



Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

The rain and heat that has settled into the Finger Lakes over the past week or so has kicked shoot growth into high (or a higher) gear. Many vineyards trained to VSP or Scott Henry have had their first “haircut” (hedging) of the season already, and shoot positioning with wires is just getting harder as both shoots and tendrils get longer and thicker.

Crop levels continue to look healthy in most places we’ve been this week. While we have not collected specific numbers, fruit set seems to have gone well in most places as well. According to our weather station near Dresden, we will hit 1200 growing degree days today, when many growers will starting their crop estimates. While not a perfect technique by any means, taking some sample cluster weights at this point in the season and multiplying the average weight by two (given the assumption that berries are roughly half of their final weight right now) can provide an estimate of how much the clusters will weigh at the end of the season. This method takes into account one of the important yield components – berries per cluster – and therefore can incorporate the potential for a higher than normal fruit set because you are weighing the actual cluster, as opposed to just assuming an average final cluster weight. Of course, this information needs to be combined with data regarding the number of clusters per vine in order to get an estimate of pounds of fruit per vine (and tons/acre after that):

$$\frac{(Avg \text{ cluster weight in pounds at } 1200 \text{ GDDs} \times 2) \times (Avg \# \text{ of } \frac{\text{clusters}}{\text{vine}}) \times (\# \text{ of } \frac{\text{vines}}{\text{acre}})}{2000} = \frac{\text{tons}}{\text{acre}}$$

Crop Estimation in Concord

We are also approximately 30 days after bloom in Concord, which is the time when berries in this variety are also at about 50% of their final berry weight. Here is the crop estimation process for Concord in a nutshell:

1. Clean pick 1/100th of an acre (in vineyards with 9’ spacing between rows, this equals 48 feet of a row) by hand or with a harvester. Depending on vineyard or block uniformity, it may be necessary to take a few samples.

Links To

IPM	3
Tailgate Summary	5
Upcoming Events	6
GDD	8

Upcoming Events: [more details in Upcoming Events on page 6](#)

• Vineyard Tailgate Meeting	July 23, 2013
• Field Meeting on Soils & Compaction	July 30, 2013
• 2013 Fruit Field Day	August 1, 2013
• CULTIVAR X REGION: An NE 1020 Variety Trial Tasting	August 15, 2013

In The Vineyard (cont. from page 1)

Hans Walter-Peterson

2. Collect the fruit in a bin or garbage can and weigh the fruit. Using the [“cheat sheet” developed by Terry Bates](#) (also attached at the end of this week’s Update) in the Lake Erie region, determine how many tons/acre that sample represents, based on how many days after bloom you take it.



3. Compare this value to the average production from that block. If it is significantly higher (2 or more?), you may need to consider dropping some fruit.

Bloom occurred in Concords around June 9-10, which is a little earlier than when we usually see it, but only by a couple of days. The warm weather we have had so far does not necessarily mean that we will have a lot of extra ripening days after veraison gets started. Research has shown that growers can ripen an extra ton of Concord, on average, for every 3 days that bloom is earlier than normal. If you assume that we bloomed about 2-3 days earlier than normal this year, that would suggest that you can probably ripen a ton more than the long-term average for that vineyard. Carrying extra tonnage beyond that increases the potential for reduced Brix levels at harvest. The “impetus” for growers to consider thinning lies mainly with the processors, obviously.

Of course, if there is not a significant financial penalty for fruit with lower Brix from a processor, there is less incentive to thin and growers will maximize their income potential by growing as many grapes as they can to meet minimum standards (without damaging their vines).

Thinning can be done anytime between now and close to veraison – the chart that Terry developed includes calculations for thinning done up to harvest, but thinning fruit as you get further past veraison will have a diminishing impact on final harvest numbers.

