



Cornell Cooperative Extension Finger Lakes Grape Program

May 16, 2019

Finger Lakes Vineyard Update

In the Vineyard

Hans Walter-Peterson

Thanks for another great Spring IPM Meeting!

First and foremost, a big 'thank you' to everyone who helped make yesterday's Spring IPM meeting a success. I greatly appreciate our speakers' willingness to travel to Hammondsport, especially Tim Weigle and Bryan Hed who traveled more than two hours each way, to come and share their knowledge with the industry. A big heap of thanks also goes to Matt Doyle and the crew at Doyle Vineyard Management for cleaning out the barn and letting us hold the meeting at their farm. I also want to thank Don Caldwell and Brittany Griffin who did most of the work behind the scenes to get everyone registered for credits and for picking up and setting out the food for dinner last night. We had another great turnout (pretty sure we had over 100 people there again), and I hope those of you who came were able to come away with some good information, as well as some good food and conversation.

Vineyard Conditions



In a word, muddy. Or sloppy. Or saturated. However you want to put it, this has been a really wet beginning to our growing season. According to data from our weather station near Dresden, we have had exactly 8 days out of the past 30 with no measureable rainfall (a few with 0.01", but still, it rained), and no more than 2 consecutive days without any rain during that span. Compare that to 2017, which was a very wet spring (ask any field crop farmer), when we had more total rainfall during that 30 day stretch, but also twice as many rain-free days over the same thirty day period, including an entire week with no rain. No wonder everybody's tile lines are still running full.

In addition to being wet, we have also been lacking heat this spring, which is also part of the reason that the buds in most cases have not developed much over the past week.

The arrival of average to above average temperatures for the next week or so should kickstart their growth. We'll see if that slow start to the season has any impact on when bloom arrives several weeks from now.

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IPM

As mentioned earlier, we have had a very wet start to the season this year, which is the ideal situation for significant phomopsis infections to establish. The overwintering fruiting bodies on canes and rachises begin to release spores early in the spring, which are spread by rain splashing them onto nearby tissues. The disease is most problematic when these spores land on young, newly emerged cluster stems, where the infection can become established and move into the berries later in the year, causing them to rot. Protecting the young clusters as soon as they are visible, therefore, is a key point in the season for management of this disease. This is generally around 3-5" of shoot growth, but in years with the potential for heavier pressure and/or vineyards with a history of high infection rates, sprays may need to begin closer to 1" of growth, which we will probably hit in the next few days with warmer temperatures on the way.



Black phomopsis lesions on grape stems (left) and phomopsis fruit rot symptoms (right). Notice the rotting berry on the left side (with arrow), which illustrates how the infection enters the berry from the stem and works its way down. Photos by Bryan Hed, PSU.

Captan, mancozeb, and ziram are all very effective materials against phomopsis infections. As we get closer to bloom, be mindful of pre-harvest intervals before spraying, as some of them are very long - up to 66 days.

Upcoming Field Meeting with Dr. Richard Smart



Richard Smart with
Nelson Shaulis, his PhD
advisor.

Photo: www.smartvit.com.au

The New York State Wine Grape Growers will be hosting a half day seminar on grape canopy management and grape vine trunk disease featuring Dr. Richard Smart, the “Flying Vine Doctor”, on Monday June 3, 2019. The event will be held at Hazlitt 1852 Vineyards, 5712 Route 414, Hector, NY, from 1:00 – 5:00 PM. The seminar will be free to members of New York State Wine Grape Growers and their employees. The cost will be \$30 each for non-member. Those who are not members are encouraged to join NYSWGG at a reduced half year rate of \$40. We ask that anyone planning to attend make reservations to nyswgg@gmail.com to ensure we have space for everyone.

Dr. Smart has studied and lectured on grape growing all around the world, including in the Finger Lakes, where he did studies for his Doctorate under Dr. Nelson Shaulis at Cornell. His book, “Sunlight Into Wine”, has been heralded for many years as the ultimate guide to canopy management for optimum yield and wine quality, and has been used by growers worldwide to increase their bottom line.

A wine and cheese reception will be held after the seminar for all who attend. We ask those attending to bring along a favorite bottle of wine to share. Cheese and snacks will be provided, and Women for New York State Wine will provide their services for the reception.

Other event sponsors:

- *Chris King, Sawtooth Vineyard Management and Consulting*
- *Nutrien Ag Solutions*
- *Helena Agri-Enterprises*

eNEWA for Grapes – Back by Popular Demand!

