

Cornell Cooperative Extension

Lake Erie Regional Grape Program

First 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



Top 10 dormant pruning mistakes in commercial vineyards webinar

On January 10, 2023, the Eastern Viticulture and Enology Forum (EVEF) that consists of specialists from Cornell, Penn State University, and Virginia Tech, hosted a webinar:

Corrective measures to the top 10 dormant pruning mistakes in commercial vineyards presented by Fritz Westover, Viticulturist and Founder, Westover Vineyard Advising. Fritz Westover has been working hands-on in the viticulture industry since 1999, assisting growers in the eastern, southern, and western United States. Fritz contributes to several national viticulture education projects including content contribution to the national [eXtension](#) web page for commercial grape production. He has been a member of the American Society of Enology and Viticulture (ASEV) since 2005 and served on the board of directors and as chair of the board for the eastern section of the ASEV. This online event was well attended with 200 participants.

NYS Grape IPM Specialist Candidates Grower Involvement Seminars

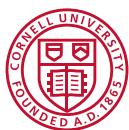
Currently, the Lake Erie Regional Grape Program, NYS IPM, and the candidate search committee reviewed a number of applications for the position of NYS Grape IPM Specialist that has been vacant since the retirement of Tim Weigle in 2019. We were very pleased to have three successful candidates. The candidates each presented a Research and Extension Seminar at CLEREL open to the public and then repeated that presentation in Geneva NY. Our growers received recorded versions of each seminar and a survey to submit their input on the best candidate.

Cold Hardiness

The Lake Erie Regional Grape Program monitors cold hardiness in our region. We collect samples of grape buds to test their ability to withstand cold temperatures. Grape growers use this information to make decisions about their pruning strategy during the dormant season in order to retain enough fruitful buds to ensure an adequate crop the following growing season. We monitored 19 varieties in our region and reported weekly to assist our grower management decisions.

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 Click Here](#), 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 de-acclimation 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.



Cornell University



PennState Extension

Microclimate Research

The Lake Erie Regional Grape Program monitors cold hardiness in 15 grower collaborator vineyards around our region. We collect samples of grape buds to test their ability to withstand cold temperatures from our research station and then project that data across the region. Grape growers use this information to make decisions about their pruning strategy during the dormant season in order to retain enough fruitful buds to ensure an adequate crop the following growing season. Dr. Jason Londo and LERGP teamed up to monitor five sites each on Lake Erie, five sites on the bench, and five sites on the escarpment to make better predictions for our grower stakeholders. The first year of this study provided data that has a difference of five degrees Celsius across the research plots. We have asked for more grant funding to continue this work through the growing season to track phenology.

Eastern Viticulture and Enology Forum is “Academic and Industry Perspectives on Biofungicide Use in Vineyards.” webinar on Tuesday, February 7th.

Biofungicides are available as an alternative to or used in combination with conventional chemicals for vineyard pest management. During Academic and Industry Perspectives on Biofungicide Use in Vineyards, growers learned more about biofungicide use in vineyards, including a presentation of research results from academic grape pathology specialists and feedback on their efficacy and use from experienced vineyard management professionals. There were 96 attendees at this event.

The Lake Erie Regional Grape Program Virtual Conference Serie #2

February 9, 2023, brought Dr. Justine Vanden Heuvel, Cornell Professor of Viticulture, to talk about her work in Arbuscular Mycorrhizal Fungi and bacteria applications to vineyard soil to improve grapevine productivity and Kevin Martin, our Business Management Specialist, discussed economics of vineyard inputs. We had 40 people in attendance.

Eastern Viticulture and Enology Forum webinar - “Climate Change Implications for Grapevine Production,” presented by Dr. Greg Jones March 7, 2023.

Climate Change Implications for Grapevine Production will cover climate change predictions and how grapevine productivity and wine quality potential may ultimately be influenced. Climate and weather patterns impact regional grapevine suitability, productivity, and sustainability; the same cultivar can often produce variable crop yields of varying composition in climatically unique regions and vintages characterized by unique weather patterns. Climate and weather patterns also impact wine sensory profiles; the same grape cultivar can often produce varied sensory profiles when grown in climatically unique regions and vintages characterized by unique weather patterns. Current and future changes in weather patterns have implications for viticulture and enology practices. We had 35 attendees at this webinar.

2023 Winter Grower Conference

We had a very successful conference this year attended by over 100 people. This year's presenters provided research-based information aligned with LERGP's mission and were a direct result of our advisory committee's suggestions for content. In addition to the informative sessions, new faculty from both, Cornell University and Penn State University, made program presentations and had the opportunity to talk with growers in-person. Faculty members pressed upon the importance of communication of grower needs to help formulate their program's objectives. They were willing to listen to their needs and design research and educational materials in response. It was a great opportunity to have grower voices heard. The conference also provided a great opportunity at the vendor show with many tables for growers to stop and visit to get information and set up meetings.

2023 New York Wine and Grape Foundation Business, Enology, and Viticulture Conference

Jennifer Phillips Russo was asked to be a presenter at this industry sponsored, three-day conference held in Syracuse, NY, along with a panelist on a soil health roundtable discussion. Jennifer presented research collected on a long-term, soil health case study to over 200 attendees. She

was also part of a Vineyard Data: Lo-Tech & “Mid-Tech” Approaches Workshop with Dr. Terry Bates to present the MyEV Tool for grower adoption at this conference.

