

CROP UPDATE June 2, 2022

Concord shoot-Kim Knappenberger

Cornell Cooperative Extension Lake Erie Regional Grape Program

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We need your help:

The LERGP team would like to invite you to be a part of our Advisory Council Board. Put simply, as an Advisory Council member, you would be invited to attend 2-3 meetings per year (hybrid of Zoom and in person) and provide input and suggestions to enhance our programming in areas such as conference content, meeting topics and locations, areas of interest and relevance in terms of research, and overall guidance to further develop the program. The formal duties and responsibilities are as follows:

Duties/Responsibilities of the Program Advisory Committee

- 1. Assist the extension staff in identifying, analyzing and prioritizing educational program needs.
- 2. Support the extension staff in planning, implementing, and evaluating educational activities to address specific concerns.
- 3. Assist the extension staff in marketing the educational program within the participating extension associations in the two-state region.
- 4. Maintain strong two-way communications with the associations in making specific program needs known.
- 5. Provide input into the recruitment, employment, performance review and reappointment process for the extension specialists.
- 6. Provide input into the annual budget development. Assist in identifying alternative funding sources and strategies as needed.

If you are interested and willing to join us in this endeavor, please e-mail me (<u>kjr45@cornell.edu</u>) to express your interest. You may also call me at 716-792-2800 EXT 201.

We greatly appreciate your consideration to be part of our team.



Save the date- August 2, 2022 LERGP Summer Demo Day at CLEREL!

The Cornell Lake Erie Research and Extension Laboratory Research Demonstration Day Agenda

8:30 AM - Registration and Check In

9:00-10:45 AM - Welcome and Indoor Flash Talks

- Dr. Terry Bates, Director of the Cornell Lake Erie Research and Extension Laboratory, will give the Welcome Opening, history of CLEREL, and Research Overview.
- Dr. Lynn Sosnoskie, Assistant Professor, School of Integrative Plant Science Horticulture Section Cornell AgriTech, will discuss her work with the weed precision spot sprayer. Dr. Rob Chancia, Post Doctoral Researcher, Rochester Institute of Technology, Chester F. Carlson Center for Imaging Science, to discuss work on sensor imaging for nutrient deficiency detection.
- Dr. Abhisesh Silwal, Carnegie Mellon University, Robotics Institute Project Scientist, will introduce his work with the robotic pruner.
- Nick Gunner, CEO, Chief Platform Engineer & Lead Designer for Orbitist, to discuss the <u>Efficient Vineyard Project</u> and the <u>MyEV tool</u>.
- Dr. Debbie Aller, New York Soil Health Alliance Extension Associate, will discuss sustainable soil management practices.
- Nicole Kubiczki, Resource Soil Scientist for the Natural Resources Conservation Service (NRCS), will discuss what to expect at our soil pits.

10:50-12:30 PM - Vendor Show and Lunch

12:30-4:00 PM – Afternoon Tour of Research Blocks and NRCS Gravel and Heavy Soil Pit Presentations

You can register by sending in the paper form on the next page or:

REGISTER ONLINE

2022 SUMMER DEMONSTRATION CONFERENCE REGISTRATION FORM

to be held at CLEREL on Tuesday, August 2, 2022 Deadline for registration is Friday, July 29, 2022

Name (1 st attendee)		\$			
Farm Name					
Address, City, State, Zip Code					
		<u>-</u>			
Phone	E-mail				
Are you enrolled in Lake Erie Regional Grape Program (LERGP)? YesNo					
REGISTRATION FEES					
LERGP Member attendee		\$ 25	5.00		
Non- member		\$50	.00		
Additional Attendees: (Mem	ber/non-member fees apply)				
			.0.00 late fee for each		
		reservation mad	e after July 29, 2022.		
		TOTAL \$			
Please make check payable to LERGP (Lake Erie Regional Grape Program) and mail to: Kate Robinson (<i>US funds only</i>) 6592 W Main Rd Portland NY 14769					
Name	NY DEC/PA PDA NUMBER				
Name	NY DEC/PA PDA NUMBER				
Name	neNY DEC/PA PDA NUMBER				
Date Ck. Rec'dAmountCall Kate at 716-792-2800 ext 201 with any questions, Or e-mail at kjr45@cornell.edu.					

