



Cornell Cooperative Extension
Lake Erie Regional Grape Program



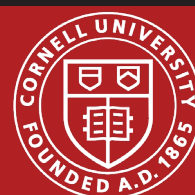
PennState Extension



Crop Update - June 11, 2020

Soaking up the sun at CLEREL
photo- K. Robinson

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The Lake Erie Regional Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extensions in Chautauqua, Erie and Niagara county NY and in Erie County PA.

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How to join a Zoom meeting video (1 minute):

https://www.youtube.com/embed/vFhAEoCF7jg?rel=0&autoplay=1&cc_load_policy=1

Joining and Configuring Audio & Video (1 minute):

https://www.youtube.com/embed/HqncX7RE0wM?rel=0&autoplay=1&cc_load_policy=1

We look forward to seeing you at
Zoom Coffee Pot Meetings

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Business Management

Kevin Martin, Penn State University, LERGP, Business Management Educator

Urease Economics

Retail prices of urea are under \$400 per ton. These additives increase the cost of urea fertilizer by \$80 - \$120 per ton or 30%. Most of that cost is in the additive. There may be an additional cost as the low cost seller of urea may not offer urease. When evaluating the economics of these products, such as agrotain, it is important to keep in mind that many conditions that impact the risk of volatilization vary from farm to farm. Primary factors are weather related, so conditions for significant volatilization may occur, even if such conditions are unusual or unpredictable. It is also important to keep in mind that different additives are trying to accomplish different things.

Large losses of urea are typically rare. With .2" rain 3-4 days after application, losses will likely be near zero. Maximum losses occur on soil that is bare, high PH, low clay, low organic matter, and initially wet soil that dries after application. While losses have been observed as 40%, high risk areas will see typical losses in the range of 20% - 25%.

Many blocks will have higher levels of loss than 0, because some risk factors are present. However, because of a high propensity of rain to occur within 10 days, there is a significant chance that our losses will be less than 20%. Treatments and additives add significant costs to urea fertilizers. As urea prices rise, urease does become slightly more affordable. At current prices we would need to see urea losses above 30% to justify additives.

If you're concerned with urea losses, there are other management options available to you. Refine your fertilizer application process so you own the equipment required to make an application. Begin consider making an application 3 weeks prior to bloom. When soil is dry and rain is in the forecast make a urea application sometime between 3 weeks prior to bloom and shortly after bloom. If organic matter in soil is low, make a split application with the first application 2 weeks prior to bloom. Low organic matter will increase the probability of volatilization.

Soil temperature is another important component of volatilization. Bare unshaded soil can exceed 100 degrees in our climate. Weed cover and vine shading dramatically reduce soil temperature. Sod will easily reduce soil surface temperature by 20 degrees. Taller cover crops, such as springtime grain rye, will reduce soil temperature by as much as 45 degrees.

Soil pH above 7.0 also contributes to greater volatilization. pH that high is a bit of an anomaly in our region. It might be a factor to consider when applying lime to soil. Lime can be added at basically anytime. By adding lime between July 30th and February 1st, the risk of unusually high surface pH can likely be mitigated. Don't add lime a week before urea applications.

Ground cover does present water management risks in sandy soils with low organic matter. I would limit the use of urease to areas that have a significant number of risk factors. A second, post-bloom, application of urea to a sandy soil might be an area to consider urease. If soil moisture is high and no rain is in the forecast, it might provide an economic benefit. Without the presence of multiple risk factors, given the cost, the probability of significant volatilization is too low to justify the cost.

