

Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

Veraison continues to march on in the Finger Lakes. At the Teaching Vineyard, Marquette and Jupiter (a seedless table grape) reached 50% veraison last week, and our other table grape, Marquis, hit that milestone this week. Cayuga White and Lemberger have started to change, and we have seen early signs of it in Pinot noir as well.

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While the recent rains have provided some relief from the borderline drought conditions we were in earlier, vineyards on soils with limited water-holding capacity are still showing signs of the effect of that stress. Vines in these areas have lighter colored leaves and clusters have fewer and smaller berries than those that have been able to tap into larger water reserves in the soil.



Impacts of water stress can be seen in vines on more restrictive soils (left) compared to those access to more water (right). Leaf color, canopy fill, cluster fill and berry size are significantly impacted, even between vines within the same block, as these two are.

IPM

With the presence of some more rain and more humid air, it is not terribly surprising to see a few more infections of various sorts popping up. At the Teaching Vineyard, we are seeing signs of small infections of botrytis starting to appear in a few Riesling clusters. The dry weather we had after bloom and during fruit set should have helped to keep early infections from getting to widely established, but at this point, it is almost never really surprising to notice a few infections of botrytis just before veraison hits, regardless of the weather earlier in the year.



In the Vineyard (continued from page 1)

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We have also been seeing some powdery mildew infections showing up recently, although as has been mentioned before, berries are resistant to new infections at this point in the season, so these infections happened earlier in the season and are now beginning to appear as conditions have been favorable for their spread.

Grape Berry Moth

The GBM model on the NEWA network indicates that most of our vineyard sites are at or approaching 1500 degree days (DD). This is the time to be scouting for GBM damage caused by the previous generation of larvae. If 15% or more of the clusters examined show evidence of berry moth damage, it is recommended that an insecticide application be made beginning when the model reaches 1620 DD. Based on the weather forecasts used in the model, most areas in the

NEWA Grape Forecast Models

Select a disease or insect:
Grape Berry Moth

State:
New York

Weather station:
Dresden (FLX TDV)

Date of Interest:
8/1/2018

Calculate

MapResultsMore info

Grape Berry Moth Results for Dresden (FLX TDV)
Wild Grape Bloom: 5/29/2018
Wild Grape Bloom date above is estimated based on degree day accumulations or user input. Enter the actual date for blocks of interest and the model will calculate the results more accurately.
Accumulated degree days (base 47.14°F) wild grape bloom through 8/1/2018: 1495 (0 days missing)

Daily Degree Days for Dresden (FLX TDV)

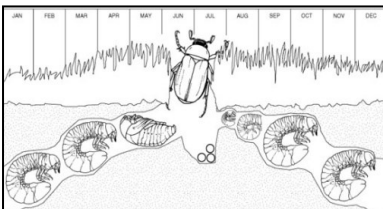
Base Temp	Past	Past	Current	5-Day Forecast					Forecast Details
	Jul 30	Jul 31	Aug 1	Aug 2	Aug 3	Aug 4	Aug 5	Aug 6	
47.14F - GBM	21	24	28	27	25	27	29	31	
Accumulation	1455	1479	1506	1533	1559	1586	1615	1646	

NA - not availableDownload Time: 8/1/2018

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

Japanese Beetles

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Life cycle of Japanese beetle. The beetles produce one generation each year. Source: <https://blogs.cornell.edu/jentsch/2016/07/03/japanese-beetle-emergence-stone-fruit>

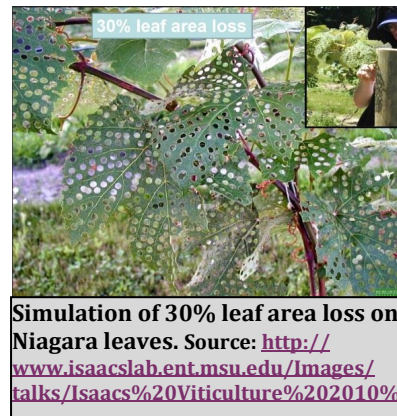
The most visible evidence of pest activity in most vineyards right now is feeding damage from Japanese beetles (JB). After relatively low levels of the insect in 2017, higher numbers have been appearing in vineyards this year. While the damage from Japanese beetles is often mostly cosmetic, sufficient predation of the canopy by the pest can cause problems with vine productivity and health.

