

Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

QUARTERLY HIGHLIGHTS

JULY—SEPTEMBER 2023

Introducing ENYCHP's New Viticulture Specialist *Jeremy Schuster, Viticulture Specialist*

The ENYCHP team gained a new face with the arrival of Jeremy Schuster on August 1st, who is serving as the Viticulture Specialist for Eastern New York. He brings with him a master's degree in Horticulture with a focus on Viticulture from Oregon State University, as well as a significant background in agriculture, having grown up on a farm in Southern Minnesota, then interacting with corn and soybean farmers while working with a seed corn company in Iowa. During his first two months, he met with growers and visited 20 vineyards across all 17 counties. Jeremy is contributing to the *Véraison to Harvest* newsletter, which monitors the maturation of grape cultivars from regions across the state on a weekly basis.

To address increasing grower concerns, a roundtable discussion with Penn State's Viticulturist Cain Hickey and Penn State Extension Educator Brain Walsh was held on September 7th to discuss the spread and management of Spotted lanternfly. The discussion was held in-person and virtually, with a recording available after the event.



Sprayer Application Workshops Continue in 2023 *Laura McDermott, Berry Specialist*

As a result of great feedback from the 2022 workshops held in the Hudson and Champlain Valleys, we invited George Hamilton, an emeritus extension associate from the University of New Hampshire, to conduct another workshop aimed at air blast sprayer calibration. Twenty-seven apple growers and their key employees attended the workshop. George discussed sprayer calibration, and how it becomes more important as the sprayers are increasingly computer driven. The host farmer gained an entire sprayer re-tooling as George spent many hours making sure that the sprayer was ready for the 2-hour workshop. The estimate for cost savings after the sprayer modification was between \$17 - \$44/acre per spray application. It is definitely worth calibrating your sprayer! DEC recertification credits were available for all the workshops. CCE ENYCHP staff will continue to work with county educators to make sure that this important information is available to farmers in eastern NY. A goal for 2024 is to have a full Spanish version of the training available.



Climate Change Increases Grower Need for Education about Risk Management Options

Elizabeth Higgins, Business Management Specialist

In the past 12 months Elizabeth Higgins, ENYCH farm business extension specialist, has been working with farmers that suffered significant crop losses due to floods, microbursts, excessive rain and frosts this season. None of these farms had crop insurance and do not participate in USDA FSA's Non-insured Ag Program (NAP), which is a federal disaster program for farmers who grow crops that are not covered by federal crop insurance single-crop insurance plans. Many were unaware of any option beyond NAP, which they perceived as requiring a high paperwork burden for a low return.

Higgins has been researching USDA crop insurance use by specialty crop growers for the past several years with faculty from the Dyson School (Jenny Ifft and Brad Rickard) and economists from USDA Economic Research Service. This group issued a report recently that investigated the use of NAP and USDA's Whole Farm Revenue (WFRP) Crop Insurance by diversified specialty crop farms in New York. We concluded that Whole-Farm Revenue Protection and the new Micro-Farm WFRP may be cost-effective insurance options for producers that need a high level of revenue protection and/or have a diversified farm. Because of generous federal diversity and premium subsidies, (and additional subsidies for beginning farms, veterans, and socially disadvantaged farms), the cost of WFRP is often price competitive with that of NAP and APH, but provides much more revenue protection.

Despite its benefits, WFRP uptake has generally been low in New York State. Most small, diversified farms are unfamiliar with federal crop insurance programs and have a perception that the paperwork and recordkeeping burden are too high and indemnity payments are too low – based on their experience with NAP. In contrast to other risk management programs, WFRP allows for the use of tax forms, and WFRP Micro Farm allows for combining all crops under a single "Micro Farm" commodity, but producers may not be aware of these conveniences. Higgins plans to offer workshops for ENYCH growers to help them better understand their insurance options. Programs will be targeted to smaller, diverse farms that are not eligible for other Federal Crop Insurance programs. Low use of insurance is not unique to crop insurance products like WFRP. A high percentage of houses in flood plains lack flood insurance, unless it is mandated by a lender. Similarly, a high number of individuals lack health insurance, even when widely available. But recent weather events and the number of calls from growers looking for options indicate that this year there may be heightened interest in learning about improved insurance options.