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Bloom Soon

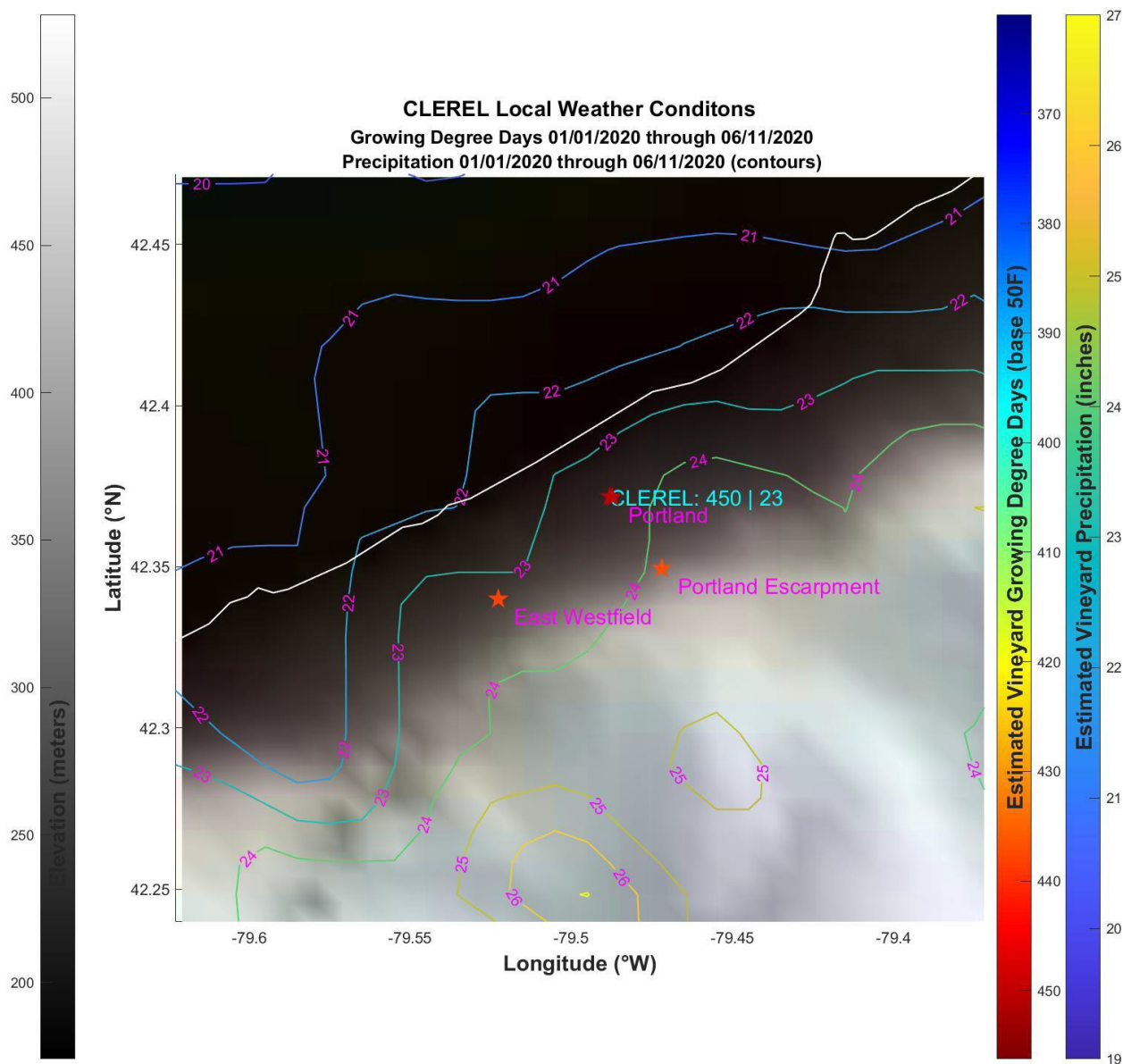
Most are likely taking advantage of the current weather patterns and are out getting their pre-bloom sprays on chasing bloom for both primaries and secondaries in the frost damaged areas. Shoots are out to eight flat leaves and I was out in many vineyards across the belt this week and found trace bloom in many of them. I see many terminating cover crops and hopefully getting your nutrition down for the vines.

You should start thinking about soil and tissue testing for the season if you take bloom petioles. It will be here fast with the weather we have had lately. Please feel free to call if you need more information.

