Serving an Industry with a farm gate value of $182 million

195 Meetings & Trainings

8,684 Meeting/Training Attendees

47k+ newsletters & Reports

Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program

2021 Annual Report

Serving the educational and research needs of the commercial small fruit, vegetable, 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

Changing it Up – Using "Laser Scarecrows" in Sweet Corn to Reduce Bird Damage

Many sweet corn growers have identified bird damage in sweet corn as their most prominent production issue as birds can destroy entire plantings just before harvest, resulting in thousands of dollars being lost. Current strategies used include propane cannons, bird distress/predator calls, air dancers and hunting. However, where fields are located in populated areas these options are not feasible, as many towns have enacted noise ordinances to restrict or limit use. Chuck Bornt CCE ENYCHP Vegetable Specialist has been working with University of Rhode Island researcher Dr. Rebecca Brown and former Cornell University Extension Specialist Ali Nafchi to develop and evaluate the use of specialized, low cost "laser scarecrows" to deter birds from sweet corn and reduce damage. These low powered laser units are less expensive ($450 - $600 per unit with each unit covering about 1 acre) than commercial units that are available from BirdGard ($10,000 per unit covering approximately 10 acres).
(*At right - University of Rhode Island Laser Scarecrow design with added solar panel deployed in a field of sweet corn in Rensselaer County*.)

Robust Berry Research and Outreach Provides Important Support to Industry

Berry growers in eastern NY, along with CCE ENYCH staff and Cornell faculty, have been fully engaged in a number of applied research projects this past year. The anaerobic soil disinfestation (ASD) project is investigating the efficacy of more sustainable approaches to soil fumigation in perennial strawberry production systems. Winter coverings, plasticulture and low tunnel utility is being examined through another Northeast SARE sponsored grant. Exclusion netting and Spotted Wing Drosophila (SWD) monitoring are ongoing efforts to help growers manage a devastating pest of small fruit. Weekly berry office hours and e-Newsletters provide regular support to berry growers. Virtual conferences sponsored by the Empire Producers EXPO and CCE ENYCHP provided 6 full days of berry programming aimed at existing and new berry growers over a very unusual winter meeting season. *Above left: Low tunnels over strawberries at Echo Creek Farm in Salem, NY.*

Biorational Fungicide Study Underway

Brassica crops, like broccoli, are susceptible to a number of plant pathogens. Black Rot (BR), Downy Mildew (DM) and Alternaria Leaf Spot/Head Rot (ALS), are among the most common and destructive diseases of brassica crops grown in the Northeast. Production of marketable organic brassica crops in Eastern New York is limited by these pervasive diseases despite grower efforts to implement best cultural practices like crop rotation and improving air flow in crops by adjusting planting spacing. A number of low-risk "biorational" products are allowed in organic production and are labeled to manage these diseases. One of the obstacles organic growers face in managing the three diseases is discerning which, if any, of these disease control materials are effective. With support from the Hudson Valley Farm Hub (HVFH), regional vegetable specialists Ethan Grundberg and Teresa Rusinek evaluated nine biorational fungicides in 2020 on broccoli produced at HVFH where BR, DM and ALS have all posed persistent production challenges. Results from the 2020 trial were used to refine 22 biorational fungicide programs to be tested in 2021. Data is currently being gathered from the field plots.

ENYCHP Provides Virtual Food Safety Training During Pandemic

Prior to the pandemic, growers subject to federal food safety regulations were required to attend an in-person, day-long Produce Safety Alliance Grower Training course. As of March 2020, this course is now available remotely, via Zoom or other platforms. In FY2021, ENYCHP educators have led three PSA Grower Training Courses in which 66 participants earned certificates from the comfort and safety of their own homes or offices. The courses reached growers from Eastern NY and beyond. Additionally, expansion of ENYCHP programs to the virtual format allowed us to bring in speakers from across the state and country to offer food safety special topics webinars on cleaning and sanitizing, Listeria prevention, and pick-your-own best practices. The webinars incorporated Zoom features and special activities in order to engage participants in learning, including discussions, writing their own standard operating procedures, and more. The ENYCHP aims to maintain its momentum in offering engaging virtual food safety learning opportunities in 2022. ENYCHP will also continue to offer individual on-farm food safety consultation and in-person outreach for communities without access to internet so that all have access to critical information for safe fruit and vegetable production.

Bloom Thinning with New Materials

In 2021 we continued our precision bloom thinning research using the pollen tube growth model in the Champlain Valley. This work began in earnest in 2020 with a grant funded by the Northern New York Agricultural Development Program (NNYADP). In addition to using ATS as our main thinning material at bloom in 2021, we also trialed lime sulfur at one of our field sites. In May 2021 we set up three separate demonstrations with the pollen tube growth model; two in Peru, and one in Chazy. These crop load estimates guided our subsequent thinner applications at the 12mm and 18mm growth stages. We are currently in the process of harvesting these trials, and look forward to analyzing the data to share both years' results to growers at our virtual winter tree fruit meeting in to be held in February.

Field Meeting Brings Growers Together Around On-Farm Research

A field meeting held at Philia Farm in Fulton County on August 5th attracted 37 attendees for two hours of programming about research trials, weed control, and pest management. The farm hosted an onion variety trial, a leek variety trial, a Cercospora Leaf Spot biofungicide trial on table beets, an OREI-funded mesotunnel trial, and a no-till vegetable production trial. Crystal and Natasha of NEYCHP were joined by Jan VanDerHeide of Bejo Seeds and Elizabeth Buck of the Cornell Vegetable Program as guest speakers.