Japanese beetles go through only one generation per year, so this year's population is dependent on how many eggs were laid by females last year, and how many larvae were able to survive underground as they developed before emerging from the soil as adults. The eggs and early larvae are vulnerable to dry soil conditions during the summer, which can reduce the number of larvae that survive and emerge as adults the following year (Pfeiffer and Schultz). This is probably at least part of the reason

that we are seeing higher populations this year, and why numbers were so low in 2017 following the previous year's drought.

Adults emerge from the soil in mid-summer and begin feeding and then mating and egg-laying. The big question, as always, is "How much feeding is too much?" In many cases, the amount of feeding that takes place is inconsequential to the overall health of the vine and its ability to ripen the fruit. The actual impact of feeding on leaves will depend on a few factors, including how much functional leaf area remains, the amount of crop hanging in the vines, and the cultivar.

Rufus Isaacs (Michigan State University) looked at the impact of 30% leaf area loss on non-bearing Niagara vines (see photo) and found that there was little effect on the amount of vine growth and the following year's crop. Higher value cultivars, however, should probably be considered to have lower thresholds of damage before taking action. Greg Loeb says that 15-20% foliar damage seems to have little to no impact on most vines, but factors like those mentioned above should be considered when deciding whether or not to apply an insecticide for JB. Young vines, of course, are especially vulnerable to damage from JB feeding as they have relatively little leaf area and vine reserves to compensate for any damage that is caused, so action thresholds in new plantings should be even lower.



Simulation of 30% leaf area loss on Niagara leaves. Source: [http://www.isaacslab.ent.msu.edu/Images/talks/Isaacs%20Viticulture%202010%](http://www.isaacslab.ent.msu.edu/Images/talks/Isaacs%20Viticulture%202010%20)

There are a number of insecticides that can be used for JB control if it is warranted. Most of them have some activity against other insect pests as well, but also are toxic to natural enemies to various extents. Some of the most widely used insecticides that affect JB, including Danitol, Sevin, Brigade and Mustang Max, are toxic to predatory insects in the vineyard as well. Table 4.2.2 in the NY/PA Pest Management Guidelines for Grapes summarizes this information in one place.

Further resources:

Loeb, Greg. *Grape Insect & Mite Pests – 2018 Field Season*. https://nygpadmin.cce.cornell.edu/pdf/newsletter_notes/pdf103_pdf.pdf

Isaacs, Rufus. *Managing Japanese beetles in vineyards*. <http://www.isaacslab.ent.msu.edu/Images/talks/Isaacs Viticulture 2010 JB for web.pdf>

Isaacs, Rufus and John Wise. *Managing Japanese beetles in fruit crops*. http://msue.anr.msu.edu/news/managing_japanese_beetles_in_fruit_crops

Muza, Andy. *Japanese beetle: A common pest in the vineyard*. <https://psuwineandgrapes.wordpress.com/2016/07/09/japanese-beetle-a-common-pest-in-the-vineyard/>

Pfeiffer, D.G., and P. B. Schultz. *Japanese beetle, Popillia japonica Newman, on Grape*. <https://www.virginiafruit.ento.vt.edu/JBGrape.html>

Cornell AgriTech

*The following announcement was sent out to stakeholders of the New York State Agricultural Experiment Station announcing that the station will now be named **Cornell AgriTech**. You'll be hearing this name from now on when we refer to "the Experiment Station" (although I'm sure that phrase will slip out of my mouth from time to time), so I wanted to give the industry a heads-up about just what we're talking about when we refer to Cornell AgriTech moving forward. You can read more about the name change in the announcement below and in an article from the Cornell Chronicle, ["Cornell AgriTech reflects influence in food, ag innovation"](#). - Hans*

Today the New York State Agricultural Experiment Station is embarking on an exciting journey under the new name, **Cornell AgriTech**. Agriculture and food are multi-billion-dollar industries for the New York state economy, underscoring the value of clarifying to our stakeholders our identity, purpose and collaboration potential. Cornell AgriTech's expertise, research, education and extension efforts contribute to the growth of agriculture and food industries in New York state.

