

Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

Shoot growth accelerated a lot over the past week thanks to the arrival of something more closely resembling springtime weather. Early varieties like Marquette, Baco and Geneva Red are at about 4-6" in length (or more) by now, and Concords on Keuka Lake were close to that length as well. So far, budbreak has appeared fairly even, and the number of live buds appears to be along the lines of what we were expecting based on the winter injury sampling that we conducted at the end of the dormant season.

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Shoot Thinning

From a viticulture perspective, this is the point in the season to be thinking about shoot thinning, as the shoots are or soon will be 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.

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 <u>"Shoot Thinning: Good for the Vines,</u> <u>but good for the wines?"</u> which appeared in our newsletter a few 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 <u>https://www.youtube.com/watch?v=kPxoGvNrrZY</u>.

Speaking of shoot thinning ...



Heather Barrett and Scott Ebert with the Efficient Vineyard project setting up NDVI and soil EC sensors on a Kubota ATV at Stever Hill Vineyards yesterday. Yesterday (Wednesday, May 22), I spent a portion of the day with Terry Bates and a couple of his crew members from Cornell's Lake Erie Research and Extension Lab (CLEREL), as they scanned two Concord blocks near Stever Hill Vineyard to gather NDVI and soil data, in preparation to run a variable rate mechanical shoot thinner through a portion of these blocks. Terry demonstrated this system to growers in California earlier this spring (you can watch a video about this demonstration by clicking here), and we are fortunate that he will be doing a similar demonstration tomorrow afternoon at Stever Hill (see the Events page for more information, or visit <u>http://flgp.cce.cornell.edu/events.php</u>). With the shortage of labor to conduct important vineyard tasks like shoot thinning, the ability of mechanical systems to do this work will be more and more important for many vineyards to survive economically in the future. I encourage any growers who are interested to come to the demonstration tomorrow to hear Terry discuss the research behind the system, how it works, and to see it in action.

Mechanical shoot thinner at work in a Concord vineyard.



IPM

A number of growers have been out at least once, if not twice, already to apply materials to control phomopsis this spring. The shoot growth we saw this week means that the bases of the shoots and clusters are now exposed and more vulnerable to primary infections from overwintering fruiting bodies. Ensuring a good protective spray for phomopsis at the 3-5" stage of growth can be a major difference between good and poor control of this disease in a season like this. And given the amount of powdery mildew pressure we experienced in the latter half of last season (see the <u>Vineyard Update from 2 weeks ago</u> for more on this), it isn't surprising to hear about sulfur or some other material going into the tanks by now as well.

Mealybugs and Soft Scale



Earlier today, field technician extraordinaire Don Caldwell sent me this picture (left) from our Teaching Vineyard.

These are scale insects found under the bark of a cane in our Cayuga White vines. Along with mealybugs, these insects are vectors of grapevine leafroll virus (GLRV). The first generation of crawlers (young) are generally active during the late budbreak stage, and are more susceptible to a variety of insecticides at that point in the season (see Section 5.3 in the 2019 Pest Management Guidelines for a schedule and list of materials). In warmer parts of the Finger Lakes, we're probably past the point of optimal timing for a spray for these insects, although growers in Wayne County may still be in that window of opportunity. Once the crawlers have stopped moving,

however, the adults are generally found underneath the bark layer on the vine, and therefore much harder to control with insecticides that rely on some kind of contact. Another generation of crawlers will emerge in late June or early July, and once again can be pursued using a wider range of materials. Once they are lodged under the bark, more systemic materials like Movento are better options for control.

Before any consideration is given to spraying for these, take the time to scout for their presence. They are not easy to find because of where they hide (under the bark), but one potential symptom to look for is the movement of ants up and down the vine, as they tend these insects because of the carbohydrate-laden honeydew that they emit as they feed. Surveys conducted about 10 years ago in the Finger Lakes found very low levels of mealybug and soft scale in vineyards here, so again, the need for spraying to control these insects should be weighed against the cost of labor and materials for something that may or may not be problematic enough for control.

Upcoming Field Meeting with Dr. Richard Smart

The New York State Wine Grape Growers will be hosting a half day seminar on grape canopy management and grape vine trunk disease featuring Dr. Richard Smart, the "Flying Vine Doctor", on Monday June 3, 2019. The event will be held at Hazlitt 1852 Vineyards, 5712 Route 414, Hector, NY, from 1:00 – 5:00 PM. The seminar will be free to members of New York State Wine Grape Growers and their employees. The cost will be \$30 each for non-member. Those who are not members are encouraged to join NYSWGG at a reduced half year rate of \$40. We ask that anyone planning to attend make reservations to nyswgg@gmail.com to ensure we have space for everyone.

