

Cornell Cooperative Extension Lake Erie Regional Grape Program

Fourth Quarter Report 2023

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



This Year's Harvest

In the Lake Erie Region, the Concord crop in parts of the belt looked tumultuous. Winter injury, spring frost, lack of growing degree days, and poor weather conditions were offered as explanations throughout the growing season. In general, areas that were hit with spring frost in 2022 had high crop loads this year. Areas that had extremely high tonnage last year had low tonnage this year. Weather conditions in the winter and spring were on the edge but nothing happened that would indicate an obvious disaster. Many vines hung onto the fruit until the very end with higher-than-average yields. Growers and processors have reported yields that are personal records for them. Setting or approaching personal records was a theme two years ago as well. Crop load was high enough so that the harvest season did have to be extended and some grapes did not meet minimum standards for their original processor. Harvest concluded late into November. Overall yields were reported higher than long-term averages. Individual grower crop estimates were more likely to be a bit off as berry size was larger than usual and some did not have faith in the numbers. Farm and regional crop estimate accuracy was hampered by variability.



Great Lakes Fruit Grower's Conference

LERGP's Cornell Viticulturist, Jennifer Phillips Russo, was asked to present at the Great Lakes Fruit Grower's Conference in Buffalo, NY, in November. Jennifer presented on the MyEV Tool, which is a free, web-based software for vineyard managers to collect, process, and organize spatial data for their own operations. MyEV helps organize information by farms, blocks, and sub-block spatial data. It allows growers to use easy point and click tools to draw their farm blocks, add block level information, and change visualization settings. Then they can identify team collaborators and invite them to interact with their farm on their desktop or smart-phone.



Agriculture, Food & Environmental Systems In-service

The Agriculture, Food & Environmental Systems In-service brings together faculty, educators, volunteers, and industry professionals from various agricultural fields to discuss the latest developments



Cornell University



PennState Extension

in research and practice. Programming is available in multiple tracks spanning a variety of agriculture related disciplines. LERGP's Cornell Viticulturist, Jennifer Phillips Russo, was asked to present at the Great Lakes Fruit Grower's Conference in Buffalo, NY, in November. Jennifer presented on the MyEV Tool.

Bud Hardiness Data Website

Our cold hardiness research of weekly monitoring of LTE's during acclimation, dormancy, and deacclimation across the Lake Erie Grape Region was posted to the [Bud Hardiness Data Website](#), where winter hardiness data from differential thermal analysis has been shared with industry since 2009, and is posted continually during the dormant season, providing growers with up to date information about potential winter injury to buds. Dr. Londo and his lab were tasked to develop a temperature-driven model that is based on real measurements of the physical response of vines to different deacclimation temperatures. They used data collected from this project to validate the model, which we hope will provide New York and Pennsylvania growers with accurate predictions of bud freezing temperatures (based on daily min/max temperatures) and will be accessible region-wide through the NEWA weather site. We have succeeded at this research objective and have presented it to growers to make better management decisions.

Pest Management Spray Schedule – What's Your Plan?

Our annual virtual Pest Management Spray Program was held on December 5, 2023. This meeting is intended to be interactive so that growers would have the ability to ask questions concerning specific pest problems or potential problems in the 2024 season. Topics addressed included timing of spray applications at critical growth stages; pesticide options, efficacy; and resistance management. It included a one-hour presentation from each speaker (two hours of instruction) and one-half hour for questions and answers. The program also discussed sprayer collaboration, tank mixing, the use of jar tests, the spotted lanternfly life stages and when to look for them, and EPA's Endangered Species Act updates and pesticide mitigation strategies/efforts. There were 98 participants in total.



Speakers: Bryan Hed, Research Technologist (Plant Pathology), Lake Erie Regional Grape Research and Extension Center, Megan Luke, PSU, and Jennifer Phillips Russo, Cornell

Eastern Viticulture and Enology Forum (EVEF) Webinar Series

On December 13, 2023, the Eastern Viticulture and Enology Forum (EVEF) hosted a webinar: Vineyard Labor Challenges: Mechanization and Other Approaches. Eastern Viticulture and Enology Forum Series (EVEF) is a collaborative effort between the Penn State Extension Grape and Wine Team and several viticulture and enology Extension programs from the following U.S. land grant institutions: Colorado State University, Cornell University, University of Georgia, Iowa State University, University of Maryland, Ohio State University, and Rutgers University. As part of the Eastern Viticulture and Enology Forum Webinar Series, this session is a collaborative effort between these viticulture and enology extension programs coordinated for grape growers and winemakers. Finding consistent and skilled labor remains an issue in perennial production systems such as vineyards. Learn about issues and solutions to managing vineyards in the face of labor shortages. Topics such as mechanization adoption and labor programs were reviewed by commercial growers who shared their experiences in the context of their approach to managing vineyards of various sizes and from different regions. This event was very well attended with over 150 registrants.

