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Third Quarter Report 2025

**Cornell Cooperative Extension**Lake Erie Regional Grape Program

A cooperative program between Cornell and Penn State Universities, Cornell Cooperative Extension Associations in Chautauqua, Cattaraugus, Erie and Niagara Counties, Penn State Extension – Erie County, NYS IPM Program, National Grape Cooperative, Constellation Brands, Walker's Fruit Basket and growers of the Lake Erie Grape Industry



**LERGP Programming** by Jennifer Phillips Russo, LERGP Viticulturalist and Team Leader

# NASA's Surface Biology and Geology (SBG) mission

The Lake Erie Regional Grape Program collaborated with NASA Acres and NASA's Jet Propulsion Laboratory (JPL) on a mission set to transform how grape growers monitor and manage vineyards. Cornell AgriTech's partnership with NASA has been instrumental in showcasing the practical value of NASA's advanced airborne sensors that match the proposed SBG mission sensors, like AVIRIS. This summer, NASA aircraft carrying AVIRIS3 captured detailed hyperspectral imagery across thousands of acres of Cornell research farms-- including Lake Erie Regional Grape Program research plots in grower vineyards and Cornell Lake Erie Research and Extension Laboratory research vineyards—and commercial vineyards



Photo 1. Members of NASA Earth Science leadership, including Dr. Karen St. Germain, Bradley Doorn, and Dr. Alyssa Whitcraft, with Cornell AgriTech and CEL-REL researchers visiting Daen and Bob Betts, Concord grape growers in Western New York in August 2024.

in both upstate New York and California. The Lake Erie Grape Team worked in concert with the AVIRIS Flight Crew collecting data on the ground to help inform the data collected via AVIRIS and future satellites. Detailed hyperspectral imagery from NASA enables precision agriculture practices at an unprecedented level. Growers can optimize irrigation, fertilization, and pest control strategies, reducing costs, enhancing sustainability, and improving vineyard health and productivity.

#### **Spotted Lanternfly Pilot Spray Trials**

The Lake Erie Regional Grape Program Team is part of the The Penn State and Cornell lanternfly research team working to identify potential risks that will be created in highly mechanized grape production region prior to SLF arrival and establishment. A potential risk identified was Spotted Lanternflies present on the mechanical harvested vines would be "harvested" with the grapes, thus contaminating the harvested crop. This team worked to develop a pilot spray trial to reducing Spotted Lanternfly contamination during mechanized harvest by investigating chemistries with different Pre-Harvest Intervals (PHI) to begin to develop risk management strategies.

#### **Microclimate Sensor Grant**

Dr. Jason Londo and Jennifer Phillips Russo collaborated on tracking grapevine phenology across the region with microclimate sensors deployed in 15 grower collaborator vineyards. We are collecting data from five locations on Lake Erie, five locations located on the bench, and five locations on the escarpment. The team collects data weekly to help achieve the objectives of this study to conduct phenological assays for Concord grapes in multiple locations, to determine the

variability between vineyards, and to provide updated field phenology and hopefully begin to build phenology predictions for the New York grapevine industry. This collection continued throughout the third quarter and complemented the NASA Acres/AVIRIS data collection efforts.

## New York Farm Viability Funded Floor Management Research

Research for nutrient and water conservation in non-irrigated juice grapes using floor management strategies continued with data collection throughout the growing season on both gravel and heavy clay soils. Weekly data collection was made throughout most of the third quarter and termed at the end of September. This data will help inform growers of best floor management strategies to implement into their operations to increase soil and vine health.

#### **Evaluating Osmotic Protectant**

Glycine Betaine, as a Multifaceted Approach to Enhance Grapevine Stress Tolerance and Productivity grant continued. Grape growers face the risk each season in their vineyards withstanding injury and loss of production from biotic and abiotic stresses whose severity is dependent on the current season's weather conditions. Frost, disease, water availability, and extreme temperatures are just a few of the challenges grapevines face with climate change. Glycine Betaine, an osmotic protectant, uses methods existing in nature for the prevention of plant diseases and pests and may improve plant productivity and vitality without releasing undesirable pesticide residues into the environment. Through foliar applications, this bio-stimulation product improves plant resistance to stress, but also stimulates natural processes to improve crop yield and quality. We continued to conduct research on three different cultivars: Concord and Chardonnay applying timely sprays and evaluated the effect on vine productivity and cluster diseases.

## **Grower Fruit Thinning Demo Day**

On July 16, 2025, The Lake Erie Regional Grape Program and Dr. Terry Bates's research team held a Crop Thinning Educational Day. This event was very well attended with approximately 80 people in attendance. The program began inside, classroom style, where Jennifer Phillips Russo and Dr. Terry Bates presented on the importance of vine balance, or fruit to pruning weight ratios, and grapevine production sustainability, focusing on fruit thinning at 30 days after bloom. This was followed by an informal discussion/answer session. The second half of the educational program took the attendees outside to watch fruit thinning demonstrations.

