CROP UPDATE
June 16, 2022

Concord Cluster in bloom-
Jennifer Phillips Russo
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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716-792-2800 ext 201
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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 Efficient Vineyard Project and the MyEV tool.

- 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 (1st attendee)**  
_____________________________________  $__________

**Farm Name**  
_____________________________________

**Address, City, State, Zip Code**  
_____________________________________

**Phone** __________________________________  **E-mail** ____________________________

**Are you enrolled in Lake Erie Regional Grape Program (LERGP)?**  
Yes_______ No______

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## REGISTRATION FEES

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<tr>
<td>LERGP Member attendee</td>
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**Additional Attendees: (Member/non-member fees apply)**

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*Please add a $10.00 late fee for each reservation made after July 29, 2022.*

**TOTAL $________**

Please make check payable to **LERGP (Lake Erie Regional Grape Program)** and mail to:  
(US funds only)

Kate Robinson  
LERGP  
6592 W Main Rd  
Portland NY 14769

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Call Kate at 716-792-2800 ext 201 with any questions,  
Or e-mail at kjr45@cornell.edu.

REGISTER ONLINE
Disparate Costs of Production

We know the price of grapes, albeit higher, is not the variable that is driving up the costs of production. The market for inputs is a complex one and it is being driven by a number of different variables. This means that input costs have not all gone up 10%. Some have not gone up at all, while others have increased by 30% or more. As the price of goods has not moved up relative to other goods, the advice for best practices need to evolve.

Multi-row sprayers have risen in cost, but not as quickly as single row sprayers. Given the potential for high fuel and labor costs, if a multi-row sprayer saves the operation paid labor it can make sense on a much smaller farm. In 2018 a multi-row sprayer made sense at 100 acres. In 2022, it might make sense in farms as small as 50 acres. With labor savings as high as 2,000 and tractor savings as high as $3,000 per year, a 2 row sprayer may justify the increase in cost in as little as 2 years on a 50-acre farm. This does not factor in the upfront cost of the sprayer and does not typically justify running out and getting a sprayer. When it’s time to replace what you have, it might be time to consider different equipment.

One exception to this rule is when labor is the weak point in the practice. In theory a 50-acre farm has plenty of capacity to spray all rows with a single row sprayer in just two days. If labor supply is delaying the application of a spray beyond four days, it might make sense to purchase multi-row equipment more immediately in order to put on a timely spray.

Another area of price reversal has been metal posts. While there are a number of different kinds of metal posts the highest quality that are widely available are 1.33lb. metal T posts. Some growers believe these posts will not outlast wood posts, while others believe these higher quality metal T posts will last significantly longer than wood posts. At CLEREL we’ve had metal t posts for 7 years. While I can’t say I’m old enough to comment from personal experience on the longevity of these particular metal t posts, I can say the purchase price dynamic has changed significantly.

These posts need to be installed in a higher density than wood posts. Wood posts are commonly installed at a rate of 225 per acre. Current costs are between $2,225 per acre and $2,675 per acre. Metal posts will perform best in high yield vineyards at a rate of 325 – 675 posts per acre. Current post prices are $2,200 for a low density install and $4,500 for a high density install. If metal posts last longer than wood posts, metal posts are certainly less costly. If use life is similar, it is still likely that metal posts are a lower cost alternative. It is also possible, given that wood posts prices are driven by trucking, that this is a long-term trend.

Why would one consider a high density install? With a post at every vine we know the engineering is overkill. The idea is to increase tractor ground speed, the effectiveness of mechanization and decrease vine renewal cost. It’s also possible at either use rate the trellis work in September and October will be substantially reduced. To the extent that this work occurs during harvest, the elimination of the practice would result in significant savings.
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SEASON AFTER SEASON

Corona
In the Vineyard

Things seem to be progressing at an alarming rate for me this week. We sent out a text blast to notify our stakeholders that the Cornell Lake Erie Research and Extension Laboratory officially called Concord bloom on June 8, 2022. I have looked at many stages of bloom throughout the region this week along with various sized fruit cluster development, see Concord clusters in the photos below. Please record your own vineyard block bloom dates in the Viticulture Planning Calendar that our team sent out to members. This is very important when conducting crop estimation at thirty days after bloom.

Two weeks before bloom and up to four weeks after is the critical time of rapid shoot development. Please be cognizant of your floor management during this time to decrease competition for water and nutrients. This is also the time when we recommend that you make your nutrient amendments.

Please remember that if you have any questions or would like to schedule a vineyard visit, you may contact me via cell (716) 640-5350 or by email jjr268@cornell.edu.
Thursday: A chance of showers and thunderstorms. Mostly sunny, with a high near 87. Southwest wind 15 to 18 mph. Chance of precipitation is 50%. New rainfall amounts between a quarter and half of an inch possible.

Thursday Night: A chance of showers and thunderstorms before 8pm. Partly cloudy, with a low around 67. Southwest wind 12 to 17 mph. Chance of precipitation is 40%. New rainfall amounts between a tenth and quarter of an inch possible.

Friday: Mostly sunny, with a high near 73.

Friday Night: Mostly clear, with a low around 56.

Saturday: Sunny, with a high near 66.

Saturday Night: Mostly clear, with a low around 53. Sunday: Mostly sunny, with a high near 68.