The name Cornell AgriTech solidifies the vital connection we have with Cornell University, the Cornell College of Agriculture and Life Sciences and our purpose driven connection to food and agricultural science. Through our new name, we are committed to furthering over one hundred and thirty years of scientific discovery and innovation that deliver practical solutions for farmers and businesses.

New techniques and new technologies are critical to the advancement of food and agriculture industries and Cornell AgriTech is at the forefront of these innovations. Cornell AgriTech is reimagining the future of food and agriculture systems through interdisciplinary collaborations and by educating the best up-and-coming minds in our fields, so that they can lead the next wave of breakthroughs.

We are propelling our new name and identity to continue growing a healthier population, economy and environment for New York state and the world. I invite you to grow with us.

Sincerely,

Jan P. Nyrop

Associate Dean, College of Agriculture and Life Sciences

Goichman Family Director, Cornell AgriTech

119 Jordan Hall

Cornell AgriTech
New York State Agricultural Experiment Station

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 #7

Tuesday, August 7, 2018 4:30 – 6:00 PM

Hobbs-Selbach Vineyard

Lollis Drive, Burdett NY 14818 ([click here for a map of the location](#))

Our seventh Tailgate Meeting of the season will be held at the Hobbs-Selbach Vineyard in Burdett. Pesticide credits have been approved 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.

Tailgate Meeting #8 – Final Tailgate Meeting of 2018!!

Tuesday, August 21, 2018 4:30 – 6:00 PM

Hosmer Winery

7020 Route 89, Ovid NY 14521

Lake Erie Regional Grape Program Summer Growers' Conference

Wednesday, August 15, 2018 9:00 AM – 3:30 PM

Cornell Lake Erie Research & Extension Laboratory

6952 West Main Road, Portland NY 14769

For information about the conference agenda, registration costs and more, visit <https://lergp.cce.cornell.edu/event.php?id=378> or contact Kate Robinson at 716-792-2800 x201 with any questions.

Finger Lakes Vineyard Update

Finger Lakes Grape Program

August 1, 2018

2018 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
7/25/2018	76.1	68.6	0.47	22.4	1558.6
7/26/2018	88.0	65.3	0.01	26.7	1585.3
7/27/2018	81.4	66.0	0.04	23.7	1609.0
7/28/2018	77.5	64.2	0.00	20.9	1629.8
7/29/2018	80.4	61.1	0.00	20.8	1650.6
7/30/2018	77.6	60.8	0.72	19.2	1669.8
7/31/2018	80.3	63.8	0.00	22.1	1691.8
Weekly Total			1.24"	155.6	
Season Total			10.97"	1691.8	

GDDs as of July 31, 2017: 1623.7

Rainfall as of July 31, 2017: 18.13"



Seasonal Comparisons (at Geneva) as of July 31

Growing Degree Day

	2018 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-)
April	8.2	65.4	
May	416.3	251.9	
June	472.3	481.1	
July	704.5	640.7	
August			
September			
October			
TOTAL	1601.3	1439.1	+8

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.

2018 GDD & Precipitation (continued from page 10)

Precipitation

	2018 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	1.92"	2.87"	-0.93"
May	3.15"	3.13"	+0.02"
June	2.50"	3.62"	-1.12"
July	2.98"	3.45"	-0.47"
August		3.14"	
September		3.57"	
October		3.37"	
TOTAL	10.55"	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 [NY Grape & Wine Classifieds website](#) today!

Finger Lakes Grape Program Advisory Committee

Eric Amberg- Grafted Grapevine Nursery

Bill Dalrymple- Dalrymple Farm

Matt Doyle- Doyle Vineyard Management

Eileen Farnan- Barrington Cellars

Chris Gerling- Cornell University Extension

Mel Goldman- Keuka Lake Vineyards

Luke Haggerty- Constellation Brands

Tina Hazlitt- Sawmill Creek Vineyards

Cameron Hosmer- Hosmer Winery

Harry Humphreys- Overlook Farms

Richard Jerome- Jerome's U-Pick

Gregg McConnell- Farm Credit East

Herm Young- Young Sommer Winery

John Santos- Hazlitt 1852 Vineyards

Dave Smith- Smith Brothers Farms

Justine Vanden Heuvel- Cornell University

Derek Wilber- Swedish Hill 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 supported, in part, by six county
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