#### **In-Person Education**

We continued in-person Coffee Pot Meeting education throughout the growing season. In July we had three coffee pot meetings. We held Coffee pot meetings in three different counties this quarter that were eligible for PDA and DEC core credits. We were hosted by the Erie County Horticultural Society at Gravel Pit Park. This large event in North East, PA is well attended by Chautauqua County growers, where growers in attendance heard timely updates on viticulture and integrated pest management with recertification credits available.

# NYS DOT Regulations for Farm Trucks & Equipment

Cornell's Lake Erie Regional Grape Program and Chautauqua County Farm Bureau held this program on August 20, 2025, from 10:00AM - 12:00 noon, at the Cornell Lake Erie Research and Extension Laboratory in Portland, NY. It was presented by Trooper Andrew Lawrence, from the NYSP Commercial Vehicle Unit. All farm owners and employees who manage or operate farm trucks and equipment were encouraged to participate in this informational presentation on the current regulations for operating farm trucks and equipment on our local roads. This was a free program.

Topics discussed included: Defining a "Commercial Motor Vehicle", Licensing and Registrations, Rules of the Road, Size and Weights (permits), and Equipment. The information presented helped keep agricultural businesses in compliance and ensure truck and equipment safety.

#### **Podcasts**

After preparation, meetings and discussions with both universities, podcasts continued this quarter. This content is also distributed through our YouTube channel as a video blog. The video blog has been around for a few years and views are typically just a little bit higher than the podcast. Overall, we've increased total viewership by more than 50% due to the increase in distribution methods. In the third quarter, we delivered four Podcasts with pertinent viticulture, integrated pest management, and business management topics.

# Business Management by Andrew Holden, Business Management Educator

#### FSA's Supplemental Disaster Relief Program (SDRP)

The *American Relief Act*, 2025, provides disaster relief payments to producers who suffered revenue, quality or production losses to crops, trees, bushes, or vines due to qualifying disaster events in calendar years 2023 and 2024.

This covers the 2024 freeze that hit many growers in our region. It is being administered in 2 stages. Many growers who qualified for stage 1 has already applied and received payments.

Stage 1 is for producers with indemnified losses. Stage 1 will leverage existing Federal Crop Insurance or Noninsured Crop Disaster Assistance Program (NAP) data as the basis for calculating payments. This enrollment period is **currently active**.

Stage 2 will be for producers with uncovered losses, quality losses, and crop insurance or NAP coverage for 2023/2024 but experienced shallow losses and did not receive an indemnity. This enrollment period is **targeted to begin October 2025.** 

### **Resilient Food Systems - Equipment Grant**

The NY State grant was open for application in July, and we expect winners to be announced at any time. Eligible applicants may request awards in the amount of \$30,000 - \$100,000. Only \$1 million dollars was available for applicants so the amounts of grants awarded will be limited. The recipients should be announced shortly.

Growers in Pennsylvania were assisted in applying last year for a fully reimbursable equipment grants that provided up to \$100,000 for the purchase of bulk harvesting & aggregating equipment.

Two growers received funds for bulk equipment, one winery received funds for bottling equipment, and on processor received funds for refrigeration.

#### Last Coffee Pot & Chicken BBQ

We held our final Coffee Pot Meeting of the year on July 23<sup>rd</sup> at Schulze Vineyards & Winery. I also attended and briefly spoke at the Erie Horticultural Society Chicken BBQ on July 30<sup>th</sup>. I provided handouts of my Custom Rate survey results and discussed the findings.

# **Horticulture Unit Meeting**

I attended the Hort team meeting on July 15<sup>th</sup> and 16<sup>th</sup> at Penn State University. I connected with statewide colleagues and received training on goal setting and record keeping.

# New York Farm Viability Institute Grant Reviewer

I served as a grant reviewer for both the New and Beginning Farmer Grant, and the Grown & Certified Grant, administered by NYFVI. This was a useful experience in seeing how grants are reviewed and will be helpful in advising growers on applications. I appreciate NYFVI for the opportunity.

#### **Between the Vines Podcasts**

The LERGP podcast has reached over 10,000 downloads and over 400 YouTube subscribers. The podcast is available in most places, including Apple and Spotify. In the 3<sup>rd</sup> quarter of this year, we released 4 new episodes covering the growing season and into harvest.

### Wine and Grape Classifieds

I continue to manage the classifies for New York and Erie, PA. Listings are updated on a regular basis.

The NY Grapes & Wine Classifieds is a website for grape growers, winery owners, and other industry professionals to post and view ads for industry specific items and jobs. The site is run like a classified as page in a paper, but at no cost to run an ad. Item often posted include Bulk Juice/Wine, Equipment, Grapes, Help Wanted, Services, Vines, and Vineyards. Both ads selling and ads looking for items are allowed.

The New York Grape & Wine Classifieds website can be found Here.

Learn how to create an account and/or post an ad Here.

