrisp thinning trial, and got excellent results in terms of the enhancement of return bloom in our experimental treatments relative to the "grower's standard" bloom thinner. While growers have been hearing for the last few years from Dr. Robinson that ATS promotes return bloom, and had seen it in our presentations at winter meetings, they didn't yet have the opportunity to see it on the tree.

As soon as we saw the differences on the trees, Mike came back to his desk and ran statistics on the data. There were significant differences between some of the treatments, which could be clearly seen on the trees. Forrences' hosted a field day to show other growers the bloom differences first hand. The meeting was held in on May 12, and was attended by 17 growers representing most of the Champlain Valley acreage. Mike discussed the importance of good crop load management in Honeycrisp and Gala, and how bloom thinning should be a component of a thinning program and then discussed in detail how the pollen tube growth model works, and his trial results. Growers then walked through the previous year's trial to see the difference in return bloom.

Two farms mentioned how clear the difference in return bloom was. One grower decided to start using ATS on his Honeycrisp that growing season, while another said he is going to strongly consider adding it to his program in 2023. One grower also said "While we always trust your data, seeing the difference between the trees first hand in an orchard here in Peru really makes me want to try it".

We are continuing our thinning trials with NNYADP through 2022, and plan to continue on-farm thinning trials in Peru for future seasons.

Eastern New York Next Gen Growers Meet Up at Davenport Farms

Teresa Rusinek, Vegetable Specialist

On April 25, 2022, next generation growers from around the region gathered at Davenport Farms in Stone Ridge to learn about opportunities to develop leadership skills and put them in practice. Participants learned about the Lead NY leadership program from John Kelder of Kelder Farms, NY. Renee Ciardi, field advisor for NY Farm Bureau explained what Farm Bureau does and how next gen farmers can participate. After a tour of the greenhouse production area with Robin Davenport, Teresa Rusinek discussed the importance of soil and water testing and demonstrated using the Cornell pH test kit. The Next-Generation of Produce Farmers is a program of the CCE Eastern NY Commercial Horticulture Team. Its purpose is to help connect and provide support to farmers in multi-generational farm operations who are moving into a leadership or ownership role on the family (or other) farm. The Program is supported by USDA/NIFA Northeast Risk Management Education award.



Robot Weeders

Marie Ullrich, Vegetable Specialist



Interest in robot weeders for larger vegetable producers is growing. The growing cost of labor is making the expense of these pieces of equipment a responsible investment. Simultaneously, the technology for weeding that uses some level of digitally controls applications has improved dramatically in the last few years. In April, CarbonRobotics CEO, engineer, and two sales representatives came to the Hudson Valley to visit a couple of prospective buyers. At the same time, they met with Ethan and Maire to learn about the special needs of vegetable production in New York since their current customers are on the west coast. The company hopes to tailor equipment that will better suit the weeds, soil and cultural practices here in New York.

Encouraging Annual Bearing Habit in ‘Honeycrisp’

Dan Donahue, Tree Fruit Specialist

The natural biennial bearing habit of the ‘Honeycrisp’ apple is a serious economic problem for apple producers. Left to its own devices, ‘Honeycrisp’ will over-crop in one year, then produce no fruit at all in the next. The fixed costs associated with maintaining the orchard remain even though there is no income produced remain substantial. Our current recommendations to producers focuses on steps to take in the cropping year to encourage return bloom and cropping the next. While these steps have some positive effect, our experience has shown they are not sufficient in themselves.

Gibberellins are natural plant growth hormones that encourage the production of leaves and shoots while discouraging the production of flower buds. A current research project of mine focuses on learning how to apply gibberellins in a unique way, to discourage the over-production of flower buds in the year following a poor crop. It should be noted that a full crop of quality ‘Honeycrisp’ has an orchard value of \$25K+ per acre. Our initial results indicate that we can reduce excessive return bloom by 25-30%, offering the potential to reduce over-cropping. A reduction in over-cropping should start the process of returning the trees to balanced, annual production to the financial benefit of our producers.

April—June 2022

587 Phone Consults

418 E-mail Consults

549 Farm Visits

23 Field Meetings

521 Attendees at Field Meetings

15 Webinars/Distance Learning

431 Participants in Distance Learning

Daily, personalized, farm-specific vineyard
report addressing weather and pests—

delivered to **194** growers for a total of

15,132 unique reports



The Eastern NY Commercial Horticulture Program is a Cornell Cooperative Extension partnership between Cornell University and the CCE associations in Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Orange, Montgomery, Putnam, Rensselaer, Saratoga, Schoharie, Ulster, Warren, & Washington.

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