Impacts of fruit thinning on vine growth

One related issue that came up during yesterday’s Tailgate Meeting was the question about how long to wait to thin fruit that is left on the vine in order to slow down vine growth. Essentially, the longer you let that fruit hang on the vine, the longer it competes with the shoot tips as a sink for photosynthates from the leaves - which in most cases this year is be a good thing, based on the amount of growth many of our vines are having right now. In the thinning research done in the Lake Erie region, they found less of a vine size response (increased shoot growth) the later that fruit thinning was done, to the point that there was no difference in vine size in vines where fruit was thinned at or after veraison versus those that weren’t thinned.

So in short, if you want to use your crop to hold back growth (to whatever extent it is right now) leave it on until veraison and then start thinning if you need to. But now is still probably the best opportunity to start making your crop estimates.

IPM

Hans Walter-Peterson

In case you weren’t aware – it’s been wet out there. It feels like there has been rain somewhere in the area almost every day over the past 10 days or so, and if it hasn’t rained, the humidity has been pretty significant. But our total rainfall in June – 4.05” at our weather station in Dresden – has been relatively easy on us compared to our friends in the Lake Erie (7.73” of rain in June) and Long Island (11.14” in June – that’s not a typo).

All of this is to say that these are conditions that will promote disease development in vineyards, which we have started to see. We continue to see occasional pockets of downy and powdery mildew, both on leaves and clusters, but given the conditions right now things look to be very clean for the most part. Remember that berries develop resistance to new infections of powdery mildew about 2-4 weeks after set (which is about now), and resistance to downy mildew infections kicks in about 4 weeks after bloom – again, we’re just about at that point in the season. Leaves, shoots and rachises (rachisi?) remain susceptible to infection though.

IPM (cont. from page 2)

Hans Walter-Peterson

We have been seeing more black rot lesions on leaves in the past week. These can be distinguished from phomopsis by looking at the edge of the lesion. Black rot lesions will have brown, necrotic tissue, sometimes surrounded by a darker brown or black border, with tiny black dots (pycnidia – the fruiting bodies of the fungus) inside the lesion which can best be seen with a hand lens. Phomopsis lesions or infection sites will often have a yellow ‘halo’ in the leaf tissue just surrounding the infection.



Phomopsis lesions on Concord leaf.



*Black rot lesion showing pycnidia.
Photo: Tim Martinson*

Botrytis

We are also seeing a lot of symptoms of early botrytis infections in clusters, primarily in vinifera blocks, but in some hybrids as well. These infections happened during or just after bloom, as we were often finding dead flower parts that were still hanging in the cluster, and even occasional berries, with the classic gray sporulation occurring already. These dead tissues can be important sites for new infections to flare up from later in the season if it gets wet after veraison and into harvest.



Botrytis sporulation on Pinot noir cluster in early July.



Dead flower tissues from botrytis infections.

Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 10, 2013

IPM (cont. from page 3)

Hans Walter-Peterson

You can see in the picture with the Pinot noir cluster that there is very little room for any botrytis material to penetrate the interior of that cluster, while the Riesling cluster on the right is still pretty open (thanks in part to the disease). If the grey spores are visible (as in the picture with the Pinot cluster), then they are still capable of infecting berries. The 'berry touch' stage is obviously upon us for certain varieties like Pinot, Chardonnay, Seyval and some others. Growers with varieties that are tight clustered or have had a history of botrytis problems will want to make sure that fruit is protected as best as possible before the clusters close up tight.

Grape Berry Moth

We passed the 810 GDD threshold for GBM control in most locations in the Finger Lakes last week. As of today, we are around 920-930 GDDs, past the point where sprays for GBM are likely to have much impact on populations. Start scouting vineyards again for evidence of larvae feeding as we get closer to about 1400 GDDs.

Grape Berry Moth Results for Dresden (FLGP/FLCC)

Wild Grape Bloom: 5/29/2013

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 7/10/2013: 921 (1 days missing)

Daily Degree Days for Dresden (FLGP/FLCC)

Base Temp	Past	Past	Current	5-Day Forecast			Forecast Details	
	Jul 8	Jul 9	Jul 10	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15
47.14F - GBM	27	28	29	23	21	22	25	27
Accumulation	876	904	934	957	978	1000	1025	1051

NA - not available

Download Time: 7/10/2013 14:00

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.