REGISTER ONLINE

Business Management

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

Pre-bloom Upon Us.

You missed a great coffee pot this week at Knight farms, unless you were there. Lots of growers had questions, concerns, and plans. Also, lots of new knowledge was shared as grower operations are changing a lot right now. I'm not sure how soon trace bloom will be but it is very unlikely that another crop update will be published prior to trace bloom.

One perennial relevant question right now has been planning materials for pre-bloom spray applications. While it's hard to say what spray is the most important for the year, the first post-bloom spray beats the immediate pre-bloom by just a hair. The investment in material should reflect the importance of the spray. For the most part, that's exactly what growers plan on doing.

In Concord, pre-bloom is easy for most diseases. We spray an EBDC immediately prior to bloom. There is no other material that is an adequate substitute. It does not require much in the way of resistance management. The cost, given the number of diseases it controls, is low. It is a low cost no matter how you measure it. Given the efficacy, relative to other materials, the cost is low. Given the historical price, the cost is low. Compared to the amount of crop saved, the cost is very low.

Most Concord growers have already purchased between 3-5 materials for powdery mildew. With supply chain challenges and high profits last year, growers went ahead and made these purchases quite awhile ago. Looking at pesticide inventory the grower should apply their second-best material in the immediate pre-bloom. They should apply their best material in the immediate post bloom. It does make sense to use multiple materials, like a crop oil, but make sure the materials are compatible with each other. Check, for example, when it is appropriate to use vivando with a crop oil and when it may cause damage.

A grower should use one very good material for powdery mildew control in each of these sprays. All of these materials cost more than \$10 per acre and most of them are in the range of \$18 - \$26 per acre. Right now, for most growers, very good materials include:

- Luna Experience
- Gatton
- Endura
- Vivando
- Quintec
- Torino

If you do not have two of these materials in your inventory, I would recommend purchasing these fungicides. The evolution in the Concord market on the expense and revenue side has increased the difficulty of low-input, low yield viticulture. Crop loss through powdery mildew infections can and needs to be avoided to maximize profitability. In addition to two excellent materials, it is not unusual to mix a materials with post-infection activity or even an eradicant. That might be economically prudent, but it would depend on inoculum levels, 10" shoot spray materials, and actual spray intervals. There are several options to tank mix that are not commonly mixed in Concord vineyards (such as potassium bicarbonate or tetraconazole). Most common tank mixes include Stylet oil, Nutrol or Tebuconazole.

From the perspective of materials, the cost of the next two sprays should be \$75 - \$85 per acre and should cover every major disease. Insecticide costs average less than \$4 per acre currently. If growers scout and spot spray where scouting determines a need, most blocks will not require a serious insecticide investment at this time.





Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard

The beautiful weather and warm temperatures pushed things along this past week. With reports of locust trees in bloom and the distinctive itchy eyes and sneezing that I keep enduring, Dr. Terry Bates took another look at the Lake Erie Growing Degree Days to see if the Concord Bloom Date had changed with this beautiful weather since May 1, 2022. The original prediction was June 12, 2022 and as of May 31, 2022, Concord bloom is predicted to be June 9-10th (see Figure 1.). Please make sure to reduce the competition between middle rows and grapevines during rapid shoot growth to give the vines the best chance this growing season. Rapid shoot growth happens two weeks before bloom and up to four weeks after. We are predicting bloom in 8 days and there is still some very tall biomass out there.

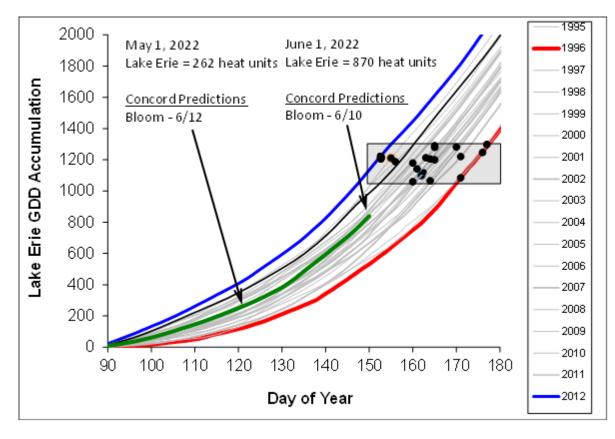


Figure 1. Lake Erie Historical Growing Degree Day Accumulation by Day of the Year

The wild grapevine bloom is another bioindicator, and you should note the wild grapevine bloom date near your vineyards in your Viticulture planning calendar. That needs to be recorded in the Grape Berry Moth Model on NEWA to begin GDD accumulation to time spraying for GBM. This is a photo of a wild grapevine in Ripley, NY right next to a Concord vineyard (see photo 1). The photo below also shows one of the Spotted Lanternfly traps that we installed and will monitor throughout the growing season. There are no pheromones to draw the invasive bug into our area, only to see if they are already here. We are working with NYS IPM and NYSDAM on the effort.



