



Finger Lakes Grape Program

May 25, 2016

Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

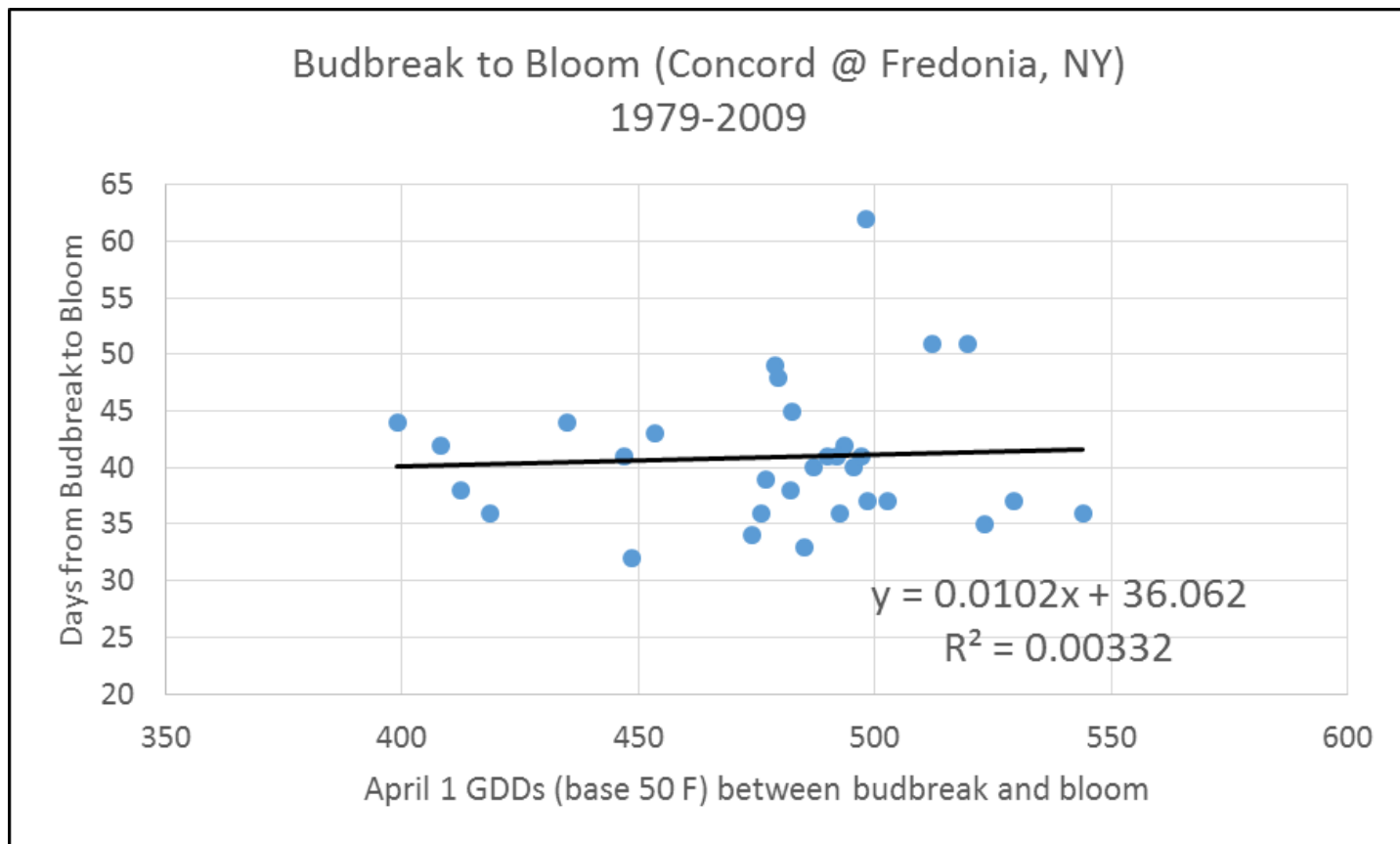


Shoot growth is finally starting to pick up with the arrival of more normal temperatures, and even warmer days to come will surely kickstart anything that still hasn't moved much beyond budbreak, which was the case in some of the blocks we visited yesterday around Canandaigua Lake before our Tailgate Meeting. The majority of vineyards with earlier varieties like Concord, Foch, and some Chardonnay blocks are generally at 3-5" of growth at this point. Cabernet Franc in warmer areas, including at the Teaching Vineyard, is about there as well, while Riesling is not far behind. With temperatures forecast to be in the mid to upper 80s (or even 90s) for the next few days, I imagine the vineyards will look significantly different at this point next week. Some vineyards are still trying to get tying wrapped up ASAP, as it will only get harder as the shoots elongate even more over the next week.

