



Finger Lakes Vineyard Update

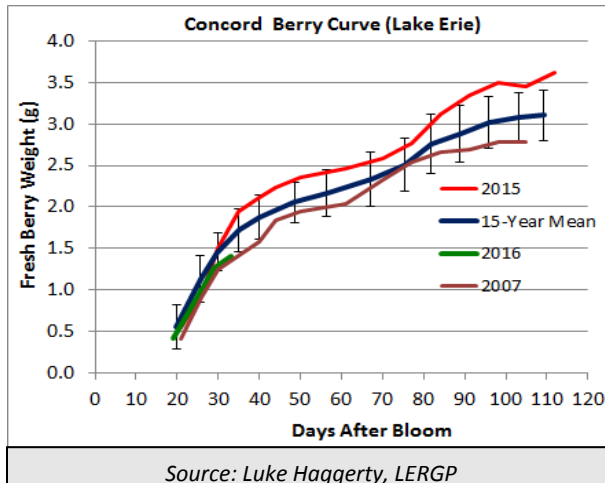
In the Vineyard

Hans Walter Peterson

The sight of some rain – any rain – falling from the sky earlier this week was welcomed by pretty much everybody in the Finger Lakes. Rainfall totals from Monday varied significantly based on what we heard at yesterday's Tailgate Meeting, with growers reporting anywhere from 0.1" to almost 1.5" of rain. So while that helped, we could obviously use more.

One of the impacts from water stress in grapevines that we discussed at yesterday's meeting was how it can reduce berry size. Water stress will cause cell division to slow down, and cell division is the means by which berries are growing at this point in the season. Once we hit veraison, the primary influence on berry growth will be cell expansion rather than the addition of more cells.

While we don't have any data ourselves on berry size to compare this year to other years, our friends at the



Lake Erie Regional Grape Program have been tracking berry size (among many other things) in Concord vines out there for many years. They are experiencing similar drought conditions to us right now, and are seeing the impacts from that on berry size. My counterpart in the Lake Erie region, Luke Haggerty, sent a few of us extension-types a chart the other day showing how berry size this year is faring compared to berry curves from 2015 (a very wet year before veraison), 2007 (the driest year in 30 years out there until this one) and the long term average curve. As would be expected, the berry curve for 2016 is tracking pretty close to that from 2007, and below the normal growth curve. In 2007, the final average berry weight ended up being about 10% lower than average weight of 3.0 grams.

The situations in different vineyards and with different varieties will not necessarily be exactly the same as what they are seeing in Concord vineyards out in western NY and PA. However, it does illustrate the fact that this drought is having an impact on berry size, which obviously influences the final crop yields. Grower who are trying to come up with crop estimates for this year should take into account the potential for smaller berry weights to impact their estimates. The big question, of course, is how much difference is there between normal berry size and this year's berries, and the only way to really answer that is by having some data from previous years to try to compare to what is happening this year. What may be true in one location may not be completely true in another. Lacking that at this point, however, it probably makes some sense to assume that, all other things being equal, yields may be a bit lower than normal because of smaller berry size.

IPM

Hans Walter-Peterson

As we move further away from fruit set, berries on all of our cultivars have developed resistance to new infections from powdery mildew, downy mildew and black rot, which means that any new symptoms of these three that show up in clusters from this point forward came from infections that happened earlier in the season and just took a while to show up.

While the dry weather has kept disease development in check for the most part, powdery mildew can still flare up under these conditions if management for it slips a bit (e.g., intervals get pushed too far apart during the pre- to post-bloom period, or using strobilurins or other materials that are losing their effectiveness against PM). A number of the materials labeled for PM control in New York have some post-infection or anti-sporulant activity, which can help to keep newer infections from spreading as quickly as they might. Only a few materials are really capable of ‘eradicating’ an existing infection – in other words, killing most or all of the fungal colony on the leaf, berry, shoot, etc.

Potassium salts like Armicarb, Kaligreen, and Nutrol are capable of killing young PM colonies on fruit, shoots and foliage, but are much less effective on well-established cases of the disease (i.e., significant enough that it catches your eye from the tractor as you’re driving by). None of these products has any protective activity against new infections that take place after the material has been applied, however, and therefore need to be sprayed on a much shorter interval (5-7 days) than other materials if they are being relied on as a major part of a PM management strategy.

The other option for materials with eradicant activity on PM is oils such as JMS Stylet Oil and PureSpray. Both materials are effective on more well-established infections of PM, which the salts mentioned above may not be able to control. They also provide some amount of protection against new infections for 3-7 days after the application is made, allowing for a longer interval between sprays, but that effect is lost if rain washes the material off. Several field trials have shown that multiple (more than 1) applications of Stylet Oil around veraison can cause a slight reduction in Brix at harvest. Oils can also cause some burning of tissues if they are applied at high temperatures (85-90°F), or when applied with or close in time to other materials like sulfur or Captan.

This article is based on information contained in the 2016 NY/PA Pest Management Guidelines for Grapes and the [‘Grape Disease Control 2016’ newsletter](#) written by Wayne Wilcox.

Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 20, 2016

IPM (continued from page 3)

Hans Walter-Peterson

Grape Berry Moth

Based on information from all of the weather stations in the Finger Lakes region, we are now past the window for insecticide applications for GBM. Warmer areas are probably a couple of weeks away from the opening of the next window for GBM management. In the meantime, keep an eye on those pesky Japanese beetles!

