

# 2023 Year In Review



**The Finger Lakes Grape Program (FLGP) is a regional extension program of Cornell Cooperative Extension, serving the grape and wine industry of the Finger Lakes where more than 300 farms produce over 125 varieties of grapes from approximately 10,000 acres of vineyards. The FLGP provides unbiased, research-based information to the industry in all areas of grape production including vineyard and pest management practices, vineyard nutrition and soils, new vineyard establishment, and farm business management as a means of supporting the industry's growth and long-term sustainability.**

Certain growing seasons in the Finger Lakes remain embedded in our memories because of unusual circumstances that make them stand out. In 2016, it was an unprecedented drought. In 2022, it was a hard winter freeze that hit many vineyards. We will now add 2023 to that list after the worst spring freeze event that most growers can remember.

On May 18th, temperatures in many parts of the region fell below freezing for several hours, causing significant damage to early shoots that had emerged anywhere from 1-3 weeks earlier than normal. Some parts of the Finger Lakes escaped with very little damage, while others saw almost 100% of their shoots injured. The freeze resulted in a reduction of about 40% from a normal crop for the region. For some growers, this was the second year in a row with a smaller-than-normal crop – they, and everyone else, are hoping for a better year in 2024.

A lot of our time in 2023 was spent helping growers with the management of their vineyards after the freeze, but we were also busy with other research and extension activities as well. After two years as a virtual conference, B.E.V. NY was held as a hybrid event in Syracuse, NY. It was wonderful to be able to gather in person again and take advantage of all the networking and learning that happens at the conference every year. We also returned to in-person Tailgate Meetings, which are held at multiple farms in the region each year.

In the field, we continued to work on developing recommendations for non-chemical management techniques to manage sour rot, particularly the use of UV light. We also continued to work with growers on using the MyEV vineyard mapping tool, which allows growers to understand the spatial variation of information from their vineyards. This knowledge can lead to a better understanding of how to deploy resources to address that variation in ways that help growers solve problems or improve the sustainability and profitability of their vineyards.

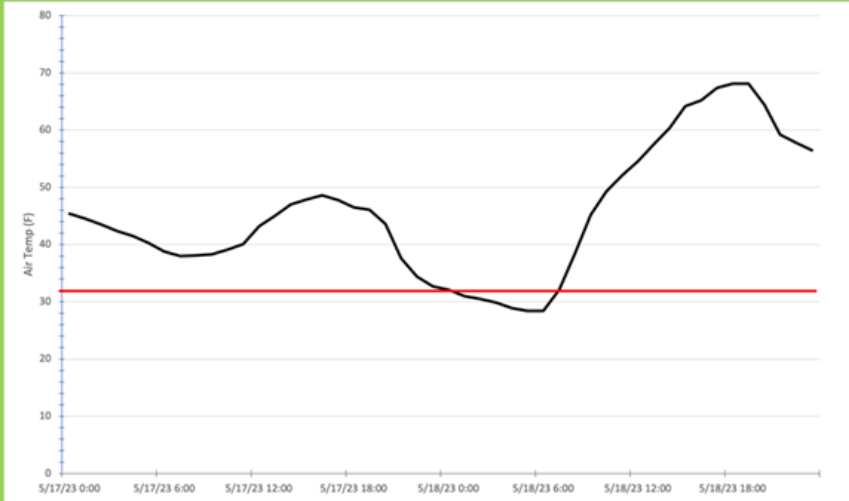
Part of what makes grape growing so interesting in this part of the world is that no two seasons are the same. The Finger Lakes Grape Program's mission is to give growers the best information possible on how to adapt to what each season gives us, whether that's a damaging freeze, a new pest, or an abundance or dearth of rainfall so that they can continue to succeed. We are proud to do this work with them.



*Pictured (from left to right): Donald Caldwell, Hans Walter-Peterson, Ellen Coyne, and Brittany Griffin*

## Unprecedented Spring Freeze Event Impacts Finger Lakes Vineyards

On May 18th, 2023, vineyards in the Finger Lakes experienced the worst spring freeze event that growers can remember. Temperatures fell below freezing around midnight and continued to drop for several hours, before finally rebounding shortly after sunrise (see chart below). Most grapevines by that point in the season had emerged from dormancy and had shoots anywhere from 2-6" in length when the cold temperatures arrived. Because of the duration of sub-freezing temperatures, the damage to shoots was quickly apparent, with shoots turning brown and black within hours of sunrise.



Left: Graph showing hourly temperatures at Branchport on May 17-18, 2023. Red line represents 32°F. Temperatures stayed below freezing from 12:00 – 7:00 AM.

Right: Shoots already brown and black from freeze damage less than 8 hours after the freeze event.