I was in many vineyards this week to record phenology and found trace bloom in a Marquette vineyard note the Photo 2. below compared to the Concord clusters (Photo 3.) that I inspected. I have not found any trace bloom in Concord grapes yet.



Photo 2. Marquette grape trace bloom in Sheridan, NY on June 2, 2022.

Photo 1. Wild grapevine bloom next to a vineyard in Ripley, NY on June 1, 2022.



Photo 3. Concord clusters at Cornell Lake Erie Research and Extension Laboratory in Portland, NY on May 31, 2022.

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: 2022-06-01T08:05:49+00:00

Overnight: Partly cloudy, with a low around 71. Southwest wind around 9 mph.

Wednesday: A slight chance of rain showers between 11am and noon, then a chance of showers and thunderstorms. Partly sunny, with a high near 76. Southwest wind 10 to 15 mph. Chance of precipitation is 40%. New rainfall amounts between a tenth and quarter of an inch possible.

Wednesday Night: A chance of showers and thunderstorms before 8pm, then a chance of showers and thunderstorms between 8pm and 1am. Mostly cloudy, with a low around 56. West wind 5 to 10 mph. Chance of precipitation is 50%. New rainfall amounts between a tenth and quarter of an inch possible.

Thursday: A chance of rain showers after 7am. Mostly cloudy, with a high near 65. West wind 3 to 9 mph. Chance of precipitation is 40%. New rainfall amounts between a tenth and quarter of an inch possible.

Thursday Night: A chance of rain showers before 2am. Partly cloudy, with a low around 54. West wind around 9 mph. Chance of precipitation is 40%. New rainfall amounts less than a tenth of an inch possible.

Friday: Sunny, with a high near 69.

Friday Night: Mostly clear, with a low around 52.

Saturday: Sunny, with a high near 65.

Saturday Night: Partly cloudy, with a low around 52.

Sunday: Mostly sunny, with a high near 72.

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.

As of May 31, 2022, the Growing Degree Days since January 1, 2022 for CLEREL in Portland, NY are 350 GDDs denoted by the thick blue line on the figure 2 below. This is only 6.2 GDDs behind the five-year average and only 1 Growing Degree Day more than last year at the same time (see Figure 2.).

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.

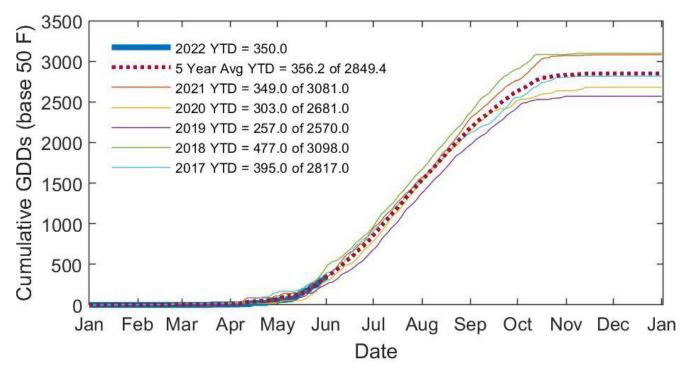


Figure 2. Historical Growing Degree Days (base 50) for CLEREL in Portland, NY as of May 31, 2022

The cumulative precipitation in inches for CLEREL since January 1, 2022 as of May 31, 2022 is 18.4 denoted by the thick blue line, that is 1.5 inches below the five-year historical precipitation accumulation. The closet year thus far is 2018 with 18.9 inches (see Figure. 3).

