


# LERGP Third Quarter Impacts
# October 2024

Cornell Cooperative Extension
Lake Erie Regional Grape Program

PennState Extension

# Cornell Cooperative Extension
## Lake Erie Regional Grape Program

Third Quarter Report 2024

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

### NASA Acres Leadership Tour

In August the LERGP and CLEREL staff were involved with a tour to collaborate and learn from NASA. NASA leadership joined us in Geneva and then at the Cornell Lake Erie Research and Extension Laboratory for the 'Space for Ag Tour' to have conversations with growers, stakeholders, and researchers about their needs and challenges. The goal of this visit is to have two-way dialogue with end users, stakeholders, and researchers to improve NASA Earth Science's research portfolio in specialty crop agriculture and viticulture while fostering a broader conversation about effective research translation into practice. We continue to foster this relationship and work towards collaborating to improve data for our grower stakeholders. This visit and listening tour are supported by Cornell AgriTech and the Cornell Institute for Digital Agriculture.

### Evaluating Osmotic Protectant

Glycine Betaine, as a Multifaceted Approach to Enhance Grapevine Stress Tolerance and Productivity grant began. 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, Marquette, and Chardonnay applying timely sprays and evaluated the effect on cluster diseases.

*1. Glycine Betaine osmotic protection grant work on Marquette as frost protection*

### 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. This data will help inform growers of best floor management strategies to implement into their operations to increase soil and vine health.

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## Microclimate Sensor Grant

Dr. Jason Londo and Jennifer Phillips Russo collaborate on tracking grapevine cold hardiness and 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 cold hardiness/phenology and hopefully begin to build phenology predictions for the New York grapevine industry.  This collection continued throughout the third quarter.

## Pesticide Sprayer Calibration-

Five more calibration appointments were conducted in Q3. Common issues have included poor nozzle placements, poor coverage, clogged nozzles, tank debris, and overall poor spray patterns. Two visits were for general troubleshooting for coverage, and two were to set up a new, small-scale sprayer. One visit required a follow-up after the grower replaced nozzle orifices with the recommended sizes. All visits ended with properly calibrated equipment. Certificates of participation will be sent to growers via Penn State's Pest Ed team.

Additionally, two demonstrations of sprayer calibration best practices were performed. The first was with the Cornell Regional Vegetable Extension team on 7/25 (in-person, 16 attendees), and Millitello Farm Supply hosted the second on 8/8 (in-person, 125 attendees). Both meetings provided recertification credits.

*Customized equipment for pesticide sprayer calibration*

*Debris removed from a spray tank during calibration*

Crop Updates were released weekly to growers via email. Megan Luke contributed articles regarding new Environmental Protection Agency guidelines and label changes, as well as pesticide best practices and scouting techniques for common pests. Megan participated in a Penn State-hosted webinar series titled "Seasonal Viticulture Updates," held on 6/27 (75 registrants),7/25 (73 registrants), and 8/29 (87 registrants) with focus on best practices in pesticide application and the status of several critical chemistries.

Two in-person presentations at meetings were conducted in Pennsylvania. The first was the Annual Gravel Pit Park BBQ hosted by the LERGP and the Erie Horticultural Society. Megan sits 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 LERGP team presented timely updates on mancozeb, spotted lanternfly, and disease management. The second meeting was held in SE Pennsylvania at Setter Ridge Winery. There were 22 registrants. Megan presented EPA updates and pesticide best practices. She conducted two site visits regarding vineyard owner collaboration on mechanical harvested data collection regarding SLF and the need for testing for disease resistance for grapevine diseases, considering the loss of several essential fungicides.