The worst of the damage generally occurred in vineyards on Keuka Lake and the southern portion of Seneca Lake, where some vineyards had almost 100% of their shoots killed by the freeze. Vineyards near Geneva and Dresden, along with most on the west sides of Canandaigua and Cayuga Lakes, suffered minimal damage in most cases. Our initial estimate right after the freeze was that the total grape crop in the Finger Lakes would be down by about 50% overall.



On May 26, NYSDAM Commissioner Richard Ball (center) visited Lakewood Vineyards as part of a tour to witness the freeze damage, with Dave Stamp (front left), vineyard manager at Lakewood, and Hans Walter-Peterson (right), Finger Lakes Grape Program.

On May 25th, 2023, the FLGP hosted an online meeting to discuss our initial findings about the frost and possible next steps for growers. Almost **200** people participated in the session, including growers from around the state, representatives of NY Farm Bureau, the NY Wine & Grape Foundation, the USDA, the Department of Agriculture & Markets, including Commissioner Ball, and staff members of several state and federal elected officials. The following day, Hans Walter-Peterson, FLGP viticulture specialist, accompanied Commissioner Ball as he visited several vineyards in the region that had experienced freeze damage.

After the freeze, the FLGP was continuously communicating with growers, the NY Wine & Grape Foundation, ag organizations, and federal, state and local agencies and representatives about our ongoing assessment of the impact of the freeze on the industry. Because the damage was highly variable throughout the region, it was difficult to estimate the overall yield loss. Some growers had little to no injury, while others saw almost a complete loss of their crop in some areas. Overall estimates from the FLGP and industry sources are that the region had a loss of about 40-50% of a full crop.

## B.E.V. NY 2023: Live and In Person!



For the first time since 2020, the **B.E.V. NY** conference was held at an actual venue with actual speakers and actual vendors and an actual audience of more than **300** people, plus an additional **180** who attended online. The conference was held at the Marriott Hotel in downtown Syracuse on March 28-30, 2023. The theme of this year's conference was "**Making, Measuring, and Marketing New York Wines**". Most of the speakers and panel discussions focused on how the use of data can help the industry to make better decisions in the vineyard, the cellar, and marketing and

sales programs.

One of the major highlights of the conference happened at the Unity Luncheon held on Tuesday, March 28th, when Dr. Bruce Reisch of Cornell AgriTech released a new cultivar from his breeding program, 'Aravelle.' The variety, formerly known as NY81.0315.17, is the result of a cross made between Riesling and Cayuga White back in 1981. There is a lot of potential for this to be a successful variety in the Finger Lakes and many other regions around the world because of its high wine quality combined with good disease resistance, especially to late-season bunch rots like sour rot. This is the final variety that Dr. Reisch will be releasing from his program, as his retirement became effective right after the conference.



*Cornell University grape breeder Bruce Reisch toasting his newest release, Aravelle.*

The viticulture program at B.E.V. NY, organized by the Finger Lakes Grape Program, featured speakers from both near and far. The viticulture keynote speaker was Dr. Mark Greenspan, a scientist and vineyard consultant in California, who talked about the importance of data in achieving vineyard goals, including fruit quality, productivity, management efficiency, and sustainability. In a follow-up session, Hans Walter-Peterson and Terry Bates from Cornell and Brent Sams with E&J Gallo talked about lo-tech and "mid-tech" options for data collection that growers can use now to get better information about the performance of their vineyards. Other sessions at the conference included discussions about soil health, pest and disease management, the status of the Spotted Lantern Fly, and an introduction to the MyEV digital vineyard mapping tool.



*FLGP viticulturist Hans Walter-Peterson moderates a soil health panel at B.E.V. NY 2023.*

## 2023 Tailgate Meetings



The FLGP's annual series of Tailgate Meetings started in May this year. These meetings are meant to be small, informal gatherings where growers and FLGP staff can discuss what is happening in the vineyards, ask questions of each other, and network with their peers. The first Tailgate Meeting this year was held at Lakewood Vineyards in Watkins Glen on May 16th, two days before the spring freeze that changed the course of the season. The freeze has been an important topic at these meetings this year, but there are still plenty of other issues that growers are facing this year that have been touched on at this year's gatherings.