As of yesterday, growing degree days (GDDs) are still well behind average – about 10 days worth right now, but we should see things get closer to the long-term average with the heat that's settling in right now. While we are a bit behind normal with development so far, it doesn't necessarily mean that bloom will be significantly later than usual. Using some of the great phenology data from the Vineyard Lab at Fredonia, I looked at how the number of GDDs between budbreak and bloom related to the number of days between budbreak and bloom in Concord (1979-2009). The graph below shows that historically there has been virtually no relationship between the amount of heat between those two phases of development and how long it takes to get from budbreak to bloom. So while it feels more likely than not that bloom will be later than normal, we could still end up reaching bloom close to when we usually do.

In the Vineyard *(continued from page 1)*

Hans Walter-Peterson



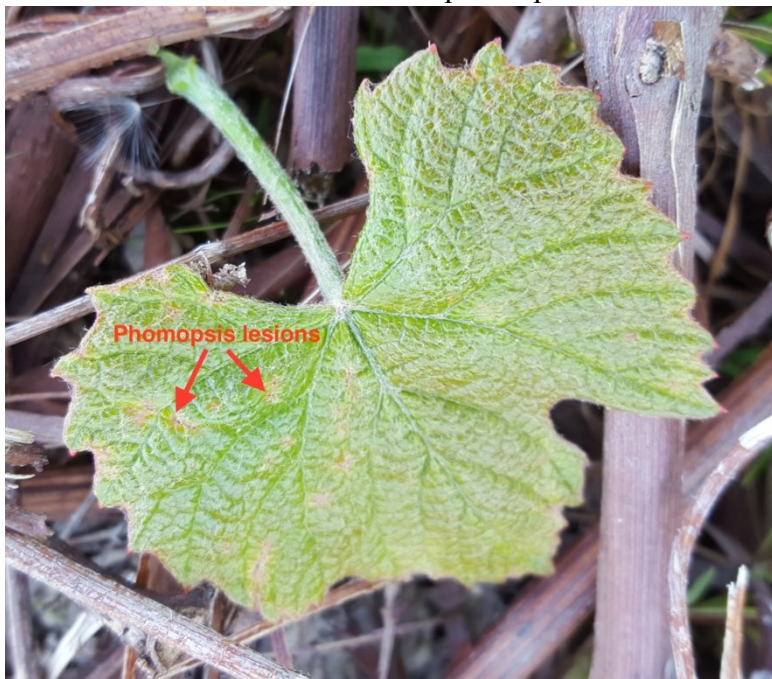
We will also be starting to collect data this week and next on bud survival at the Teaching Vineyard to compare with our bud injury estimates from a few months ago. While we don't have numbers yet, our initial impressions from our small vineyard, along with a few others that we have visited over the past several days, is that bud survival looks to be a little bit better than some of the injury estimates that we were getting after the Valentine's Day cold snap hit. If anybody else does a similar check in any of their blocks, especially where bud injury estimates were high, I would appreciate hearing what you find.

IPM

Hans Walter-Peterson

The arrival of some sunshine and warmer weather has finally gotten things moving in the vineyards, both on the vines and on the ground. Weeds and cover crops have jumped up pretty dramatically over the past week, and shoots are finally starting to elongate enough to expose clusters. Which also means that it's getting to be time for first sprays to get applied for phomopsis. The weather has been helpful to this point in keeping pressure relatively low, but there is a decent chance of rain for the next several days in the Finger Lakes, which increases the risk for new phomopsis infections to establish. Even with the relatively dry weather, we

were able to find a few young leaves with early lesions on them in a couple of vineyards yesterday.



