



Finger Lakes Vineyard Update

In the Vineyard

Hans Water-Peterson

Now that we're through set, we're starting to get a picture of the crop potential for the season, and so far, things look pretty good. In discussions with growers yesterday at the Tailgate Meeting, it sounds like set is looking pretty good overall, but not necessarily across the board. With the coming and going of cloudy, wet weather during the time that pollination and set was occurring, the number of berries on a cluster will depend a lot on the weather during that process.

Leaf pulling



Leaf pulling has become a more common practice for many growers, especially those with vinifera varieties planted on some form of VSP trellis. In a year like this where we have plentiful rainfall resulting in a lot of vegetative growth, it is even more important to remove at least some of the leaves that are blocking the clusters from exposure to sun, wind and pesticide sprays. Pulling leaves earlier in the season also helps to prevent sunburn later on in the year, as opposed to exposing the clusters later in the year when temperatures are even higher.

Most growers are focusing more of their leaf pulling on the east side of the canopy, in order to promote better drying from dews and moisture and to intercept morning sun. Pulling on the west side varies quite a bit, from minimal pulling to prevent fruit exposure to the hottest temperatures in the afternoon, to almost full removal of the basal leaves to further increase sun and air exposure and chemical penetration to the clusters.

We have a short video that summarizes the potential benefits of the practice and some things growers need to consider when deciding whether or not it is worth investing in the labor or equipment to do so. You can find it at <https://www.youtube.com/watch?v=iROxQFIQ31k>

In This Issue:

In the Vineyard	pg. 1
IPM	pg. 2
Tailgate	pg. 4
Research Order	pg. 5
Events	pg. 6
GDD's	pg. 7

IPM

Hans Walter-Peterson

Potato Leafhopper

Potato leafhoppers (PLH) are showing up in some parts of the Finger Lakes this year at far higher numbers than we usually see. During a few stops in vineyards before yesterday's Tailgate Meeting, I noticed some blocks where the vast majority of vines were exhibiting symptoms of feeding by PLH on younger leaves. It was not unusual to find 3 or 4 nymphs per leaf on some of these vines.



Potato leafhopper does not overwinter in New York, but rather migrates up from the Southern U.S. on weather fronts in the spring, generally from mid-May through late June. Once they are established, however, there can be several generations before reproductive activity and feeding stop for the year. The potato leafhopper can be distinguished from the eastern grape leafhopper by its bright green color (grape leafhoppers are mostly white), and PLH nymphs and adults often move sideways or backwards, whereas grape leafhoppers pretty much just move forward.



The symptoms of feeding by PLH are fairly distinctive – leaf margins will turn yellow (or occasionally red in red-fruited cultivars) and the leaves edges will start to curl downward. These symptoms are due to a toxin that is released by the insect when it feeds on grapes by inserting its sucking mouthparts into the phloem of the vine.

The insects prefer to feed on young leaves, so most activity and symptoms will be closer to the shoot tip. At high enough populations, leaf function can be compromised and shoot growth can be slowed significantly. Some research in Michigan found that as little as one PLH nymph per leaf caused symptoms and a measurable reduction in shoot growth on potted Pinot Gris vines. However, if the insects are controlled, the vines can recover and grow normally again.

Different cultivars have different levels of sensitivity to PLH feeding, and therefore exhibit the foliar symptoms more or less intensely. Those that appear to be most susceptible include Cayuga White, Pinot noir, Pinot gris, and Chardonnay. Riesling, Cabernet Franc and Vignoles appear to be somewhat sensitive to it, while native cultivars like Concord and Niagara, as well as some hybrids including Vidal and Seyval, are fairly resistant to symptom development. So when scouting for PLH, start with the most sensitive varieties like the Pinots, Chardonnay and Cayuga White for early indications of their presence.

The leafhopper can feed on a wide variety of plants, not just grapes. It is also perhaps the most important insect pest of alfalfa. Growers with alfalfa fields nearby should talk with their neighbors about levels of PLH in their fields and how well they are being controlled. If PLH is present when that field is cut, adults may end up on nearby grapevines and increase populations in the vineyard.