Pesticide Applicator Prep Course & Exam

The Lake Erie Regional Grape Program worked in collaboration with New York State Department of Environmental Conservation to hold our sec-



ond Pesticide Applicator Prep Course for those looking to get certified for their pesticide applicator license. The course also served as CORE credits for NYS applicators. The turnout this year was twice as large as last year with 40 attendees and we are proud to be able to offer this opportunity to our grower stakeholders. Attendees who qualified returned the following week to take the exam.



Welcome Megan Luke

It seems appropriate to discuss change as we enter spring. The Lake Erie Regional Grape Program is very excited to announce that two of the vacant positions have been successfully filled this season. Below is the announcement for Dr. German Vargas, the New York State Grape Integrated Pest Management Coordinator and Megan Luke, our new Penn State University Educator.

WELCOME MEGAN LUKE! Megan Luke is the new Extension Educator in Erie County! Megan started with The Lake Erie Regional Grape Program and Penn State Extension on March 6, 2023. She has filled the PSU Horticulture Educator position previously held by Andy Muza. Megan looks forward to working with grape growers and other horticultural crop stakeholders in the greater Lake Erie region. If you'd like to contact Megan, please email her at: mfl5873@psu.edu.

Welcome Dr. German Vargas

The New York State Integrated Pest Management Program is pleased to announce the appointment of Germán Vargas as its first grape IPM coordinator.

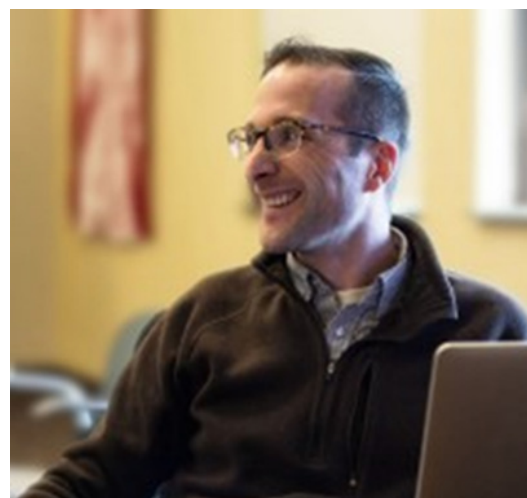
Dr. Vargas is the successful candidate for the NYS IPM Grape Specialist position that has been vacant on our team since the retirement of Tim Weigle in 2019. In the new role, Vargas will grow and sustain the state's booming grape industry by working collaboratively, across disciplines, and with a variety of stakeholders to develop, demonstrate and guide IPM implementation efforts. A native



of Colombia, Vargas is an award-winning entomologist with over 40 publications including peer-reviewed and extension. He has a Ph.D. from Kansas State University and most recently served as a post-doctoral research associate at the University of Florida's Tropical Research and Education Center, where he worked to develop a comprehensive, integrated pest management plan for the hibiscus bud weevil. Vargas' position will be based out of the Cornell Lake Erie Research and Extension Laboratory in Portland, NY, beginning June 20, 2023.

Lake Erie Regional Grape Program Vacancy

This Lake Erie Regional Grape Program said farewell to Kevin Martin, LERGP's Business Management Specialist. We are sad to see Kevin go, but we support his decision to enter the grower stakeholders and will continue our relationship. The Lake Erie Regional Grape Program, Cornell Cooperative Extension, and Penn State Extension would like to assure you that we are working together to fill the vacant Business Management Specialist position on the Lake Erie Regional Grape Program team. We are currently looking at the Position Description and going through the process to get it approved through PSU Human Resources. Once that happens, we will get it posted on the appropriate websites to begin accepting applications.



Vineyard Improvement Program

It has been a very busy quarter for the Vineyard Improvement Program. With a bit of anxiety about the program ending along with the confirmation that it has been extended, there has been a lot of communication with both current applicants and prospective applicants. Twenty people have asked for more information regarding the program, and the current applicants have been contacted/in contact 39 times.

We were able to finalize 2 projects that amounted to \$60,304, and started another 7 projects. Eight site visits were conducted – one of which the application is pending.

A press release was sent out to newspapers regarding the two year extension and a crop update was sent to the LERGP grower base.



NEWA

The year started with replacing a temperature/relative humidity sensor on the Silver Creek station. The original sensor was not being powered properly by the rechargeable batteries in the mote, so a replacement was sent and installed.

There were a number of stations experiencing low battery issues in January. One did need to be replaced, but once we started getting more sunshine on the solar panels the batteries seemed to do much better.

We continued to struggle with getting the Brant HOB0 station to operate, and finally were able to get it set back up toward the end of March. In addition to having cellular connection issues, the wind sensor was faulty and needs to be replaced. It has been initially set up without that sensor and has been reconnected to NEWA.



The Versailles station started the year with intermittent connections. It was clearly time to replace this aging station that was set up February 1, 2012 and was our oldest station. On March 9th we were able to set up a new KestrelMet 6000 cellular station to replace the Rainwise AgroMet. It is currently working great, but we have had an issue with getting it connected to NEWA. Hopefully that will be worked out in the near future.

Our other old station is at CLEREL and is the station that reports on NEWA as Portland. This one is also an old Rainwise AgroMet and was set up January 14, 2010. We have acquired a KestrelMet 6000 WiFi station and will be beta testing it at the lab. Because is it WiFi citing is an issue and we are going to require a range extender.

There were the usual occasional outages due to power or internet interruptions as is to be expected in the winter in Western New York and Pennsylvania.

First Quarter 2023 totals:

Publications - Lake Erie Vineyard Notes Newsletters (1) and LERGP Crop Updates (11)

Podcasts(4) - 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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