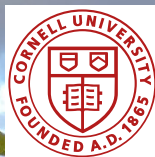


Cornell Cooperative Extension Lake Erie Regional Grape Program

Annual Report 2022

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



Cornell University



PennState Extension

Building Strong and Vibrant New York Communities

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

2022 Winter Conference Series

The first quarter for the Lake Erie Regional Grape Program was extremely productive and packed with educational outreach opportunities. Our advisory committee meeting confirmed the value in a virtual learning platform that was a positive outcome from the pandemic. The ability to bring researchers and experts in their fields right into the living rooms of our growers for an educational program decreases the miles, pandemic anxieties, and allowed for pesticide recertification credits to be earned. Our grower and industry panel provided input for necessary content to support our stakeholders. The LERGP 2022 Winter Conference Series was a direct effect of the input from this committee.

The 2022 Winter Conference Series was a hybrid model that offered a one stop shopping for research-based information and pesticide recertification credits. This Conference Series was made up of two virtual days, January 19, 2022, with 37 attendees, and February 16, 2022, Virtual Spray Program had 78 attendees, and one in-person day on March 16, 2022, which had 165 registrants. This Conference Series reached 280 attendees with research-based outreach. Our presentations/talks provided the opportunity to get information that you need to become compliant with the changes in Labor Laws, as well as learn about the information and resources you need to sustain vineyard production.

Coffee Pot News

Coffee Pot meetings have been a staple of the extension work done by the Lake Erie Regional Grape Program for many years. During these meetings researchers and extension associates come together with growers in a relaxed setting to share up-to-date information and advice on how to take care of the issues that arise in their vineyards as well as offering time for the growers to collaborate on what works and what doesn't work. In addition, pesticide recertification credits are given to those in attendance who present their pesticide applicator license. These meetings ran every Wednesday throughout the growing season and were very well attended this year. From April through June 2022, the LERGP team reached 547 growers. In 2020, we created our Virtual Coffee Pot Meetings for educational outreach during the pandemic. The use of technologies bridged the gap of a paused society and allowed for solutions that would have lasting effects to enhance our program for years to come. The grower stakeholders requested that we continue this outreach, and we held one a month May-July to accommodate those unable to meet in person.



NYSDEC Core Credit Course and Pesticide Applicator License Exam

In May of 2022, the Lake Erie Regional Grape Program collaborated with the New York State Department of Environmental Conservation to bring an educational course that promoted the proper use of pesticides for the applicator, the consumer, and the environment. We followed up this course with an exam for new pesticide applicator registrants and recertification exams. We were able to reach 47 with these two events.



CLEREL Mechanical Pruning Trial Demonstration

On June 2, 2022, the Cornell Lake Erie Research and Extension Laboratory provided an opportunity to learn about the Concord Mechanical Pruning Research Trial that Dr. Terry Bates and his team have been conducting in response to labor and management challenges in our region. Attendees walked through different canopy development to visualize

how incorporating some of this work into their own operations will transform their vine management and address labor issues. There were 26 attendees at this informative event.

LERGP H2A Grower Panel and Informational Program

LERGP hosted an H-2A labor workshop at the Cornell Lake Erie Research and Extension Lab. Those interested learned more about Ag-business labor challenges. The workshop provided an opportunity to share information on the H-2A program as the regional agricultural economy experiences challenges with labor supply and labor costs. Ag service providers were on-hand to share their expertise and services in the H-2A world. Growers looking to use this program for the winter of 2023 needed to start their application process in July. When getting started, most growers seek out assistance to apply for, recruit or even manage and house H-2A labor. As part of the event growers shared their experiences in transitioning to H-2A. Key to the success of the transition is changing management practices, recruiting labor, and managing new recruits. The event also focused on the challenges of an inexperienced workforce and techniques to control the costs associated with training and education. The event also provided an update on the current regional labor situation, data that supports the forecast of future labor costs in the region, as well as methods of sustainable agriculture that address the labor challenges without H-2A. This event was well attended.