In a nod to the fact that many growers still are not comfortable gathering in groups, even outdoors, the trial information was compiled into a resource booklet that is available to everyone within the region.

Palmer Amaranth Identified in the Hudson Valley

At the first field meeting, Palmer Amaranth and Other Weeds to Watch, on July 13th, Dr. Lynn Sosnoskie showed producers the wide range of amaranth or pigweeds that they might find on their farm. She also stressed the importance of watching for Palmer Amaranth, a weed that is resistant or tolerant to many herbicides, especially when it is more than a couple of inches tall. She described the weed as "the most dangerous weed in the U.S., right now" in terms of its rapid spread, resistance to control methods and potential impact on crop production. This weed is a threat for almost all crops because it grows so efficiently it quickly becomes uncontrollable by even mechanical means when the stem can be inches in diameter. Her day-long visit resulted in good conversations with producers and developing a plan to research Palmer Amaranth in the Hudson

Measuring the Greenhouse Gas Released in Different Squash Production Systems

With support from the Hudson Valley Farm Hub, specialist Ethan Grundberg is collaborating with CCE Orange County Natural Resource Educator Erik Schellenberg to measure the impact of different tillage and fertilization treatments on the total greenhouse gas released from the soil in organic squash production. The field trials began in 2020 and will run through 2022 with Grundberg leading the trial design and data analysis and Dr. Peter Groffman's lab at The Cary Institute in Millbrook completing the gas chromatography required to calculate the carbon dioxide, methane, and nitrous oxide fluxes from the field. Though results from the 2020 field season did not demonstrate any statistically significant differences in total greenhouse gas flux in CO_2 equivalents between the treatments, the data did support the conclusion that the conventionally tilled plots released 2.5 times the amount of greenhouse gas in the two-day period following pre-plant tillage in June. There were also numeric trends toward higher season-long gas release in the plots that received an additional 40 pounds of nitrogen fertilizer compared to the low nitrogen plots. The full annual report is available for view at https://cornell.box.com/s/5adlu8bgdf35vaj9vv1z9nzwx8xfnlwp

Program Highlights Cont.

CCE Works as a Team to Help SerabaFarm's Owner Achieve His Dream for Farm Ownership

In 2019 Rasaq Abiola, an immigrant farmer from Nigeria, took CCE Regional Vegetable Specialist Amy Ivy's Beginning Vegetable Class. After the class, she forwarded him to CCE Regional Business Specialist, Liz Higgins, because he was seeking land and assistance in starting a farm near his home in New York City. Abiola had owned a farm in Nigeria and was eager to own a farm in the United States. Over the next year he worked with many CCE staff including Yolanda Gonzalez of Harvest NY, CCE Nassau County and CCE Putnam County in his quest to find the right property. After a long, and at times, frustrating search in the winter of 2020 he finally found a property for lease in Putnam County.

At that point he reconnected with Liz Higgins, and she worked with him to secure a more favorable lease from the non-farming landlord, helped him connect with funding resources and worked with him on his business plan and enterprise budgets. She helped him connect with USDA FSA, NRCS and Putnam County Soil and Water Conservation District. She also connected him to CCE educators with the Eastern NY program, the Capital District Ag Team and CCE Putnam County and helped him address problems as issues arose. During the growing season, Putnam County Ag Educator, Jennifer Lerner, provided much needed on-farm assistance and guidance to his planting plan.

By the end of the summer Abiola had completed his business plan, applied for a USDA beginning farmer loan, applied for USDA NRCS EQIP funding for a high tunnel and other conservation practices and successfully planted and harvested his first crop at Serabafarm – all while commuting to the farm from his home in the city! He currently provides vegetables to a group of families in Brooklyn but is planning to expand his operation next year as he is able to secure funding and identify additional markets.

2021 Collaborators

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
Louisiana State University
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 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
Onion Research and Development Program
Orange County Vegetable Growers Association
Pennsylvania Dept. of Agriculture
Produce Safety Alliance
Maine Organic Farmers and Gardeners Association
University of Maine
University of New Hampshire
University of Rhode Island
University of Vermont
US Dept of Agriculture
North American Raspberry and Blackberry Association

Staff

ENYCHP 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, Viticulture/Grapes
Liz Higgins, Business

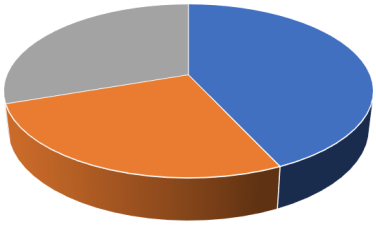
Technicians

Sarah Eve Elone
Natasha Field
Andy Galimberti
Sarah Tobin

Administrative Staff

Chelsea Truehart
Marcie Vohnoutka

2021 Operating Budget



- Supporting County Association Shares: $431,224.00
- ENYCHP Grants & Funds[1]: $266,000.00
- Cornell University Federal Funds[2]: $302,806.00

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

2 USDA National Institute of Food and Agriculture Smith Lever Funds

Cornell Cooperative Extension

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