### Tailgate Meeting dates and locations in 2023:

- **May 16th** – Lakewood Vineyards, Watkins Glen (Schuyler County) – **25** in attendance
- **May 30th** – Hosmer Winery, Ovid (Seneca County) – **55** in attendance
- **June 13th** – Glenora Farms, Dundee (Yates County) – **35** in attendance
- **June 27th** – Keuka Lake Vineyards, Hammondsport (Steuben County) – **17** in attendance
- **July 11th** – Young Sommer Winery, Williamson (Wayne County)
- **July 25th** – Gage Vineyards, Naples (Ontario County)
- **August 8th** – Tango Oaks Vineyard, Hector (Schuyler County)
- **August 22th** – Fox Run Vineyards, Penn Yan (Yates County)

# MyEV Mapping Tool Brings New Insights to Vineyard Management

## Mapping Tree-of-Heaven in Finger Lakes vineyards

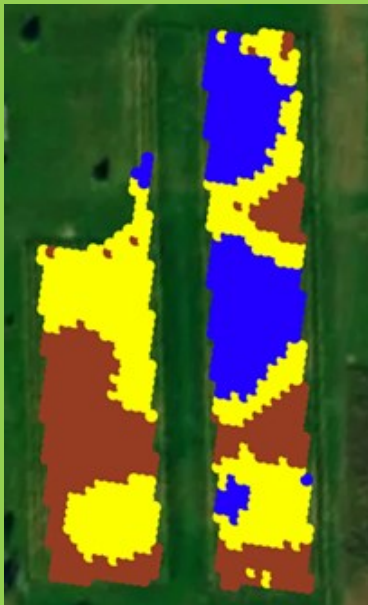
The Finger Lakes Grape Program was part of a grant-funded project with Greg Loeb, entomologist at Cornell AgriTech, to map the presence of tree-of-heaven (TOH) near vineyards. The invasive tree is the favored host of the spotted lanternfly (SLF), which also has an appetite for the sap from grapevines. Feeding by SLF on grapevines has been shown to impact the health and productivity of a vineyard if enough SLF are present. The mapping project is intended to provide information to both researchers and growers about potential “hotspots” for SLF activity when the invasive insect reaches the Finger Lakes, where it has not established any populations to this point, except for a small one in Ithaca.

As part of the project, growers are also being taught how to use the MyEV vineyard mapping tool to record the presence of TOH around their own vineyards. These maps are being consolidated into a single source of information that can be used to help guide efforts to locate monitoring and trapping locations to detect SLF in Finger Lakes vineyards as early as possible.



*Tree of Heaven adjacent to a Schuyler County vineyard*

## Mapping vineyard variation to improve management decision-making



*Predicted yield map for a Yates County vineyard based on NDVI and sampling data.*

The saying “You can’t manage what you don’t measure” has never been truer in grape production in recent years. The development and improvement of sensor and digital mapping technologies for vineyards is allowing farmers to gain more insight and understanding of their vineyards than ever before. The FLGP is part of a multi-year project, funded by USDA’s Agriculture & Food Research Initiative, to introduce growers to these new technologies and explore how they might improve vineyard management.

At three different times during the season, we collect NDVI (“normalized difference vegetative index”) data in several vineyards using proximal sensors that are driven between the rows on a tractor or all-terrain vehicle. The NDVI data, which represents the relative density of green plant tissue, is recorded by a logger that also records the location of each data point. That data is then loaded into the MyEV online tool and can be visualized on a map of the vineyard block. The spatial patterns of this information can help growers to decide how to address factors that cause this variation, such as thinning fruit from overcropped vines, or addressing soil issues that are hurting vine production in a certain part of the vineyard. The MyEV tool can be used to map almost anything a grower wants to measure in the vineyard, allowing them to better manage it.

## About the Efficient Vineyard Project

Funded through the USDA-NIFA-Specialty Crop Research Initiative, the Efficient Vineyard project is a national effort to advance the use of precision viticulture in wine, juice, and table grape production. The disciplines of engineering, precision agriculture, viticulture, and economics come together to measure vineyard soil, canopy, and crop characteristics, model spatial data for viticulture information, and manage vineyard crop load through variable-rate machine applications.

For more information or to create a MyEV account, visit <https://www.efficientvineyard.com/>.

## Finger Lakes Grape Program Hosts Sour Rot Summit

Sour rot is one of the costliest diseases for grapes in the eastern North America, where sugars in the berries get converted into vinegar and other undesirable compounds. This disease, which is caused by a complex mix of yeasts, fungi and bacteria and then spreads rapidly by fruit flies, can cost growers hundreds or even thousands of dollars of revenue per acre under the right (or wrong) conditions. In addition to the lost revenue, growers have already put most of their expense into that year's crop by the time this disease gets established, which only heightens the economic impact that it can have. For the past several years, the Finger Lakes Grape Program has been collaborating with colleagues at Cornell to try to develop viable, sustainable management solutions for this problem, but its complex nature makes it difficult to make progress.



In March 2023, the FLGP hosted an online meeting of **26** scientists and graduate students from **Cornell, USDA, Penn State, Ohio State, Michigan State, University of Maryland, and Brock University in Ontario**, who are working on understanding the mechanisms of sour rot and possible management solutions. In the morning, participants shared results from ongoing research and extension projects that ranged from field trials of spray materials to genetic studies of the microorganisms that are involved in the disease. The afternoon was mostly focused on considering what we could do next in terms of possible collaborations in both research and extension about the disease, including the potential for a multi-state effort which could help to coordinate the work being done.