Tim Weigle, NYS IPM Grape Specialist – Lake Erie Regional Grape Program

What is eNEWA you ask? eNEWA is a daily reminder of the current weather and grape disease and insect model information found on NEWA (Network for Environment and Weather Applications) <http://newa.cornell.edu>. This daily email contains current weather and grape pest model information from a station, or stations, near you. The email will contain; 1) high, low and average temperature, rainfall, wind speed and relative humidity 2) the 5-day forecast for these weather parameters, 3) GDD totals (Base 50F), 4) 5-day GDD (Base 50F) forecast and 5) model results for powdery mildew, black rot, Phomopsis and grape berry moth.

eNEWA is a great way to get an idea of pest potentials for your vineyard operation without having to click around the NEWA website every day. eNEWA is not meant to be a replacement for the website, rather it is a quick and easy way to determine if a visit to the website is warranted. For example, if one of the pest models is reporting the potential for an infection event, you can visit the NEWA website to provide information specific to your site. This will increase the accuracy of the output of the disease and grape berry moth models. You will also need to access the NEWA website to use the DMCAst model for downy mildew as user input is required.

We worked with Dan Olmstead, NEWA Coordinator, to streamline the sign up process for eNEWA in 2019. By visiting <http://blogs.cornell.edu/yourenewa/e-newa/> you will have the ability to choose from any station that is currently part of the NEWA network in New York and Pennsylvania. You can choose to receive information from one to five station locations and have the information delivered up to three times a day. Please keep in mind that you will receive a separate email (approximately 3 pages in length) for each station you choose. Once during the growing season and again after harvest, you will be asked to complete a short survey to assist us in improving the eNEWA for grapes email system. If you would like to be a part of this project visit <http://blogs.cornell.edu/yourenewa/e-newa/>. eNEWA alerts should start shortly after the growing season begins.

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 #2

Tuesday, May 28, 2019 4:30 – 6:00 PM

James Hicks Farm

5305 Seneca Point Road

Canandaigua, NY

Our second Tailgate Meeting of the season will be held at Jim Hicks' vineyard on the west side of Canandaigua Lake. Pesticide credits will be available for each Tailgate Meeting this season. No registration required – just bring a chair and your questions and observations about what's going on in the vineyard.

Field Meeting with Dr. Richard Smart

Monday, June 3 1:00 – 5:00 PM

Hazlitt 1852 Vineyards

5712 Route 414, Hector NY

Please see the announcement in this weeks' Vineyard Update for information about the program and how to register.

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

July 16-18, 2019

Hobart & William Smith Colleges, Geneva NY

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 at <http://www.asev-es.org>.

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

Shaulis Symposium at ASEV-ES focuses on Digital Viticulture.

Geneva, NY. 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.

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Dr. Nelson Shaulis

“Nelson Shaulis and others developed principles of vine physiology that form the basis of modern viticulture over the past 50 years”, said Tim Martinson, Senior extension associate with Cornell University. “Yet growers have lacked the tools to apply these principles on a vine by vine basis until now. New precision ag technologies are finally making it possible to vary management within a vineyard to achieve management goals.”

The ASEV-ES conference, featuring presentations on enology and viticulture from students and researchers of the Eastern Section, will take place on Tuesday, July 16. The conference includes lunch and Wines of the East reception.

The vineyard tour and demonstrations on Wednesday, July 17 will include variable-rate shoot thinning, mechanical crop estimation, yield monitors, sensors for measuring soil and canopy characteristics, UAV and tractor-mounted imaging systems, and tools for canopy management. The tour includes lunch and reception featuring regional wines.

The Shaulis Symposium on July 18 will focus on applying viticultural principles to address within-vineyard variability. Four sessions will cover the three-step process of implementing precision management: Measure, Model, and Manage. The symposium will include lunch and reception.

- Session 1: Physiology of vine balance and precision viticulture
- Session 2: Metrics for management: Sensors, drones, satellites, and analytical equipment
- Session 3: Models for management: Translating data to practical tools for deciding ‘what I need to do and where’.
- Session 4: Examples of applied digital viticulture.

Registration options for each day are available. Conference, Vineyard Tour, and Symposium information is available at www.asev-es.org.

DIGITAL VITICULTURE

Nelson J. Shaulis Symposium

AMERICAN SOCIETY FOR ENOLOGY & VITICULTURE Eastern Section

New Tools for Precision Management

July 17-18, 2019 Hobart & William Smith Colleges in Geneva NY

Held in conjunction with ASEV-Eastern Section Conference July 16.

