

Finger Lakes Vineyard Update

In the Vineyard

Hans Water-Peterson

Note: Due to a work event that we will be attending, there will be no Vineyard Update next week. The Update will return on Wednesday, August 2.

It's official – as of this week, we have had more rain (at Geneva) this growing season – 17.4" - than we did all of last year's season. Last year was obviously a bit "abnormal" for the Finger Lakes (hopefully), but we have had as much rain as we would get on average by mid-September. All of this rain is having either of two effects in vineyards: 1) In most cases, the vines are producing large canopies, long shoots and large leaves, or 2) in some locations, vine growth is being hampered because the soils are so saturated that roots are unable to function properly. In a couple of these cases, there is some drain tile already in place, but with high enough clay content to hold the water, the soils may not have enough time to drain and allow oxygen to enter the soil profile before more rains arrive.

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Rainfall rates in some of these storms have been high, leaving lots of signs of surface erosion on gravel roads and in some vineyards as well (see photo). A few of the weather stations in the area estimated rainfall rates of close to 2" per hour during Monday's storms. I haven't looked at the data, but it seems that more of our rainfall lately has been coming in the form of these heavy storms than in the past, which can cause problems with erosion of topsoil from vineyards when soil is kept bare by herbicides or cultivation passes. I would suggest that this is another argument for growers to consider the use of a cover crop, or allowing weed growth under the vines, where it makes sense to do so from a viticulture perspective (e.g., those vineyard blocks where excessive vigor is a concern).

A cover crop under the trellis, like this grass, can hold soils in place better under heavy rainfall conditions.

IPM

Hans Walter-Peterson



We are starting to see more cases of powdery mildew showing up in vineyards in the last week or two. We always say that most of the growing season in the Finger Lakes is one long PM infection period, but lots of days with temperatures in the 80s, and increased cloud cover this year, are making things easier for the disease to establish itself even in vineyards where the spray program has been good up to this point. As mentioned in a couple of previous versions of the Update, the berries develop resistance to new infections after a certain point in their development. For powdery mildew, berries remain highly susceptible to infection for about the first 3 weeks after fruit set, and berries on vinifera and some hybrid varieties are still vulnerable until berry touch or so (in other words, about now). In addition to impacting fruit development on its own, PM infections, even those too small to see, are potential entryways later on for Botrytis infections to get established. Leaf and stem infections are still possible through harvest, but given the amount of leaf area that we are generating this year, having a few leaves with PM infections may not have too much of any impact on vine health.

Powdery mildew infections on Concord berries inside a dense canopy.

Botrytis

Speaking of botrytis, while anything is certainly possible in this highly variable climate of ours, a number of factors are lining up to increase the potential for a heavier than normal Botrytis year, including:

- the presence of powdery infections on berries, giving the fungus an entry to the ripening fruit
- large canopies that reduce the penetration of sunlight, air movement and spray penetration, and
- wet conditions during the bloom and post-bloom period.

Be sure to refer back to the Guidelines and your past spray records before we get to veraison to review the materials you have on hand, what you have used up to this point (and in the past couple of years) to see if you need to consider making any changes to the materials you need for controlling botrytis this year. Be sure that cultural practices are in place as well, like being sure that fruit zones have good exposure in order to encourage faster drying and air movement around the clusters. Hopefully I'm wrong about botrytis this year, but the odds seem to be moving towards it being a more difficult year for managing this disease.

Grape Berry Moth

The 2nd generation of GBM larvae are protected within berries right now, so hold off on the GBM spray for now. The next application window is when we hit 1620 GDDs, but only if scouting indicates that 15% or more of the examined clusters show signs of damage. If there is less than that threshold in areas where damage tends to be the heaviest, it probably makes sense to forego the spray for the time being, but to continue scouting to see if damage rates increase as we get into August.

July 20, 2017

Finger Lakes Vineyard Update

Finger Lakes Grape Program

IPM (continued from page 2)

Hans Walter-Peterson

Select a disease or insect: Grape Berry Moth	Map Results	More in	ifo						
State: New York	Grape Berry Moth Results for Dresden (FLGP/FLCC)								
		Wile	l Grape B	loom: 5/2	27/2017				
Weather station:	Wild Grape Bloom date above is estimated based on degree day accumulations or user input. Enter the actual date								
Dresden (FLGP/FLCC)	for blocks of interest and the model will calculate the results more accurately.								
Date of Interest: 7/19/2017	Accumulated de	egree days	(base 47.)	14°F) wild mis	i grape blo sing)	om throu	gh 7/19/2	017: 1167 (0 days
Calculate	Daily Degree Days for Dresden (FLGP/FLCC)								
	Base Temn	Past	Past	Current	5-D	ay Foreca	st Fore	ecast Deta	<u>ils</u>
	Dase Temp	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24

NA - not available

47.14F - GBM

Accumulation

Download Time: 7/19/2017

Pest Status	Pest Management
Second generation larvae are protected within berries and completing their development.	The most effective time for treatment of second generation grape berry moth is over. Prepare to scout all vineyard blocks for grape berry moth damage when DD accumulation reaches 1470-1620 DD. During scouting, determine if the number of damaged clusters from previous generation exceeds the treatment threshold of 15%. If above threshold, control measures should be applied starting at 1620 DD.

