



Finger Lakes Vineyard Update

In the Vineyard

Hans Water-Peterson



The month of July put its stamp on what was already a wet growing season. Anywhere between 6 and 7.5" of rain fell last month depending on which weather station you look at. At Geneva, the 7.4" of rain brings the seasonal total to 20.2", which is approaching our total average rainfall for the season already, in the early part of August. Believe it or not though, we've had worse – as of the end of July in 2010, we had over 21" of rain. So there's

that – I guess...

Given that fact, it hasn't been surprising that we have seen aerial roots forming in some vineyards, especially where canopies are larger and preventing air movement, resulting in an environment where humidity is higher and the trunks and cordons remain wet for longer periods of time. There's no evidence that these roots are problematic or detrimental to the vine (unless they reach the ground, of course), so there's no need to do anything with them.

Newer growth in several vineyards that we have visited recently is appearing a bit lighter green or yellower than it normally would be. While there could be a few different reasons for this, one possible explanation might be the effect that our high rainfall conditions can have on the nutrient status of the vines. For example, as organic nitrogen is converted by microbes to inorganic forms that are available to plants (NH_4^+ and NO_3^-), if there is a lot of water moving through the soil, that nitrogen can be leached out of the root zone. Another possibility is that soils are more saturated than usual, making it more difficult for roots to take up enough nutrients to match the growth that is happening in most blocks right now.

We are approaching veraison for many of our varieties in the region, which would be an appropriate time to collect tissue samples for nutrient analysis to determine whether or not any light coloration or chlorosis is the result of a nutrient issue. However, if a tissue test indicates that there's a nutrient deficiency and it's due to wet soils, adding more fertilizer to the soil this fall would be a waste of money. Having results from both tissue AND soil tests can provide a fuller picture of not just the nutrient status of the vine but also the supply of nutrients that are available from the soil. If the soil has adequate nutrients available for uptake, then further additions won't really alleviate the problem.

If you have questions about tissue and soil testing or interpreting results, feel free to get in touch with the Grape Program and we'll be happy to take a look with you.

In This Issue:

In the Vineyard	pg. 1
IPM	pg. 2
Tailgate Review	pg. 4
Selectively Harvesting	pg. 5
Herman Amberg	pg. 6
Events	pg. 7
GDD's	pg. 8

IPM

Hans Walter-Peterson

Botrytis

We have been starting to see some instances of Botrytis infections appearing in clusters before veraison. This isn't unheard of by any means, and can happen in years like this where wet weather at bloom and shortly after can help to get early infections established. But the fact that we are seeing infections at this stage of the season, before berries begin to ripen, is yet another indication that growers with susceptible varieties (and maybe even some that normally aren't susceptible) will probably be putting in a little more time and expense to manage this disease this year.



Pre-veraison botrytis infections in Riesling at our Teaching Vineyard in Dresden.

This means that growers should be sure to use higher rates of materials such as Endura, Pristine and Flint, which provide very good control of Botrytis when used at those higher rates. Growers who are looking at using any of the newer materials like Botector, Oso, and Ph-D, which have had limited or no evaluation in heavier pressure situations, may want to keep one or two of the “bigger guns” nearby in case these materials are not capable of providing adequate control.

Grape Berry Moth

Warmer sites in the Finger Lakes have reached the point where scouting for GBM should be done to determine the need for another spray application when we reach the next window for Berry Moth control. Scouting for GBM damage should take place between 1470-1620 GDDs (based on [the GBM model, which is found on the NEWA webpage](#)) by looking for clusters showing any injury by larvae feeding. If 15% or more of the clusters examined show signs of GBM feeding, then an insecticide spray applied between 1620 – 1700 GDDs is recommended. Based on the forecast, we anticipate reaching that window sometime early next week at our vineyard near Dresden.

For more information about GBM, including how to scout for it and management options, check out these two videos from the Lake Erie Regional Grape Program and the NYS IPM Program:

LERGP - Scouting, Assessment and Management of Grape Berry Moth: <https://www.youtube.com/watch?v=45fEbuEI5oI>

LERGP Video Podcast – Grape Berry Moth: <https://www.youtube.com/watch?v=5UjJITBCiYA>

IPM (continued from page 2)

Hans Walter-Peterson

NEWA Grape Forecast Models

Select a disease or insect:

State:

Weather station:

Date of Interest:

Grape Berry Moth Results for Dresden (FLGP/FLCC)

Wild Grape Bloom:

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 8/1/2017: 1470 (0 days missing)

Daily Degree Days for Dresden (FLGP/FLCC)

Base Temp	Past	Past	Current	5-Day Forecast					Forecast Details
	Jul 31	Aug 1	Aug 2	Aug 3	Aug 4	Aug 5	Aug 6	Aug 7	
47.14F - GBM	25	26	27	28	28	20	18	19	
Accumulation	1447	1473	1500	1528	1556	1576	1594	1613	

NA - not available Download Time: 8/1/2017

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.