For more information about the conference and symposium visit www.asev-es.org

Vineyard Tour and Demonstrations July 17

- **View demonstrations** of new sensors, robots, imaging technologies, and map-guided, variable-rate equipment
- **Experience** equipment demos by industry vendors
- **Enjoy Lunch, Reception, and Wine Tastings** from Keuka and Seneca wine trails while networking

Nelson J. Shaulis Symposium July 18

- **Learn from experts** how digital tools are applied to manage variable vineyards, reduce labor, and improve yield and quality
- **See digital tool application** examples from New York, California, and France

Map-based Management Zones

GPS-Enabled Tractor

Variable-Rate Thinning

NDVI Sensor

3-D Cluster Imaging

Dr. Nelson Shaulis and others developed principles of vine physiology that form the basis of modern viticulture. Yet growers have lacked the tools to apply these principles on a vine-by-vine basis to manage variable vineyards.

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 for managing vineyards.



July 17 Field Day and Vineyard Tour: Demonstrations of sensors, mapping technology, and variable-rate GIS-ready equipment for vineyard management. Tour includes lunch and wine reception featuring regional wines.

- **Morning:** Clearview Vineyards, Branchport, NY. Focus on spatial crop load measurement, yield monitors, tractor-mounted NDVI sensors, mechanical yield estimation, brix mapping, GPS-enabled tractors
- **Afternoon:** Anthony Road Vineyards, Seneca Lake, NY. Focus on vinifera: Drones, Imaging systems including drones and cluster imaging systems, novel sensors, tools for canopy management.

July 18 Nelson J. Shaulis Symposium: The symposium will focus on applying viticultural principles to address within-vineyard variability using the three-step process: MEASURE, MODEL, and MANAGE. Symposium includes lunch and reception

- **Session 1:** Physiology of vine balance and precision viticulture
- **Session 2:** Metrics for management: Sensors, drones, satellites, and analytical equipment
- **Session 3:** Models for management: Distilling a flood of data to practical tools to guide management decisions
- **Session 4:** Examples of “Digital Viticulture” from around the world.

Conference, Tour, and Symposium information at:

www.asev-es.org

Finger Lakes Vineyard Update

Finger Lakes Grape Program

May 16, 2019

2019 GDD & Precipitation

| FLX Teaching & Demonstration Vineyard – Dresden, NY | | | | | |
|---|-------------|-------------|---------------|------------|------------|
| Date | Hi Temp (F) | Lo Temp (F) | Rain (inches) | Daily GDDs | Total GDDs |
| 5/9/2019 | 68.6 | 40.7 | 0.00 | 4.7 | 92.0 |
| 5/10/2019 | 73.7 | 49.1 | 0.41 | 11.4 | 103.4 |
| 5/11/2019 | 55.2 | 41.8 | 0.00 | 0.0 | 103.4 |
| 5/12/2019 | 47.6 | 41.9 | 0.58 | 0.0 | 103.4 |
| 5/13/2019 | 45.3 | 41 | 0.44 | 0.0 | 103.4 |
| 5/14/2019 | 46.7 | 41.2 | 0.04 | 0.0 | 103.4 |
| 5/15/2019 | 67.9 | 42.1 | 0.05 | 5.0 | 108.4 |
| Weekly Total | | | 1.52" | 21.1 | |
| Season Total | | | 4.65" | 108.4 | |

GDDs as of May 15, 2018: 174.7

Rainfall as of May 15, 2018: 2.73"



Seasonal Comparisons (at Geneva) as of May 15

Growing Degree Day

| | 2019 GDD ¹ | Long-term Avg GDD ² | Cumulative days ahead (+)/behind (-) ³ |
|-----------|-----------------------|--------------------------------|---|
| April | 48.1 | 64.1 | -5 |
| May | 41.2 | 255.5 | -12 |
| June | | 480.9 | |
| July | | 642.1 | |
| August | | 592.7 | |
| September | | 357.6 | |
| October | | 110.1 | |
| TOTAL | 89.2 | 2503.0 | |

¹ Accumulated GDDs for each month.

² The long-term average (1973-2017) GDD accumulation as of that date in the 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.

Finger Lakes Vineyard Update

2019 GDD & Precipitation (continued from page 9)

Precipitation

| | 2019 Rain ⁴ | Long-term Avg Rain ⁵ | Monthly deviation from avg ⁶ |
|-----------|------------------------|---------------------------------|---|
| April | 2.22" | 2.85" | -0.63 |
| May | 2.65" | 3.13" | |
| June | | 3.60" | |
| July | | 3.44" | |
| August | | 3.21" | |
| September | | 3.57" | |
| October | | 3.39" | |
| TOTAL | 4.87" | 23.16" | |

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!

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

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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



YouTube

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