ENYCHP Offers Summer Tree Fruit Field Meetings for Diverse Audiences

Mike Basedow, Tree Fruit Specialist

This summer, ENYCHP tree fruit specialists offered three field meetings. These meetings were strategically held for orchardists of various farm sizes and experience levels across the ENY region.

On July 20, Mike gave an afternoon field tour of his research field sites at Chazy Orchards in Clinton County. The group consisted of about 20 growers, mostly from wholesale orchards in the Champlain Valley, but was also attended by retail oriented orchards from the Mohawk Valley and Vermont. The group viewed the Acede Thinning trials in a Gala planting, and discussed Mike's experiences working with a new phone based app offered by the precision crop load management company Pometa. The Canada thistle management trial, which is examining three different timings of Stinger to better control thistle and other perennial broadleaves was also a highlight. Bitter pit management using two calcium products and a PGR (plant growth regulator) material to reduce the incidence of bitter pit on Honeycrisp was also discussed. The tour concluded with Kelly Snide of Chazy Orchards discussing his new trial "H Brace" design, and a demo of their Munckof 3-row sprayer.

On August 3, there was a meeting targeting beginning cider apple growers held at Scrupmy Ewe Cider in Schoharie County. Attendees included managers from commercial retail orchards, cideries, and a few homeowners looking to start a small farm or homestead. Topics discussed included cider variety selection, training systems, pruning, and pest management. Ryan McGiver of Scrupmy Ewe described how he is incorporating livestock into his production system, and then led a group tasting of his ciders following the event.

A field meeting on August 9th at J.L. Knight and Son's in Saratoga County rounded out the summer meeting season. Retail orchard owners and staff from around the Capital Region were in attendance. The meeting started with a tour of J.L. Knight's new packinghouse and storage facility, followed by Jeremy discussing his experience with Hazel 1-MCP sachets. Attendees then heard talks on late season pest management from Cornell scientists Kerik Cox, Monique Rivera, Anna Wallis, and a final note on late season weed management from Mike.

Providing a diversity of field programs helps to ensure we are meeting the needs of all of the various levels of orcharding within Eastern NY.



*Top: Learning about J.L. Knight and Son's new packinghouse with Jeremy Knight;
Middle: Mike discussing cider orchard management for beginners at Scrupmy Ewe;
Bottom: Demonstration of 3 row sprayer at Chazy Orchards .*

Supporting Farmer-Led Research at Hearty Roots Farm in Columbia County

Ethan Grundberg, Vegetable Specialist

Ben Schute of Hearty Roots Community Farm in Clermont, NY approached CCE ENYCHP vegetable specialist Ethan Grundberg with an idea for a Northeast SARE Farmer Grant in the fall of 2022. Like many organic vegetable growers, Ben struggled to manage weeds in his direct seeded carrot crops. Drawing inspiration from smaller operations who apply a thick layer of compost on top of the soil to suppress weeds, Ben wondered if he could apply bands of compost in two rows before seeding carrots to reduce the in-row weed pressure in the crop. The SARE farmer grant proposal was funded and, with the support of Grundberg, Ben began to experiment with different compost mixes and application rates this season. Grundberg and program aide Nathan Pollack worked with Hearty Roots to collect data on crop stand and weed pressure over the summer and will continue to work with Ben to collect yield data from the trial this fall. The research will continue in 2024 and expand to include the modification of a manure spreader to increase the efficiency of banded compost application.



2023 Hudson Valley Apple Harvest Management Extension Program Detects Unusual Variation in Apple Maturity

Dan Donahue, Tree Fruit Specialist

The start of the 2023 apple growing season commenced a few days later than “average”, followed by a 10-day period of unseasonable warm temperatures. Trees responded to the heat with rapid growth, developing through the green tip, ½” green, tight cluster, and pink stages in about a week and a half when at least three weeks is the expectation. During the pink stage, weather turned unseasonable cold and wet; as a result, we saw extended bloom (pollination) period. Usually bloom lasts 7-10 days, but later blooming varieties such as Gala, Honeycrisp, and NY-1 ‘Snapdragon’ popped during this dismal period and were in bloom for as long as three weeks. Early blooming varieties like ‘Pink Lady’ managed to show significant bloom during the last couple of warm days when pollination conditions were excellent. ‘McIntosh and ‘Empire’ also bloomed at this early timing alongside ‘Pink Lady’. A post-bloom freeze event on May 18th when the developing fruitlets were 8 mm in size added a dramatic complication. The crop appeared to suffer severe damage, expressed as seed death and external frost ringing, with the potential for significant economic losses. Both the extended bloom and post-bloom freeze events were highly unusual and the consequences for harvest were essentially unknown. Experienced growers recalled that the last post-bloom freeze event occurred in 2002!

