

Cornell Cooperative Extension

Finger Lakes Grape Program



August 9, 2023

Finger Lakes Vineyard Update

In the Vineyard



Pinot noir on east side of Seneca Lake going through veraison - August 8, 2023

Veraison is showing up in more of the earlier cultivars, including, Pinot noir (photo), Zweigelt and some others. I did not notice any color or softening in Concords, Chardonnay, Riesling, Cabernet Franc, and a few other cultivars where I stopped this week, but the process should start soon in those cultivars as well.

With all the rain this season, combined with the freeze damage to primary shoots in many vineyards, shoot growth is very strong in many

blocks, and there has been a lot of summer hedging going on lately in vertically shoot-positioned vineyards. The main purpose for summer hedging is to remove the portions of the shoots that are or will create shade in the fruiting zone. This will happen either when the upper portion of the canopy gets so tall that it casts a shadow on the fruiting zone on adjacent rows for some portion of the morning or afternoon, or when the shoots bend over from their own weight and shade the clusters. Hedging on the sides is usually needed when laterals develop in the fruit zone even when the tops of the shoots haven't been cut off. Along with leaf pulling, this helps to keep the fruit zone exposed to more air movement and sunlight, which both helps to lower disease pressure and improve fruit quality.

Ideally, we wouldn't need to hedge at all. As with a lot of our viticulture practices, it's something that we do because there are factors that keep the vines from achieving the desired balance of fruit and vegetative growth. Some of those factors are in our control (e.g., vine spacing, pruning levels, trellis choice, site selection) and others are not (e.g., rainfall).

The primary consequence of summer hedging is that lateral shoot growth will be promoted because the primary shoot tip is removed. Lateral growth will tend to be stronger from the nodes nearest to where the cut is made, but high vigor shoots might push laterals out at almost every node below where the cut was made. This could actually make the shading problems in the fruit zone worse than the original shading concerns from the tall primary shoots.

These new lateral shoots are also magnets for disease development once they are exposed to the environment. A couple of weeks after a late summer hedging, it is not uncommon to find new outbreaks of downy mildew in the upper part of the canopy where these new laterals started to grow. Very few fungicides are "highly systemic", meaning that they can be transported from where they were applied to other parts of the plant through the vascular system. To prevent new fungal infections on these new shoots, growers should be prepared to get a

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Somebody needs a haircut...

In the Vineyard (continued from pg. 1)

combination of post-infection and protective materials on these new tissues to keep them from becoming hot spots for further disease development.

Minimizing the amount of summer hedging required each year can help to cut vineyard management costs, reduce the need for pesticide applications, and possibly increase fruit quality by reducing late-season shading of the fruit by laterals.

Here are a few considerations on how to possibly reduce summer hedging, or ways to reduce its negative impacts:

- Choose a lower vigor site (less fertile soils, less water holding capacity) to reduce growth capacity.
- Plant vines further apart so more buds can be retained per vine. This will help to increase the number of sinks for the water, nutrients and photosynthates and decrease the vigor on individual shoots.
- Plant rows further apart. This will reduce shading in the fruit by tall shoots in adjacent rows
- If you are applying nitrogen fertilizers, or materials that increase organic matter, stop using them.
- Increase the height of the trellis to whatever is still practical. If the crop is picked by machine, this would usually be the maximum height that could fit through the mechanical harvester.
- Raise the cutting bar on the hedger as high as practically possible. This will help to keep the stronger lateral growth further up the shoots, away from the fruiting zone.



Petiole Testing at Veraison

Now that veraison is upon us, between the botrytis sprays and the final preparations before harvest, it's also time to think about taking petiole samples. Petiole sampling has traditionally been done in eastern viticulture at approximately 70-100 days after bloom, which just happens to coincide nicely with veraison for many varieties, and therefore the standards that have been used to determine nutrient status are based on samples being taken at this point of the season.