August 1st Tailgate Meeting Recap

Gillian Trimmer

From deer damage to downy mildew, we discussed all sorts of pests at last night's Tailgate Meeting at Belle Terre Farm in Sodus, NY. We were glad to have industry members there from all corners of Wayne County to discuss how things are looking at the north end of our region. Like in other area vineyards, and in plantings of other crops, potato leafhoppers have done some damage. We spent time at the meeting distinguishing how to tell between the leaf curling and chlorosis these insects can cause and the similar symptoms from leafroll virus infections, nutrient deficiencies, and other maladies. Since there's nothing like seeing it in person, we also passed around a vine that showed classic leafroll symptoms in red-fruited grapes: speckled reddening that starts at the leaf margins, with leaf veins remaining green.



Tailgate Meeting participants examine a vine with leafroll-associated virus symptoms.

Growers at the meeting brought up how set has been somewhat variable between farms and between blocks and varieties—perhaps related to the frequent wet weather we had during bloom. We also spent some time discussing crop estimation, and the best way to balance a need for accuracy with the amount of time that one has to spend on it. Depending on the scale of the farm, data imaging technologies such as the normalized difference vegetation index (NDVI) techniques our colleagues in the Lake Erie region are working on may provide an answer for this in the near future. For now, we're still recommending growers count clusters and keep track of cluster weights on a handful of vines in each vineyard block.

We also touched on appropriate sprays for downy mildew, powdery mildew, sour rot, and botrytis, and passed around an example of black rot for those that weren't familiar with the symptoms. Leaf removal was also a big topic of conversation, particularly work on mechanization and timing, and the role it can play in getting good spray coverage, sun exposure, and airflow. In regard to leaf removal via Japanese beetle chewing or mildew infection, the group also spent some time talking about how the effects are so much greater on small vines, simply because they have so much less photosynthetic area to start with.

It was wonderful to see a few new faces and gain some new perspectives at this meeting, and we're very appreciative of all that came out to share what they're seeing and hear from us and one another. Special thanks goes to Mike Madison and all of the others at Belle Terre for hosting our meeting. Our next Tailgate Meeting will be August 15, 2017 from 4:30-6:00 PM at Gridley Vineyards in Bluff Point, NY. See you then!

Selectively Harvesting

Seeking participants for a research study

Selective harvesting for different grades of fruit quality in winegrape vineyards, guided by normalized difference vegetation index (NDVI) images, is commonly used by large wine producers around the world. Selective harvest has been demonstrated to improve net returns by as much as \$1880/acre in Australia, but the expense of hiring a service to image a vineyard has limited its adoption. This practice is now accessible to smaller producers due to the availability of comparatively low-cost drones that growers can use to independently image their vineyard blocks.

