

Orchard and Vineyard Grower Participation Strong

Members of Cornell's ENYCH team organized a smorgasbord of professional trade and educational meetings in New York during 2013. These meetings ranged in scale and focus; all involved cutting edge research and management practices sessions. Field demonstrations in tree fruit, grape, and small fruit production provided information and tools to enhance production.

Opportunities included:

- Northern Grape Symposium and Viticulture 2013
- Sprayer Technology and Calibration Workshops
- Special Permit Training
- IFTA Winter Conference Precision Orchard Workshop and Summit
- Upper Hudson-Champlain Tree Fruit School
- Hudson Valley Fruit School
- New Grower Assistance
- Precision Orchard Management workshops
- Apple Maturity Evaluation Program
- Apple Orchard Systems Trial
- Newsletters and email grower alerts
- Trac software—pesticide record keeping workshops



EASTERN NY COMMERCIAL HORTICULTURE PROGRAM Impacts in New York



- 1000 growers and service providers received a publication including regional insect scouting information, up-to-date disease information tailored to local growers, and forecasts to help growers make the best management decisions possible while reducing pesticide use.
- Variety trials for Irish potato, field-grown tomatoes and Brussels sprouts provided growers with detailed information about emerging variety performance in terms of yield and disease resistance. Information is shared at field meetings, winter meetings, and in our newsletters.
- 60 women from the Northeast sharpened their farming, financial, and environmental stewardship skills through the Beginning Women Farmer Program.
- On-farm garlic post-harvest research trials yielded results which will help garlic growers reduce losses by up to 30%. Additional trials studied the fertility requirements of organic garlic production, and two weed control trials helped us refine our recommendations for garlic. Results will be published in the Cornell Guidelines as a garlic chapter.
- Growers were continually updated on the spread of and control measures for Spotted Winged Drosophila. Traps were deployed in 12 counties throughout the region. Specialists collaborated with farmers and researchers on high tunnel fixed-sprayer systems and exclusion netting trials.
- 80 growers across the state, including at least 20 from the region, were involved in a cooler cost-share grant which paid for up to \$3,000 in development or improvement of cooling systems. This project is expected to increase growers' profitability by at least 15%.
- Apple Maturity Evaluations of 16 varieties resulted in 5 weekly reports of fruit maturity and optimal harvest timing sent to 435 growers.
- Precision orchard management workshops point dozens of eastern NY orchardists toward profitability improvements of 10-50% per acre.
- Hundreds of growers received one-on-one assistance from the regional specialists through on-farm visits and phone consultations. This person-to-person approach transfers meaningful research-based information to growers quickly and efficiently.



Specialty peppers are "hot" for some Hudson Valley growers.

Image: Teresa Rusinek



Year in Review

EASTERN NY COMMERCIAL HORTICULTURE PROGRAM

Program Areas

Pest Management

including effective pest control strategies, Integrated Pest Management (IPM), pest activity reports, addressing new pest problems, education, regional scouting programs and problem solving

Food Safety

including farm food safety/ Good Agricultural Practices

Soil Health

including cover crops, reduced tillage, decreased compaction, increased organic matter & grower education

Variety Evaluation

in local, on-farm trials

Market Development

support for creation of new Farmers Markets, promoting established markets, season extension research and new potential crops

Cultural Practices

including fertility, nutrient management and yield enhancement



For more information about our program, contact us!



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Highlights

Precision Orchard Management Points the Way to Economic Gain

Many environmental and management factors impact orchard economics, yet the greatest impediment to improved performance are practices that effectively “leave money on the table”. Precision Orchard Management (POM) requires an integration of weather data, fruit growth and Apple Carbohydrate models, and the measurement of representative fruit prior to crop-thinning, to achieve optimal fruit grades. In 2013, 7 growers in northern NY signed on to validate precision thinning techniques. POM includes increased orchard mechanization; platform pruning, summer shearing and platform hand thinning were all demonstrated. Related sprayer deposition efficiency demonstrations were conducted as well.



Fruiting wall” photo
by T. Robinson

Field Trials Provide Tangible Benefits for Growers

- A potato variety trial was completed in Washington County to evaluate new and existing varieties for fresh-markets. This information was presented at winter meetings throughout the region, and has helped growers make decisions about what new varieties might work on their farms.
- A Brussels sprout variety trial was conducted in Washington and Columbia counties, highlighting both the strengths and weaknesses of available varieties and the effects that soil type and fertility management have on Brussels sprouts. As a result of the trial, additional work will be done to expand our variety selection and to determine optimal fertility for disease management and yield maximization.
- The fresh tomato variety trial collected a third year of data. Information about disease susceptibility, yield and fruit quality has been gathered for organic and conventional farms.



