



SERVING AN INDUSTRY COVERING **7 MILLION** ACRES



185 MEETINGS AND TRAININGS



7243 MEETING/TRAINING ATTENDEES



111 REPORTS SENT TO **1936** SUBSCRIBERS



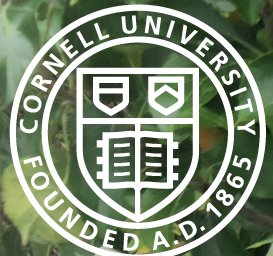
4294 DIRECT EDUCATOR CONTACTS

Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

2023 ANNUAL REPORT

Serving the educational and research needs of the commercial small fruit, vegetable, grape and tree fruit industries in *Albany, Clinton, Columbia, Dutchess, Essex, Fulton, Greene, Montgomery, Orange, Putnam, Rensselaer, Saratoga, Schoharie, Schenectady, Ulster, Warren, and Washington* counties.



PROGRAM HIGHLIGHTS

Growers Learn to Apply Financial Models to Evaluate Investment Decisions in Orchards

Thirty-nine tree fruit farmers were trained to use financial modeling tools that will help them evaluate capital investments on their farms. Using data from an example farm, participants went through exercises to apply the formulas to the data in groups, then discussed how to interpret their results. Farmers commented that they appreciated learning how to interpret and apply the information. This training program was supported by a Northeast Risk Management Education (NERME) Grant focused on profitability and decision making. The program was led by Liz Higgins and supported by Dan Donahue, Mike Basedow and Craig Kahlke. It will be converted to an online class available to more growers in 2024.

Right: Liz Higgins instructing tree fruit growers on financial modeling tools



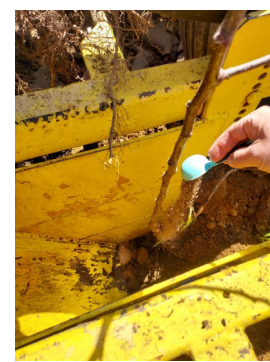
Above: Rows of plasticulture strawberries used in row cover experiments

Strawberry Research Benefits Growers Across the Region

Work on a SARE Research and Education grant that evaluated dormant winter protection treatments and low tunnel structures for improved yield in June-bearing strawberries concluded this fall. ENYCHP specialists Elisabeth Hodgdon and Laura McDermott also helped revise the Strawberry Production Guide for the Northeast, Midwest, and Eastern Canada. As a result of this trial of winter protection strategies, growers can evaluate the cost of inputs and choose what makes more sense for their farm. Results of low tunnel evaluations for improved strawberry yield and quality were published in Fruit Quarterly, and the revised production guide is now available for download.

Eastern NY Project to Look at Beneficial Fungi in New Orchard Plantings

Mike Basedow is leading a team of researchers in an effort to evaluate the environmental and economic benefits of applying beneficial fungi to new orchard plantings. The goal of work is to lower orchard establishment costs by reducing irrigation and nutrient inputs, thus reducing the per acre establishment cost while still growing vigorous, resilient trees. As part of this project, trainings for diverse, underserved communities will be held, including young and beginning farmers, and Jamaican and Hispanic farmworkers. Trainings will be held in English and Spanish to reach these audiences.



Left: Fungi packets added to new Pink Lady Plant; Right: Basedow adding granulated beneficial fungi treatment to new planting

Food Safety Outreach Program Supports Plain Communities Across Region

Farming is an important source of income for many Amish and Old Order Mennonite families that are a rapidly growing sector of NY state population. These farms sell their products at produce auctions across the state. Specialists Elisabeth Hodgdon and Crystal Stewart-Courtens are assisting with outreach to improve food safety knowledge on Plain Sect farms. Five twilight meetings reaching 135 farmers provided guidance on best management practices to avoid microbial contamination of produce.

