



# Cornell Cooperative Extension Finger Lakes Grape Program

June 11, 2019

## Finger Lakes Vineyard Update

### In the Vineyard

*Hans Walter-Peterson*

*I will be attending the American Society for Enology & Viticulture annual conference in California beginning Thursday, June 13. I will be back on Monday, June 24. If I manage to get a Vineyard Update out next week, it will likely be a short one. – Hans*

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With wild grapes finishing bloom this week, we're still on the lookout for any signs of bloom in our cultivated varieties. Clusters on a few renewal shoots near the ground had started to bloom a couple of days ago, but otherwise, as of yesterday afternoon, early varieties like Marquette, Baco and Foch were very close to starting to bloom but not quite there. I would suspect that the sun and warmth we're getting today (Wednesday) will start some petal caps popping in the next day or two.

#### *Cluster counts for yield estimation*

Counting clusters per vine before bloom can provide an early indication of potential yield when those counts are taken from vines that do a decent job of representing the overall amount of variation within a vineyard. If nothing else, comparing these numbers between seasons can give a sense of the relatively fruitfulness of the vines, assuming pruning methods are the same year to year.

We finished taking some cluster counts at the Teaching Vineyard last week, and looking at the numbers between last year and this year, the general trend appears to suggest a higher crop potential this year in most of our varieties.



**Marquette clusters at our Teaching Vineyard are oh-so-close to bloom.**

### In the Vineyard (continued from page 1)

<i>Cultivar</i>	<i>2019 cluster count</i>	<i>2018 cluster count</i>
<b>Riesling / 3309C</b>	67	79
<b>Riesling / Riparia Gloire</b>	50	41
<b>Chardonnay cl 76</b>	36	40
<b>Chardonnay cl 98</b>	38	31
<b>Cab Franc / 3309C</b>	55	41
<b>Cab Franc / Riparia Gloire</b>	44	42
<b>Lemberger</b>	32	31
<b>Grüner Veltliner</b>	29	21
<b>Marquis</b>	56	40
<b>Jupiter</b>	66	32
<b>Cayuga White</b>	69	38
<b>Vidal blanc</b>	63	53
<b>NY81.0315.17</b>	107	83
<b>Marquette (own rooted)</b>	89	81

A couple of things to keep in mind about these numbers:

- As the yield per vine increases, at some point there is a yield compensation with berry size. So while our Jupiter vines have more than twice as many clusters this year as last, it does not necessarily mean that we will have double the yield that we did last year. Chances are that it will be a fair bit higher though.
- Like most other vineyards in the Finger Lakes, these vines carried larger than normal crops in 2017, which in some cases likely led to lower cluster numbers in 2018. This wasn't true in all cases, but it was moreso in the *vinifera* cultivars than the hybrids. In several cases, we are probably returning to a more normal number this year after lower cluster numbers in 2018.

As mentioned earlier, any yield estimate is only as good as the data that goes into it. If the vines that are used for cluster counts are more or less vigorous than most of the other vines in the block, or are significantly different than the rest of the population in some way, then the estimate won't as accurate as it could be. Using data like pruning weights, aerial photographs taken during the season, or from sensors like NDVI sensors, can help to guide where samples should be collected and thereby improving the predictability of early season estimates.

### IPM

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The approach of bloom is the beginning of the most critical window for disease management during the season for all cultivars. Up until recently, many growers have been driving every other row and primarily using materials like sulfur, EBDCs, stilet oil, etc. With the importance of disease management during this developmental stage, and the wet conditions here up until very recently, growers should be focusing on doing the best possible job with their IPM programs over the next several weeks. That includes:

- Driving every row of the vineyard at this point. Field trials by Wilcox and Landers have shown that disease management is improved when sprays are applied directly to each row of vines, even during the earlier part of the season.
- Use full rates. Using rates other than what is called for on the label reduces the efficacy of the material and increases the likelihood of selecting for more resistant individuals within the population of pathogens.
- Be sure the mix of materials in the tank are effective at covering all of the diseases of concern at this point – powdery mildew, downy mildew, black rot and phomopsis (given the season we have had up until now, it might have already exhausted its load of spores, but I wouldn't bet my crop on it). As we discussed at the Tailgate meeting yesterday, most growers in the Finger Lakes probably should not be relying on strobilurins (FRAC Group 11) for control of powdery or downy mildew at this point. If using a product that contains a strobie, such as Pristine, Reason, Sovran, Abound or Flint, be sure that there is something else in the tank to back it up for PM and DM control.
- Even though the terms “pre-bloom” and “post-bloom” are widely used, and may indicate that sprays shouldn't be applied during bloom, it is important to still base applications on the weather conditions and appropriate intervals between sprays given the materials being used. In most cases, a 10-14 day window is recommended depending on weather conditions. Continue to use these to guide your sprays during this time of the season, even if it means spraying while some vines are still going through bloom.