This was the first time a meeting like this was held focused on this damaging disease, and participants felt the greatest value at this point was becoming familiar with what was being done in different states to address sour rot. The group agreed that we should continue to communicate on a regular basis in order to keep moving forward on this important issue for our grape and wine producers.

## FLGP Price List Documents Significant Increases in Grape Prices

For almost 25 years, the FLGP has published a list of grape prices from about 13-15 wineries and processors who purchase fruit from the region's vineyards. The prices are compiled by the FLGP and published for the industry's benefit each year. This year's listing can be found on the 'Business and Marketing' part of the FLGP's website, <https://blogs.cornell.edu/flxgrapes/> (or you can scan the QR code below to access the list from your smartphone).



In **2023**, grape prices increased for most varieties (**52 out of 72 reported**) by an average of **6.3%** overall compared to 2022. Some cultivars such as Concord, Niagara, Lemberger, Cayuga White and Chardonnay, increased by more than **10%** over last year's average prices. For some varieties, such as Riesling, Cabernet Franc, and Pinot noir, this continues a pattern of steadily increasing prices over the last several years. Prices for native and hybrid cultivars have been relatively flat until the last year or two.

These increases are likely due to a couple of factors: **1)** the freeze event in May caused significant injury in many vineyards, which will result in a below average crop for the second year in a row for many growers, and **2)** a slow but steady increase in demand for Finger Lakes grapes



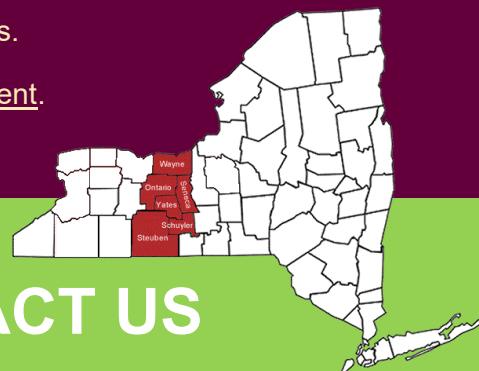
# ENROLL IN THE FLGP

Enrolling in the FLGP gives growers access to research-based information that enhances productivity, profitability, and sustainability of the grape industry in the Finger Lakes region.

Benefits of enrollment in the FLGP include:

- *Finger Lakes Vineyard Update* – our weekly electronic newsletter sent every week during the growing season.
- *Veraison to Harvest* - weekly updates on fruit maturity and other harvest-related information leading up to and during harvest season.
- Important announcements about upcoming events, meetings and workshops.

For more information or to enroll online, visit <http://flgp.cce.cornell.edu/enrollment>.



## FLGP Industry Advisory Committee Members

### Ontario County

Eric Amberg, Amberg Grapevines  
TJ Brahm, Randall Standish Vineyards

### Schuyler County

Tina Hazlitt, Sawmill Creek Vineyards  
John Santos, Hazlitt 1852 Vineyards

### Seneca County

Cameron Hosmer, Hosmer Winery  
Ian Wagner, Wagner Vineyards

### Steuben County

Peter Weis, Weis Vineyards  
Matt Doyle, Doyle Vineyard Management

### Wayne County

Steve Sklenar, Sklenar Vineyard  
Herm Young, Young Sommer Winery

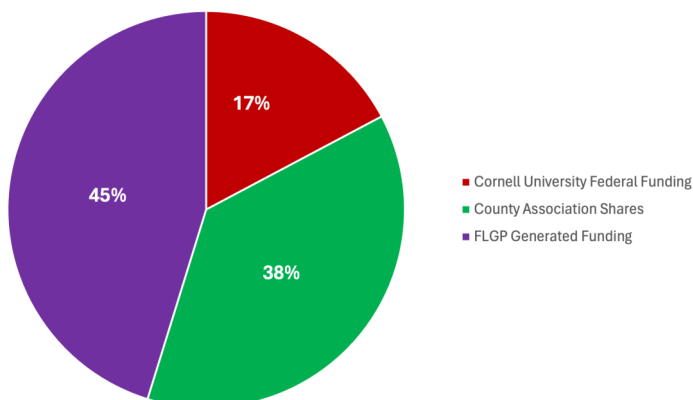
### Yates County

Tara Farnan, Buzzard Crest Vineyards  
Adam Folts, Vineyard View Winery

### Other Members

Chris Gerling, Cornell AgriTech  
David Orzel, Nutrien Ag Solutions  
Justine Vanden Heuvel, Cornell University

FLGP Funding Sources in 2023



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## Cornell Cooperative Extension Finger Lakes Grape Program

<https://blogs.cornell.edu/flxgrapes/>



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