NEWA Grape Forecast Models

Select a disease or insect:
Grape Berry Moth

State:
New York

Weather station:
Dresden (FLGP/FLCC)

Date of Interest:
7/20/2016

Calculate

[Map](#) [Results](#) [More info](#)

Grape Berry Moth Results for Dresden (FLGP/FLCC)

Wild Grape Bloom: 5/30/2016

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 7/20/2016: 1197 (0 days missing)

Base Temp	Past	Past	Current	5-Day Forecast			Forecast Details	
	Jul 18	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25
47.14F - GBM	28	22	23	28	33	31	32	31
Accumulation	1165	1187	1210	1238	1271	1303	1335	1366

NA - not available

Download Time: 7/20/2016 13:00

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.

June 19th Tailgate Recap

Gillian Trimmer

The hillside spring at Keuka Spring Vineyards still has water running through it, but the conversation between those of us sitting a little ways from it at the Tailgate Meeting was all about drought. As you may have noticed, rainfall has been scarce across our region. Questions of when to water and how much to water, whether fertilizing at the same time is a good idea, and what happens if we get a sudden rain were tossed around. How much to water depends on whether you're seeing drought symptoms (for a description of these, see our last three updates) and whether you have the time, water, and set-up to do so. For larger acreages, watering may be impractical. Generally, we're recommending that nutrient additions be done only if the vines have a demonstrated deficiency. Drought stress can inhibit the vine's ability to take up nutrients that are transported through phloem, and can lead to low yeast available nitrogen (YAN) levels in fruit, but in the case of wine grapes it's best to let YAN additions happen in the winery rather than applying nitrogen to the vineyard late in the season. And as for a heavy rainfall... vines that still have actively photosynthesizing leaves (as nearly all in our area do) will be able to use it, but soil erosion and runoff are concerns, particularly if you've cultivated between every row.



Crop estimates also came up at last night's meeting, particularly considering variable set and small berry size in many (but not all!) Finger Lakes vineyards. Conducting accurate crop estimates is difficult at best, and in some years seems close to impossible. We know that Concord clusters weighed 30 days after bloom are approximately half of their final weight at harvest, but the same relationship has not been established for other varieties. Weighing berries or clusters at the time when you do crop estimates and again at harvest for several years in a row can help you to figure out the relationship between the two, and lead to more accurate crop estimates on your own farm. However, with so many variables (water and weather, set, berry size, winter damage... the list goes on) at play, it's rare to be able to predict exactly how big the final crop will be.

On the IPM side of things, we touched on Japanese beetle damage and Multicolored Asian Lady Beetle scouting, and warned that, like always, powdery mildew infections can still occur on leaves despite the lack of rain. Thankfully, we've just about past the window of time during which berries are susceptible to the "big three" diseases they can grow out of—downy mildew, powdery mildew, and black rot—though that doesn't mean the rest of the vine is safe, nor does it mean that latent infections might not show up. Even so, this year is looking like a pretty clean one as far as disease pressure goes.

We'd like to thank the whole team at Keuka Spring for hosting our meeting, providing us with shade, a view of Keuka Lake, and the willingness to have a large group of people peer at some of their vines. Our next Tailgate Meeting will be held at Doyle Vineyard Management in Hammondsport, NY. See you then!

June 19th Tailgate Recap (continued from page 4)

Gillian Trimmer



Enjoying the view of Keuka Lake at the Tailgate Meeting June 20th from Keuka Spring Winery.

2016 Growing Degree Days and Rainfall

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
7/13/16	92.4	72.5	0.00	32.5	1197.5
7/14/16	89.4	72.4	0.00	30.9	1228.4
7/15/16	85.1	68.0	0.28	26.6	1254.9
7/16/16	77.8	60.5	0.00	19.2	1274.1
7/17/16	84.7	58.9	0.00	21.8	1295.9
7/18/16	86.3	69.0	0.61	27.7	1323.5
7/19/16	76.8	58.9	0.00	17.9	1341.4
Weekly Total			0.89"	176.4	
Season Total			5.77"	1341.4	

GDDs as of July 19, 2015: 1377.6

Rainfall as of July 19, 2015: 15.70"



Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 20, 2016

Seasonal Comparisons (at Geneva)

Growing Degree Days

	2016 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-) ³
April	36.1	65.2	-9
May	270.1	252.3	0
June	489.1	480.6	0
July	417.9	639.8	+2
August		588.2	
September		351.0	
October		105.2	
TOTAL	1213.2	2481.8	

1 Accumulated GDD's for the Month

2 The long-term average (1973-2015) 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

	2016 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	1.17"	2.89"	-1.72"
May	1.66"	3.11"	-1.45"
June	0.65"	3.68"	-3.03"
July	0.43"	3.42"	
August		3.15"	
September		3.64	
October		3.22	
TOTAL	3.91"	23.12"	

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)

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 #8

Tuesday, August 2 4:30 – 6:00 PM
Doyle Vineyard Management
10223 Middle Road
Hammondsport, NY 14840 ([click here for a map](#))

Our eighth Tailgate Meeting of the year will be held at Doyle Vineyard Management's farm in Hammondsport on Tuesday, August 2.

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.

Dates and locations for the rest of this year's Tailgate Meetings can be found under the '[Events](#)' section of our website.

Tailgate Meeting #9

Tuesday, August 16 4:30 – 6:00 PM
Ventosa Vineyards
3440 Route 96A
Geneva, NY 14456

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!

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