



Spring Statistics

865 Farm Visits

668 Client E-mails

611 Phone Consults

43 Newsletters/E-alerts received by **28,193** total producers

22 Field Meetings, Trainings & Workshops

480 Producers in Attendance

8 Webinars with **110** Producer Participants

Supporting Potential New Grape Farmers in Eastern NY

Jim Meyers, ENYCHP

Requests for support in evaluating potential new vineyard locations averaged two-per-month in the third quarter. Potential new farm sizes ranged from 1 – 50 planted acres for a total of approximately 80 acres. Assistance included phone consultations, site visits, match-making prospective new farmers with existing growers, and site evaluations. In some cases, site evaluation included a demonstration of how aerial drones can be used in mapping and planning for establishment.

The drone was acquired with funds awarded by the New York Farm Viability Institute for a study on how differential harvesting can improve vineyard efficiency, but its utility goes beyond that. One of the sites was quite large (almost 200 acres) and difficult to scout from the ground. Using the aerial drone, we created an interactive three-dimensional map that can be virtually scouted and a digital elevation contour map. Overlaying the digital elevation map and the UDSA/NRCS Soil Survey map provided the context needed to guide further analysis of potential planting locations on the site.



3D interactive model of potential new farm site (left), virtual inspection of a smaller area of the model (inset), and high resolution digital elevation map overlaying the twelve different soil types on the site.

Why are there Young Apple Trees Dying in the Hudson Valley?

Dan Donahue, *ENYCHP*

Cornell Extension Specialists are being asked with increasing frequency by apple growers to investigate the chronic decline and/or rapid collapse of apple trees in young, high-density plantings in all regions of New York State. CCE-ENYCHP Tree Fruit Specialist Dan Donahue and Western New York CCE-LOF Fruit IPM Specialist Dr. Tessa Grasswitz are currently collaborating on a New York State apple producer funded project with the

goal of defining the problem and identifying the cause(s). Symptoms of chronic decline can include poor growth, off-color foliage, and a generally “unthrifty” appearance that worsens over several years. The death of a previously healthy tree over the course of just a few weeks has been termed Sudden Apple Decline (SAD) or Rapid Apple Decline (RAD). In some of these cases, tree death can be ascribed to Fire Blight (*Erwinia amylovora*) or Crown/Root Rot (*Phytophthora sp.*), but in many cases the causation is much less clear. Over the last year, the decline and demise of apple trees in orchards up to the 8th leaf has become a hotly discussed topic among producers, researchers, extension specialists and industry consultants in several states across the mid-Atlantic and New England regions, as well as parts of Canada.



RAD/SAD Tree Collapse

Photo Credit: Dr. Kari Peter, PSU



Chronic Tree Deline

Photo Credit: Dan Donahue, Cornell ENYCHP

A long list of potential causes of decline has now been compiled by fruit workers throughout the eastern U.S., including winter injury, herbicide injury, Ambrosia beetles and Dogwood Borer. In addition, we have learned since December 2015 that many of our high-density apple orchards are infected with one or more latent viruses. Hence we cannot discount the possibility that the observed declines are due to interactions between multiple stressors, or that we are facing the possibility of a previously unrecognized problem.

After numerous orchard visits by specialists in different states, a working group of regional apple professionals coordinated by Dr. Kari Peter of Penn State University has developed a comprehensive list of symptoms to identify declining orchards. From this list, extension professionals in Pennsylvania and New York developed an on-line survey of apple tree decline in order to facilitate consistency in the collection of orchard data, and the identification of commonalities. Apple producers throughout New York State have been encouraged through Cornell Cooperative Extension email blasts and newsletters to complete the online survey. As of October, valuable information has been collected on 46 declining apple orchards in eastern New York State, with a similar effort ongoing in western New York.

Apple Orchard Decline has recently been identified as a national issue, demanding attention from researchers across the United States. In an effort to widen our research and extension efforts, data collected from the NYS Apple Decline Project has been used to support two USDA multi-state research and extension grant proposals this fall. Key states and organizations involved in these proposals are New York, Pennsylvania, Oregon, Washington State, and USDA-Beltsville, Maryland. If funded, these projects will greatly enhance our research and extension efforts to solve the decline problem.

Helping Farmers Share Harvest with Hurricane Victims

“Like many Americans, Hudson Valley apple farmer Steve Pennings watched the devastation of hurricanes Irma, Harvey and Maria this September and wanted to do something to help.

For over a quarter century, Cornell Cooperative Extension vegetable specialist Maire Ullrich has worked with Orange County growers like Pennings on various agricultural issues. “When she heard my idea, Maire sprang into action and took it from there,” he said. “She knew just what to do.”