Dr. Smart has studied and lectured on grape growing all around the world, including in the Finger Lakes, where he did studies for his Doctorate under Dr. Nelson Shaulis at Cornell. His book, "Sunlight Into Wine", has been heralded for many years as the ultimate guide to canopy management for optimum yield and wine quality, and has been used by growers worldwide to increase their bottom line.

A wine and cheese reception will be held after the seminar for all who attend. We ask those attending to bring along a favorite bottle of wine to share. Cheese and snacks will be provided, and Women for New York State Wine will provide their services for the reception.

Other event sponsors:

- Chris King, Sawtooth Vineyard Management and Consulting
- Nutrien Ag Solutions
- Helena Agri-Enterprises



Richard Smart with Nelson Shaulis, his PhD advisor. Photo: www.smartvit.com.au

May 23, 2019

Upcoming Events

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

Variable Rate Shoot Thinning Demonstration

Friday, May 24 12:00 PM Stever Hill Vineyards 3962 Stever Hill Road, Branchport NY

Terry Bates, director of the multi-state *Efficient Vineyard* project, will be in Branchport this Friday, May 24, to demonstrate a variable rate shoot thinning system that uses NDVI sensor data to change the rate of shoot thinning on the fly. This work is being done in preparation for the Shaulis Symposium Field Tour this summer (see announcement below), which will feature several new and emerging vineyard technologies during the tour.

There is no cost to attend this meeting, or to pre-register. Just come and see where vineyard management is heading.

Tailgate Meeting #2Tuesday, May 284:30 – 6:00 PMJames Hicks Farm5305 Seneca Point Road, Canandaigua, NY

Our second Tailgate Meeting of the season will be held at Jim Hicks' vineyard on the west side of Canandaigua Lake. Pesticide credits will be available for each Tailgate Meeting this season. No registration required – just bring a chair and your questions and observations about what's going on in the vineyard.

Field Meeting with Dr. Richard Smart

Monday, June 3 1:00 – 5:00 PM Hazlitt 1852 Vineyards 5712 Route 414, Hector NY

Please see the announcement in this weeks' Vineyard Update for information about the program and how to register.

ASEV-Eastern Section Annual Meeting and Shaulis Symposium on Digital Viticulture

July 16-18, 2019 Hobart & William Smith Colleges, Geneva NY

A special vineyard tour and symposium entitled "Digital Viticulture: New Tools for Precision Management" will be featured as part of the annual American Society for Viticulture and Enology- Eastern Section (ASEV-ES) conference at Hobart and William Smith Colleges in Geneva, NY on July 16 through July 18.

The two-day program and vineyard tour will bring together suppliers, researchers, and growers to explore the tools and concepts of precision viticulture. New technologies, such as inexpensive sensors, digital imaging, geographical information systems, and precision machinery are converging to make precision viticulture possible. This field tour and symposium will focus on tools, concepts, and platforms for putting it all together to manage vineyards.

More information about the conference, field tour and symposium can be found at <u>http://www.asev-es.org</u>.



May 23, 2019

2019 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY						
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs	
5/16/2019	65.6	47.0	0.06	6.3	114.7	
5/17/2019	70.3	50.5	0.00	10.4	125.1	
5/18/2019	65.5	44.9	0.00	5.2	130.3	
5/19/2019	88.4	54.2	0.34	21.3	151.6	
5/20/2019	73.7	50.2	0.05	12.0	163.6	
5/21/2019	62.8	44.2	0.00	3.5	167.1	
5/22/2019	68.1	42.1	0.05	5.1	172.2	
Weekly Total			0.50"	63.8		
Season Total			5.15"	172.2		

GDDs as of May 22, 2018:	260.2
Rainfall as of May 22, 2018:	3.54"

Seasonal Comparisons (at Geneva) as of May 22

Growing Degree Days

	2019 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-) ³
April	48.1	64.1	-5
Мау	98.3	255.5	-8
June		480.9	
July		642.1	
August		592.7	
September		357.6	
October		110.1	
TOTAL	146.4	2503.0	

¹ Accumulated GDDs for each month.

² The long-term average (1973-2017) GDD accumulation as of that date in the 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.

2019 GDD & Precipitation (continued from page 5)

Precipitation

	2019 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	2.22"	2.85"	-0.63
May	3.06"	3.13"	
June		3.60"	
July		3.44"	
August		3.21"	
September		3.57"	
October		3.39"	
TOTAL	5.28"	23.16"	

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 <u>NY</u> <u>Grape & Wine Classifieds website today!</u>

Finger Lakes Grape Program Advisory Committee

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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 Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extension Associations in

Ontario, Seneca, Schuyler, Steuben, Wayne and Yates Counties.

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