Seed Production Support for Northeast Market Farms

Consistent supply of organic seed has been a challenge for growers in the northeast. ENYCHP Vegetable specialist Crystal Stewart-Courtens and program aide Natasha Field have developed an online course that covers the basics of seed production; details of economics and sales; and how seed production systems can develop in the Northeast. The course debuted at the Northeast Seed Conference in early 2023 and was followed by a seven week educational course offering weekly live meetings, online course content, and forums for discussion. During the course, participants chose a crop to grow for seed in 2023 then received mentorship during the growing season. Sixty-five market farmers participated along with thirty Indigenous Seedkeepers from the region. The seed course is paired with seed production research conducted at Philia Farm in Fulton County, NY. The seed course will be offered again in 2024 with biennial seed mentorship and production stretching into 2025. An increase in revenue of \$150,000 and a 50% increase in the capacity of community seed keepers to source and distribute seed is the anticipated outcome.



Above: Using seed cleaning equipment before storing seeds

Eastern NY region receives Funding for Fire Blight Research and Extension Outreach

Significant outbreaks of fire blight over the last 5 years, have plagued eastern NY apple growers and caused tens of millions of dollars in tree loss and lost fruit production. New apple varieties and high density production practices generate high returns for growers but also make the orchards more susceptible to fire blight. A significant effort to gain financial support was rewarded this year, and work on investigating different tools for managing and mitigating the impact of fire blight outbreaks in high-density apple orchards will begin in 2024. Liz Higgins and Dan Donahue are the Cornell University leads on this multi-state project that will evaluate control strategies including remote sensing, DNA, enzyme, and plant activator technologies. A focus of the effort in NYS will be the economic viability of using remote sensing to identify and remove fire blight cankers.



Above: Yellow shoulder in tomatoes

ENY Specialists Tackle Tomato Yellow Shoulder Disorder

New York State is #2 in the nation for growing crops in high tunnels with sales of \$28,590,555 generated from 489 farms. Tomato crops grown in high tunnels provide high economic returns to these farms; but tomato yellow shoulder is a common disorder that can be exacerbated in the high tunnel growing environment. ENYCHP vegetable specialists Teresa Rusinek and Ethan Grundberg are investigating if foliar potassium applications in conjunction with reflective plastic mulch that cools soils, thus improving root function and potassium uptake, can reduce occurrence of yellow shoulder. High tunnel tomatoes are increasingly important to our diversified vegetable farmers in terms of sales and market retention.

Winter Greens Research and Outreach in Eastern New York Supported by Northern NY Research Fund

Consumer demand for local winter greens remains strong in New York State, and CCE aims to support season extension and year-round production to meet this demand. A high tunnel winter greens variety trial at the Cornell Willsboro Research Farm in Essex County was planted and managed by ENYCHP specialist Elisabeth Hodgdon. She and program assistant Jennifer Stanton evaluated yield, regrowth quality, flavor, disease susceptibility, and cold tolerance of 20 varieties of greens for harvest at the baby leaf stage, focusing on brassica crops. The trial included arugula, mustard greens, tat soi, mizuna, and others. Greens in the brassica (mustard) family are particularly cold tolerant and can overwinter in unheated high tunnels. In January 2023, a virtual high tunnel winter greens workshop was held and attended by 50 eastern NY farmers. This trial continues in the winter of 2023-2024.



Above: Cornell Willsboro Farm high tunnel with winter greens planted



Above: George Hamilton demonstrating at 2023 sprayer workshops

Sprayer Application Workshops Continue in 2023

Grower feedback and requests resulted in a second year of sprayer calibration workshops in eastern NY. George Hamilton, emeritus extension associate from the University of New Hampshire taught 27 apple growers and their key employees about 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. A goal for 2024 is to have a full Spanish version of the training available.