As of the morning of June 11, 2020, the Cornell Lake Erie Research and Extension Laboratory is at 450 Growing Degree Days (GDD) which is just slightly below the historical average. We have also accumulated 23 inches of precipitation since January 1, 2020, that is above the historical average but below the 2017 growing season.

I wanted to take a moment to make sure that everyone has my email: jjr268@cornell.edu and my cell phone (716) 640-5350. If you have any question or need to schedule a visit, please do not hesitate to reach out. I wish you all a healthy and productive growing season.





Notes: Year-to-date Growing Degree Days (GDDs) are reported as color-coded symbols your vineyard (star), nearby vineyards(circles), and CCE offices (squares). Year-to-date precipitation is reported as color-coded contours. Site symbols are annotated with GDD and precipitation (e.g. 110 | 12 indicates 110 GDDs and 12 inches of rain). Yellow circles are NEWA stations closest to your site. GDDs and precipitation are sourced from Cornell's Northeast Regional Climate Center (NRCC) high resolution gridded data service which calculates **GDD using daily high/low temperatures, not hourly**. Elevation data is sourced from United States Geographical Survey (USGS) digital elevation model.

NOAA's National Weather Service Forecast by 12 Hour Period

Notes: Weather forecasts are sourced from National Oceanic and Atmospheric Administration's (NOAA) National Weather Service.

[National Weather Service Forecast \(click to link\)](#)

[NOAA's Disclaimer \(click to link\)](#)

UTC Forecast Time: 2020-06-11T04:37:03-04:00

Today: A chance of showers before 11am. Mostly cloudy through mid morning, then gradual clearing, with a high near 69. Breezy, with a west wind 18 to 23 mph, with gusts as high as 34 mph. Chance of precipitation is 30%. New precipitation amounts of less than a tenth of an inch possible.

Tonight: Mostly clear, with a low around 59. Southwest wind 11 to 16 mph, with gusts as high as 28 mph. Friday: Mostly sunny, with a high near 71. West wind 6 to 13 mph.

Friday Night: A slight chance of showers after 2am. Partly cloudy, with a low around 51. Light north wind increasing to 9 to 14 mph in the evening. Chance of precipitation is 20%.

Saturday: A slight chance of showers. Partly sunny, with a high near 60. North wind 14 to 17 mph. Chance of precipitation is 20%.

Saturday Night: A slight chance of showers after 2am. Partly cloudy, with a low around 51.

Chance of precipitation is 20%. Sunday: A chance of showers after 8am. Mostly sunny, with a high near 66. Chance of precipitation is 30%.

