

CROP UPDATE June 3, 2021

Photo-Kimberly Knappenberger

Cornell Cooperative Extension Lake Erie Regional Grape Program



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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.

Contact Information:

Jennifer Phillips Russo - LERGP Viticulture Specialist: jjr268@cornell.edu (716) 640-5350 Kevin Martin – LERGP Business Management Specialist: Kmm52@psu.edu (716) 397-9674 Andy Muza – LERGP Disease and Pest Management Specialist: Ajm4@psu.edu (814) 825-0900 Kim Knappenberger – LERGP NEWA and Vineyard Improvement Program Contact Ksk76@cornell.edu Kate Robinson – Administrative Assistant Kjr45@cornell.edu

Coffee Pot Special Guest Speaker next week- Terry Bates, Dept of Horticulture, CLEREL Director, Agritech

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Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Driving around the belt this week, there have been many vineyards blocks actively being sprayed. We are in the immediate pre-bloom stage and a very critical time for spray applications. Please be sure to look at your NY and PA Pest Management Guidelines for Grapes for guidance, join a Virtual Coffee Pot meeting, or reach out via email or phone.

Next week's Virtual Coffee Pot guest speaker is Dr. Terry Bates to chat with growers about grapevine nutrition. Please be sure to register for pesticide recertification credits on our <u>website</u>. Just a reminder that if you are seeking credits, then you have to register for each meeting that you are seeking credits for.

We are looking at a beautiful forecast the upcoming week and anticipating the official bloom date call on June 8, 2021.

NOAA's National Weather Service Forecast for Portland, NY 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: 2021-06-03T06:44:22+00:00

Overnight: Rain. Cloudy, with a low around 60. Southeast wind around 7 mph. Chance of precipitation is 90%. New rainfall amounts between a tenth and quarter of an inch possible.

Thursday: Rain showers likely before 2pm, then showers and thunderstorms likely. Cloudy, with a high near 67. Southwest wind 7 to 13 mph. Chance of precipitation is 70%. New rainfall amounts between a tenth and quarter of an inch possible.

Thursday Night: A chance of rain showers before 4am. Mostly cloudy, with a low around 61. Southwest wind around 7 mph. Chance of precipitation is 40%. New rainfall amounts less than a tenth of an inch possible.

Friday: A slight chance of rain showers between 9am and 4pm. Mostly sunny, with a high near 73. Southwest wind 7 to 13 mph. Chance of precipitation is 20%.

Friday Night: Mostly clear, with a low around 63. Southwest wind 8 to 13 mph. Saturday: Sunny, with a high near 76.

Saturday Night: Partly cloudy, with a low around 66. Sunday: Sunny, with a high near 81.

Sunday Night: Mostly clear, with a low around 68. Monday: Sunny, with a high near 82.



Figure 1. Historical Growing Degree Days for Cornell Lake Erie Research and Extension Laboratory in Portland, NY

Historical Growing Degree Days (base 50) for Portland, NY

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.

The Cumulative Growing Degree Days for CLEREL are calculated at 352.0 as of June 3, 2021 which is just 13.4 GDDs behind the five-year average.

Historical Precipitation (inches) for Portland, NY

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.

We are still running well below the historical five-year average in precipitation at the Cornell Lake Erie Research and Extension Laboratory in Portland, NY. Our cumulative amount in inches for 2021 is 12.9 inches that is 8.4 inches below the average. 2021 is 12.3 inches below 2017, or the wettest year in the average with 25.2 inches of precipitation at this time. Please consider terminating cover crops that are in direct competition with vines soon if you have not already. Bare ground does not promote soil health. There are efforts around the belt to roll crimp your biomass to terminate it creating a mulch to keep organic matter, soil moisture, and ultimately soil microbes. Mowing is another option that keeps some biomass in the middle rows.





Need help with pruning? Thinning, suckering, and tying? Canopy management in the summer? Harvest hands?

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

In the Vineyard (6-3-21)

Rose Chafer – This Tuesday (6/1/21), I was out checking vineyard blocks, in my go to areas for Rose Chafer emergence, but found no beetles, **yet**. With temperatures in the low 80's starting Friday and continuing over the weekend, I expect beetles to emerge in the next few days. Start scouting NOW in vineyards with a history of this pest or blocks with sandy soils. Ideally, scouting should be done on a daily schedule to determine when emergence of beetles occur. 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 **2021 New York and Pennsylvania Pest Management Guidelines for Grapes** include Assail 30 SG, Danitol 2.4 EC and Sevin 80 Solupak.