About a week later, the Feeding America truck departed the Hudson Valley for central Florida with 20 pallets of fresh fruits and vegetables – more than 15 tons of food. “The truck left on a Friday, and the following Monday I heard from Feeding America that the load was already distributed,” said Ullrich. Read the full story by clicking [Here](#)



Apple IPM Traps in the Champlain Valley and Capital Region

Mike Basedow, ENYCHP



An apple maggot trap.
(Photo by P. Jentsch.)

During the 2017 growing season, the Eastern New York Horticulture Program once again coordinated an Apple IPM system in Northern New York. The trapping network consisted of twelve sites in farms stretching from southern Saratoga County, just along the Mohawk River, up to northern Clinton County in Chazy, New York.

Six key insect pests were monitored throughout the growing season. These insects include common pests that feed on the flesh of young apple fruitlets, including the Codling Moth, Oriental Fruit Moth, and the Obliquebanded Leafroller. Apple Maggots were also trapped, as these flies will lay eggs into the fruit, leading to misshapen fruits at maturity.

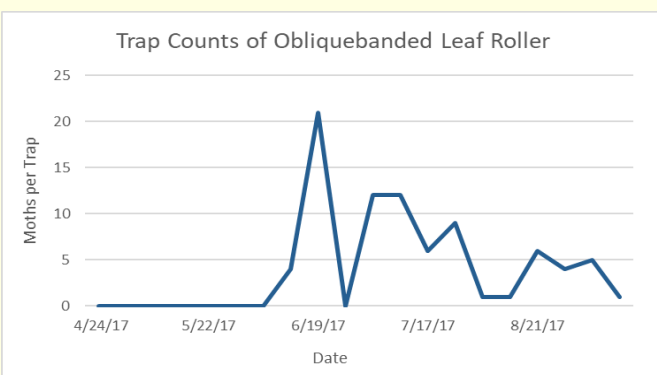
In addition to these common pests, the team also monitored for new potential threats in the region. The Black Stem Borer was being monitored this year in collaboration with Dr. Art Agnello. This pest was first found impacting fruit trees in the Lake Ontario region in 2013, and has since been found in Eastern New York. The beetles burrow into the trunks

of apple trees, which can ultimately kill the tree.

The Brown Marmorated Stink Bug (BMSB) has been a problem pest for farmers and the public since it was found in the United States in 1998. Since then, it has spread to the Hudson Valley, and has slowly been moving further north, having been detected in Warren County in 2011. BMSB feeds on many crops, including fruits, vegetables, corn, and soybeans. In fruit, the injury is so severe that fruit is left unmarketable. This season our team set out traps for the

BMSB along orchard edges, as the BMSB tends to invade orchards from surrounding woodlots, similar to the Black Stem Borer.

Traps were checked once a week throughout the growing season. This data allowed us to disseminate real time pest information throughout Eastern New York via weekly E-Alerts to our email subscribers. Data was also included in monthly Tree Fruit Newsletter. The data also allowed the team to track insect populations and generations as they developed throughout the growing season. The team also has data from the past two growing seasons, allowing us to compare this



year’s pest populations with those from subsequent years. **The progression of trap counts of Obliquebanded Leafroller in an orchard in the Champlain Valley. Trap counts for the pest in this orchard peaked on June 19th.**

Funding for this project was provided by the Northern New York Agriculture Development Program.

Berry Growers Manage Chronic Pests

Laura McDermott, ENYCHP

Growing berry crops holds the promise of significant profit in the competitive fresh retail market that exists in eastern NY – but it isn't a sure thing. There are several significant barriers to success and the ENYCHP team is working to remedy those problems.

For 5 years, the team has been monitoring for Spotted Wing Drosophila (SWD), an invasive pest of soft fruit. This year we had traps in almost all of the 17 counties and they revealed a very early infestation in late June. We were able to get the word out to growers that they needed to protect fruit as soon as it began to color. This made all the difference for many growers, but it still requires an intensive spray program that many growers resist.

Promoting proper management of SWD also involves a great deal of research on this relatively unknown pest. The ENYCHP has been working for many years on the use of exclusion netting as a way of organically controlling SWD. This is the 4th year of collaboration with Dr. Greg Loeb at Cornell and Dale Ila Riggs of The Berry Patch in Stephentown, NY. Exclusion netting and attract and kill systems were tested in a blueberry planting and netting on a high tunnel raspberry planting was also evaluated. This work was highlighted at a field meeting with attendance of more than 50 growers. In addition, the protected culture advantage that includes low tunnel strawberry production systems were discussed.

