Cornell Cooperative Extension
Finger Lakes Grape Program

May 19th, 2021

Finger Lakes Vineyard Update

In the Vineyard

In This Issue:

The return of sun and warmer temperatures has given shoots a kick start this week. Growth stage at this point depends on where you are and what cultivar you're talking about, but in general we're anywhere from 1-5" in most places. In the blocks that I've been in the past week, I see no real evidence of significant injury from frost or winter temperatures, and budbreak seems to have gone smoothly for the most part. The most significant issue at the moment seems to be an influx of gypsy moth larvae that are appearing in vineyards in the western portion of the Finger Lakes (see the IPM section for more on that).

This also means that we are reaching the window for shoot thinning, which can have a number of benefits for vineyard management. The practice is best accomplished now when the shoots' attachment to the cane or spur is relatively weak, before the base of the shoot starts to lignify. At this point in their development, the shoots are relatively easy to break off cleanly, without causing any damage to the bark or cambial layer just before the surface.

Precision shoot thinning by machine is becoming a viable practice in vineyards, which will allow for the practice to be done in a less expensive and more timely manner.

Shoot Thinning

From a viticulture perspective, this is the point in the season to be thinking about shoot thinning, as the shoots are far enough advanced to see how many and where the shoots will be growing on the vine this year. Generally speaking, shoot thinning is a practice that is mostly done in VSP-type training systems, and in higher-priced varieties where the cost of the necessary hand-labor can be recovered. However, Terry Bates and his team at CLEREL have been working for several years on variable rate mechanical shoot thinning in Concord, and have shown that the practice can benefit growers in that portion of the grape market as well.

Shoot thinning reduces the number of total shoots on the vine, generally by removing non-count shoots that are either fruitless or just in the wrong place based on the overall structure of the canopy that is being created. Shoot thinning accomplishes a few important things in the vineyard:

- It reduces canopy density, thereby improving light penetration and airflow which aid in disease management.
- Increased light interception by basal buds improves bud fruitfulness in the following year.
- Improving fruit exposure to sunlight can impact color and flavor development towards the end of the season.

The impact of shoot thinning on fruit quality parameters that are generally associated with crop load (e.g., brix) depends on the amount of fruit on the vine relative to canopy size after the thinning compared to that beforehand. If the vine is balanced or undercropped during the season, and bearing shoots are removed, then removing more clusters and some leaves will result in vines that are even more undercropped. Removing non-bearing shoots, however, reduces the amount of leaf area while holding the vine's crop constant, which would increase the crop load of the vine. In an overcropped situation, however, thinning out bearing shoots can help to bring the vine closer to a more balanced state between fruit and leaf area.

More information about shoot thinning can be found on our website in the article "Shoot Thinning: Good for the Vines, but good for the wines?", which appeared in the Vineyard Notes newsletter several years ago. Gillian Trimber, former viticulture educator with the FLGP, also developed a very good short video on shoot thinning which you can find on our YouTube page at https://www.youtube.com/watch?v=kPxoGvNrrZY.

IPM

Most natives and hybrids are at or nearing the 3-5” growth stage, which means growers should be planning on their first application for *phomopsis* control, if it hasn’t been applied already. While the weather has been dry this past week which has kept phomopsis pressure low so far (phomopsis spores spread by rain splashing, which carries them to new tissues), I still think that the protection that this spray gives to the young clusters and stems makes it worthwhile to apply it. If the weather continues to stay dry and pressure remains low, then I think it can make some sense to look at stretching spray intervals a bit. However, if the shoots keep growing at this rate, they will reach the 10-12” growth stage fairly soon, when powdery and downy mildew become concerns and the first sprays for those diseases will need to go on.

Phomopsis infections overwinter on older wood like the trunks, cordons and canes. The more of this wood there is, especially higher on the trellis, the greater the potential for phomopsis infections to get established when the conditions are right (i.e., wet). Because it is spread by water splashing on new spores, varieties that are trained to high-wire trellis systems are more susceptible to infections than those trained to low-wires, like most *vinifera* varieties. This doesn’t mean, however, that phomopsis doesn’t affect those vines, but rather that under similar circumstances they will be somewhat less susceptible to new infections than high-trained systems simply because of their structure.

Phomopsis lesions will appear on leaves as small brown spots surrounded by a yellow "halo".

Phomopsis infections at the base of the shoot will appear as black lesions or streaks. These infections can weaken shoots and cause breakage if severe enough.

Gypsy Moth Larvae

Over the past week, growers around Canandaigua and Keuka Lakes have been seeing an influx of gypsy moth larvae into their vineyards. High populations started to become visible last year in parts of Ontario and Yates counties, and we are seeing the next cycle of larvae from that outbreak.