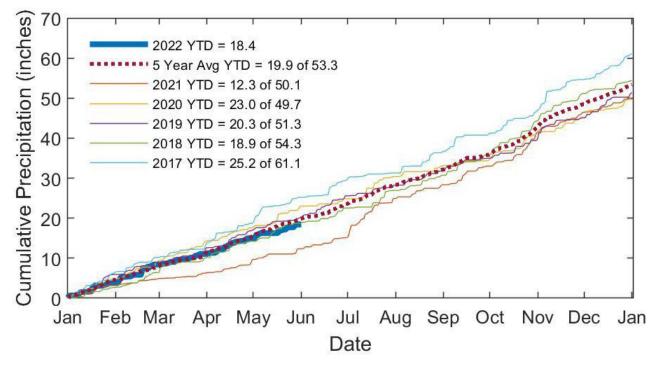


Figure 3. Historical cumulative precipitation in inches for CLEREL in Portland, NY since January 1, 2022.

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PA Update

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

<u>Weather</u>: At our location, May finished up warmer and wetter than average with 4.32 inches of precipitation, and about 345 growing degree days (well beyond our long term average of 276). Rain is in the forecast for later today, but the weekend looks mostly pleasant and dry.

<u>Phenology</u>: Looking back into our records of past, similar years, I suspect trace bloom will occur on Concord around June 9-10th at our site (late next week). Concord shoots here are currently averaging 13.5 inches with about 6 leaves. Wild grapes here went into bloom on May 30 and were at full bloom by June 1. The biofix date for the grape berry moth model in NEWA is established at full bloom.

<u>Diseases</u>: Downy mildew got fired up in vineyards almost 2 weeks ago as we saw our first sporulation of this pathogen back on May 26 on sucker growth low to the ground. Be vigilant scouting for this disease as rainfall on May 21, 22, 27, and 28 likely resulted in infection periods for this disease (the downy we saw on May 26 was a result of infection periods on May 21-22, 12 days ago). As downy mildew has been active for a couple of weeks or so, any infection that may have taken place after the recent wetting periods in May will 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 NOW and over the next few days.

As we approach bloom, be sure to stay on top of your spray program for the immediate pre-bloom spray to keep fruit clean. I am anticipating trace bloom here at our site around the 9-10 of June. For juice growers and for those selling to Gallo, this is your last chance to use a mancozeb product for control of downy mildew, black rot, and Phomopsis; make good use of it. Once bloom begins, the first two to three weeks after capfall is critical for fruit protection in all varieties, from all the major grape diseases. Be sure to get the immediate pre bloom and first post bloom sprays applied in a timely manner to protect the first three weeks or so of early fruit development.

For Powdery mildew control, do not depend on tebuconazole products, stylet oil, or the strobilurins for fruit protection at this critical time, even on Concord and Niagara. Resistance to the older sterol inhibitors and the strobilurins is widespread and something more is needed this close to bloom in order to control powdery mildew. Stylet oil can be very effective as an eradicant against powdery mildew, but it does not offer the residual control you need to get you through bloom, and onto your next spray over the subsequent 10-14 days. Instead, resort to Quintec or Vivando on juice grapes if you feel they're still working very well...but only if you're sure they're still working very well. Otherwise, one of the succinate dehydrogenase inhibitor fungicides (FRAC 7) like Endura, or the new sterol inhibitor (FRAC 3), Cevya, would do quite well as an immediate pre bloom spray for powdery mildew on Concord and/or Niagara. Gatten, a new product for grape growers for powdery mildew, is another great option, though I think it might be better placed at the first post bloom position. All are pretty competitively priced and will generally cost no more per acre than the higher rate of Vivando and Quintec. So why not switch to one of these 'newer' materials for the most critical sprays of the season and maximize your powdery mildew control on fruit? 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. So far, scouting here at our location has turned up nothing for powdery mildew. Again, always put your best materials on now, during the lead up to bloom and the first/second spray after bloom.

For the other diseases, use 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, especially if regular rainfall continues.

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 great idea, especially if you've been having unsatisfactory control of powdery mildew with the standard fare of Quintec/Vivando. But for these newer FRAC 7s, 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. 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.

I am not seeing any lesions of black rot yet, from infections that may have occurred as a result of wetting periods on 21-22 of May, about 2-3 weeks after bud break. Lesions visible now on leaves 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 cap-fall. 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.



