The Finger Lakes experienced one of the worst spring freeze events in history this year. On May 18, temperatures dropped below freezing for several hours in many locations, causing significant damage to young shoots that had just emerged. Damage estimates ranged anywhere from almost nothing to 100% injury. The FLGP has been working to assess the amount of damage in the region since then, and has been communicating with federal, state and local officials and agencies, along with other ag organizations, on the status of this year's crop. Our current estimate is that the grape crop in the region will be about 30-40% lower than average overall.

Even after a historic freeze event, the growing season goes on, and the FLGP started its annual meeting schedule with the Spring Grape IPM Meeting held at Clearview Farms in Branchport on Tuesday, May 2. Growers received important updates on different pest management issues including sprayer maintenance and late season cluster rots. Almost 100 growers attended this year’s meeting.
On May 18, 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 (photo below).

Unprecedented Spring Freeze Events Impacts Finger Lakes Vineyards

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For some growers in the Finger Lakes, this was the second year in a row with a significant winter event causing damage to their vines. In January 2022, the region was hit with nighttime low temperatures that were well below those where grapevine buds (or even whole vines) would survive. As a result, the 2022 crop for some varieties, especially high value vinifera ones like Riesling, Gewürztraminer, and Pinot noir, were lower than normal. A second year in a row of low yields will mean that some growers will need to consider cutting production and/or labor costs this year and put additional financial stress on their businesses to bounce back next year.

Staff from the Finger Lakes Grape Program spent the next several days visiting vineyards throughout the region and talking with many of the region’s grape growers to get a sense of which areas were most heavily impacted and to what extent. 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 25, 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.

Estimating yield loss after a spring frost event like this is not as simple as estimating how many shoots were killed. Like many other perennial plants, grapes have “backup systems” in place to help them survive after an event like this. These systems are in the form of secondary and tertiary buds that exist in the same node as the primary shoot, and which can become shoots with leaves and clusters on them if the primary shoot dies. The primary shoot is the one that carries most of the clusters in most grape varieties, but not necessarily all of them. The secondary shoots, and sometimes even tertiary shoots, can also have clusters on them, which could emerge and help to make up for some of the lost crop after a freeze event. Because of this, any accurate estimate of crop after the freeze would require hundreds of person-hours to go out to vineyards and count clusters on vines to see how many actually emerged, which we did not have the capacity to take on.

In the weeks since the freeze, the FLGP has been 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. Currently (July 2023), we are anticipating a slightly better outcome for the industry, with regard to yields, than our initial estimate of 50% yield loss. The full impact of the freeze won’t be known until this fall when the fruit is harvested.
On May 2, 2023, the FLGP hosted its annual Spring IPM Meeting for the industry. This year’s meeting was held at Clearview Farms in Branchport, NY and was attended by almost 100 growers, field representatives, and sponsors. The objective of the meeting each year is to provide growers with the latest information on insect, weed and disease management and other important issues related to vineyard pests at the beginning of the season. This year’s speakers included:

- David Combs, Cornell AgriTech – Sprayer maintenance and disease management
- Dan Olmstead, NYS IPM Program – Using weather data to improve pest management
- Katie Gold, Cornell AgriTech – Disease management update
- Hans Walter-Peterson, Finger Lakes Grape Program – Update on managing sour rot in vineyards

Participants were eligible to receive 1.5 pesticide recertification credits for the meeting, and a delicious fried chicken dinner from Seneca Farms capped off the evening.

FlGP Hosts Annual Spring IPM Field Meeting in Branchport

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 simply network with their peers. The first Tailgate Meeting this year was held at Lakewood Vineyards in Watkins Glen on May 16, two days before the spring freeze that changed the course of the season. The freeze has been an important topic at these meeting 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.

2023 Tailgate Meetings Begin

Tailgate Meeting dates and locations in 2023:
- May 16 – Lakewood Vineyards, Watkins Glen (Schuyler County) – 25 in attendance
- May 30 – Hosmer Winery, Ovid (Seneca County) – 55 in attendance
- June 13 – Glenora Farms, Dundee (Yates County) – 35 in attendance
- June 27 – Keuka Lake Vineyards, Hammondsport (Steuben County) – 17 in attendance
- July 11 – Young Sommer Winery, Williamson (Wayne County)
- July 25 – Gage Vineyards, Naples (Ontario County)
- August 8 – Tango Oaks Vineyard, Hector (Schuyler County)
- August 22 – Fox Run Vineyards, Penn Yan (Yates County)
Proposals Funded


Presentations


“I Heard It Through the Grapevine” - Panel discussion about grape growing and climate change as part of FLXCursion. June 19, 2023.