The larvae are small, dark-colored, and hairy, and about ¼” long. They produce webbing that is connected to shoots, leaves, canes, wires and posts. Gypsy moth larvae are known to feed on hundreds of different tree species, including oak, apple, birch, elm and even conifers like pine and spruce.

Gypsy moths are generally considered to be pests for foresters and landowners, and less so in agricultural settings, although they will feed on fruit trees. We have very little experience with gypsy moths in vineyards, and therefore it’s hard to say just what kind of impact they will have this early in the season. I heard about one grower’s recollection about an infestation back in the 80s, saying that there seemed to be very little damage from the gypsy moths to vineyards. But the high numbers of larvae that are present in some of these blocks, plus their wide range of host plants that they feed on and their ability to defoliate trees quickly,

IPM

still make them a cause for concern if they do start chewing on the leaves.

In the vineyards around Canandaigua Lake that I visited yesterday, I saw no signs of damage to young leaves or clusters so far, even though numbers of larvae were quite high in some cases. While I certainly wouldn't blame a grower with high numbers of these larvae to go ahead and apply something to knock them down, at this point I would suggest waiting until we see if they start causing damage.

As far as materials that are labeled for use against gypsy moth, there are almost 300 listed in the DEC Pesticide database, but there aren't too many that are labeled for use in grapes. Biopesticides that contain Bacillus thuringiensis (Bt) bacteria have demonstrated to be effective materials for use against gypsy moths. The larvae ingest the bacteria as they feed, and the bacteria then kill the larvae from the inside. Because the larvae need to ingest the material, thorough coverage of the shoots is critical for effective control. There are a few of these materials labeled for use in grapes, including Dipel, Javelin and Leprotec (as always, this isn't an endorsement of these products - these are just the ones that I currently am aware of).

This is a new "pest(?)" that we haven't really dealt with in grapes, so we are still learning about the best approach with these larvae. As I said, for now I suggest sitting tight until we see if they actually do any damage to the leaves, or if they just look scarier than they really are. I will be back in a few of these vineyards early next week to check on what impact they are having, if any. Based on what we see and learn, we will keep offering up ideas on how to economically manage these new critters in the vineyards. In the meantime, please get in touch if you have questions or observations you want to share.

Cornell AgriTech
New York State Agricultural Experiment Station
VIRGINIA TECH
PennState Extension

Eastern Viticulture and Enology Forum

Grower and Winemaker Town Hall: Questions From the Field and Cellar

In collaboration with viticulture and enology extension programs at: *Ohio State University, University of Maryland, Rutgers University, North Carolina State University, University of Tennessee, Texas Tech, Texas A&M, Iowa State University, Purdue University, University of Minnesota, Michigan State University, and the University of Wisconsin*

Regional viticulture and enology specialists will present a Grower and Winemaker Town Hall virtual meeting series to give seasonal updates and answer pre-submitted and live questions from grape and wine industry stakeholders.

There will be a total of four town hall meetings throughout the growing season. Meetings will be held from 3:00 PM to 5:00 PM on the following Tuesdays: June 8, July 13, August 10, and September 7. The first two meetings will be hosted by Cornell University and the second two meetings will be hosted by Penn State Extension. The structure of these meetings depends on pre-submitted questions.

Use this link to register and choose your breakout room (viticulture or enology) for the June 8 meeting.

Use this link to pre-submit questions for viticulture and enology specialists to answer live during the meeting.

Please feel free to submit questions related to any topic by June 1.

But please see below for the topic area suggestions for our first meeting on June 8th. Updated topic suggestions will follow in forthcoming meeting announcements.

Viticulture focus area: pre-bloom to post-fruit set management (canopy management, fruit zone leaf removal, nutrition, young vine establishment, fruit set, fungal disease management)

Enology focus area: filtration and bottling (types of filtration, filter pad maintenance & usage, pre-bottling sanitation, pre-bottling additions, bottling line cleanliness & quality controls)

-Cain Hickey, Beth Chang, and Tim Martinson
Eastern Viticulture and Enology Forum Hosts

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.

FLGP Virtual Tailgate Meeting
Tuesday, May 25 4:30 – 6:00 PM
Via Zoom
Registration link: https://cornell.zoom.us/meeting/register/tJwrceqprzksHNXJTbu-5ViDvfB9E0hcUObf

The first of our recurring series of virtual Tailgate Meetings will be held on Tuesday, May 25. As always, the agenda for these meetings are very loose, so please come with your questions, observations, opinions about what's going on in the vineyard.

Participants will need to register before attending their first virtual meeting in order to receive the Zoom link. Registration for the online Tailgate Meetings is only required once – the link you receive when you register will work for all four online meetings this year.

The virtual and in-person Tailgate Meetings have been approved for 0.75 pesticide recertification credits. We will also need to receive an image or photocopy of your pesticide license before the first meeting that you attend. These images/copies can be sent to Brittany Griffin at bg393@cornell.edu. More information will be included in your confirmation email.