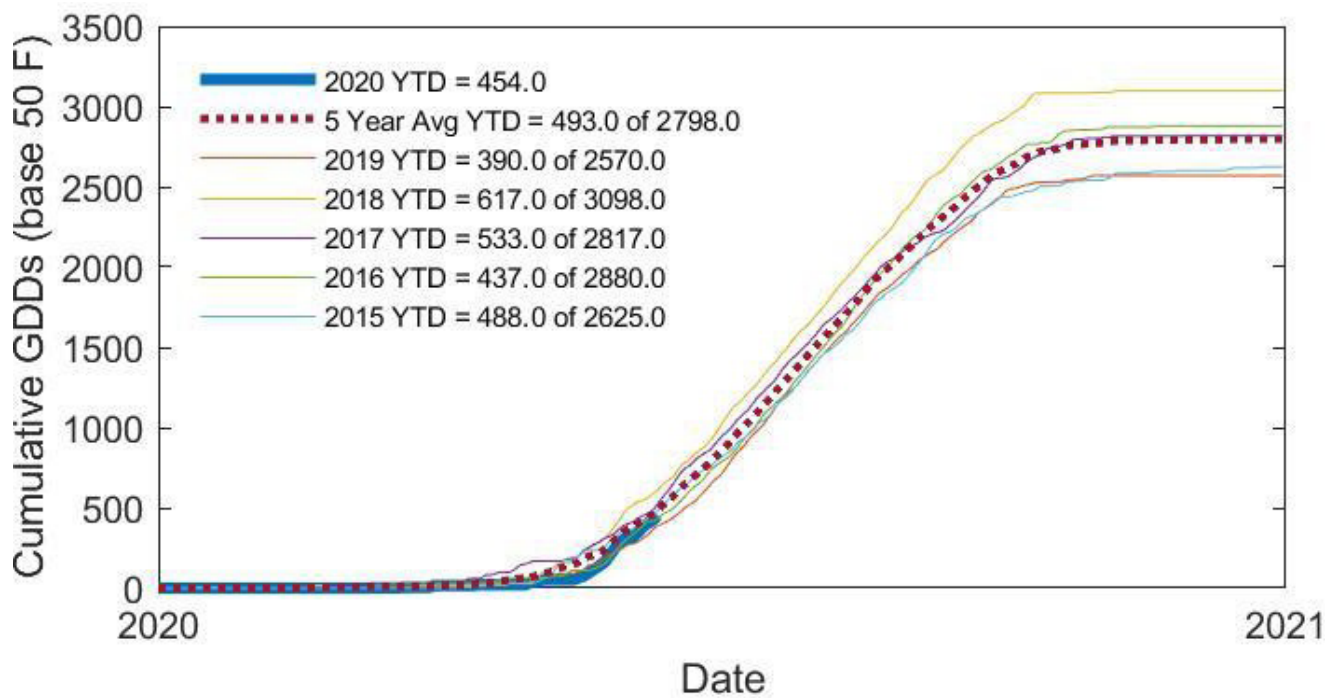
Sunday Night: Mostly cloudy, with a low around 55.

Historical Growing Degree Days (base 50)

Notes: Current season accumulation is reported as the thick blue line from January 1 through date of this report. Historical season data is reported between January 1 and December 31 of each year. The legend indicates how many GDDs had accumulated by the same date in previous years and the final total for the year on December 31.

Data is sourced from Cornell's Northeast Regional Climate Center (NRCC) high resolution gridded data service.

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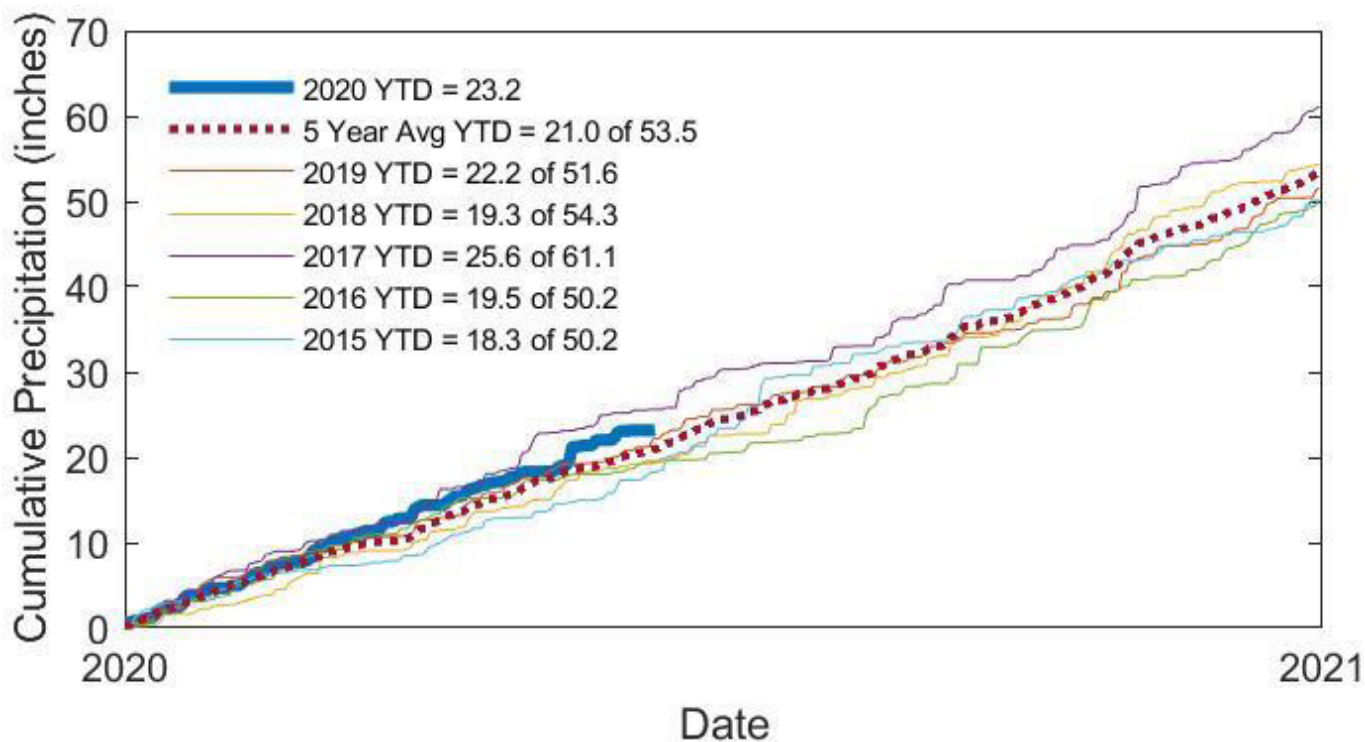
7-Day GDD Forecast