The other major challenge to growing berry crops is soil borne disease, particularly in strawberries. While working with Dr. Elson Shields on a soil insect project, the ENYCHP team surveyed 50 farms in the 17 county region to determine the profile of soil pests that exist. This information revealed that disease pathogens and nematodes are a more significant problem than thought. We will be doing additional work to help manage these issues in the years to come.



Photo of August 29th field workshop looking at low tunnel strawberries (foreground) and exclusion netting (behind crowd) as part of Protected Culture discussion.

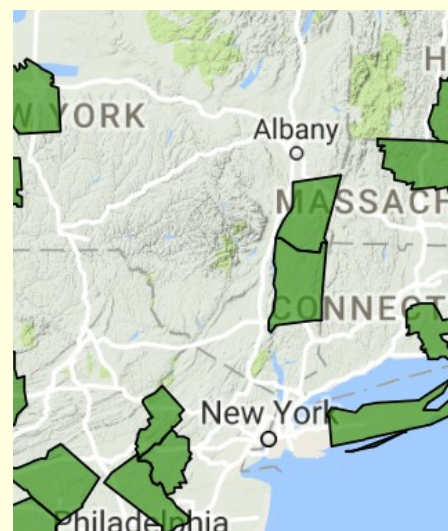
Disease Monitoring in Vegetable Crops

Teresa Rusinek, ENYCHP

Downy Mildew and Late Blight are some of the most destructive diseases of vegetables that specialists monitor on farms in eastern New York. During the 2017 growing season ENYCHP vegetable specialists will make somewhere around 1000 farm visits. We cover a lot of ground, which is why we are able to detect pests early and alert growers rapidly to protect crops. Web-based national pest mapping and forecasting programs like ipmPipe and USAblight are helpful tools for specialists to keep track of where these diseases are developing and also to report outbreaks in the areas we cover.

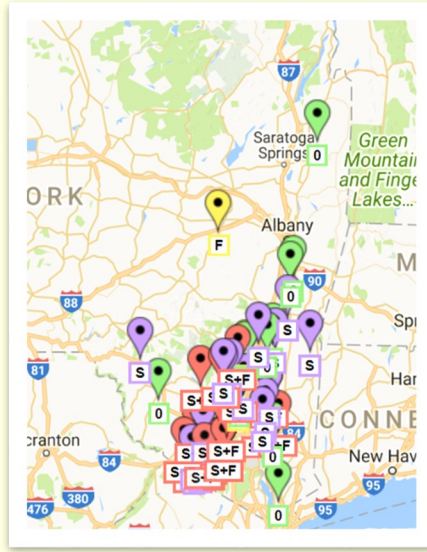
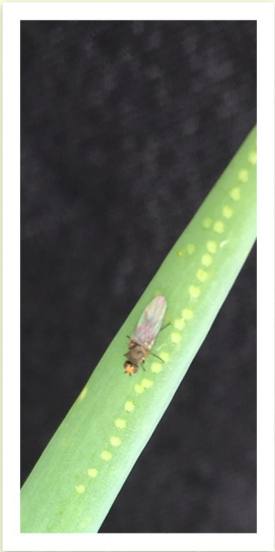
This growing season, ENYCHP had a network of sweet corn traps at 14 loca-

Left: Cucurbit Downy Mildew Epidemic Status Map, IPM PIPE. Oct, 6 2017



continued on next page

Third Quarter Report 2017



Left: ALM adult Right: Interactive ALM map

tions throughout the ENYCHP region, with each site having at least 6 different traps. Each week, ENYCHP specialists or technicians checked on traps at each farm and scouted the crop for signs of pests. Trapping began in June and continued through September. Trap counts were reported each week in the ENYCHP Vegetable newsletter that goes to growers throughout the region. The trap counts gave sweet corn growers an indication of pest pressure in their area and helped them time crop protectant sprays if needed. This year we observed an increase in the distribution and severity of Western Bean Cutworm which has recently made its way into New York State.

Allium Leaf miner (ALM) - Efforts to monitor the severity and distribution of this new pest (first found in Ulster County fall of) began early this spring during the first emergence of ALM adults. We established that ALM was widespread in the mid-Hudson Valley. We resumed monitoring the first week of September in anticipation of the second flight. We have found that ALM has spread into the Capital District and that damage is more severe where ALM was identified this Spring. With funding through the Dept. of Agriculture and Markets, a temporary technician, Soule Ouattara, was hired to assist vegetable specialists Teresa Rusinek and Ethan Grunberg with this project. An interactive map was created and updated each week as reports came in from ENYCHP veg specialists. Ethan and Teresa presented a webinar on ALM identification and management for extension specialists throughout the state and are assisting Professor Brian Nault with crop protectant efficacy trials this fall.

