



Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

Tractors and truck trailers with grape bins have become a much more common sight on the roads around here over the past week. By this point, most wineries and processors have started to bring in some grapes. Most blocks of Seyval, Cayuga White and Vignoles have been picked by now. Growers with Pinot gris and Chardonnay have been busy this week as well, and I expect that we'll begin seeing some Pinot noir and possibly even Lemberger starting to get harvested sometime next week, based on the results from our [Veraison to Harvest sampling last week](#).

Links To

<i>K-Deficiency</i>	<i>2</i>
<i>NEWA Stations</i>	<i>3</i>
<i>2013 GDDs</i>	<i>4</i>



Predictions and estimates of heavier than normal crops in labrusca varieties are bearing out this year. While our two Concord samples taken last week were at 14 Brix, a lot of other Concord vineyards are lagging behind that in sugar development. Constellation has decided to stop their Concord harvest next week, in hopes of getting some more ripe fruit with an extra week of hang time. The dry, sunny weather

that is predicted for the next several days should help the situation to an extent, but when crops are as large as many of them are this year, ripening may still be a struggle given where we are in the season. National Grape Cooperative started taking in Niagara grapes just this past Monday, and is anticipating starting their Concord season next week.

Last weekend's rain dropped anywhere from ½ - 1" of rain around the Finger Lakes, based on readings from some of the [NEWA weather stations](#) around the area. Even with this rain, we are still well below our average accumulation for September (see the weather information at the end of this week's Update), which is some good news in a season that has certainly been

In The Vineyard (cont. from page 1)

less than idea. This rain was both a bit of a blessing and a curse, depending on your situation. In some spots with shallow soils and/or large canopies, we were actually starting to see some drought symptoms showing up on vines, so in these cases the shot of rain was helpful. For those working hard to fight bunch rots, of course, it doesn't really help matters much. Clusters with good exposure should have been able to dry relatively quickly which would help to minimize the impact of this rain event on disease development. The forecast for the coming week looks good overall, with just a chance of some rain next Monday.

Potassium Deficiencies in Heavy Grape Crops

Hans Walter-Peterson



Symptoms of K deficiency on a Concord vine. Symptoms will be most visible on older leaves, as K is mobilized from them to younger leaves and fruit.

During a few of my vineyard stops this week, I have been seeing some signs of potassium (K) deficiency in vineyards that are carrying large crops, particularly in some Concord blocks. When a ton of grapes is harvested from the vineyard, more potassium is removed from the vineyard than any other nutrient (*see table on page 3*). While small amounts of K are recycled in the vineyard system (e.g., chopped up prunings), most of the potassium removed from the vineyard needs to be added back to the system by the grower in the form of either compost or fertilizers.

Given the larger crop this year, most growers should consider applying some amount of potassium to those blocks with higher than normal crops this fall, especially those who have foregone K applications over the past few years in response to either lower yields or higher prices for potash (or both). Blocks that are showing deficiency symptoms like those in the photo above should also be considered to receive a higher dose of potassium this year than what is typically applied.

If a soil test has been taken in these blocks over the past couple of years, consult the results of that test before deciding if an application is necessary – it's possible that the soils already have enough potash, but just could not fulfill the demand of the large crops this year.

Amount of nutrients exported with fruit harvest at different cropping levels. Adapted from Mullins et al. (1992).											
Crop level (ton/acre)											
	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Nutrients Removed (lbs.)											
N	2.9	4.4	5.8	7.3	8.8	10.2	11.7	13.1	14.6	16.1	17.5
P	0.6	0.8	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.1	3.4
K	4.9	7.4	9.9	12.4	14.8	17.3	19.8	22.2	24.7	27.2	29.6
Ca	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Mg	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
To account for annual root and trunk growth, an additional 5% to 10% should be added to these values. Source: Low Input Viticulture and Enology (LIVE) Program Handbook											

Some NEWA Weather Stations Being Phased Out

Mike Colizzi

The Network for Environment and Weather Applications (NEWA) connects you with the weather information you need to better manage your vineyard. What would happen if your local weather station stopped reporting? On December 31, 2013 some of the older Finger Lakes weather stations will cease to report to NEWA.

The older weather stations download information via phone modem only once a day, whereas the new Rainwise models operate more efficiently, are less prone to outages, and deliver data every hour to NEWA. Stations that will cease to report include Geneva, Barrington, Branchport, Pulteney, and Watkins Glen (not Lakewood). If your local weather station is going to be phased out now is the time to consider putting up a new one. This is also a great time to check out the [map of weather stations](#) throughout the Finger Lakes and see if a weather station should be placed on your farm to help you get more out of the NEWA Pest Forecasts. Just because a station is listed on the map doesn't mean it is currently reporting to NEWA so make sure you check and see if the data is up-to-date. Partnering with your neighbor(s) could be a great way to split the cost of a weather station. You can find out more information on Rainwise weather stations in the [About Weather Stations](#) section on the NEWA website.



I recently installed a weather station at the Teaching and Demonstration Vineyard it was very easy the setup and is fairly maintenance free. The new stations use a small solar panel to supply power to the instruments so there are no batteries to change. Data is sent wirelessly from your weather station to a small network interface that automatically uploads the data to NEWA. This means no computer is needed to make the data upload to NEWA, just an Internet connection.

If you have any questions about weather stations please feel free to contact us, or Juliet Carroll 315-787-2430 ec3@cornell.edu.

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 and rainfall 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
9/18/13	73.1	46.0	0.00	9.6	2544.9
9/19/13	77.4	50.4	0.00	13.9	2558.8
9/20/13	80.5	55.0	0.00	17.8	2576.5
9/21/13	71.5	59.3	0.77	15.4	2591.9
9/22/13	56.5	50.6	0.01	3.6	2595.5
9/23/13	58.8	43.4	0.00	1.1	2596.6
9/24/13	65.4	42.4	0.00	3.9	2600.5
Sept 2013 Total			2.00"	296.8	
Season Total			19.49"	2600.5	

Apr 1 GDD on September 24, 2013 at Geneva: 2353.6 (currently 3 days ahead of average)

Average GDD on September 24 (Geneva): 2330.3

Apr 1 GDDs on September 24, 2012 (Geneva): 2701.5

September 2013 Rainfall at Geneva: 1.60"

Average September Rainfall (Geneva): 3.73"

2013 Rain on September 24 at Geneva: 23.49"

Average Rain on September 24 (Geneva): 18.66"

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>.

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