Future GDD total accumulations are estimated using temperature forecasts sourced from National Oceanic and Atmospheric Administration's (NOAA) National Weather Service. If you report a date (send me an email) for wild grape bloom near you the GBM model will use it, otherwise wild bloom date will be estimated.

Date	Phenology (GDD base 50F)	Grape Berry Moth Model (GDD base 47F, after wild bloom) New Generations (start scouting at 750 and 1470)
6/11/2020	469	142
6/12/2020	483	159
6/13/2020	488	166
6/14/2020	499	180
6/15/2020	514	198
6/16/2020	533	220
6/17/2020	555	245

Historical Precipitation (inches)

Notes: Current season accumulation is reported as the thick blue line from January 1 through date of this report. Historical season data is reported between January 1 and December 31 of each year. The legend indicates how many inches of precipitation had accumulated by the same date in previous years and the final total for the year on December 31. Data is sourced from Cornell's Northeast Regional Climate Center (NRCC) high resolution gridded data service.



Regional Resources & Activities (8 pesticide recertification credits available):

- [Questions from the Field, Virtual Tailgate Meeting](#) | *Virtual Tuesday Timely Topics* | Jun-16
- [Early Season Canopy Management/Under Trellis Floor Management](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jun-17 (1 DEC credit)
- [Enology Discussion, Winemaking Issues](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jun-24 (1 DEC credit)
- [Vineyard Establishment, Vineyard care in the first 3 years](#) | *Virtual Tuesday Timely Topics* | Jun-30
- [Open Topic, Questions From the Field](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jul-01 (1 DEC credit)
- [ASEV Webinar: Fruit Flies and Their Role in Causing Sour Rot](#) | *Megan Hall, University of Missouri* | Jul-02
- [Open Topic, Questions From the Field](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jul-08 (1 DEC credit)
- [Winemaking topic TBD](#) | *Virtual Tuesday Timely Topics* | Jul-14
- [Labor Relations](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jul-15 (1 DEC credit)
- [Open Topic, Questions From the Field](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jul-22 (1 DEC credit)
- [Topic TBD](#) | *Virtual Tuesday Timely Topics* | Jul-28
- [Weed Management](#) | *Lake Erie Virtual Coffee Pot Meeting* | Jul-29 (1 DEC credit)
- [Botrytis, Cluster/Sour Rot Management](#) | *Virtual Tuesday Timely Topics* | Aug-11
- [ASEV Webinar: Lifecycle Modeling and the Impacts of Climate Change](#) | *Gwen-Alyn Hoheisel, WA State University* | Oct-22
- [ASEV Webinar: Invasive Species Response: Lessons from the European Grapevine Moth Collaborative Program](#) | *Monica Cooper, UC, Cooperative Extension* | Nov-12