IPM (continued from page 2)

Hans Walter-Peterson

As mentioned above, the application of an insecticide can reduce the feeding damage from PLH and help the vine return to normal growth again. Because the insects feed on younger tissues, any new growth that occurs between sprays is not protected from new individuals that come into the vineyard. Materials like Sevin (carbaryl), Danitol (fenpropathrin), and Brigade (bifenthrin), can provide protection for a week or more, but mostly just on the tissues that are sprayed with it. There are some insecticides that are more systemic and have greater longevity (10-14 days), including Admire Pro, Brigadier, and Leverage.

Disease Development

Disease levels are still fairly low in vineyards that we have been visiting the past couple of weeks. We are starting to see some isolated lesions of downy mildew showing up on a few leaves in canopies. The only powdery mildew infections I have seen on clusters have been located in heavy canopies where I suspect spray penetration was being hindered by the foliage. Another argument for some strategic leaf pulling to help improve air circulation and access of the spray materials to the targets tissues.

Berries are developing resistance to new infections from the major diseases at this point. By now, berries should be fairly resistant to new infections of powdery and downy mildew, and to phomopsis (which is probably also done releasing spores by this time in the season). Black rot resistance takes the longest to develop, taking anywhere from 5-8 weeks after bloom (we're about 3 weeks post-bloom for most varieties at this point).



July 5th Tailgate Recap

Gillian Trimmer

What better way to celebrate the Fourth of July than with a Tailgate Meeting? We had plenty of folks come by Atwater Vineyards on the sunny east side of Seneca Lake to talk about grapes with us yesterday evening, despite the change in day for the holiday. Insects have taken more of a center stage lately with pest management concerns, so we focused in on grape berry moth and potato leafhopper. Hans brought along examples of grape berry moth feeding damage—a dark red spot on green berries—as well as a few darting leafhoppers to be passed around and examined. A number of growers in the group, as well as Hans and I, have seen our first Japanese beetles in area vineyards this week, and we discussed the variability of this pest from year to year. Much like foliar *phylloxera*, there's often no need to spray for Japanese beetles despite visible damage on the leaves. Unless they have a very small canopy or an unusually heavy cropload, most vines can handle losing more than 25% of the leaf area to beetle damage without issue.



Hans pontificating about insects at yesterday's Tailgate Meeting.

Given that the berries are still susceptible to several major diseases, we spent time discussing black rot, downy mildew, powdery mildew, and botrytis control. In particular, Hans talked a bit about resistance in powdery mildew to DMIs (DeMethylation Inhibitors) and in both downy mildew and powdery mildew to strobilurins (such as in Pristine).

Last night's meeting also involved some group problem-solving for an issue with set at one vineyard, and some exchange of ideas on the benefits and drawbacks (mostly drawbacks) for pallasage. This was a Tailgate Meeting at its best—a forum for growers to share information with one another and discuss what's going on with others that might know something about it. We hope that you'll bring yourselves, your questions, and your collective expertise to our next Tailgate Meeting, which will be held on July 18th, 2017 from 4:30-6 PM at Keuka Lake Vineyards in Hammondsport. Many thanks to everyone at Atwater for hosting us this time; see you in two weeks!

Proposed Research and Development Order for Grapes

NY Wine & Grape Foundation

The New York Wine and Grape Foundation partnered with the New York State Wine Grape Growers and the Lake Erie Regional Grape Program, Inc., to submit a petition last fall to NYS Department of Agriculture and Markets (NYSDAM) to establish a statewide “Grape Research and Development Order.” The “Research and Development Order”, commonly known as a market order, is an assessment administered cooperatively by the New York State Urban Development Corporation (UDC) and NYSDAM. It will provide a grower supported, grower funded and grower led funding stream for research.

The grape industry in New York State, which is the 2nd largest producer of juice grapes and 3rd largest producer of wine nationally, is an over five-billion dollar per year business. Research in viticulture and enology ensures the future vitality of our grape, grape juice, and wine industries.

The need for problem-solving research will only increase to meet the challenges of identifying rapid responses to emerging pests and pathogens as a result of climate variability, winter injury, consumer preferences and changes in markets. The proposed “Grape Research and Development Order” will be a more consistent source of funding to support problem-solving research and extension projects that will benefit all New York State grape growers.