#### *Grape Berry Moth*

We're still in the very early part of the year with regard to grape berry moth control. The GBM model, found at <http://newa.cornell.edu/index.php?page=grape-diseases>, shows that warmer sites like Dresden and Lodi are at 160-170 GDDs. If you haven't tried using the GBM model before, now is a good time to become familiar with it, before you need to be able to use it to make scouting and spraying decisions.

I have found that the model is now starting to input a “default” date for the wild grape biofix that the model uses as its starting point. However, the date that I've been getting from the model for wild grape bloom at Dresden and a couple of other locations is June 8, which is about 5 or 6 days later than the date we observed bloom and have used as our biofix. So it is still important that growers do their best to document when wild grapes reached about 50% bloom at their own site, and use that information for the model.

# Finger Lakes Vineyard Update

Finger Lakes Grape Program

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IPM (continued from page 3)

[Weather Data](#) [Pest Forecasts](#) [Station Pages](#) [Crop Management](#) [Weather Stations](#) [Help](#)

**Grape Forecast Models**

Select a disease or insect:  
Grape Berry Moth

State:  
New York

Weather station:  
Dresden (FLX TDV)

Date of Interest:  
6/12/2019

Calculate

MapResultsMore info

**Grape Berry Moth Results for Dresden (FLX TDV)**  
**Wild Grape Bloom:** 6/2/2019  
*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 6/12/2019: 162 (0 days missing)**

**Daily Degree Days for Dresden (FLX TDV)**

Base Temp	Past	Past	Current	5-Day Forecast					<a href="#">Forecast Details</a>
	Jun 10	Jun 11	Jun 12	Jun 13	Jun 14	Jun 15	Jun 16	Jun 17	
47.14F - GBM	17	16	17	13	11	19	21	21	
Accumulation	138	154	170	183	195	213	234	254	

NA - not availableDownload Time: 6/12/2019

Pest Status	Pest Management
First generation of grape berry moth larvae are hatching and beginning feeding. Grape berry moth will not be at significant population levels in all but the highest risk vineyards.	Research has shown that this insecticide timing for the first generation provides little, if any, additional control of grape berry moth in vineyards classified as being at low, intermediate or high risk for grape berry moth damage. However, an insecticide timed with the immediate postbloom fungicide application can be used in vineyards experiencing significant crop loss from grape berry moth on a yearly basis or in high value vinifera blocks.

### Farm Wages Up 8% in Northeast I

*Richard Stup, Cornell Ag Workforce Development Program*

Wages increased sharply by 8% since last year for hired farm workers in the Northeast I region that includes New York and the New England states, according to [USDA's quarterly farm labor survey](#). Table 1 below summarizes wage rates for field, livestock, and all hired farm employees in April 2019, Table 2 contains the same data for April 2018, one year earlier. The "all hired workers" category includes all field and livestock employees, supervisors and managers. Field workers experienced the biggest gain of 11% or \$1.54/hour more than last year. Wages for all farm employees increased at a slower rate of 5% in the Northeast II region (PA, MD, NJ, DE), and at a rate of 7% in the U.S. overall. All hired farm employee wages are almost \$1.00 higher in Northeast I than in Northeast II and \$.90 higher than in the U.S. overall. Northeast I farm wages are some of the highest overall, trailing only the Pacific Northwest, California, and Hawaii. [According to the U.S. Bureau of Labor Statistics](#) private-industry, non-farm U.S. wages increased by 3% from March 2018 to March 2019.

It's important to note that USDA's wage data includes **only** regular cash wages and salary. Other pay and benefits "such as cash bonuses, housing, or meals, provided to an employee in addition to pay" are **not** included.

**TABLE 1. USDA-NASS FARM LABOR WAGE RATES, APRIL 7-13, 2019**

	Field	Livestock	Field and Livestock Combined	All Hired Workers
<b>NORTHEAST I</b>	14.98	14.02	14.50	15.61
<b>NORTHEAST II</b>	13.55	13.40	13.50	14.63
<b>U.S.</b>	13.80	13.61	13.73	14.71

**TABLE 2. USDA-NASS FARM LABOR WAGE RATES, APRIL 8-14, 2018**

	Field	Livestock	Field and Livestock Combined	All Hired Workers
<b>NORTHEAST I</b>	13.44	13.03	13.25	14.46
<b>NORTHEAST II</b>	13.37	12.68	13.10	13.89
<b>U.S.</b>	12.72	12.78	12.74	13.72



### 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 25 4:30 – 6:00 PM*  
*Morse Vineyards*  
*4170 Vine Road, Penn Yan NY*

#### **ASEV-Eastern Section Annual Meeting and Shaulis Symposium on Digital Viticulture**

*July 16-18, 2019*  
*Hobart & William Smith Colleges, Geneva NY*

***Registration is now open! Early registration deadline is July 2, 2019***

*New York Vineyard & Winery industry members receive the reduced Eastern Section member price!*

A special vineyard tour and symposium entitled “Digital Viticulture: New Tools for Precision Management” will be featured as part of the annual American Society for Viticulture and Enology- Eastern Section (ASEV-ES) conference at Hobart and William Smith Colleges in Geneva, NY on July 16 through July 18.