Other Extension News:

As part of Cornell Cooperative Extension's role in strengthening New York State agriculture, we are helping to spread word of the New York State Department of Agriculture and Markets' plans to launch a statewide online Farm Directory. The Farm Directory, which launches in mid-June, will connect consumers to producers of farm products and promote New York farms.

The Farm Directory will appear on the New York State Department of Agriculture and Markets' website at agriculture.ny.gov/farming/farm-directory. It will show information for each listed farm, which can include the farm name, farm type, point of contact, addresses, telephone number, email address, website, social media, and a listing of all available products produced by the farm. Other categories of interest to the public, like the farm's inclusion in the New York State Grown & Certified Program and designations of organic, halal or kosher certified may also be noted. Website visitors will be able to sort or search the directory by any field.

Since not every farm offers products to the public at the farm site, each farm can indicate whether it is open to the public, or if there is another means that their farm product can be accessed. This might include listing a distributor, a brand name that your product is eventually marketed under, or a specific consumer-facing website where the public can determine where to purchase your product in a retail location. The information available on the directory for each farm can be tailored to meet the individual needs of each business and farmers will be able to update their information as desired.

The creation of the Farm Directory derives from Section 16(52) of the New York State Agriculture and Markets Law, requiring the Department to create a directory of every farm in New York State. Farms will be receiving a package in the mail shortly outlining the Farm Directory purpose, a survey to collect information on the farm to be included in the Directory, and a return envelope.

If you choose not to have your farm participate in the Directory, you are required by law to notify the New York State Department of Agriculture and Markets of this decision by opting out. Farms may opt out by returning the provided survey or indicating it through the online survey linked at the website above.

Farms that initially opt out can later contact the New York State Department of Agriculture and Markets if they wish to be included at any point. Also, farms can also contact the New York State Department of Agriculture and Markets if they wish to opt out after initially choosing to participate in the Directory.

For questions or additional information on the Farm Directory, please contact the New York State Department of Agriculture and Markets at (518) 485-1050 or FarmDirectory@agriculture.ny.gov.



2022 LERGP Coffee Pot Meeting Shedule

April 27, 2022	2 10:00am	Arrowhead Winery	12073 East Main St. North East, PA 16428
May 4, 2022	10:00am	Militello's Farm Supply	2929 Route 39 Forestville, NY 14062
May 11, 2022	10:00am 6:00pm	John Mason, Mason Farms Virtual Zoom Meeting	8603 West Lake Rd. Lake City, PA 16423 <u>register now</u>
May 18, 2022	10:00am	Andrew Nichols	1850 Ridge Rd. Lewsiton, NY 14092
May 25, 2022	10:00am	Alicia & Zach Schneider	771 Bradley Rd. Silver Creek, NY 14136
June 1, 2022	10:00am	Knight Farms	18 Shaver St. Ripley, NY 14775
June 8, 2022	10:00am 6:00pm	TrolleyLine Vineyards Virtual Zoom Meeting	12029 Middle Rd. North East, PA 16428 <u>register now</u>
June 15, 2022	10:00am	Dan Sprague Farm	12435 Versailles Rd. Irving, NY 14081
June 22, 2022	NC	O COFFEE POT MEETING	
June 29, 2022	10:00am	Betts' Farm	7365 East Route 20 Westfield, NY 14787
July 6, 2022	10:00am	Paul Bencal Farm	2645 Albright Rd. Ransomville, NY 14131
July 13, 2022	10:00am 6:00pm	Liberty Winery Virtual Zoom Meeting	2861 Route 20, Sheridan, NY 14135 <u>register now</u>
July 20, 2022	10:00am	Beckman Farm	2386 Avis Dr. Harbor Creek, PA 16421
July 27, 2022	10:00am	Arrowhead Spring Winery	4746 Town Line Rd. Lockport, NY 14094

Virtual Coffee Pot Meetings Registration: You MUST Register to attend!

If you take a look at the coffee pot schedule, you will notice that we have 3 virtual coffee pot meetings scheduled in addition to our in person meetings. They will be in the evenings on the second Wednesday of the months. If you are planning on attending and receiving pesticide credits, you must <u>register on our web-site</u>. In addition to registering, you must supply a copy of your license, date of birth and phone number to me at <u>kjr45@cornell.edu</u>.

The team is excited to be and about visiting the growers during this growing season. We hope that you can come out and join us for some of these meetings.