LERGP Grape Twilight Meeting

The LERGP collaborated with the PA Horticulture Society to bring a twilight meeting full of information on Respirator Fit Testing Requirements presented by Joni Davis - Worker Protection Standard Specialist, Pa Office of Rural Health/Penn State University. Joni Davis spoke on the respirator fit testing requirements going in depth on the three parts: Medical evaluation, respirator training and the actual fit test. Then we continued to educate on disease and insect management updates that provided updates on managing pests in the vineyard at this time, phenological updates, and business management. There were 200 in attendance at this event.

The Cornell Lake Erie Research and Extension Laboratory Research Demo Day

The Cornell Lake Erie Research and Extension Laboratory Research Demonstration Day was held on August 31, 2022, at our AgriTech Station in Portland, NY. The weather was just right for an informal walking tour through our research blocks. There were 45 in attendance to listen to Dr. Terry Bates and Jennifer Phillips Russo discuss the various projects conducted at CLEREL and learn about the equipment used in precision and digital viticulture. Attendees were given a map of the vineyard blocks with appropriately labeled research trials and inquisitive dialogue continued throughout the morning tour.

Attendees tasted their way through the trials as we discussed Veraison to Harvest monitoring and our variety berry curves. Visitors learned about CLEREL facility and ag tech innovation, acceleration, and incubation with cutting edge research in Precision Viticulture, Vineyard Mechanization, and Optimized Nutrient Management, and more. Our facilities opened in 2009, CLEREL is an agricultural field station and extension center built to serve the land grant mission of Cornell University. The 50-acre research farm currently grows 11 grape varieties, including juice and wine grapes, hops, willow, and vegetables.



Rotary Agriculture Rural Day Guest Speaker

Jennifer Phillips Russo was invited to be the guest speaker at the Rotary Regional Event to discuss the destructive invasive species, the Spotted Lanternfly, and touch base on the wide opportunities

for careers in agriculture to a diverse audience of high school students, agricultural stakeholders, Rotarians, and community members. This event educated over 65 attendees.

Spotted Lanternfly Talk at Grower Co-op Summer Picnic

Jennifer Phillips Russo was invited to be the guest speaker at the Rotary Regional Event to discuss the destructive invasive species, the Spotted Lanternfly, and touch base on the educational outreach opportunities the Lake Erie Research and Extension Laboratory has to offer. This event educated over 100 attendees.



Western NY Ag Tour with New York State Senator George M. Borrello and Assemblyman Chris Tague

To foster greater understanding and appreciation of New York State's farms and agricultural economy, Senator George Borrello, ranking member of the Senate Agriculture Committee, hosted the 4th Annual Legislative Agriculture Tour in partnership with fellow Agriculture Committee ranking member, Assemblyman Chris Tague. More than two dozen legislators traveled from their home districts in various parts of the state to participate in the two-day tour, which featured presentations at a range of farms and businesses, from dairy and crop farms to wineries, agritourism destinations and agriculture research facilities. This was the first time the annual event has taken place in Western New York. The

CLEREL Lab was fortunate to be one of their stops. We were able to spend an hour with this group informing them about the importance of the Lake Erie Grape Belt.

Chautauqua Agribusiness Forum

The 2022 Chautauqua County Agriculture Forum was a group effort between, Cornell Cooperative Extension of Chautauqua County, JCC's Small Business Devolvment Center, and the Chautauqua County Department of Planning and Development. This event drew agricultural leaders from across the county for an opportunity to network, learn more about climate change, hear industry success stories, and what agribusinesses are doing to grow through innovation. Participants also had the opportunity to help shape the future of agriculture in Chautauqua County as the lead organizations gathered feedback for future programming to better serve the agricultural community. LERGP helped with the organization and implementation of this event, as well as provided an educational opportunity to learn more about our program with display table in the vendor show to all attendees.