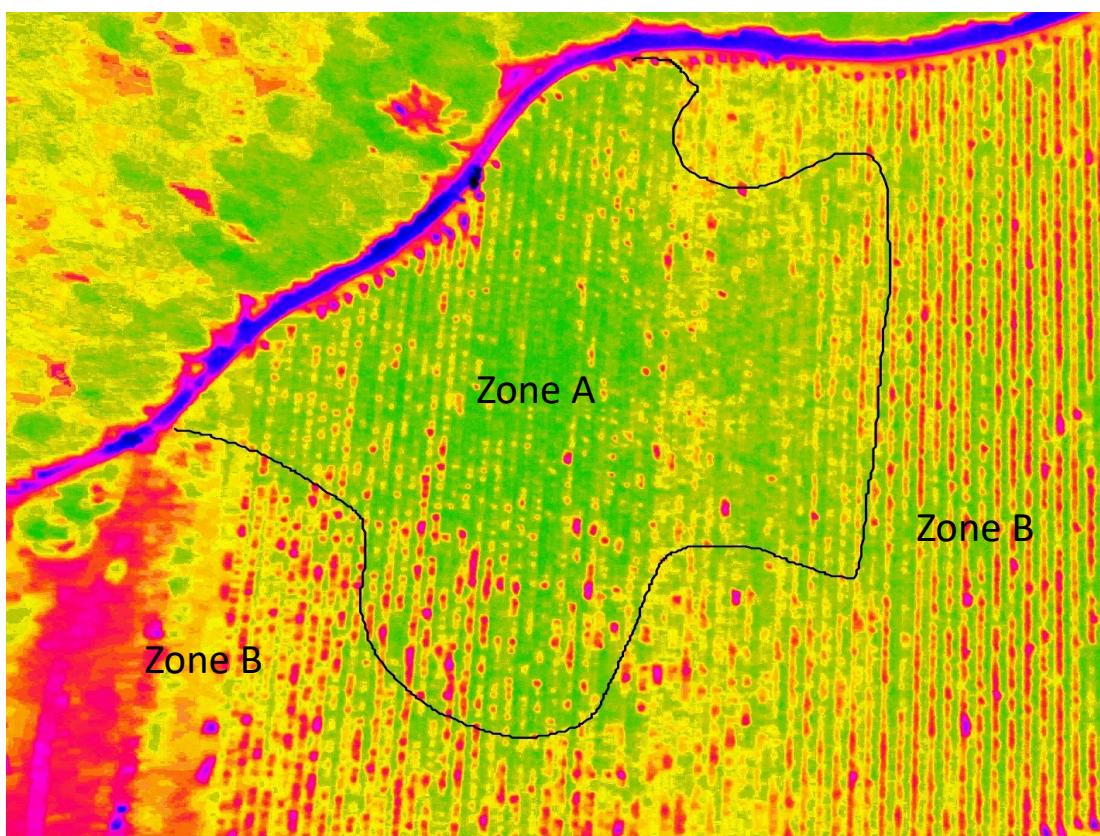


Figure 1: NDVI image of a vineyard block. The green areas represent vigorous sections (Zone A) while the red areas represent low vigor areas (Zone B). The two regions would be harvested and vinified separately.

The goal of this project is for 30 winegrape growers in New York State to evaluate how NDVI-guided selective harvest impacts net revenue in their vineyard. We will work one-on-one with industry collaborators to image blocks using our drone, develop selective harvest plans, assess fruit compositional differences, and determine the impact of the selective harvest on net revenue for the block.

The project is funded by the New York Farm Viability Institute.

If you are interested in participating in the project, please contact Justine Vanden Heuvel at jev32@cornell.edu by August 10, 2017.

Herman Amberg

As we all know, the success of the Finger Lakes industry is due in no small part to the hard work of those who were here before us working in the vineyards, in the cellars, and in the laboratories, and on whose shoulders we all stand today. I consider Herman Amberg to be one of those people. This announcement, posted on the Amberg Grapevine Nursery website, was just brought to my attention today, and I thought it appropriate to share it. Our thoughts and prayers are with Ute, Ralph, Anne, Mark and Eric and the rest of the Amberg family.

With a heavy heart, we announce the June 30th passing of our founder, Herman Amberg, after a long battle with Parkinson's disease and Dementia.

Herman was born on September 18, 1928 in Waldau, Germany. On December 21, 1958, Herman married Ute Beck, who survives him. They were blessed with four loving children Ralph (Peggy), Anne (Lee), Mark (Lina) and Eric (Sandra). Herman and Ute have 10 grandchildren, James, Shelley, Becka, Ali, Katie, Jackie, Heather, Neal, Joelle and Jeremy. He was a veteran of the Korean War, member of Rotary Club, served on the Phelps-Clifton Springs School Board, and a member of many professional organizations including Farm Bureau, New York Wine and Grape Foundation and NY State Wine Grape Growers.



Emigrating to the USA in 1951, Herman began working for Cornell University's Experiment Station in Geneva NY in 1952. He was soon assigned as Dr. Nelson Shaulis' technician. While working with Dr. Shaulis, Herman co-authored papers on the development of the first mechanical grape harvester, the Geneva Double Curtain training system, the first microclimate study of the Finger Lakes and many other viticulture research projects. In 1957, Herman started his fledgling grapevine nursery as a sideline business. After 10 years of part time nursery work, Herman left the "Station" to pursue the nursery full time. Over the years of typical agricultural ups and downs, shifts from primarily native and hybrid varieties to *vinifera* being the dominant varieties propagated, Herman and Ute built the nursery up to over 150 varieties and clones. Their customers have grown from a handful in the Finger Lakes region to thousands throughout most of the country, from Maine to Colorado, Arizona to Florida.