Samples taken at veraison are best taken as part of a vineyard's regular nutrition management regimen, as any deficiencies that are noted at this point in the season will be difficult to alleviate before harvest. This is one advantage that taking petiole samples at bloom can have over those taken at veraison. However, samples taken at veraison are considered to be better indicators of vine nutrient status for some nutrients, such as potassium.

When collecting samples at this point in the season, there are several key things to remember in order to make sure you are getting as accurate of a representation of nutrient status as possible:

- *Take petioles from the "most recently mature leaf" on the shoot.* What does that mean? Starting at the shoot tip, work back down the shoot until you reach the first leaf that appears to be about full size. This is usually somewhere around 4-6 leaves back from the shoot tip. At this point in the season, basal leaves will usually be mobilizing some elements to new leaves, so petioles from these leaves will not be representative of the true nutrient status of the vine.
- *Try to only take petioles from shoots that are bearing fruit.* Non-bearing shoots don't have fruit to balance the nutrient demand of the shoot. Including more than a few of these petioles in a sample may mask a deficiency.
- *Take separate samples for each variety/rootstock combination. Also separate by major soil types if possible.* Each of these factors will have an impact on the nutrient status of your vines. If you lump them all into one sample, you may again be masking possible deficiencies that are developing in a certain portion of the sampling area.
- *Each sample should contain about 50-75 petioles per sample.* Varieties with larger petioles, like Concord, can have fewer petioles per sample, while those with smaller petioles, like some hybrid and *vinifera* varieties, should lean towards the higher end of the range. Take no more than two petioles from any single vine.
- *Each sample should represent no more than about 5 acres.* This is true even if the vineyard is very uniform.

Wash samples before submitting them. Dust and traces of chemical or foliar nutrient sprays used during the season can impact the results of the tests, particularly for some of the micronutrients. Make sure to wash petioles in warm water with a couple of drops of detergent (less than one minute) and rinse them in order to remove as much of these elements as possible. Allow the petioles to dry for a couple of days before submitting them.



Penn State Looking for Grower Feedback on Leafroll Virus

The PSU Wine and Grape Team is asking for grower participation in their *Grape Leafroll Virus Survey*, an important initiative aimed at understanding and combating the Grape Leafroll Virus (GLRV).

Grapevine leafroll-associated viruses (GLRV or Grape Leafroll Virus Disease) are widespread in many grape growing areas in the mid-Atlantic region. As the mid-Atlantic region becomes more heavily invested in cultivars of *Vitis vinifera*, which are most susceptible to the effects of these viruses, the disease caused by these viruses will inevitably become a more severe problem for our grape and wine industry. With this survey, we would like to investigate strategies that growers like you would use to control these viruses.

Please use the following link to access the survey: https://pennstate.qualtrics.com/jfe/form/SV_8kT0ehBTZGuQEJ0

Your input and participation in this survey are crucial to the success of our collective efforts in combating GLRV. If you have questions about this survey, don't hesitate to get in touch with Claudia Schmidt, Assistant Professor of Agricultural Economics, Penn State (czs786@psu.edu).

Upcoming Events

Don't forget to check out the calendar on our website (<http://flgp.cce.cornell.edu/events.php>) for more information about these and other events relevant to the Finger Lakes grape industry.

Tailgate Meeting

August 22, 2023 4:30 – 6:00 PM
Fox Run Vineyards
670 Route 14, Penn Yan, NY



Our final Tailgate Meeting will be on Tuesday, August 22 at Fox Run Vineyards near Penn Yan. These meetings are a time for growers and the FLGP staff to discuss what's going on in the vineyards, ask questions, and learn from each other. There is no set agenda for the most part, so bring questions, observations, thoughts, etc. and let's talk about them. Each meeting has been approved for 1.25 pesticide recertification credits by DEC.

Gold Vineyard Pathology Field Day

Wednesday, September 6 9:00 AM
Jordan Hall @ Cornell AgriTech
630 W North Street, Geneva NY

Registration by email to Dave Combs at dbc10@cornell.edu by September 1.