July 18th Tailgate Meeting Recap

Gillian Trimber

Cover crops, pallisage, managing vine size... all were discussed during last night's Tailgate Meting at Keuka Lake Vineyards in Hammondsport, where Justine Vanden-Heuvel joined us to talk about her research and to hear feedback from growers trying out the strategies she works on. We were also happy to have Jamie Earl there from the Farm Service Agency office in Bath to share about resources related to disaster relief and crop insurance. And, of course, there was plenty to hear about regarding pest, disease, and weed management as the rain continues to fall.

Canopies are definitely filling out, and a few questions came up regarding spray volume and canopy size, with several growers commenting on the difficulty of achieving good coverage on clusters under dense canopies. Getting turbulence that allows to the droplets to reach in and around clusters—often achieved with lower fan speed and smaller droplet size—is important in covering surfaces on the inside of the canopy. Based on work in the Lake Erie region with covered, recycling sprayers to measure how much pesticide stuck on the canopy and how much went past or through it, the amount of water needed really varies over the course of the season and with vine size; larger vines require a higher volume, and smaller vines are often over-sprayed, wasting material.

According to Justine, another significant waste of material, time, and cost is the over-use of herbicides in *vinifera* vineyards, where keeping a bare herbicide strip under the vines is often in direct conflict with growers' goals of maintaining low to moderate vine vigor and avoiding erosion. Though under-vine mowers can represent a large initial investment and may be difficult to run on steep slopes, their use can actually end up being more affordable than using herbicides, and there's always the option to switch back to herbicide use in a dry year. When one factors in the cost of hedging and leaf-pulling multiple times per year, the reduction in vigor that certain cover crops and native vegetation provide can also definitely help save money. Meanwhile, by sinking cameras into the root zone, Justine and her team found that vines with cover crops actually show increased root growth. For hybrids, *labrusca*-type grapes, and any vineyards where high vigor is the goal, cover crops in the row middles that can be killed at strategic times of year to form a mulch, remediate soil structure, and prevent competition can improve both vine size and yield, particularly in wet clay soils. Luke Haggarty, also at last night's meeting, shared some of what he had seen in his work on the subject in Lake Erie vineyards.

Many thanks to everyone that turned out for the meeting yesterday for joining the conversation, as well as to our guest speakers and to Mel Goldman and the team at Keuka Lake Vineyards for hosting us! Our next meeting will be August 1, 2017 at Bell Terre Farm in Sodus from 4:30-6 PM. See you there!



DEC 'Clean Sweep' Program Returning in Fall, 2017

CleanSweepNY is a project sponsored by the New York State Department of Environmental Conservation's Bureau of Pesticide Management that collects and disposes of canceled, unwanted, unusable, or otherwise obsolete pesticides and other chemicals from agricultural or non-agricultural businesses.

A collection event targeting the following counties will take place during the week of October 2nd: Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates counties.

The collection dates and locations are:

- Tuesday October 3rd Watkins Glen
- Wednesday October 4th Hornell
- Thursday October 5th Lakeville
- Friday October 6th Waterloo

Pre-registration is required and registration packets can be requested by telephone at 877-793-3769 or by e -mail at <u>info@cleansweepny.org</u>.

CleanSweepNY services are provided to farmers and owners of former farms, all categories of NYS certified pesticide applicators, cemeteries, golf courses, marinas, and other entities possessing unwanted or unusable pesticides and other waste chemicals. Each participant is responsible for transporting their materials to the collection site. Due to the low number of metal pesticide containers being turned in and due to the added cost for providing this service, CleanSweepNY will no longer collect for recycling any metal pesticide containers or drums.

For more information, visit <u>http://www.cleansweepny.org/index.cfm</u> or call 1-877-SWEEPNY (1-877-793-3769).

Cabernet Franc Sites needed for wine authentication study

The Vanden Heuvel research program is looking at the isotopic composition of soils and wines in different wine production regions in the East. Differences in isotopic elements occur among regions and are correlated with geological factors, soil and climate conditions, cultural practices used in vineyard and winemaking process. These isotopes can often be used for determination of regional origin.

Our goal is to characterize the stable isotope ratios (carbon, nitrogen, oxygen, hydrogen) in soil and wine from FLX, Long Island, and Virginia to determine whether these isotopes can be used to determine origin of grapes going into wines on the east coast.

We're looking to work with <u>vineyards in the FLX that grow and vinify Cabernet Franc from a single block</u>. We need to dig two, one meter deep soil pits in the block to collect soil from three layers (0-30cm, 30-60 cm, 60-90 cm (parent material)). The pits would be filled in immediately. We are then hoping to get a bottle of the wine donated from that block for each of the 2014-2016 vintages for isotope analysis. So, it's a single visit for the entire project and doesn't change your management at all.

If you are willing to donate the three bottles of wine and allow us to sample soil from your vineyard, please contact Justine at <u>jev32@cornell.edu</u>.

Interested in selectively harvesting?