Improving Apple Thinning with Research and New Technology

Springtime apple thinning is a time of challenging decisions. If growers thin too little, fruit will be small, of low quality, and return bloom the following season will be reduced. If they thin too much, there will be few fruit on the trees, yields will be low, and fruit will be large and less likely to store well. Thinning is usually accomplished with chemical applications when fruitlets are between 6mm and 14mm. This often gives growers only two application windows to achieve their desired level of fruit thinning, and the weather may not always cooperate. A new product based on a plant hormone was recently introduced which is unique as it can thin fruit up to 20mm, resulting in more time to get thinning done correctly. Three thinning trials investigated the efficacy of the new product on Gala, Honeycrisp, and Macoun grown in the Champlain Valley. Despite the spring freeze, we were able to adapt our treatments so that we could still evaluate thinner efficacy. Efficacy appears to vary by variety, with strong thinning in Macoun, and mild thinning in Honeycrisp and Gala. Data collection will continue in 2024, but this work will provide growers guidance on how to use this new tool.

2023 Collaborators

Cornell Ag Workforce Development Program
Cornell Cooperative Extension, County & Regional Programs
Cornell Farmworker Program
Cornell Institute on Climate Smart Solutions
Cornell Small Farms Program
Garlic Seed Foundation
Glynwood
Grow NYC
Hudson Valley Farm Hub
Hudson Valley Research Laboratory
Intertribal Ag Council
Louisiana State University
Maine Organic Farmers and Gardeners Assoc.
Michigan State University
National Institute of Food & Agriculture
NE Sustainable Agriculture Research & Education
New World Foundation
New York Apple Association
New York Farm Viability Institute
New York State Vegetable Growers Association
Northeast Organic Farmers Association-NY
Northeast Risk Management Education/University of DE
Northeast SARE
Northern NY Ag Development Program
NY and NE Integrated Pest Management
NY Apple Research and Development Program
NY Center for Agricultural Medicine & Health
NY Farm Bureau
NYS Berry Growers Association
NYS Dept of Agriculture and Markets
NYS Dept of Environmental Conservation
NYS Dept of Health
NYS Dept of Labor
North American Raspberry and Blackberry Association
Onion Research and Development Program
Onondaga Nation
Orange County Vegetable Growers Association
Organic Seed Alliance
Pennsylvania Dept. of Agriculture
Produce Safety Alliance
Sistah Seeds
Ulster County Planning Department
United States Dept of Agriculture
University of Maine
University of New Hampshire
University of Rhode Island
University of Vermont
Virginia Tech University
Zero Foodprint

STAFF UPDATES

Thank You to Jim Meyers, outgoing Viticulture Specialist; Welcome Jeremy Schuster!

With Jim's retirement this spring, we lost a great advocate for NY wines and eastern NY grape growers. Jim's work on detailed weather forecasting and reporting were very helpful and more importantly he helped growers understand what Cornell Cooperative Extension could offer them in terms of support.

The ENYCHP team gained new expertise with the arrival of Jeremy Schuster. Jeremy's work at Oregon State University, as well as his background in agriculture, will provide a different perspective for eastern vineyard owners. Jeremy has been busy meeting with growers across all 17 counties and is contributing to the *Véraison to Harvest* newsletter on a weekly basis. Jeremy will also be leading the team's effort to educate growers on Spotted Lanternfly identification and management. His office is located at the Hudson Valley Lab in Highland.



ENYCHP STAFF

Specialists

Charles Bornt, Vegetables
Ethan Grundberg, Vegetables
Elisabeth Hodgdon, Vegetables
Teresa Rusinek, Vegetables
Crystal Stewart-Courtens, Vegetables
Maire Ullrich, Vegetables/Hemp
Laura McDermott, Small Fruit
Michael Basedow, Tree Fruit
Daniel Donahue, Tree Fruit
James Meyers, Grapes, retired
Jeremy Schuster, Grapes
Liz Higgins, Business Management

Administrative Staff

Marcie Vohnoutka

Program Aides

Natasha Field
Kaitlyn McNamee
Miles Todaro
Sarah Elone
Jennifer Stanton
Nathan Pollack

2023 OPERATING BUDGET



- Supporting County Association Shares: **\$504,810.00**
- ENYCHP Grants & Funds¹: **\$465,578.00**
- Cornell University Funds²: **\$203,850.00**

¹ Includes funds from reserve accounts, grants, donations, program revenue, Ag & Markets and money market investment interest.

² USDA National Institute of Food and Agriculture Smith Lever Funds and other funds.

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