



# Finger Lakes Vineyard Update

## In the Vineyard

*Gillian Trimber*

It's dry out. The clouds above Penn Yan this morning are suggestive of showers, but I don't really believe they'll come through. Aside from the smattering of rain some parts of the Finger Lakes received on Monday, we've once again seen very little in the way moisture hitting the soil—only 0.08-0.25 inches of rain this week, depending on the location—hardly enough to change much. While most mature vines are looking ok, we have noticed a few signs of drought stress on sites where vines are young, soils are shallow, and root systems are restricted.



*Leaves looking a little wilted at the Teaching and Demonstration Vineyard.*

Tendrils and new growth are typically the first parts of the vine to show signs of water stress. Drooping tendrils act as early indications of water deficit in the vine, with entire shoot tips wilting if the stress is severe enough. While healthy vines this time of year will have tendrils longer than the newest couple of leaves at the end of the shoot, vines with insufficient water will produce short tendrils that do not reach past the end of the newest leaf, indicating a slowing of shoot tip growth. Internode lengths will also decrease. Lack of water may cause reduced set and aborted berries—a potential concern at this time of year—though most clusters are looking ok so far. With more significant drought stress, leaves will feel warm to the touch, and will orient themselves away from the sun to conserve moisture. Photosynthetic capacity may be reduced, and chlorosis (leaf yellowing) followed by eventual necrosis (cell death) may occur.

# Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 1, 2016

As most growers in our area do not have irrigation systems in place, strategies for relieving water stress are limited to reducing competition between vines and existing vegetation, as Hans described last week, and in more severe cases removing shoots. It's not quite that bad yet, though. The need for sufficient water in young plantings is a bit more pressing, and I've heard of a few growers turning on their drip tape or even watering using a flex tank and hose to water new vines. It's time consuming and labor-intensive, but may be a good strategy in smaller blocks.

Beyond the dry weather, leaf removal is also something we've been discussing with growers this week. Those with machines have begun running them, given that most leaf removal machines are best used when berries are small, hard, and resilient to injury. Others have begun hand removal, or plan to in the next week or two. Most vineyards in the area have fruit somewhere between the BB-sized and pea-sized berry stages, and shoots are elongating quickly once again.



*Newest tendrils on actively growing shoots will typically stretch beyond the first few leaves.*

*Shorter tendrils indicate slowing growth shoot tip growth, possibly due to drought stress. Photo by Corrigan Herbert.*

## IPM

Gillian Trimmer

Growth has been taking off again and berries are enlarging, leaving plenty of brand new surface area on the clusters and leaves that have never been sprayed and are susceptible to infection. Many growers are now applying their first post-bloom spray, depending on variety and location. Despite the dry weather, it's important to use your most effective materials at this stage to prevent infections and to keep inoculum levels low for the remainder of the season, particularly for powdery mildew, downy mildew, black rot, and phomopsis. Choose materials that have limited resistance built up to them, use the full rate, and ensure sufficient coverage.



Pea-sized berries on Cayuga White

### Grape Berry Moth Model- June 29, 2016

With many locations in the Finger Lakes hitting 700 Growing Degree Days by the end of this week, it's time to start scouting for grape berry moth and determining whether population levels justify spraying. If you do plan to spray, be sure to determine whether the material works through contact or ingestion, as this will affect the exact timing of when to apply for maximum efficacy. Check out the [NEWA Grape Berry Moth Forecast Model](#) to see how many growing degree days have been accumulated by your nearest weather station, and refer to Greg Loeb's [insect management edition of our Vineyard Notes newsletter](#) (pages 7-8) for details on grape berry moth.

### NEWA Grape Forecast Models

Select a disease or insect:  
Grape Berry Moth ▼

State:  
New York ▼

Weather station:  
Dresden (FLGP/FLCC) ▼

Date of Interest:  
6/29/2016

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 6/29/2016: 645 (0 days missing)

Daily Degree Days for Dresden (FLGP/FLCC)								
Base Temp	Past	Past	Current	5-Day Forecast			Forecast Details	
	Jun 27	Jun 28	Jun 29	Jun 30	Jul 1	Jul 2	Jul 3	Jul 4
47.14F - GBM	29	25	21	22	23	19	20	23
Accumulation	612	637	658	679	703	722	741	764

NA - not available

Download Time: 6/29/2016 10:00



## Sizing Up the Competition

*Gillian Trimmer*

In the context of this increasingly parched June, it's more important than ever to make sure new vines get the resources they need to grow quickly; the sooner you have a sizeable vine with an established root system, the sooner you'll be seeing a return on the investment of planting. We say it takes three to four years for a new planting to carry a crop, but the reality is that that timeframe varies significantly based on how well the vines are able to grow. That growth, in turn, varies with their access to water, nutrients, and sunlight. In both wet and dry years, one of the biggest inhibitors of young vines getting what they need is competition from weeds going after the same resources. Though grapevines are admittedly pretty weedy plants in terms of resiliency and tendency to grow quickly and everywhere, the other species that colonize a typical New York State vineyard tend to specialize in elbowing out their neighbors through quick dispersal, rapid root growth, and resistance to the various ways we try to kill them.