The two-day program and vineyard tour will bring together suppliers, researchers, and growers to explore the tools and concepts of precision viticulture. New technologies, such as inexpensive sensors, digital imaging, geographical information systems, and precision machinery are converging to make precision viticulture possible. This field tour and symposium will focus on tools, concepts, and platforms for putting it all together to manage vineyards.

More information about the conference, field tour and symposium can be found in the conference registration packet (following pages) and at <http://www.asev-es.org>.

## DIGITAL VITICULTURE

Nelson J. Shaulis  
Symposium

July 17-18, 2019

Keuka & Seneca Lake Vineyards and  
Hobart/William Smith Colleges

### Five Reasons to Attend the Nelson J. Shaulis Symposium, 'Digital Viticulture':

#### 1. See new equipment including:

- Variable rate shoot thinner
- Green seeker canopy density monitor
- Soil conductivity sled and GPS for tractor
- Variable rate fertilizer spreader
- Autonomous steering tractor (Monroe implement)
- Harvester-mounted brix measurement
- Drones
- Networked simple weather stations

#### 2. See precision viticulture techniques in action.

Both for vinifera and Native/Hybrid growers.

#### 3. Hear about 'what it will take'

Program will take you from the original viticultural principles to the "Measure-Model-Manage" sequence that will take you from theory to practice.

#### 4. Meet a representative of the new potential major grape buyer in New York (E. & J. Gallo)



**Nick Dokoozlian** is the Vice President of Viticulture, Chemistry and Enology at E&J Gallo Winery in Modesto, CA. Prior to joining E&J Gallo, Dokoozlian was a member of the Department of Viticulture and Enology at the University of California, Davis, where his research focused on the effects of cultural practices and environmental factors on grape and wine composition. Dr. Dokoozlian received his Ph.D. in Plant Physiology from the University of California, Davis.

#### 5. Meet your soon-to-be Grape Disease Management faculty member



**Katie Gold** received her Ph.D. in Plant Pathology and M.S. in Biometry at the University of Wisconsin-Madison. Katie's research combines precision agriculture, remote sensing, data science, and fundamental plant pathology to develop innovative disease detection and management tools that support the profitability and sustainability of stakeholders. She will be joining the Cornell Agritech Faculty as assistant professor for grapevine disease ecology and epidemiology in February 2020

Registration cost for the field tour and demonstration on July 17 is \$100/person, with limited space available. Cost for the symposium on July 18 is \$150/person. Further program and registration information can be found at <http://www.asev-es.org>.

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## 2019 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
6/5/2019	78.0	62.2	0.15	20.1	339.9
6/6/2019	70.9	55.6	0.00	13.3	353.1
6/7/2019	76.5	49.9	0.00	13.2	366.3
6/8/2019	79.3	50.6	0.00	15.0	381.3
6/9/2019	81.8	54.0	0.00	17.9	399.2
6/10/2019	70.3	59.3	0.53	14.8	414.0
6/11/2019	70.2	55.6	0.00	12.9	426.9
Weekly Total			<b>0.68"</b>	<b>107.1</b>	
Season Total			<b>7.22"</b>	<b>426.9</b>	

GDDs as of June 11, 2018: 596.5

Rainfall as of June 11, 2018: 6.34"



### Seasonal Comparisons (at Geneva) as of June 11

#### Growing Degree Day

	2019 GDD <sup>1</sup>	Long-term Avg GDD <sup>2</sup>	Cumulative days ahead (+)/behind (-) <sup>3</sup>
April	48.1	64.1	-5
May	204.1	255.5	-5
June	134.6	480.9	-6
July		642.1	
August		592.7	
September		357.6	
October		110.1	
TOTAL	386.8	2503.0	

<sup>1</sup> Accumulated GDDs for each month.

<sup>2</sup> The long-term average (1973-2017) GDD accumulation as of that date in the month.

<sup>3</sup> 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.



### 2019 GDD & Precipitation (continued from page 5)

#### Precipitation

	2019 Rain <sup>4</sup>	Long-term <sub>5</sub> Avg Rain	Monthly deviation from avg <sup>6</sup>
April	2.22"	2.85"	-0.63"
May	4.42"	3.13"	+1.29"
June	0.97"	3.60"	
July		3.44"	
August		3.21"	
September		3.57"	
October		3.39"	
TOTAL	7.61"	23.16"	

<sup>4</sup> Monthly rainfall totals up to current date

<sup>5</sup> Long-term average rainfall for the month (total)

<sup>6</sup> Monthly deviation from average (calculated at the end of the month)

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## 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 a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extension Associations in Ontario, Seneca, Schuyler, Steuben, Wayne and Yates Counties.

[flgp.cce.cornell.edu](http://flgp.cce.cornell.edu)



YouTube

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