Other New York State agricultural commodities and US grape growing regions utilize grower assessments to support research. There are five active “Research and Development Orders” in New York State: Dairy, Apple, Cabbage, Onion, and Sour Cherry. Apple growers established the New York Apple Research and Development Program in 1990, which generated over \$200,000 annually. The growers recently voted to double the assessment in order to further support the research efforts in support of their industry.

The NYSDAM will hold public meetings to receive grower feedback about the proposed “Grape Research and Development Order”:

July 10, 2017 — 6:00 to 8:00 PM

Cornell Lake Erie Laboratory
6592 West Main Road
Portland, NY 14769

July 11, 2017 — 10:00 AM to 12:00 PM

Cornell Lake Erie Laboratory
6592 West Main Road
Portland, NY 14769

July 12, 2017 — 10:00 AM to 12:00 PM

NYSAES Jordan Hall
614 West North Street
Geneva, NY 14456

July 13, 2017— 10:00 AM to 12:00 PM

Cornell Cooperative Extension
203 North Hamilton Street
Watertown, NY 13601

Public comments can also be emailed to Mark McMullen, Program Manager, Department of Agriculture and Markets, Mark.McMullen@agriculture.ny.gov

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 July 18th

Keuka Lake Vineyards

8881 County Route 76

Hammondsport, NY 14840

Our sixth Tailgate Meeting of the year will be held at Keuka Lake Vineyards outside of Hammondsport on Tuesday, July 18.

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.

Public Hearing on Petition for NY Grape Research Order

Wednesday, July 12 10:00 am – 12:00 pm

NYS Agricultural Experiment Station - Jordan Hall

630 W North Street

Geneva, NY

The purpose of this hearing is to determine if a vote should be scheduled among the grape growers of New York State on the establishment of a research order to support research and extension activities that benefit the industry. You can read the petition that requests the establishment of the order, along with the proposed rules for it, at <http://www.agriculture.ny.gov/AP/agservices/admin.html>. If you did not receive a letter from the Department of Ag & Markets with a form requesting a ballot for the upcoming vote, contact the Marketing Orders Program at (518) 457-4383.

Double A Vineyards

2017 Summer Grape Conference & Field Day

July 25, 2017 7:30 AM – 4:00 PM

Clarion Hotel, Marina & Conference Center, Dunkirk, NY

Cost: \$75

Registration: www.doubleavineyards.com

The morning session will include presentations on grape disease management, pesticide application technology, the development and importance of clean vines, and grapevine breeding, culminating in a wine tasting of new and promising cultivars. Following lunch, we will travel by bus for the afternoon session to tour Double A Vineyards' new nursery blocks planted from "clean" virus certified plant material developed by the National Clean Plant Network. Our morning speakers and Double A owners and staff will lead discussions and answer your questions on many aspects of managing the nursery. The cost to attend is \$75.00, which includes lunch and the wine tasting. A room block is also available for those who would like to stay the night prior to or following the conference. There is limited spacing so don't wait to reserve your spot!

Register now under the "**Events**" tab at "www.doubleavineyards.com" or by calling the office at 716-672-8493.

Finger Lakes Vineyard Update

Finger Lakes Grape Program

July 6, 2017

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
6/29/17	81.4	62.3	0.00	21.9	929.5
6/30/17	81.7	68.9	0.21	25.3	954.8
7/1/17	79.6	67.4	0.83	23.5	978.3
7/2/17	80.5	63.3	0.00	21.9	1000.2
7/3/17	78.3	62.4	0.00	20.4	1020.6
7/4/17	78.4	57.2	0.00	17.8	1038.4
7/5/17	84.6	55.6	0.00	20.1	1058.5
Weekly Total			1.04"	150.8	
Season Total			12.41"	1058.5	

GDDs as of July 5, 2016: 991.9

Rainfall as of July 5, 2016: 4.61"



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	98.8	641.1	+2
August		591.7	
September		353.5	
October		106.4	
TOTAL	936.2	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	0.92"	3.36	
August		3.13	
September		3.64	
October		3.22	
TOTAL	13.69"	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