Eutypa Dieback – Now is a good time to scout for Eutypa. Stunted shoots with cupped, yellowish leaves are symptomatic of Eutypa infections (Figure 1). Later, as the canopy fills in, these shoots will be difficult to find. Cordons with Eutypa shoots should be pruned a minimum of 8 inches below discolored wood associated with the canker. Another option is to mark infected cordons with flagging tape and remove during the dormant season while pruning. Pruned, infected wood should be removed from the vineyard and burned.

Diligent removal of diseased cordons, on a yearly basis, combined with a consistent trunk renewal program can limit the severity of this disease in vineyards.

Powdery mildew & Black rot - this week (6/1/21) powdery mildew was observed on a Concord flower cluster (Figure 2). Also, a few black rot lesions were found on Concord leaves for the first time this season (Figure 3). Leaf lesions are sources of inoculum for berry infections during the Immediate Prebloom and First Postbloom periods. Although disease levels are low at this point, we are at a critical period to protect clusters against infections.

Immediate Prebloom Fungicide Application – Since Concord bloom is predicted as early as next week, this is another reminder that a fungicide application needs to be applied at the <u>Immediate Prebloom</u> stage (just before blossoms open). This is a critical spray



Figure 1. Concord shoot with Eutypa dieback symptoms. Photo – Andy Muza, Penn State.



Figure 2. Powdery mildew on Concord flower cluster. Photo – Andy Muza, Penn State.

needed to protect rachises, pedicels (berry stems) and berries from our four major diseases (Phomopsis, Black Rot, Downy Mildew and Powdery Mildew). **Be sure to include a mancozeb product in your tank mix for the Immediate Prebloom spray and don't forget to also include an effective material for powdery mildew (e.g., Quintec, Vivando).** Refer to Bryan Hed's Crop Update for additional information.

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 <u>http://newa.cornell.edu</u> closest to your vineyard blocks for 5-day weather forecasts and for disease models).



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

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 periods (e.g., Immediate Prebloom, First Postbloom).



PA Update

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

Weather: At our location, May finished up with 1.95 inches of precipitation, about half of our long term average for the month. Growing degree days for May totaled 271.2, right about at our long term average of 276. The last time we had a dry April and May was back in 2016, 2012, and 2007, and in all these years, they were followed by a dry June. And from our weather records over the past 20 years, June is the driest month of the season, on average.

Last night's rainfall totaled just 0.18" by 7 am this morning; just enough to put the dust down for a day. The forecast for North East calls for 40% chance of rain today, falling to 30% by evening, and then 20% chance of rain tomorrow (June 4). High temperatures look to be going up over the next few days (upper 70s/low 80s) with little or no further chance of rain over the weekend.

Phenology: No bloom yet on our Concords here by the lake, but shoots are averaging 11.8 inches with 5.8 leaves. This only sets us 5 days ahead of last year in terms of shoot growth. On the other hand, wild grapes here went into bloom on May 26 (about 8 days ago), after which temperatures dropped like a stone, stopping development. The biofix date for the grape berry moth model in NEWA is established at full bloom, which occurred here around the end of May.

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, even if you suffered late frost damage. This period of time (the first two to three weeks after capfall) is the most critical for fruit protection in all varieties, from all the major grape diseases. If you put any sprays on for disease this year in frost damaged vineyards, it should at least be these next 2-3 sprays. And with last night's rain, we likely generated an infection period for powdery mildew, black rot, and Phomopsis. I know there are some very small crops out there where late frosts have taken or crippled most of the primaries. But the immediate prebloom and first post bloom sprays should still go on, targeted to protect the first three weeks or so of early fruit development after capfall.