Pesticide Sprayer Calibration

I will be offering calibration services and coverage demonstrations to growers in both NY and PA next spring. I am developing data-driven dashboards to demonstrate the impacts of sprayer calibration in terms of economics and agroecology.

Currently, I am working on data analysis from the program and am developing presentations for the coming growing season. I will be presenting on tank mixing best practices, calibration methods, and improving coverage while reducing drift. I have a waitlist of growers interested in participating in the program, as well as several scheduled demonstrations for the 2024 season.



Customized equipment for pesticide sprayer calibration



Spray coverage demo with water sensitive paper

Lake Erie Regional Grape Program (LERGP)

Jennifer Phillips Russo & Megan Luke, LERGP Extension Team

Cornell Cooperative Extension's Lake Erie Regional Grape Program (LERGP) is a membership program for NY and PA growers. As the Penn State Extension team member, I am responsible for providing resources and information to our growers via updates on Penn State research, surveys, and programs. Renewal letters have been sent out for 2024, and we have received interest and inquiries regarding membership from several growers who have not previously been members of the program.

Crop Updates were released weekly to growers via email, I have contributed several articles regarding new Environmental Protection Agency guidelines and label changes for herbicides and have been following the changes to Ziram registrations. We presented a Spray Program Webinar on December 5th where I presented the same information and demonstrated the use of the EPAs Bulletins Live! 2 website. I hosted a spotted lanternfly information booth on September 2nd at the Westfield, NY Grape Discovery Center, educating the public on how to prevent transporting SLF into the Lake Erie Region, and the possible impacts that the pest may have on the grape industry.

The LERGP team is excited to be able to continue to offer educational outreach and pesticide recertification credits to our industry stakeholders, and I am happy to be able to add core credit presentations for PA growers.

Lake Erie Regional Grape Program Vacancy

The Lake Erie Regional Grape Program, Cornell Cooperative Extension, and Penn State Extension have secured a qualified candidate for the vacant Business Management Specialist position on the Lake Erie Regional Grape Program team. The preliminary offer of employment has been accepted and he is expected to start in his new role prior to the start of the growing season.

NEWA

The third of the four stations ear-marked for the Finger Lakes Region has been set up in Hammondsport NY at Weis Vineyards.

Thanks to a substantial region wide rain event it was obvious that the Brocton and North East Side Hill stations needed to have the rain buckets cleaned out. Those are now functioning as intended.

The East Westfield station stopped reporting on November 29th and the TeleMet that connects the station to the internet was boxed up and sent for diagnostic testing. It appears to have “locked up”. We are still waiting for it to be sent back, so that station is currently unavailable on NEWA.

The Portland (R Block) KestrelMet station continued to confound with connection and power issues. This station has also been boxed up and sent in for diagnostic testing.

Other than that, there were just the usual occasional outages that are remedied quickly with a power cycle or quick reset.



NEWA weather station

VIP

This quarter brought 2 more applications to the program totaling 25.81 acres of Concord vineyard to be removed in Chautauqua County. The intentions of the applicants are to replant to Concord in a more efficient manner (4.09 acres) and to provide land to grow produce for Feed More NY (21.72 acres).

Two of the applicants were able to complete their projects and receive reimbursement. Those two projects totaled 8.65 acres of Concord vineyard removed. One is now a hayfield and the other is partially a hayfield and 1 acre of Christmas trees. Those two reimbursements totaled \$12,685.65. One more applicant has completed the removal and replant, had the final site visit, but we are still waiting for the expenses to be submitted. A press release was sent out but did not garner much attention. This project has one more growing season for projects to be completed.



Christmas tree replant for VIP

Fourth Quarter 2023 totals:

Publications - Lake Erie Vineyard Notes Newsletters (1) and LERGP Crop Updates (4)

Podcasts(3) - weekly podcasts available on <http://lergp.com/podcasts>

Web resources - <http://lergp.cce.cornell.edu>, <http://lergp.com> and <https://www.efficientvineyard.com>

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6592 West Main Rd. Portland, NY 14769 *** Phone: 716.792.2800