Updates and Information

Kimberly Knappenberger, Viticulture Assistant, LERGP

Hand Sanitizer and Mask Available to Farmers

Update to Distribution of Hand Sanitizer and Masks:

Cornell Cooperative Extension Chautauqua County is distributing free hand sanitizer and face masks to producers in Chautauqua County. Sanitizer and face coverings from the NYS Department of Agriculture have been brought to Chautauqua County through a partnership with CCE Chautauqua and Chautauqua County department of Building and grounds.

If you are interested in picking up some supplies please **sign up for your free product at** chautauqua.cce.cornell.edu/resources/hand-sanitizer-and-face-masks-request.

Production farms of any type are welcome to come pick up hand sanitizer. These farms can include dairy, livestock, grapes, vegetables, farm stands, U-Pick, nursery, equine, and craft beverage.

Supplies can then be picked up at CLEREL; 6592 West Main Road; Portland, NY on Mondays by appointment. You will be contacted at the number left on the online request form to set up a time.

As of the time this article was written, we only have gallon jugs of hand sanitizer at CLEREL in Portland. It is possible that we will have other supplies by Monday, but the delivery is currently not scheduled.

For those of you who have already picked up gallon jugs of hand sanitizer with the hand pump, I'm sure you have noticed how fast and how much comes out. A simple trick that some have tried is to put a piece of a pool noodle or pipe insulator on the pump to keep it from pressing all the way. This will reduce the amount of sanitizer dispensed.



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Jared Mosier

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Dave Maille

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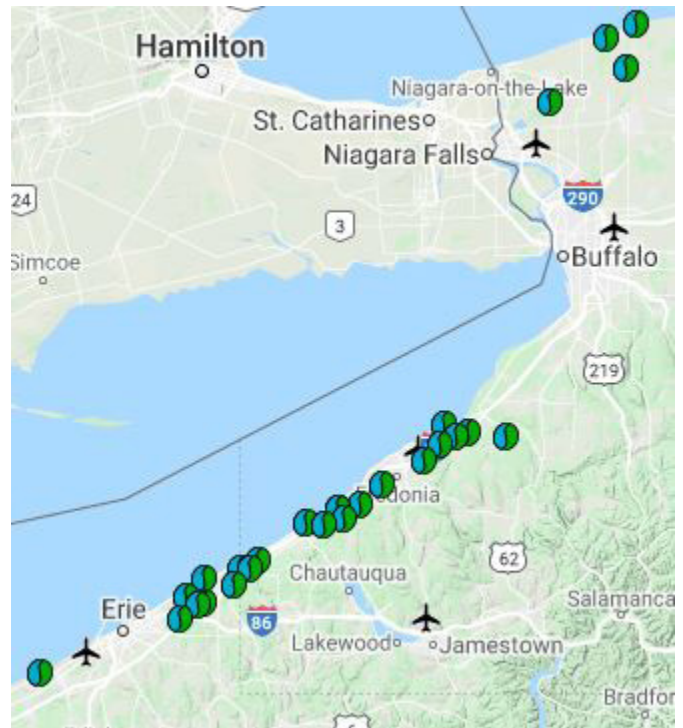
mmagconsulting@gmail.com

NEWA Weather Stations in the Lake Erie Region

Just a reminder that we have 26 weather stations in the NEWA system that span our Lake Erie Grape growing region from Burt in Niagara County to Lake City in Erie County, Pennsylvania. To find a weather station near your vineyards please visit newa.cornell.edu.

The grape disease and pest models have been very helpful to grape growers in the region over the years. These models have been set up to give you valuable information about when to expect pests to be a problem and when you should consider spraying.

