

Spring Concord Vines-Jennifer Phillips Russo

CROP UPDATE May 26, 2022

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

Viticulture Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard

We are well into the growing season and as I drive around the belt, some of the middle row management should be addressed. The time of rapid shoot growth for our vines is approximately two weeks before bloom and up to four weeks after. This is the most critical time when the vines need to absorb water and nutrients from soil to support this growth. Growers should begin to terminate the middle row vegetation to help decrease the competition. Dr. Terry Bates calculated the Lake Degree Days (LDD) and put them into his model to predict Concord bloom on June 12, 2022, which is a little more than



two weeks away. Remember that this is just a prediction, and it will take larger acreage longer to manage.

We continue our Coffee Pot Meetings around the region. Even with the nice weather they continue to be well attended and we appreciate that. We have the informal meeting at CLEREL on June 2, 2022, from 11:30-1 PM, where Terry and his team will walk you through the mechanical pruning trial. Some growers have inquired about mechanization in the wake of labor constraints for pruning. Terry and his team have been running this trial for four years and can discuss the different styles, canopy structure, and productivity.

Dr. James Meyers set up automatic vineyard information to be sent to colleagues on a weekly basis. The following and consecutive crop updates will contain data from his efforts to track CLEREL in Portland, NY weather information.

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.

At the lab, the Growing Degree Days from 01/01/2022 through 5/25/2022 are 245 GDDs see Figure 1 below. Currently, we are tracking below the five-year historical average of 266 GDDs. The closest seasonal year that this year tracks with is 2019 that accumulated 193 GDDs by this time.

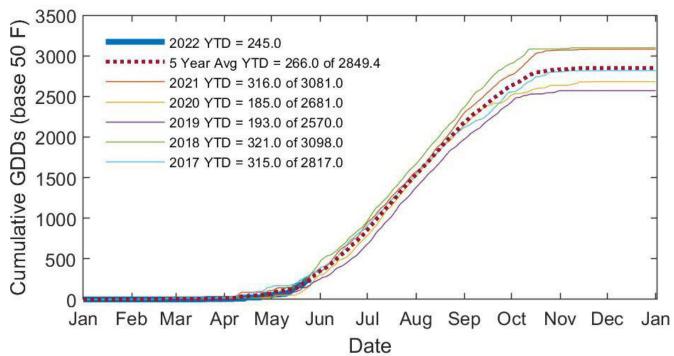


Figure 1. Historical Growing Degree Days (base 50) for the Cornell Lake Erie Research and Extension Laboratory as of 5/25/2022

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: 2022-05-26T06:24:09+00:00

Overnight: Mostly cloudy, with a low around 63. South wind around 26 mph, with gusts as high as 44 mph.

Thursday: A chance of rain showers between 9am and 2pm, then a chance of showers and thunderstorms. Mostly cloudy, with a high near 78. South wind 13 to 26 mph, with gusts as high as 41 mph. Chance of precipitation is 40%. New rainfall amounts less than a tenth of an inch possible.

Thursday Night: Showers and thunderstorms. Cloudy, with a low around 62. South wind around 15 mph. Chance of precipitation is 90%. New rainfall amounts between a quarter and half of an inch possible.

Friday: Showers and thunderstorms. Mostly cloudy, with a high near 70. Southwest wind 10 to 16 mph. Chance of precipitation is 90%. New rainfall amounts between a quarter and half of an inch possible.

Friday Night: Showers and thunderstorms likely. Mostly cloudy, with a low around 55. Southwest wind 6 to 10 mph. Chance of precipitation is 70%. New rainfall amounts between a quarter and half of an inch possible.

Saturday: A chance of rain showers before 2pm. Partly sunny, with a high near 64. Chance of precipitation is 40%. New rainfall amounts less than a tenth of an inch possible.

Saturday Night: Partly cloudy, with a low around 53. Sunday: Mostly sunny, with a high near 73.

Sunday Night: Partly cloudy, with a low around 62. Memorial Day: Mostly sunny, with a high near 81.

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.

At the lab, the Precipitation from 01/01/2022 through 5/25/2022 is 17.7 inches see Figure 2 below. Currently, we are tracking below the five-year historical average of 19.2 inches. The closest seasonal year that this year tracks with is 2018 that accumulated 18.4 inches by this time.

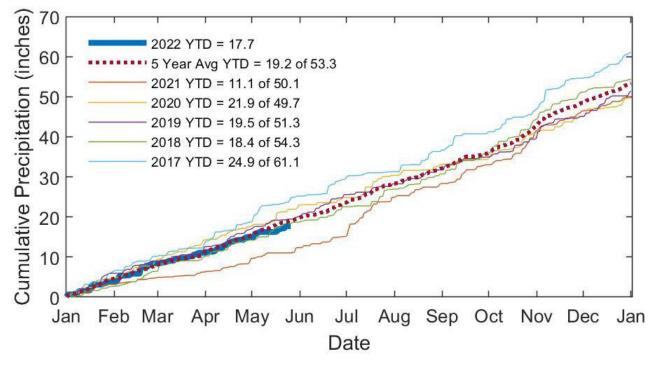


Figure 2. Historical Precipitation (inches) for Cornell Lake Erie Research and Extension Laboratory in Portland, NY for 5/25/2022.