FLGP In-Person Tailgate Meeting
Tuesday, June 8 4:30 – 6:00 PM
Clearview Farms (operated by the Tones family)
4150 Stever Hill Rd., Branchport NY

Our first "live" Tailgate Meeting will be held on Tuesday, June 8. These meetings are primarily intended for those who are not able to or prefer not to participate in our virtual Tailgate meetings. In accordance with our protocols for in-person meetings due to COVID-19, each meeting will be limited to 20 participants, and physical distancing and masks will be required for everyone who attends.

In order to track how many people are coming, pre-registration is required for each meeting. To register, please call Brittany Griffin at 315-536-5134, email her at bg393@cornell.edu, or register using the following link:

June 8 Tailgate Meeting (Clearview Farms): https://reg.cce.cornell.edu/InPersonTailgate1_10504

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EnoCert Classes for 2021

The EnoCert program is offered by Cornell's Enology Extension Laboratory. It is intended for current winery employees who would like to expand their practical knowledge of winery operations, or for motivated amateurs. All courses will be offered in one or two-day mix and match modules. Our goal is to provide a recognizable standard of training for participants who earn EnoCertification.

For more information, visit https://grapesandwine.cals.cornell.edu/extension/enocert/ or email Cortni Stahl at ckm53@cornell.edu.

ENOCERT 203: Winery Sanitation & Safety (pre-recorded on-line lectures)

Open May 21, 2021

Overview: EnoCert 203 now includes modules relating to the Food Safety Modernization Act (FSMA) and provides winery-specific training regarding the eight key sanitary practices and conditions as outlined in current Good Manufacturing Practices (cGMPs). Winery Safety and Sanitation is intended for all cellar personnel. Safety and sanitation are often overlooked in winemaking courses, but are essential to the production of high quality-and more importantly, LEGAL wines. In this digital learning course, participants will learn to identify and address safety hazards, the role of OSHA and other regulatory bodies, the difference between cleaning and sanitizing, and common areas of contamination in a winery setting.

ENOCERT 202 Certification Course: Tasting Room Sales Strategies*

NEW Online format! Synchronous sessions approx. 8:30 am – 12:00 pm

August 2, 2021

Overview: Most consumers' first contact with the New York wine industry is in a tasting room, so understanding their interests, motivations, and educational needs is key to promoting the industry as a whole and increasing individual sales. In this course, participants will learn how to engage guests to create a fun and profitable tasting room experience.

ENOCERT 101 Certification Course: Basic Viticulture & Enology* (Formerly new grower/new winery workshop)

NEW Online format! Synchronous sessions approx. 8:30 am – 12:00 pm

August 3-4, 2021

Overview: This course will cover the basics of grape growing from the ground up. Through live interactive lectures, participants will understand how vineyard site, climate, and trellising systems impact grape production and quality. Participants will also expand their understanding of production steps for specific wine types. Upon completing this course, attendees will learn how different wine types (white, red, rosé, sparkling) are produced, and the key decisions that need to be made to influence wine style.

2021 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	**Hi Temp (F)**	**Lo Temp (F)**	**Rain (inches)**	**Daily GDDs**	**Total GDDs**
5/12/2021	62.1	41.5	0.00	1.8	115.2
5/13/2021	66.5	42.8	0.00	4.7	119.9
5/14/2021	68.6	42.3	0.00	5.5	125.3
5/15/2021	71.6	44.7	0.00	8.2	133.5
5/16/2021	72.5	46.9	0.00	9.7	143.2
5/17/2021	76.7	50.5	0.00	13.6	156.8
5/18/2021	78.3	50.1	0.00	14.2	171.0
Weekly Total			**0.00”**	**57.6**	
Season Total			**3.94”**	**171.0**	

GDDs as of May 18, 2020: 75.7

Rainfall as of May 18,2020: 4.21”

Seasonal Comparisons (at Geneva)

Growing Degree Days

	2021GDD [1]	Long-term Avg GDD [2]	Cumulative days ahead (+)/behind (-) [3]
April	72.0	62.7	+2
May	84.5	254.6	-2
June		481.5	
July		646.4	
August		593.2	
September		358.7	
October		109.9	
TOTAL	156.5	2507.1	

[1] Accumulated GDDs for each month.

[2] The long-term average (1973-2019) 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

Precipitation

	2021 Rain [4]	Long-term Avg Rain [5]	Monthly deviation from avg [6]
April	2.34”	2.83”	-0.49”
May	1.07”	3.12”	
June		3.55”	
July		3.43”	
August		3.20”	
September		3.49”	
October		3.40”	
TOTAL	3.41”	22.89”	

[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)

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!

Cornell Cooperative Extension
Finger Lakes Grape Program

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.

Hans Walter-Peterson—Team Leader
Donald Caldwell—Viticulture Technician

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