Seeking participants for a research study

Selective harvesting for different grades of fruit quality in winegrape vineyards, guided by normalized difference vegetation index (NDVI) images, is commonly used by large wine producers around the world. Selective harvest has been demonstrated to improve net returns by as much as \$1880/acre in Australia, but the expense of hiring a service to image a vineyard has limited its adoption. This practice is now accessible to smaller producers due to the availability of comparatively low-cost drones that growers can use to independently image their vineyard blocks.



Figure 1: NDVI image of a vineyard block. The green areas represent vigorous sections (Zone A) while the red areas represent low vigor areas (Zone B). The two regions would be harvested and vinified separately.

The goal of this project is for 30 winegrape growers in New York State to evaluate how NDVI-guided selective harvest impacts net revenue in their vineyard. We will work one-on-one with industry collaborators to image blocks using our drone, develop selective harvest plans, assess fruit compositional differences, and determine the impact of the selective harvest on net revenue for the block.

The project is funded by the New York Farm Viability Institute.

If you are interested in participating in the project, please contact Justine Vanden Heuvel at <u>jev32@cornell.edu</u> by August 10, 2017.

Upcoming Events

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

Tailgate Meeting

Tuesday, August 1 4:30 – 6:00 PM Belle Terre Farm 8142 Champlin Road, Sodus, NY 14551

Our seventh Tailgate Meeting of the year will be held at Belle Terre Farm in Sodus, NY on Tuesday, August 1.

These meetings are held every other week at various grape farms around the Finger Lakes, and are intended to be informal, small-group meetings where FLGP staff and growers can ask questions and discuss issues about vineyard management, IPM strategies or other topics appropriate for that point in the growing season. 0.75 DEC recertification credits will be available.

NYS Wine Grape Growers Research Tour and Barbecue

August 2, 2017 1:00 – 9:00 PM Anthony Road Wine Company 1020 Anthony Road, Penn Yan, NY 14527

The New York State Wine Grape Growers will hold their Summer Research Tour and BBQ on Wednesday, August 2. This will be a time for growers and researchers to get together and learn from one another. There will be a tour of the New York State Experiment Station and the USDA Grape Repository in Geneva. Researchers will discuss and show off their latest work during the field tours. Immediately following there will be a BBQ at Anthony Road Wine Company to allow everyone to continue the conversation in a more relaxed atmosphere. The fee is \$5 per person, and please bring a bottle of wine to share.

Please RSVP to Mike Colizzi at mac252@cornell.edu. Please indicate if you will attend both the Tour and Picnic or just the Picnic.

EnoCert 101: Basic Viticulture & Enology EnoCert 201: Wine Sensory Analysis and Description EnoCert 202: Tasting Room Sales Strategies

August 14-15, 2017 (EnoCert 101) August 16-17, 2017 (EnoCert 201) August 18, 2017 (EnoCert 202)

All Programs held 8:30 AM - 4:30PM

Location: Finger Lakes Community College Viticulture and Wine Center, Geneva NY

Who should take these classes:

- Winery employees who came to wine from another industry
- Those who may be looking to enter the wine industry
- Anyone with significant interest in wine production or sensory analysis
- Tasting room employees

Registration link: <u>https://grapesandwine.cals.cornell.edu/extension/enocert/eno</u>

Registration Deadline: Monday, August 7 Registration contact: Sarah Lincoln, <u>sjl38@cornell.edu</u> or <u>315-787-2255</u> More information can be found at the Enocert website: <u>https://grapesandwine.cals.cornell.edu/extension/enocert</u> <u>Go to Top</u>



July 20, 2017



2017 Growing Degree Days and Rain Fall

FLX Teaching & Demonstration Vineyard – Dresden, NY						
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs	
7/12/17	82.7	68.9	0.14	25.8	1219.0	
7/13/17	74.4	63.9	1.17	19.2	1238.2	
7/14/17	85.1	66.0	0.65	25.6	1263.7	
7/15/17	75.5	64.1	0.00	19.8	1283.5	
7/16/17	86.7	61.9	0.00	24.3	1307.8	
7/17/17	79.0	65.4	0.13	22.2	1330.0	
7/18/17	82.7	64.0	0.00	23.4	1353.4	
Weekly Total			2.09"	160.2		
Season Total			15.41"	1353.4		

GDDs as of July 18, 2016: 1323.5

Rainfall as of July 18, 2016: 5.77"

Seasonal Comparisons (at Geneva)

Growing Degree Day

	2017 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-) ³
April	125.8	64.0	+12
May	219.1	252.7	+3
June	492.7	480.8	+3
July	372.9	641.1	+2
August		591.7	
September		353.5	
October		106.4	
TOTAL	1210.3	2490.3	

¹ Accumulated GDDs for each month. ² The long-term average (1973-2016) 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.



2017 Growing Degree Days and Rain Fall

Precipitation

	2017 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	3.42"	2.85	+0.57"
Мау	5.35"	3.08	+2.27"
June	4.00"	3.61	+0.39
July	4.69"	3.36	
August		3.13	
September		3.64	
October		3.22	
TOTAL	17.46"	22.95"	

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>

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