Cold Hardiness Monitoring

The New York Wine and Grape Foundation has funded our cold hardiness research for years. Each fall and winter, grapevine tissues produced during the growing season transition from a cold-tender to cold-hardy state. This process, known as cold acclimation, allows vines to survive low winter temperatures. Winter low temperatures that fall below a critical value can damage grapevine buds. The critical temperature for bud injury varies over the dormant season and responds to daily changes in temperature. As temperatures rise after mid-winter, grapevine tissues deacclimate in a gradual process, culminating in bud burst and active growth at the start of the growing season. How fast this process happens, and to what extent vine tissues survive extreme winter low temperatures, depends upon the cultivar, seasonal temperatures and how they vary, and the vine's condition as it enters the dormant season. We measure this critical temperature through a procedure called differential thermal analysis, which involves controlled freezing of a sample of buds collected from vineyards and reporting the Lethal Temperature where growers can experience 50% bud loss, or LT50, and posted on our website as well as in crop updates and podcasts. This information can be used to help guide management practices to compensate for potential losses. In 2021-2022, we monitored and reported

cold hardiness for 17 cultivars. We monitor samples weekly from November to March.

NEWA

As a result of ordering two weather stations late with last year's funds and early with this year's, we were able to replace 4 of our aging weather stations in 2022. Decisions on which stations were to be replaced were made by considering the age of the station in addition to the impact each station has on acreage in a 1 mile radius. It was determined that the Ransomville, Silver Creek (RT5), Harborcreek and North East Escarpment stations were most in need of immediate replacement. Three were replaced with Rainwise AgroMet MKIII weather stations and one with an Onset HOBO station. Aside from a few issues with the HOBO station sensors, all have been collecting data much more reliably.



Through the year there have been the usual connection and maintenance issues that spring up from time to time, and those have been dealt with in a timely manner.

Communication has continued with owners of stations in the Finger Lakes region as well. At the end of the year there are six stations that have become inactive or that are experiencing problems due to the age of those stations.

VIP

In 2022 there were 7 new applicants to the Vineyard Improvement Program bringing the total to 38. By the end of the year we finalized 6 reimbursements to make a total of 22 over the course of the program. Those 22 applicants account for almost 265 acres of abandoned/unwanted Concord vineyards removed and represent Chautauqua, Niagara, Schuyler, and Steuben counties. These acres have been replanted with field crops, cover crops, pasture, hayfield, wine grapes, table grapes, and even Concord.

There are still 16 applicants in the program that have yet to finalize their projects. An extension is in the process of being established that will enable those applicants to get their projects completed. So far the program has reimbursed applicants \$354,565.64. The six this year total \$79,853.77.

Grape Commodity Survey

The Lake Erie Regional Grape Program works in conjunction with the NYS IPM program to trap for three invasive species that are not known to be present in this area. The Grape Commodity Survey in the Lake Erie Region began by setting up the traps on June 6th. 108 traps were set up in 8 vineyards and 2 nurseries. This year the target moths include *Cryptoblabes gnideiella* (Christmas Berry Webworm), *Lobesia botrana* (European Grapevine Moth), and *Eupoecilia ambiguella* (European Grape Berry Moth).

These traps remained in the vineyards and nurseries for 14 weeks and were serviced (surveyed for the presence of moths) every two weeks for a total of 7 times. Traps were removed September 12th to avoid problems with harvest (there were a few trap casualties). Over the course of the survey zero target moths were detected but collected 3,323 other moths. In addition the grape programs were tasked with scouting for the various life stages of the Spotted Lanternfly during the survey. None have been found in the region to date, and we are continuing to scout.



Podcasts

After preparation, meetings and discussions with both universities, podcasts continued this year. 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 2022 we delivered 39 Podcasts, 1,192 views on YouTube for those podcasts with 2,101 downloads on Buzzsprout.

HeyMarket

LERGP has developed a number of different contact lists for purposes of meeting reminders, phenology updates and other promotional materials. HeyMarket allows us to distribute this material and information via text message. Growers are able to respond to these alerts and we have been able to quickly answer questions and expand contacts with this technology. A large majority of growers attending virtual meetings prefer to get these reminders via text and report actually receiving them as well. Growers would often get an e-mail reminder prior to a meeting but actually read it after the meeting was over. A total of 14,171 texts were sent in 2022.



2022 Year totals:

Publications - Lake Erie Vineyard Notes Newsletters (6) and LERGP Crop Updates (35)

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