#### **Meetings/Webinars:**

- Field Rep Meeting 8/7
- PSU Grape and Wine Team Meeting 7/1,
- PSU Farm Transition Team 7/1, 8/2, 9/3
- Cornell Farm Management Meeting 7/15, 7/22, 8/19
- Attended the Erie Regional Chamber's August Business After Hours at Southshore Winery 8/7
- Attended Winery Benchmark meeting at Farm Credit 8/13
- Attended Militello BBQ at 8/14
- Held Booth at PSU Erie County Extension new office open house 9/30

# PA Update by Megan Luke, Penn State Extension Viticulture and Tree Fruit Educator

# **Pesticide Sprayer Calibration**

Calibration services and coverage demonstrations to growers in both NY and PA have continued. I have not completed any calibrations in Q3, but have continued to present on the topics of up-

coming pesticide label changes and the current status of EPA dockets relevant to the grape and wine industry. I have nominated myself for a position on the EPA's public policy listening committee for pesticide registration and labeling with the support of a dozen colleagues and industry collaborators.

# **Spotted Lanternfly Research**

I have continued to participate in SLF research with the Penn State Urban Lab, contributing to the recent SCRI grant proposal and other block grant proposals submitted to the Pennsylvania Department of Agriculture. I am supporting the work with pesticide recommendations and participating in spray trials at two sites in PA, as well as with grid search organization in PA. I continue to support response efforts in PA in collaboration with the PDA's SLF regional task force team.



# NERME Award: Creating Active-Learning, Grab n' Go Pesticide Safety Education Modules and Toolkits

This grant was awarded to a group of Cornell Extension Specialists, including the LERGP. We are working collaboratively to develop short, hands-on, active-learning lesson plans and toolkits to

teach pesticide safety and risk reduction practices to undertrained applicators in the Finger Lakes, western NY, and northwest PA for growers of multiple commodities. These Grab n' Go lesson plans will be taught as stand-alone topics at 10 long-established annual grower meetings. The lesson plans will be designed to be stacked together to create workshop-length modules around four themes: Personal Protective Equipment, Non-applicator & Environmental Safety, Math and Mixing, and Calibration & Sprayer Troubleshooting. We will teach each themed workshop twice. We anticipate reaching 235 people. Two hundred growers will increase their understanding of pesticide safety practices, and at least 100 applicators will adopt new practices that reduce their health, legal, environmental, regulatory, and production risks. At the time of writing, we have narrowed down lesson plans across each deliverable category and solidified opportunities to assess the efficacy of the plans during regularly scheduled grower meetings.

#### Lake Erie Regional Grape Program (LERGP)

Cornell Cooperative Extension's Lake Erie Regional Grape Program (LERGP) is a membership program for growers in NY and PA. Crop Updates were weekly, beginning in April. I contributed seven articles regarding new Environmental Protection Agency guidelines, label changes, and pesticide best practices in Q3. I presented these topics at our weekly Coffee Pot Meetings, which continued through July.

I presented at three in-person meetings in Q3, one in Pennsylvania, one in New York, and one in Ohio. The first was the Annual Gravel Pit Park BBQ hosted by the LERGP and the Erie Horticultural Society. I sit on the board for the EHS as an advisor and attend monthly meetings. The BBQ had an attendance of 175, with recertification credits available. The second was the Militello Farm Supply annual Customer Appreciation Day in August, where I presented on Water Quality and Sprayer Best Practices. Attendance was approximately 125, and recertification credits were available. The third was a sprayer technology field day held by Ohio State University Extension, where I also presented on Water Quality and its impacts on pesticides. Attendance was approximately 90, and recertification credits were available.

**NEWA, CAPS** by Kimberly Knappenberger, Viticulture & IPM Extension Support Specialist, LE-RGP

**NEWA** From July through September there have been the usual outages and sensor issues that needed to be addressed. Multiple rain buckets needed cleaning due to debris blocking the water from flowing through the bucket to the sensor. With the drought like conditions these problems were not brought to light until we were able to get some precipitation and then action was taken.

The North East Escarpment PA station got a bit of an upgrade with some soil temperature and moisture sensors that have been interesting to watch during the dry spell.



#### **CAPS**

The Grape Commodity Survey was mostly completed during this quarter. Six services were completed and the traps were collected from the vineyards and nurseries in September. Each trap collected is screened at the lab for the target moths and data organized into a spreadsheet. Zero target moths were collected in any of the traps, and negative samples were recorded. (Negative samples include any moth present in the trap at the time of servicing.) The total of negative samples recorded for all three target moths was 7,487. There are still final visual inspections that need to be completed including red blotch and Spotted Lanternfly at the CAPS locations.

# Lake Erie Regional Grape Program Specialists



Jennifer Phillips Russo-LERGP Viticulture Specialist, Team Lead



Andrew Holden-LERGP Penn State Extension Business Management Educator



Megan Luke-LERGP Penn State Extension Viticulture & Tree Fruit Educator



Kim Knappenberger- Viticulture and IPM Extension Support Specialist

# Third Quarter 2025 totals:

Publications - LERGP Crop Updates (9) Newsletters(2) Podcasts (4)w/ 353 downloads on Buzzsprout/100views on YouTube

Web resources - <a href="http://lergp.cce.cornell.edu">http://lergp.com</a> and <a href="http://lergp.com/podcasts">http://lergp.com/podcasts</a>

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