These early sprays have shown to be critical for prevention of infections on cluster stems in particular. Infections on the rachis can move into the berries later in the season, which weakens their attachment to the stem and can result in the loss of fruit before it is harvested. The potential economic loss of not applying these early sprays more than justifies the cost of the material and labor to apply something.

This is also an appropriate time to think about applying something to control powdery mildew on

sensitive varieties (*V. vinifera* and some hybrids), especially if powdery mildew was problematic in the latter portion of the season last year. Primary infections (the first ones of the year caused by ascospores that emerge from overwintering cleistothecia) are promoted with about 0.1" of rain. The spores are then wind-blown to green tissues where they begin to reproduce and develop secondary spores (conidia), which cause the gray "powdery" appearance that we are all familiar with. At this time of year, it probably isn't necessary to use any of the "big guns" for powdery mildew. Save those for later in the year when there is higher pressure and more foliage and fruit to protect. Materials like sulfur, Stylet Oil, or any of the potassium salt-based products (e.g., Nutrol, Armicarb, Kaligreen, Milstop, etc.) can be used at this point instead.

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IPM (continued from page 2)

Hans Walter-Peterson

Grape Forecast Models

State:
New York

Weather station:
Dresden (FLGP/FLCC)

Ending Date:
5/25/2016

Calculate

Grape Disease Infection Events for Dresden (FLGP/FLCC)

	Past	Past	Current	Grape Disease 5-Day Forecast				
	May 23	May 24	May 25	May 26	May 27	May 28	May 29	May 30
Phomopsis	Yes	No	No	No	No	-	-	-
Powdery Mildew	No	No	No	No	Yes	-	-	-
Black Rot	Yes	No	No	No	No	-	-	-

Phomopsis - calculates when weather conditions may allow spores to infect susceptible tissue.
Powdery Mildew - runs from bud break until early bloom; calculates when weather conditions may allow overwintered, primary spores (ascospores) to infect susceptible tissue.
Black Rot - calculates when weather conditions may allow spores to infect susceptible tissue.

Phenological stage: 3-5 inch shoot

Choose the phenology stage for the grape variety of interest to display management messages. Concord grape phenology is estimated by the model from historical records for this variety.

Disease	Disease Management
Phomopsis	The early spray at around 3 inch shoot growth, when clusters first become visible, is most important for controlling rachis infections, shoot infections that serve as future sources of inoculum, and infections that move from berry stems into the fruit. <u>A minimal spray program should include at least one application during this period to protect against infection events</u> , especially in blocks with a history of Phomopsis and on <u>highly susceptible varieties</u> .
Powdery Mildew	A lot of powdery mildew the previous year = More primary inoculum to cause infections this spring. The model logs potential primary infection events. Consider <u>early sprays</u> near the 3-5 inch shoot growth stage for <u>highly susceptible V. vinifera and hybrid varieties</u> in vineyards where powdery mildew was prevalent 30 days before leaf fall last year.

The Grape Disease models on NEWA still show more green than red (a good thing), but conditions are lining up for primary infections of powdery mildew to establish either Thursday or Friday this week with the potential for rain.

Grape Flea Beetle

Like most of us, warm temperatures and sunshine encourage flea beetles to come out and get more active. We noticed a few beetles on young shoots in a Concord block yesterday, but shoots are long enough at this point that the feeding damage caused by these few beetles will be more cosmetic than anything else. As mentioned before, the biggest concern for this pest is that they can significantly damage buds before shoots begin to elongate. There still are some varieties, and some locations, that are still at this stage of development, but given the weather forecast, won't be there much longer. Just something to keep an eye out for, most likely for future reference for next year.

May 24th Tailgate Meeting

Gillian Trimmer

Last night's Tailgate meeting went off without a hitch, and we were glad to see so many trucks filing in by the barn. Gene Stanbro graciously offered up space for the large group to sit on the deck and discuss the latest on grapes in South Bristol. Steely beetle, climbing cutworm, and phomopsis were brought up first; though this warm weather is encouraging shoot growth to take off, many vineyards along Canandaigua Lake and the surrounding area are just leafing out, and therefore early pests may still be an issue.