The Gold pathology lab is hosting a field day on Wednesday September 6th at Cornell AgriTech in Geneva. Registration will start at 8:30AM at Jordan Hall and the program at 9:00AM. This will be open to industry representatives as well as New York grape growers who want to see not only the technology that the lab is working with for early grape disease detection, but also have a rare opportunity to peruse the vineyards where the fungicide efficacy trials take place at Cornell AgriTech. Some of the technology that will be demonstrated will be the phytopatholobot- capable of detecting disease with HD cameras; Mjollnir and M-600 drones – equipped with lidar, multispectral and hyperspectral cameras, as well as the handheld hyperspectral camera – recently proven to detect the longevity of active fungicides on the leaf surface. Lab members will also be discussing the extensive fungicide testing programs against powdery mildew, downy mildew, black rot, botrytis, sour rot and phomopsis. Carpooling is encouraged as travel to the field sites will be in personal vehicles.

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2023 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
8/2/23	79.2	51.8	0.00	15.5	1644.6
8/3/23	84.4	62.4	0.00	23.4	1668.0
8/4/23	84.0	66.2	0.00	25.1	1693.1
8/5/23	75.4	58.6	0.00	17.0	1710.1
8/6/23	83.5	55.6	0.00	19.6	1729.7
8/7/23	85.1	68.5	1.46	26.8	1756.5
8/8/23	70.9	65.7	0.02	18.3	1774.8
Weekly Total			1.48"	145.7	
Season Total			17.53"	1774.8	

GDDs as of August 8, 2022: 1943.8

Rainfall as of August 8, 2022: 11.42"

Seasonal Comparisons (at Geneva)



Growing Degree Days

	2022 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-) ³
April	135.9	62.8	+13
May	216.8	256.3	+3
June	470.9	484.6	+3
July	702.1	646.1	+4
August	153.1	597.4	+3
September		360.2	
October		112.5	
TOTAL	1678.8	2519.8	

¹ Accumulated GDDs for each month.

² The long-term average (1973-2022) GDD accumulation for that month.

³ Numbers at the end of each month represent where this year's GDD accumulation stands relative to the long-term average. The most recent number represents the current status.

2023 GDD & Precipitation

Precipitation

	2023 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	5.73"	2.80"	+2.97"
May	1.90"	3.07"	-1.17"
June	4.61"	3.56"	+1.05"
July	5.64"	3.43"	+2.21"
August	.47"	3.21"	
September		3.47"	
October		3.41"	
TOTAL	18.35"	23.02"	

⁴ Monthly rainfall totals up to current date

⁵ Long-term average rainfall for the month (total)

⁶ Monthly deviation from average (calculated at the end of the month)

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Additional Information

Become a fan of the [Finger Lakes Grape Program on Facebook](#), or follow us on [Twitter \(@cceflgp\)](#) as well as YouTube. Also check out our website at <http://flgp.cce.cornell.edu>.

Got some grapes to sell? Looking to buy some equipment or bulk wine? List your ad on the [NY Grape & Wine Classifieds website](#) today!

Finger Lakes Grape Program Advisory Committee

Eric Amberg- Grafted Grapevine Nursery

Gregg McConnell- Farm Credit East

Matt Doyle- Doyle Vineyard Management

Tara Farnan- Barrington Cellars

Chris Gerling- Cornell University Extension

Mike Colizzi- E & J Gallo

Tina Hazlitt- Sawmill Creek Vineyards

Cameron Hosmer- Hosmer Winery

Herm Young— Young Sommer Winery

John Santos- Hazlitt 1852 Vineyards

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Peter Weis — Weis Vineyards

Adam Folts—Vineyard View Winery

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Cornell Cooperative Extension Finger Lakes Grape Program

Hans Walter-Peterson—Team Leader

Donald Caldwell—Viticulture Technician

The Finger Lakes Grape Program is a partnership between Cornell University and the Cornell Cooperative Extension Associations in Ontario, Seneca, Schuyler, Steuben, Wayne and Yates Counties.

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