As harvest approached in August, there was an unusually high level of variation in apple maturity within ‘Gala’ trees. The same phenomenon was observed in ‘Honeycrisp’ slightly later. Our extension response was to modify our usual Harvest Management Program (HMP) testing protocols and develop a new method that would produce data that helped growers quantify the condition, assign causation, and develop revised harvest timing recommendations, by variety. While ‘McIntosh’ is a traditional single-pick variety, ‘Gala’ and ‘Honeycrisp’ fruit mature at different times on the tree, requiring 2-4 picks over a 2-week period. The consequences of harvesting fruit too early or too late is the risk for substantial losses during the cold storage period due to disorders like internal browning.

The new protocols implemented by Dan Donahue included apple harvest maturity and quality evaluations (FQ&M) that looked at a random sample of 50 apples and recorded data on firmness, sugar content, color, size, seed count and starch pattern index on individual fruits. The industry-standard method of FQ&M involves an approximate 10-apple sample with the data reported as averages. While useful and efficient for most situations, the traditional method would not be sensitive enough to provide insight into our questions or allow for a more detailed statistical analysis. Multiple samples were analyzed over time from Orange, Ulster, and Columbia counties in order to factor in the effect of the freeze damage. Freezing temperatures on May 18th varied from South to North, generally non-existent in the Warwick area, but severe in Columbia County and moderate in Ulster.

Our results confirmed that there was extensive maturity variation in ‘Gala’ and ‘Honeycrisp’, but not in ‘McIntosh’. Seed counts varied significantly by geography, and did not appear to be the cause of the variability. We concluded that the extended bloom period was the primary culprit, ‘McIntosh’ escaped the negative effect because the variety bloomed early when the weather was still warm and dry. ‘Gala’ and ‘Honeycrisp’ suffered from the extended cold and wet bloom period. As a result, our ENYCHP harvest timing recommendations for the ‘Gala’ and ‘Honeycrisp’ varieties in the Hudson Valley were modified to include an early initial pick of approximately 15% which should not be stored but marked quickly. Such a strategy would help minimize storage losses. Our extension recommendations were reported in the ENYCHP E-Alert as well as numerous individual producer communications.

Sweet Corn and Pumpkin IPM Twilight Meeting Brings Growers Together in the North Country

Elisabeth Hodgdon, Vegetable Specialist



Sweet corn and pumpkins are staple crops for many farms in the North Country, drawing customers to farmstands and pick-your-own operations in the summer and fall. On August 23, ENYCHP vegetable specialists Elisabeth Hodgdon and Chuck Bornt held a twilight meeting at Dyer Farms in Plattsburgh focusing on these important crops. Participants viewed an experimental laser scarecrow that CCE researchers have been testing for bird management in vegetable crops, learned about pest and disease control in sweet corn and pumpkin crops, and viewed cover crops interseeded into sweet corn for improved soil health. Harvest NY specialist Lindsey Pashow discussed agritourism considerations for vegetable farms and Clinton County Soil & Water Conservation District’s Peter Hagar highlighted the benefits of cover crops and their services provided to local growers. 18 vegetable growers and agricultural service providers from Clinton, Essex, and Franklin Counties joined the meeting.

July—September 2023

582 Phone Consults

305 E-mail Consults

421 Farm Visits

18 Field Meetings

472 Field Meeting Attendees

13 Webinars/Distance Learning

178 Distance Learning Participants

21 Tree Fruit E-Alert reports were delivered to **730** growers, in addition to **7** maturity reports +

8 Vegetable Pest Update reports were delivered to **542** vegetable growers +

3 Berry E-News to **588** berry growers this quarter

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, Schenectady, Schoharie, Ulster, Warren, & Washington.



ENYCH

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