Though able to grow deep and far under the right circumstances, Grapevines have relatively sparse root systems compared with many of the plants they'll be competing against, and keep the majority of their roots quite close to the surface. Newly planted cuttings, or even one- or two-year-old vines, are hardly a match for the dense mats of roots generated by grasses and many other low-growing weeds. Thus, even if the leaves of the new vine stretch above other plants on the vineyard floor, they may be struggling to outcompete their neighbors for space and resources underground. Weeds towering over young grapevines are almost certainly an indication that the planting is getting only a small percentage of the resources that the site has to offer.

Mechanical and chemical control of weeds in new vineyards are both viable options for reducing competition and thereby helping new vines to grow. If using herbicides, be sure to check whether the material can be applied on non-bearing vines; several of the herbicides labelled for use in New York State are only permitted to be applied on mature vineyards. Grow tubes are often used to protect small vines from herbicide drift, and some form of cone or shield on the nozzle can go a long way toward keeping the spray where it is intended. Mechanical removal of weeds in new vineyards can be accomplished with use of a grape hoe run several times throughout the season, or with finger-weeder type attachments.

Establishment costs are expensive, and each year spent waiting for the vines to bear means another year of paying to care for the planting without reaping the rewards (and income) of a crop. Controlling weeds in new planting is a means of protecting the initial investment of planting, and ensuring the long-term success of those vines.



## 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, July 19      4:30 – 6:00 PM*

*Keuka Spring Vineyards*

*243 Route 54*

*Penn Yan, NY 14527*

Hard to believe we're already halfway through our Tailgate Meeting schedule! Our sixth Tailgate Meeting of the year will be held at Young Sommer Winery in Williamson on Tuesday, July 5.

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 #8

*Tuesday, August 8th      4:30-6:00PM*

*Doyle Vineyard Management*

*10223 Middle Road*

*Hammondsport, NY 14840*

### American Society for Enology & Viticulture – Eastern Section Annual Conference

*July 18-21, 2016*

*Magnolia Hotel*

*St. Louis, MO*

Join us for the 41st American Society of Enology and Viticulture-Eastern Section (ASEV-ES) Conference and Symposium. The meeting will be in St. Louis, Missouri in July 18-21, 2016, more information coming soon. The tentative schedule for the conference and symposium is a tour of vineyards and wineries on Monday, July 18, conference sessions on Tuesday and Wednesday, July 19-20 and a symposium on Thursday, July 21.

Click here for a [registration packet](#) and [click her for an online registration form](#).

## 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
6/22/16	75.5	57.9	0.00	16.7	714.3
6/23/16	77.8	55.4	0.00	16.6	730.9
6/24/16	82.0	50.7	0.00	16.4	747.2
6/25/16	88.3	58.3	0.00	23.3	770.5
6/26/16	89.4	65.1	0.00	27.3	797.8
6/27/16	87.9	66.8	0.11	27.4	825.1
6/28/16	81.4	64.2	0.00	22.8	847.9
Weekly Total			<b>0.11"</b>	<b>150.4</b>	
Season Total			<b>4.61"</b>	<b>847.9</b>	

GDDs as of June 21, 2015: 987.0

Rainfall as of June 21, 2015: 13.68"



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July 1, 2016

## Seasonal Comparisons (at Geneva)

### Growing Degree Days

	2016 GDD <sup>1</sup>	Long-term Avg GDD <sup>2</sup>	Cumulative days ahead (+)/behind (-) <sup>3</sup>
April	36.1	65.2	-9
May	270.1	252.3	0
June	455.1	480.6	-1
July		639.8	
August		588.2	
September		351.0	
October		105.2	
TOTAL	761.3	2481.8	

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 <sup>4</sup>	Long-term Avg Rain <sup>5</sup>	Monthly deviation from avg <sup>6</sup>
April	1.17"	2.89"	-1.72"
May	1.66"	3.11"	-1.45"
June	0.57"	3.68"	
July		3.42"	
August		3.15"	
September		3.64	
October		3.22	
TOTAL	3.40"	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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