Tailgate Meeting Summary

Mike Colizzi

We had a great tailgate meeting last night at Atwater Vineyards. The view was spectacular and we had plenty of important topics to talk about. Just like last weeks meeting we had lots of discussion about diseases. Unfortunately this week's principal disease was botrytis! We also talked about leaf pulling, crop estimation, berry moth, and cluster thinning. Tailgate meetings are free to attend and are a great way to keep up on timely vineyard information. We offer .75 DEC pest credits to anyone who attends.

Yesterday while inspecting some vinifera vineyards we were finding [Botrytis](#). Some of what we saw were old infections from around bloom. However, we were finding an alarming number of active infections on pea-sized berries. These infections were identical to what you expect to see around veraison. The picture below is a Pinot Noir cluster, but we were seeing these same infections in Chardonnay and Riesling. Infections were often on the backside of clusters, or buried in the canopy where spray material might not easily reach. Thorough spray coverage and diligent scouting will be important to make sure you are keeping your fruit clean.

Most farms have been hedging this week, and a great deal are also pulling leaves. Given the amount of active Botrytis we are seeing it will be very important to expose the fruit zone and try to get the best spray coverage possible. Last night we also talked about cluster thinning and when the best timing would be. Look for more information on this topic in the next vineyard notes, which will be coming out in a week or so.

We would like to thank Chaz Coney and Ted Marks of Atwater Vineyards for hosting last nights meeting. We look forward to seeing you at the next tailgate meeting on July 23 at:

[Vine Country Farms \(Roy & Gordon Taft\), 8761 County Rd 74, Prattsburgh NY 14873.](#)



Figure 1: Botrytis on Pinot Noir (Found July 9, 2013)

Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 10, 2013

Upcoming Events

Vineyard Tailgate Meetings

Tuesday, July 23, 2013 5:00 – 6:30 PM

Vine Country Farms (Roy and Gordon Taft)

Intersection of Main Street and Stone Road, Pulteney NY ([click here for map](#))

These are a series of informal meetings held with growers in different locations around the Finger Lakes during the growing season. Meetings are held every other Tuesday afternoon, starting at 5:00 PM and usually ending around 6:30 PM. During the day of each meeting, Mike and I visit a few growers and vineyards near the meeting location to get a sense of what has been happening in the area, and give us some ideas about some potential topics for the meeting later that day. There will also be ample time to discuss any questions or issues that others want to bring up as well. There is no need to register ahead of time – just show up when you can, and leave when you have to.

There will be 0.75 pesticide recertification credits available for each meeting. As with other events where credits are available, you need to be present at the beginning of the meeting to sign the meeting roster – make sure to have your card with you - and stay until the end to receive your certificate.

Here is the schedule for the rest of our Tailgate meetings this season:

Date	Address
August 6	Hermann J. Wiemer Winery, 3962 State Route 14, Dundee NY 14837
August 20	Goose Watch Winery, 5480 Route 89, Romulus NY 14541

Field Meeting on Soils & Compaction

Tuesday, July 30 4:00 – 6:00 PM

Doyle Vineyard Management - Dresden Farm

1255 Ridge Road, Penn Yan NY

This field meeting will be focused on soil management, including a demonstration of several different pieces of equipment that could be used to deal with compaction in vineyard soils. Our guest speaker will be Dr. Ian Merwin from Cornell University, who will talk about how some different aspects of soil management can influence production in perennial crop systems like vineyards.

There is no cost for those who have subscribed to the FLGP in 2013, and a \$10 fee for those who are not enrolled. To register, please contact Karen in our office at kag255@cornell.edu or 315-536-5134

Upcoming Events

2013 Fruit Field Day

Thursday, August 1, 2013 8:00 am – 5:00 pm

New York State Agricultural Experiment Station, Research Farm South

1097 County Road 4, Geneva NY

Register now to learn about Cornell's latest research and extension efforts in tree fruits, grapes, hops, and small fruits at the Fruit Field Day, August 1st, from 8:00 a.m. to 5:00 p.m. at the New York State Agricultural Experiment Station in Geneva, NY. Attendees will travel by bus to the research plots to hear presentations by researchers; for a complete list of talks, [click here](#). The cost of registration is \$30 per person (\$40 for walk-ins). Lunch will be provided. Pre-registration is required for the \$30 rate; register on-line at: <http://is.gd/ffd2013>. The event will be held at the Fruit and Vegetable Research Farm South, 1097 County Road No. 4, one mile west of Pre-emption Road in Geneva, NY. Signs will be posted.