Helping Growers Scale Up

Crystal Stewart, ENYCHP

The ENYCHP team has been working to support growers trying to scale up to wholesale markets in a variety of ways over the past couple of years. Crystal Stewart and Liz Higgins, ENYCHP team members, helped to develop and deliver sections of the Baskets to Pallets curriculum which is being used statewide to support growers entering the wholesale market. Crystal along with Robert Hadad of the Cornell Vegetable Program followed up on this work by securing a grant to administer a statewide survey to growers about further barriers they face to entering the wholesale market. 200 growers responded to this survey, providing valuable information that will inform future efforts.

The first project to emerge from this groundwork is partnership between ENYCHP and GrowNYC, a non-profit working with beginning farmers and established buyers in New York City. Through funding from the Farm Viability Institute, GrowNYC will be administering a survey similar to the one created by Crystal and Robert, but examining the barriers buyers are facing to purchasing local produce. Educators from ENYCHP will be hired, through the team, to provide consultation to approximately 10 farms looking to wholesale into New York City. Consultation will focus on production, business management, and food safety.

This project was funded during this quarter, but will launch in November with the survey. Stay tuned for more information in the coming year.

ENYCHP Outreach Efforts

This quarter, ENYCHP expanded its outreach efforts to include many county fairs. We were represented by our table top display and new promo video at 8 county fairs (listed below) that represent 12 counties within our region. In 2018 we hope to continue this effort with representation at all 17 counties. To view our promo video, please click [here](#).

Essex County Fair

Saratoga County Fair

Altamont Fair

Sunshine Fair

Fulton County Fair

Washington County Fair

Columbia County Fair

Schaghticoke Fair

Lettuce Trials Take Root in Washington County

Annie Mills, ENYCHP



This summer Crystal Stewart of the Eastern New York Commercial Horticulture Program and I organized the very first lettuce variety trial in the region on a local Washington County farm. It was a great year to test out lettuce varieties as our season started off cool and wet, became hot and dry and then a very cool, dry spell set in during early September. This means we were able to evaluate how our three plantings of the same 20 lettuce varieties grew under different conditions. We tested a mix of red and green romaine lettuce, Boston Bibb lettuce, and red and green leaf lettuce and a few other specialty types. The lettuce size, number of plants that bolted, disease tolerance, taste, and texture were all factors that we considered when evaluating the success of the varieties. We were also able to collect some anecdotal evidence of varieties that did well at the farmers market, indicating consumer preferences when choosing a head of lettuce to buy. We plan to run the trial in once again in 2018 with a concentrated list of varieties. This continued work aims to provide growers with valuable information on what varieties can successfully be grown in our region.

CCE Agricultural Regional Specialists from Meet in Lake Placid

Charles Bornt, ENYCHP

On July 25th - 27th, over 80 statewide regional specialists from all disciplines of agriculture (livestock, grains, dairy, business, vegetable, fruit and marketing) met for a 3 day specialists retreat in Lake Placid, NY. The goals of the meeting were to give specialists an opportunity to network, have fun while building relationships with other regional team members, learn and share education and outreach best practices, develop a shared vision for CCE regional ag programs and to leave the retreat feeling motivated and excited. For statewide regional extension educators, it is the one time we get to meet face to face and learn who and what other regional programs there are, and to share new and creative strategies for educating the growers and other industry professionals that we work with. We talked about different methods of newsletter outreach, twilight meetings and distance learning techniques. The meeting was also a great opportunity for specialists to discuss new projects they are working on. This generated a lot of discussion and future collaboration. There are many common issues important to all commodity groups.

We had an opportunity to learn about “Enhancing Cornell Extension Education with Learner-Centered Technology” from Emily Barton of the Curry School of Education at the University of Virginia. This half-day workshop focused on ways for us to determine who our target audience was and what types of outreach to use that would best fit their needs and allow them to best use the information we were giving them. The days were not all filled with classroom style learning. We had time to visit and walk through the Uihlein Sugar Maple Research & Extension Field Station.

The final day was devoted to how we as extension specialists can best communicate, connect and maintain relationship with association partners as we all know that without a strong relationship with our county association partners, we cannot have a strong regional educational program or impact on the industry. This session was led by several Association Executive Directors which gave their insight and perspective on methods that they feel would best strengthen this connection with the regional programs and improve communications between the associations and regional programs. On the final day before parting, the group reconvened to talk about how to effectively program” and make an impact at a regional level. This retreat, was a fantastic opportunity for idea sharing and collaboration amongst regional specialists, helping us improve our educational outreach and applied research for our local and statewide agricultural industries.