EASTERN NY COMMERCIAL HORTICULTURE PROGRAM

Benefits of Enrollment

Produce Pages & seasonal commodity Newsletters

Published monthly October-March and weekly March - September, the ENYCHP provides a full compliment of newsletters for all commodities. They include a calendar of events, pesticide registration updates, and University and Extension articles on vegetable production, pest management and marketing. The articles are targeted toward eastern NY growers and often feature results of on-farm trials in the region.

Requested Farm Visits

ENYCHP specialists are available to make on-farm visits in order to help solve problems on the farm.

Conduct/Coordinate On -Farm Research Trials
Eastern NY Commercial Hort Program Specialists lead and coordinate dozens of on-farm research projects in the region, making Cornell research highly relevant to Eastern NY growers.

Annual Winter Meetings
Series of formal meetings designed to provide fresh market growers with the latest information on production practices, pest management and varieties for fruit and vegetable commodities.

Produce Auction Meetings
Winter meetings on pest management, fertility and auction marketing. Cornell faculty and growers from auctions in other states are guest speakers.

Crop-Specific Workshops
Workshops vary each year depending on need in crop areas. This year topics included onions and garlic, high tunnels, water quality, tree fruit and vegetable disease management.

Empire State Fruit & Vegetable Expo
All Eastern NY Commercial Horticulture Program Specialists serve on the planning committee for this major state-wide event. They play vital roles in organizing and chairing the educational sessions.

Summer Meetings & Tours
Growers learn from seeing on -farm research first hand and visiting other farms.

Online Courses attract Local and National Participation and Recognition



Staff were involved in teaching Beginning Farmer courses sponsored by the Northeast Beginning Farmer Program, which is supported through the Cornell Small Farms program. This provided Cornell Cooperative Extension specialists an opportunity to reach beginning farmers using Moodle, an on-line classroom, combined with real-time webinars. These training modules were recognized as national Winners in 2013 by the National Association of County Agricultural Agents. The team has trained over 200 beginning farmers through this platform

Regional Pest Scouting Keeps Growers Ahead of Problems

- Sweet corn traps for **corn earworm**, 2 strains of **European corn borer** (ECB), and **Fall Armyworm** traps were set. We also trapped for **Western Bean cutworm**. These traps were placed at farms throughout the 16 county region and findings were reported weekly in the Vegetable Update.
- Spotted Wing Drosophila** populations were monitored closely throughout the region, and findings were reported to growers through the Berry newsletter as well as the Cornell SWD blog.
- Brown Marmorated Stink Bug, Tomato Leafminer, Leek Moth and Swede Midge** were monitored in those counties where they are deemed potential problems. This work helps researchers perfect trapping and scouting methods as well as monitoring for these new and invasive pests.



Produce Auction Grower Meetings Keep Growers Proactive

A series of five field meetings for producers growing for the Mohawk Valley Produce Auction attracted approximately 20 growers per meeting. Topics included greenhouse scouting, transplant production, early field scouting, season-long care of peak summer crops, and a tour of an ENYCHP-conducted fertility trial on a cooperating farm.

Growers who have attended these meetings report being more prepared to accurately assess and amend their soil fertility, to produce high-quality transplants, and to identify and control diseases and pests before they become economically damaging. These growers have also been more likely to call their local extension educator when they first encounter an issue in the greenhouse or field, which improves the likelihood that they will succeed in correcting issues.

Educational Meetings Draw the Best East-Coast Resources

The ENYCHP is committed to the continuing education of our fruit and vegetable growers. We use traditional formats for disseminating information, such as field meetings and winter classroom-style meetings, but have also increased the use of distance learning techniques such as webinars and poly-com meetings. This allows us to bring speakers from outside the region that we otherwise might not be able to host. We have had speakers from other parts of New York as well as New England, Florida and North Carolina.



Assisting in Season Extension

Many growers throughout the eastern region put up new high tunnels in the past two years. With many possible approaches to crop layout, spacing, training, ventilation, irrigation and fertility we are coaching these newer high tunnel growers through their options. Some specific changes in practices some growers adopted this spring include:

- Increased spacing for tomato plants to increase air circulation and ease of access to the crop while improving overall crop yield.
- Installation of drip irrigation to provide sufficient water to the crop.
- Improved management of the single leader training system on indeterminate tomatoes.
- Added determinate tomatoes as a new crop, to reduce labor and increase earliness.
- Regular foliar nutrient testing helped growers manage fertigation and correct deficiencies before yield was affected.