The information coming out of those models is only as good as the data going in, so if you notice something that doesn't seem quite right please contact Kim Knappenberger at ksk76@cornell.edu and let her know. Occasionally a sensor needs to be cleaned or replaced so the data is accurate.



VIP Update

We have had an uptick in interest recently in the Vineyard Improvement Program. There seems to be interest in removing abandoned vineyards and planting field crops this spring/summer. It amazes me how quickly some people are able to get a vineyard out and turned around!

We have 21 applicants for the Vineyard Improvement Program. Four of those applicants have already received reimbursements and two more are almost there. Reimbursements are ranging from about \$1,500 to the maximum of \$50,000, with most falling in the \$5,000-\$15,000 range. If you have an acre or more of abandoned or underproducing Concord vineyards, take a look at our website at lergp.com/about-vip to learn more. You can also contact Kim Knappenberger at ksk76@cornell.edu, Kevin Martin at kmm52@psu.edu or Jennifer Phillips Russo at jjr268@cornell.edu.



Figure 1 Abandoned Concord vineyard with poor drainage

PA Update

Andy Muza, LERGP Extension Team & Penn State Extension- Erie County

In the Vineyard (6-11-20) –

Rose Chafer – beetles have emerged from the soil and are moving into vineyards. A few beetles were observed in a vineyard in Lake City, PA this past Monday (6/8). Adult beetles are about ½ inch long, have a light brown body coloration and long, spiny legs (Figure 1). Vineyards with a history of this pest or blocks with sandy soils should be scouted NOW. Scouting should be conducted frequently for this pest until about 2 weeks after bloom. Infested areas can lose extensive numbers of flower clusters if beetles are not detected early and treated. If a threshold of 2 beetles per vine is reached an insecticide application is recommended. Insecticides for management of rose chafer listed in the **2020 New York and Pennsylvania Pest Management Guidelines for Grapes** include Assail 30 SG, Danitol 2.4 EC and Sevin 80 Solupak.



Figure 1. Rose chafer adults on Concord flower cluster.
Photo – Andy Muza, Penn State

Grape leafhopper – adults and feeding injury on basal leaves was observed (Figure 2).



Figure 2. Grape leafhopper feeding injury on Concord leaf. Photo – Andy Muza, Penn State

Black Rot – lesions on Concord leaves are now visible (Figure 3). Leaf lesions are sources of inoculum for berry infections during the critical Immediate Prebloom and first Postbloom periods.



Figure 3. Black rot lesions on Concord leaf. Photo – Andy Muza, Penn State.

Critical Fungicide Application Periods - Checking vineyards this past Friday (6/5) and Monday (6/8), no bloom was observed in Concord vineyards. However, wild grapes at three different sites were at 100% bloom. Concord bloom will probably begin within the next few days (depending

on vineyard location). So, if an Immediate Prebloom Fungicide Application has not already been applied, then do so NOW. This is a critical spray needed to protect rachises, pedicels (berry stems) and berries from our four major diseases (Phomopsis, Black Rot, Downy Mildew and Powdery Mildew). Fungicide products which are **highly effective** against these diseases should be used. See the **2020 New York and Pennsylvania Pest Management Guidelines for Grapes** to compare efficacies of fungicides (Table 3.2.2, pages 47 - 49).

The next critical fungicide application will be the first Postbloom spray which should be applied within 10 – 14 days of the Immediate Prebloom spray. Again, **DO NOT** stretch spray intervals beyond 14 days during this critical period for protection of the clusters. (Check the NEWA station <http://newa.cornell.edu> closest to your vineyard blocks for 5-day weather forecasts and for disease models). Primary and secondary shoots in frost injured blocks will be at different phenological stages. Therefore, clusters on secondary shoots will also have to be protected against diseases during critical growth stages (e.g., Immediate Prebloom, first Postbloom).



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You are Invited!

Meet and Greet: New Viticulture Extension Educator and Team Roundtable Discussion for the Northwest region of PA.