CULTIVAR X REGION: An NE 1020 Variety Trial Tasting

Thursday, August 15 2013 8:30 AM – 5:00 PM

Ramada Geneva Lakefront, 41 Lakefront Drive (<http://www.genevaramada.com/>)

A small block of rooms has been reserved at a discounted rate under the name "Cornell." Reservations must be made by August 1st.

Curious about new cultivars? Interested in the effects of terroir on varietal character? Then join us for a cross-regional tasting of varietal trial wines!

The multistate NE 1020 project was designed to test the performance of interesting grape cultivars, both new and existing, at various sites across the US. Over the past two years, collaborative work between Cornell, Penn State, and the Connecticut Agricultural Experiment Station have resulted in a collection of wines produced from NE 1020 sites spanning the region. Join us for a guided sensory evaluation of these wines, which represent a range of cool-climate varieties, both hybrid and *V. vinifera*. Your participation and feedback will help guide future variety trial activities, and provide you with first-hand experience of varietal and regional expression in these cultivars. This day-long program is free, and will include short presentations by project scientists, a tour of Cornell's vineyard blocks, and lunch.

THIS EVENT IS FREE, BUT SPACE IS LIMITED AND REGISTRATION IS REQUIRED!

To reserve your seat, please contact Sarah Lincoln at sjl38@cornell.edu or 315.787.2255 and provide the following information:

Name:

Affiliation:

Address:

Phone number:

E-mail address:

We look forward to seeing you!

Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 3, 2013

2013 GDD Accumulation

We are tracking growing degree day (GDD) and precipitation accumulation again this year, but we will be reporting data from [our weather station located at the teaching & demonstration vineyard in Dresden](#), at Anthony Road Wine Company, instead of using the station at Geneva. We will continue to monitor GDD accumulation at Geneva in order to see how our new location compares with it, and to provide context of where we are with regard to heat accumulation compared to our long-term average.

FL Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
7/3/13	84.9	66.5	0.00	25.7	1031.2
7/4/13	84.6	71.6	0.04	28.1	1059.3
7/5/13	87.3	70.5	0.00	28.9	1088.2
7/6/13	86.9	69.5	0.00	28.2	1116.4
7/7/13	84.8	71.7	0.18	28.3	1144.6
7/8/13	82.4	69.9	0.45	26.2	1170.8
7/9/13	84.0	68.9	0.01	26.5	1197.2
July 2013 Total			1.26"	230.8	
Monthly Avg - July			3.29"	635.6	
Season Total			11.81"	1197.2	

Average GDD on July 9: 976.5 (currently 11 days ahead of average)

Average Rain on July 9: 10.29"

Additional Information

Got some grapes to sell? Looking to buy some equipment or bulk wine? List your ad on the [NY Grape & Wine Classifieds website](#) today!

Become a fan of the [Finger Lakes Grape Program on Facebook](#), or follow us on [Twitter \(@cceflgp\)](#). Also check out our website, "The Grape Lakes – Viticulture in the Finger Lakes" at <http://flg.cce.cornell.edu>.

Cornell University Cooperative Extension provides equal program and employment opportunities. CCE does not endorse or recommend any specific product or service. This program is solely intended to educate consumers about their choices. Contact CCE if you have any special needs such as visual, hearing or mobility impairments.



FINGER LAKES VINEYARD UPDATE
Is published by
Cornell Cooperative Extension
Finger Lakes Grape Program
Ontario, Schuyler, Seneca, Steuben and Yates Counties