Beyond timing of pesticide applications, we found ourselves talking in detail about the timing and type of fertilizer use. Nitrogen applications, in particular, should be timed to when the vine really could use a boost in growth, and should take into account the amount of nitrogen already available in the soil. As a rough rule of thumb, each percentage point of organic matter in the soil equates to around 15-20 pounds of nitrogen. So, soils with high organic matter content will need much less nitrogen applied. In addition, adding nitrogen too

early in the season (when the grapes won't be able to take it up) or right at bloom (when the grapes need to set fruit, rather than elongating shoots) not only wastes your time and money but also possibly works against getting the crop you're looking for. Typically, grapevines rely on carbohydrate and nitrogen reserves stored in the roots last season to push early growth, and don't begin actively relying on photosynthesis in green tissue until just before bloom. Nitrogen applications put down before the vines' demand for it increases typically just feed the weeds in your vineyard, or are lost through leaching or run off. To avoid putting on too much nitrogen in the spring, one can do a "split application" in which you put on half of the nitrogen you plan to use just after bloom, and add the other half later in the summer only if the vines appear to need the boost. Midsummer is best; too late of a nitrogen application will prevent the vines from hardening off.

Beyond fertilizers, we discussed cover-cropping, and the current research being done on that both in Lake Erie and the Finger Lakes. We asked those in attendance to suggest any ideas they had for research that would be relevant to them, and would welcome responses from others as well! We also discussed the current climate of research funding at Cornell and other land grant universities, and ways that we can meet grower priorities.

A guest appearance from Joanne Rodgers from the Farm Service Agency (FSA) rounded out the meeting. She reminded us about the Tree Assistance Program (TAP) and the free crop reporting offered by the FSA, and encouraged any that have questions to get in touch with her or her office. Joan also mentioned that their sister agencies, Rural Development and the National Resource Conservation Service, both offer grants that growers might be interested in applying to.

Our next tailgate meeting will be at Heron Hill Winery in Hammondsport, NY on June 7, 2016 from 4:30-6:00 PM. We're looking forward to chatting with many of you then!

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 #4

Tuesday, June 7 4:30 – 6:00 PM
Heron Hill Winery
9301 County Road 76
Hammondsport, NY 14840 ([click here to see a map](#))

Our third Tailgate Meeting of the year will be held at Gene Stanbro's farm near Naples on Tuesday, May 24.

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 #5

Tuesday, June 21 4:30 – 6:00 PM
Chateau Lafayette Reneau
5081 Route 414
Hector, NY 14841 ([click here to see a map](#))

Hops Production in the Lake Erie Region

June 11, 2016 9:00 AM – 4:00 PM
Cornell Lake Erie Research & Extension Lab
6592 West Main Road
Portland, NY 14769

This workshop is designed to provide some background information related to hops production as well as tackling some of the techniques that will help you to become profitable with your hops production. Topics include choosing the right plants, site selection, trellis layout and nutrition. Also covered will be how to work with a brewery to give them the hops they are looking for, and in what form. There will be in-field opportunities to interact with speakers in the CLEREL hopyards.

To register, or for more information, please visit <http://lergp.cce.cornell.edu/event.php?id=252>.

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
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
5/18/16	59.9	40.4	0.00	0.1	114.6
5/19/16	66.2	40.3	0.00	3.3	117.8
5/20/16	74.0	42.4	0.00	8.2	126.0
5/21/16	68.1	52.0	0.15	10.1	136.1
5/22/16	67.9	51.4	0.02	9.7	145.7
5/23/16	76.7	50.2	0.00	13.5	159.2
5/24/16	79.1	52.4	0.00	15.8	174.9
Weekly Total			0.17"	60.7	
Season Total			2.90"	174.9	

GDDs as of May 24, 2015: 367.7

Rainfall as of May 24, 2015: 5.78"



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	114.8	248.6	-10
June		481.5	
July		640.6	
August		588.6	
September		347.6	
October		105.5	
TOTAL	150.9	2477.6	

1 Accumulated GDD's for the Month

2 The long-term average (1973-2014) 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	1.25"	3.11"	
June		3.68"	
July		3.42"	
August		3.15"	
September		3.64	
October		3.22	
TOTAL	2.41"	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)

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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