In Herman's honor, the Grafted Grapevine Nursery, LLC. will become, Amberg Grapevine Nursery, LLC, ensuring the lasting legacy of Herman's hard work and dedication. His wife, Ute, will remain active in the office and their son Eric will remain as the farm's production and general manager. We are thankful for your prayers and support as we continue Herman's quest of providing high quality grapevines in the years ahead.

In lieu of flowers, gifts given in memory of Herman Amberg can be made to: Finger Lakes Grape Program Cornell Cooperative Extension 417 Liberty Street, Suite 1024 Penn Yan, NY 14527 (or https://flgp.cce.cornell.edu/donation_invoice_payment.php), or St. Jude's Children's Research Hospital (www.stjude.org/Donate).

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

Tuesday, August 15 4:30 – 6:00 PM
Gridley Vineyards
3096 Vrooman Road, Penn Yan NY 14527

Our eighth Tailgate Meeting of the year will be held at Belle Terre Farm in Sodus, NY on Tuesday, August 1.

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. 0.75 DEC recertification credits will be available.

Lake Erie Regional Grape Program Summer Conference

Friday, August 11 8:30am-4:00pm
Cornell Lake Erie Research and Extension Lab
6592 West Main Rd., Portland NY

The LERGP Summer Conference will feature talks on a wide range of topics, from IPM strategies to cover crops to some of the team's advances in mechanization of grape production. You can see the full agenda at <https://lergp.cce.cornell.edu/event.php?id=288>.

Growers who are enrolled with the FLGP are eligible to receive the discounted registration fee of \$20 for the conference. Those not enrolled must pay the non-member fee of \$100. To register, visit https://lergp.cce.cornell.edu/event_preregistration.php?event=288.

EnoCert 101: Basic Viticulture & Enology

EnoCert 201: Wine Sensory Analysis and Description

EnoCert 202: Tasting Room Sales Strategies

August 14-15, 2017 (EnoCert 101)
August 16-17, 2017 (EnoCert 201)
August 18, 2017 (EnoCert 202)

All Programs held 8:30 AM - 4:30PM

Location: Finger Lakes Community College Viticulture and Wine Center, Geneva NY

Who should take these classes:

- Winery employees who came to wine from another industry
- Those who may be looking to enter the wine industry
- Anyone with significant interest in wine production or sensory analysis
- Tasting room employees

Registration link: <https://grapesandwine.cals.cornell.edu/extension/enocert/eno>

Registration Deadline: Monday, August 7

Registration contact: Sarah Lincoln, sjl38@cornell.edu or 315-787-2255

More information can be found at the Enocert website: <https://grapesandwine.cals.cornell.edu/extension/enocert>

2017 Growing Degree Days and Rain Fall

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
7/26/17	76.0	61.0	0.00	18.5	1528.0
7/27/17	79.0	66.0	0.12	22.5	1550.5
7/28/17	73.0	59.0	0.00	16.0	1566.5
7/29/17	75.0	55.0	0.00	15.0	1581.5
7/30/17	82.4	55.0	0.00	18.7	1600.2
7/31/17	84.0	63.0	0.06	23.5	1623.7
8/1/17	84.2	62.0	0.00	23.1	1646.8
Weekly Total			0.18"	137.3	
Season Total			18.13"	1646.8	

GDDs as of August 1, 2016: 1664.1

Rainfall as of August1, 2016: 6.44"



Seasonal Comparisons (at Geneva)

Growing Degree Day

	2017 GDD ¹	Long-term Avg GDD ²	Cumulative days ahead (+)/behind (-) ³
April	125.8	64.0	+12
May	219.1	252.7	+3
June	492.7	480.8	+3
July	624.0	641.1	+1
August	23.0	591.7	0
September		353.5	
October		106.4	
TOTAL	1484.4	2490.3	

¹ Accumulated GDDs for each month.

² The long-term average (1973-2016) 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.

2017 Growing Degree Days and Rain Fall

Precipitation

	2017 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	3.42"	2.85	+0.57"
May	5.35"	3.08	+2.27"
June	4.00"	3.61	+0.39
July	7.42"	3.36	+4.06"
August	0.01	3.13	
September		3.64	
October		3.22	
TOTAL	20.20"	22.95"	

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!

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, Wayne and Yates Counties

417 Liberty Street, Penn Yan, NY 14527

315.536.5134