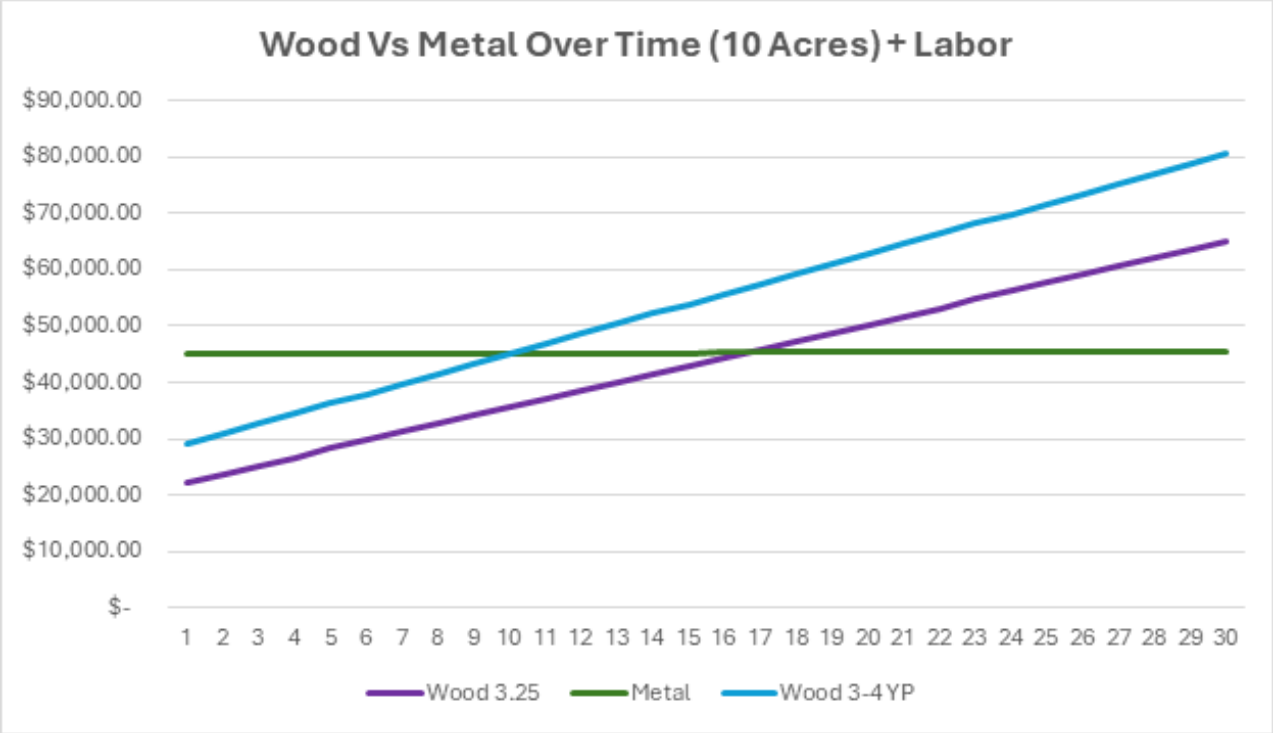
## In-Person Education

We continued in-person Coffee Pot Meeting education throughout the growing season. In July we had four coffee pot meetings and one virtual coffee pot meeting. We held Coffee pot meetings in three different counties this quarter.  In this quarter, 4 meetings 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, there were 175 in attendance to hear timely updates on viticulture and integrated pest management with recertification credits available.

## Post At Every Vine Financial Analysis

As part of the July 24th Coffee Pot Field Day at CLEREL, that featured the ongoing research of trellising concords with a metal T-post at every vine, Andrew Holden investigated the economics of this system compared to a traditional wood trellis.

For this analysis, he strictly looked at two trellis designs and a small number of post types. There are many other combinations that could be compared and are worth exploring. In this comparison, wood is still cheaper, but if the uniformity of the post every vine allows for more mechanization, faster pruning, harvesting, and weed control, you could see the $90 per acre over 30 years being made up in savings. In making this comparison he found that in most cases, this system does not make sense for most growers. Especially growers that have an established vineyard in decent shape, renting, or do not have a 30-year plan for their operation (succession/transition plan). He believes it could make sense for those planting new/replacing a vineyard, which have a long-term goal/vision for the farm, highly mechanized operations, or if we see a disproportional increase in input cost (labor, post, fuel). With the numbers being so close, it really would be on an operation-to-operation basis on which would be best to build. Andrew would be happy to work with any grower considering PEV or another trellis system to find which makes most sense to their business.



## Resilient Food Systems - Equipment Grant

The New York Equipment Grant will be open in early 2025 for growers in the state to apply. We are preparing growers to apply for the 2025 grant. Some processors applied for the up to $3 million infrastructure grant program.

## New York Wine and Grape Classifieds

Andrew also recently took over the NY Grapes & Wine Classifieds from the Finger Lakes Grape Program. The website is 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.

## Vineyard Improvement Program

*Figure 1 VIP replanted vineyard*

There was one application submitted this quarter for the Vineyard Improvement Program from Chautauqua County for 17.51 acres of Concord vineyard. The site visit had been done last quarter.

Eleven site visits were completed: 10 were final site visits, but one of which needed a bit more attention to vines that were regrowing and required one more visit at which time that project was passed as complete. The eleventh visit was to a current applicant that is in the process of replanting and needed some advice.

Four applicants' projects were completed and submitted for reimbursement that totaled $95,135.00 and accounted for 39.6 acres of Concord vineyard removed. Two more projects are very close to being submitted for reimbursement.

Of those 4 applicants, 2 replanted to cover crops/field crops, and the other 2 replanted to Concord vineyards.

There has been a lot of contact via phone and email with not just program applicants, but also interest in last minute use of the program, much of which has not panned out for various reasons.

There are currently 8 applicants that have not been responsive to repeated emails and even standard mail attempts to contact them regarding their projects. All of these project applications are multiple years old and probably will not be completed. The acreage for these projects amounts to 65.96 acres.

## NEWA

*Figure 2 new Onset station ready to be installed*

The KestrelMet weather station has been installed in Hector at the Hazlitt winery. This cellular station was a big improvement for the site over the WiFi station that was not connecting as it needed. A new site is being sought for that WiFi station in the Finger Lakes.

There were many trips to stations for outages or sensor inconsistencies. Generally, they were requiring just cleaning but some sensors were replaced. The Porland station was our oldest in the region and had been declining in accuracy recently, so it was replaced with a Rainwise station that was on hand. It is performing much more reliably.

Our Newfane station has been struggling, in spite of repeated attempts to restart the station it is not connecting.  A modem is on the way to be installed soon.

Two new stations arrived this quarter but have not been set up yet.  One will be going to Liberty Winery in Sheridan and the other is still to be determined.

## CAPS

The Grape Commodity survey traps that were set up last quarter were serviced six times during this quarter, and at the last trip the traps were collected for the season.

In the Lake Erie region, we observed 0 target moths, but collected 237 moths in the EGVM traps, 417 moths in the CBW traps, and 1,894 moths in the EGBM traps totaling 2,548 negative samples for the Lake Erie Region.

In addition, there were 0 Spotted Lanternfly observed in any of the life cycle stages at the 12 sites in the Lake Erie Region and no Grapevine Red Blotch disease was observed.

## Meet the Team

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-
Extension Support Specialist

### Third Quarter 2024 totals:

Publications - LERGP Crop Updates (9)
Podcasts(1) -  weekly podcasts available on http://lergp.com/podcasts
Web resources - http://lergp.cce.cornell.edu, http://lergp.com and https://www.efficientvineyard.com
Like us on Facebook - Cornell-Lake-Erie-Research-and-Extension-Laboratory and EfficientVineyard