Powdery mildew: We have only had about a handful of powdery mildew infection periods this spring and so I don't anticipate more than modest disease pressure at this time in the season. Nevertheless, do not depend on tebuconazole products or the strobilurins for protection against powdery mildew at this critical time, even on Concords and Niagara. Resistance to these materials is widespread and something more is needed this close to bloom in order to control powdery mildew (like Quintec or Vivando on Concord; Revus Top on Niagara). One of the succinate dehydrogenase inhibitor fungicides (FRAC 7) like Endura, would do quite well as a first post bloom spray for powdery mildew. For the other diseases, use a tank mix with a mancozeb product, pre bloom, and switch to ziram in the post bloom period to pick up black rot, Phomopsis, and downy on Concord. However, ziram is weaker on downy than mancozeb, and for Niagaras you may want to add another ingredient to the first post bloom spray, like a phos acid or Reason (or Revus/Revus Top if not used pre bloom), to pick up the downy if disease pressure is high (if rainfall picks up).

For wine grapes, some of the heavier hitting FRAC 7s like Aprovia (for powdery only) Aprovia Top (powdery and black rot), Luna Experience (powdery and black rot) along with a sulfur tank mix (for wine varieties that are not sensitive to sulfur), can be a good idea, especially if you've been having

unsatisfactory control of powdery with the standard fare of Quintec/Vivando. But for these newer FRAC 7s, cost can be a major deciding factor, and none of them will control downy mildew. Pristine is also still on the table, but if you have powdery mildew strains with strobilurin resistance (and yes, we have confirmed strobilurin resistance from powdery mildew strains in Erie county PA), you will only get powdery control from the Endura component (boscalid) of Pristine; all the more reason to tank mix with sulfur. And, unlike the sterol inhibitors, (like tebuconazole that will still control powdery to some extent), resistance to strobilurins renders them pretty much ineffective against powdery, at any rate. However, the strobilurin component of Pristine is still going to control black rot and probably downy mildew too (no resistance confirmed yet...yet), whereas Endura alone will not control these other diseases, and will have to be applied with a mancozeb product or something else for black rot and downy on wine grapes.

Scout for powdery mildew 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: As downy mildew is also active at this time, any infection that may have taken place after this most recent 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 4-5 days from the infection period, so scout for this disease around mid-week, next week.

Black rot: As for black rot, I am seeing lesions on leaves in the fruit zone that occurred as a result of a wetting period on 3-4 of May, just a few days after bud break. These lesions would have been controlled by an early shoot spray of mancozeb (applied mainly for Phomopsis) and are now in prime position 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. Start your scouting in places that are most at risk of this disease (you know your blocks better than anyone). 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 if conditions are wet. Although the stobilurins are also effective against black rot (and to some extent, Phomopsis), they are no longer recommended for control of powdery mildew.



Information for you

Kate Robinson, Administrative Assistant, LERGP



Coffee Pot Meeting June 9 @ 10:00am

Join us for special guest speaker- Dr. Terry Bates, Senior Research Associate, School of Integrative Plant Science Horticulture Section, Director, Cornell Lake Erie Research and Extension Lab, Cornell AgriTech



Registration Requirements- Please Read!

To receive DEC and PDA pesticide credits, you are required to register for <u>each of</u> the coffee pot meetings you plan to attend. You do this at the <u>LERGP web-site</u>.

Choose the coffee pot meeting you would like to attend-

Click on "view details"

Click on "Register for this event now"

Then send a copy of your pesticide license to <u>kjr45@cornell.edu</u>, In the e-mail include your Date of Birth. This step only needs to be done one time, but continue to register for subsequent meetings.

Registration is open until 8:00am the day of morning meetings and 4:00pm on evening meetings.



Other links of interest:

LERGP Web-site:

Cornell Cooperative Extension website:

Cornell CALS Veraison to Harvest Newsletter:

Efficient Vineyard:



Appellation Cornell Newsletter:

COVID-19 resources:

Need information? View the following Cornell CALS and CCE Resource Pages Updated Regularly

General Questions & Links:

https://eden.cce.cornell.edu/

Food Production, Processing & Safety Questions:

https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/

Employment & Agricultural Workforce Questions:

http://agworkforce.cals.cornell.edu/

Cornell Small Farms Resiliency Resources:

https://smallfarms.cornell.edu/resources/farm-resilience/

Financial & Mental Health Resources for Farmers:

https://www.nyfarmnet.org/

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www.farmworkers.cornell.edu

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