This live webinar will introduce the recently hired Viticulture Extension Educator (Cain Hickey) to industry stakeholders. The Penn State Wine and Grape Team will ask questions, answer questions, and learn about industry concerns through a roundtable discussion format. *This session is for growers in the Northwest Region of PA.*

Topics for this webinar will include viticulture, enology, marketing, and future directions for collaborations between Penn State and the PA wine and grape industry.

Please Note: This session is for growers in the NW Region of PA.

When: Thursday, June 18, 2020 (1 to 3 p.m. ET)

To register: <https://bit.ly/2ZGtEAQ>

This webinar is being offered at no charge, but registration is required. Registration deadline is June 18, 2020, 1:00 p.m.



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PA Update

Bryan Hed, Research Technologist, Lake Erie Grape Research and Extension Center

Weather: During the first third of June we recorded 1.54" rain at our location. We have now accumulated about 187 growing degree days during June, and about 470 gdds as of April 1. The Accuweather forecast for North East calls for below average temperatures until the middle of next week, slowing our approach to bloom. Also, there is a chance for more showers today (June 11) and tomorrow.

Phenology: Currently we are only seeing the beginning of capfall on Elvira and Somerset (an early table grape variety). So, no bloom yet on our Concorde here by the lake. On the other hand, wild grapes have been in bloom for several days, establishing the biofix date for the grape berry moth model in NEWA.

Diseases: As we approach bloom, stay on top of your spray program for the immediate pre-bloom and the first post bloom spray to keep fruit clean, as this period of time (the first two to three weeks after capfall) is the most critical for fruit protection; your fruit are susceptible to all the major fungal grape pathogens, no matter what variety you are growing. This is your annual warning.

Do not depend on tebuconazole products or the strobilurins for protection against powdery mildew at this critical time. Resistance to these materials is widespread and something more - like Quintec or Vivando - is a better choice this close to bloom, in order to control powdery mildew. Also, one of the succinate dehydrogenase inhibitor fungicides like Endura or Luna Experience, would do quite well as a first post bloom spray for powdery mildew. A tank mix with sulfur, especially for wine varieties that are not sensitive to it, is a good idea. Scout for it on cluster stems at this time. If you see the powdery sporulation of the fungus on clusters or leaves during the pre-bloom period, that is a big red flag for a potentially tough time controlling mildew on your fruit this year. Again, always put your best materials on now, during the lead up to bloom and the first/second spray after bloom.

Downy mildew is also active at this time, and any infection that may have taken place after yesterday's wetting period could show up as yellow "oil" spots on leaves close to the ground, especially on susceptible varieties like Niagara and Catawba. Symptoms can show up in as little as four days from the infection period. However, cool temperatures over the next several days may stretch that incubation period out to a week or so. Keep scouting for it; there is no substitute for scouting! So far, I have not seen any downy or powdery mildew on our grapes here by the lake.

As for black rot, I am seeing lesions on leaves in the fruit zone (on unsprayed vines) that likely occurred as a result of wetting periods on 22-23 and 28-29 of May, just a few days after bud break. These lesions may have been controlled by an early shoot spray of mancozeb (applied mainly for Phomopsis). These lesions are in prime position now to release spores onto developing fruit during rain periods after capfall. Scouting, on foot, is the only way to judge your risk of this disease at this time. If you see leaf lesions in the fruit zone, be warned that immediate pre bloom and first and second post bloom sprays of mancozeb, ziram, and/or sterol inhibitors, will need to be applied in a timely fashion to avoid crop loss from black rot, especially if conditions are wet. Although the strobilurins are also effective against black rot (and to some extent, Phomopsis), they are no longer recommended for control of powdery and downy mildew.

Other links of interest:

[LERGP Web-site:](#)

[Cornell Cooperative Extension website:](#)

[Cornell CALS Veraison to Harvest Newsletter:](#)

[Efficient Vineyard:](#)

[Appellation Cornell Newsletter:](#)