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PA Update

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

<u>Weather:</u> The month of May has been marked by distinct wet and dry periods. We got 1.36" of rain in the first four days of May, followed by 11 days of dry weather, followed by a week of wet weather and 2.11" more rain. Our May total rainfall is currently 3.47". More rain in the forecast over the next couple days should bring us closer to, or beyond, our long-term average for the month of 3.77". We have accumulated about 228 growing degree days (gdds) in May and about 288 gdds as of April 1, at our location. Recent winds have inflicted some damage to rapidly growing and tender Concord shoots.

<u>Phenology:</u> At our location by the lake, Concord shoots are currently averaging about 8" with 4 leaves unfolded. Farther inland, shoots will be a bit longer. Our long-term average date for <u>trace</u> bloom in Concord here is about June 11-12. Predicted temperatures through the end of May will place us a few days ahead of average for cumulative gdds since April 1. This could result in an earlier than average trace bloom date for our location (June 9/10?). That means that we are currently about 2 weeks from *beginning* of bloom....full bloom at about June 12 (ahead of our average).

Last year trace bloom in <u>wild grapes</u> was on May 26 (today), with the berry moth biofix date (full bloom in wild grapes) set on about May 31 (?). The biofix date is the important starting point for the grape berry moth degree day (dd) model in NEWA. The model is designed to identify the best timing for insecticide sprays for control of the second, third, and fourth generation of this insect (at 810, 1620, and 2430 dds, respectively). Today, our wild grapes on this farm are just starting to show flower 'separation', which means that wild grape bloom is soon to come...but we're not there yet.

<u>Diseases:</u> Rainfall from May 20-22 provided conditions for infection periods of Phomopsis, black rot, and powdery mildew. Mancozeb or Captan applications at 3-6" shoots should have provided protection against Phomopsis and black rot up to now, though black rot was much less of a concern at that early point in time. Powdery mildew was also much less of a concern (than Phomopsis) at that early stage of development.

We should now be preparing for the 10-12" shoot spray for Phomopsis, black rot, and powdery mildew. Like the 3-6" spray, this spray is important for preventing rachis infections of Phomopsis that could move into fruit later during ripening, and cause fruit shelling before harvest. It is much less important than that earlier spray for preventing shoot and leaf infection along the first 4 nodes/ internodes, as much of this tissue is now less, or no longer susceptible. The 10-12" shoot spray is also important to preventing infections of powdery mildew and black rot, particularly for Vitis vinifera and susceptible hybrid wine varieties. It will also be a necessary spray in vineyards that had high black rot and/or powdery mildew disease last year, regardless of variety. As for downy mildew, the first infections begin to occur during rain periods when vines have reached that 5-6 leaf stage. We're not quite there yet by the lake, but vineyards farther inland will be farther along. That said, we have already found downy mildew on sucker shoots in our Chancellor block by the lake, despite being shy of 5-6 leaves on shoots. So, weather conditions have been conducive to downy mildew infections and the pathogen is active NOW. Vines will benefit from protection against this disease...before the immediate pre bloom spray. This is particularly important on susceptible varieties, especially if conditions are wet over the next couple of weeks. And finally, the forecast in NEWA predicts that there will be no infection periods for black rot or Phomopsis in vineyards along the lake...time will tell.

For the vast majority of vineyards, a mancozeb or captan spray at 10-12" shoots will provide the necessary protection against Phomopsis, black rot, and downy mildew, with no concerns for resistance development. For powdery mildew, you don't have to unleash the 'big guns' yet. Save those 'big gun' materials (Gatten, Aprovia/Aprovia Top, Revus Top, Endura, Luna Experience, Cevya) for the immediate pre-bloom and first post bloom sprays. For *V. vinifera* and many hybrids, a sulfur spray at this time can be very effective for powdery mildew (on sulfur tolerant varieties). And you don't need to apply high sulfur rates at this time (4 lbs/A?) The addition of a spreader/sticker has been shown to improve the effectiveness of sulfur sprays. Generally speaking, all *vinifera* and white hybrids can receive sulfur sprays without injury. You could even apply a tebuconazole product (Tebustar, Toledo, Tebuzol, etc) or stylet oil. However, do not apply oils with captan or sulfur.

'Ten-to-twelve-inch shoots' is also a good time to be scouting for the effects of *Eutypa*. It's at this stage of grapevine development that stunted, yellow/chlorotic shoots of canes, branches, and arms affected by *Eutypa*, are most easily seen. Eventually, Eutypa affected branches will die and will need to be removed. Damage from some herbicides can appear similar on shoots and leaves, but Eutypa often affects only some parts of a vine...not the whole vine. Vines affected by Botryosphaeria canker can show similar symptoms but are caused by a different group of fungal wood pathogens. You may not have time to prune these infected vine parts out at this busy time but flagging these shoots now will enable you to come back later and do the necessary pruning work to remove affected wood. Prune off at least 6" back from the infected (dead or discolored) wood into healthy wood. Once removed, infected wood should not be left in the vineyard where the pathogen within can release more spores and spread. Rather, it should be removed from the vineyard and burned.



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

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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.