**Historical Precipitation (inches) for CLEREL in 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.

As of June 14, 2022, the cumulative precipitation for Portland, NY was 19.8 inches, which is only 1.4 inches behind the five-year average of 21.2 inches. Thus far, the closest year in precipitation on that date is 2018 with 19.9 inches see Figure 1.

**Historical Growing Degree Days (base 50) for CLEREL in 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.

![Figure 2. Historical Growing Degree Days (base 50) for CLEREL in Portland, NY](image)

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

As of June 14, 2022, the Growing Degree Days (GDD) for Portland, NY was 554, which is only 11.4 GDDs behind the five-year average of 565.4. Thus far, the closest year in GDDs on that date is 2017 with 604.0.
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Weather: The majority of this month’s precipitation has fallen from June 7-9, and has totaled just a little over an inch (below average). We have accumulated about 240 growing degree days so far in June and we now have 644 gdds as of April 1. The 3-day forecast for the weekend looks to be dry, with highs about average (Friday) to below average (Saturday-Sunday).

Phenology: Here by the lake, we are at end of bloom for Concord. Our late varieties like Chambourcin, Cayuga, Vignoles, and Vidal are just going into bloom.

Diseases: Rainfall from June 7-9 has resulted in two to three infection periods for all the major diseases along the lake belt. The period from bloom to shortly after bloom is critical for protecting fruit from all diseases. Scout for black rot on leaves in the fruit zone. If you find more than a little of such lesions, your risk of fruit infection during early fruit development may be high if conditions turn wet. These lesions are in prime position to release spores onto developing fruit during rain periods after capfall, and fruit of most/all varieties will be very susceptible to black rot for 4 weeks or so, after which time they begin to develop resistance. Timely application of a first and second post bloom spray will help to avoid losses from black rot, especially if conditions turn wet. Ziram and the sterol inhibitors (FRAC 3) are very effective on black rot. Ziram is strictly a protectant though, and will only prevent future infections. On the other hand, most sterol inhibitors have excellent ‘reach back’ action, and can stop an infection if applied up to five days after the infection has occurred. However, FRAC 3 triflumizole products (Viticure, Trionic, and Procure) are exceptions; they will only suppress black rot and are not to be relied upon for black rot control. New infections from the wetting periods at this time generally take 10-14 days before lesions on fruit and leaves become visible.

Though it’s been on the dry side, keep scouting for downy mildew on susceptible varieties, on leaves near the ground, especially sucker growth. "Oil spots on leaves will become visible in as little as 4-5 days from an infection period. Our last infection period for this disease probably occurred over rain on June 9-10. Downy mildew infections from this wetting period should be visible as lesions by now. Ziram is not as good as mancozeb for downy mildew control, and susceptible varieties may need additional fungicide for good downy mildew control at this critical time. A phosphorous acid product or Revus/Revus Top (not on Concord or Noiret…read the label) are popular choices on Niagara. For wine grapes, you can also look at using Ranman, Zampro, or Ridomil MZ/copper, that can be tank mixed with mancozeb for additional clout against this disease.

For powdery mildew, this is no time to cut corners. Our best materials for powdery at this time are Aprovia/Aprovia Top (not on Concord…read the label), Miravis Prime, Gatten, Luna Experience, Endura, Cevya, Quintec, and Vivando. Just make sure you are rotating FRAC groups with each spray. Tank mixing with sulfur (micronized) is also recommended at this time, on sulfur tolerant varieties, especially Vitis vinifera. The sulfur will improve control and help to delay the development of resistance to these other powdery mildew materials. Do not rely on stylet oil, strobilurins, and/or tebuconazole products for powdery mildew control at this time.

Now is the time to plan for leaf removal in the fruit zone of premium wine varieties. Leaf removal can be done by machine or by hand and generally provides reductions in bunch rot on rot suscep-
talbe wine varieties like Riesling, Vignoles, Pinot noir and gris, Chardonnay, etc. It can even help improve control of other disease as well, like powdery mildew. In our recent trials with Riesling, the decision to apply leaf removal resulted in a 50% reduction in rots over not applying it at all. Leaf removal can also improve fruit quality and may even reduce manual harvest costs (the clusters are easier to see and remove if you’re hand harvesting). There is a caveat though; leaf removal applied at pre-bloom and sometimes even at fruit set, can reduce yields in some years.
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<th>Date</th>
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<tr>
<td>April 27, 2022</td>
<td>10:00am</td>
<td>Arrowhead Winery</td>
<td>12073 East Main St. North East, PA 16428</td>
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<td>May 4, 2022</td>
<td>10:00am</td>
<td>Militello’s Farm Supply</td>
<td>2929 Route 39 Forestville, NY 14062</td>
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<td>May 11, 2022</td>
<td>10:00am</td>
<td>John Mason, Mason Farms</td>
<td>8603 West Lake Rd. Lake City, PA 16423</td>
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<td>May 11, 2022</td>
<td>6:00pm</td>
<td>Virtual Zoom Meeting</td>
<td>register now</td>
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<td>May 18, 2022</td>
<td>10:00am</td>
<td>Andrew Nichols</td>
<td>1850 Ridge Rd. Lewsition, NY 14092</td>
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<td>May 25, 2022</td>
<td>10:00am</td>
<td>Alicia &amp; Zach Schneider</td>
<td>771 Bradley Rd. Silver Creek, NY 14136</td>
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<td>June 1, 2022</td>
<td>10:00am</td>
<td>Knight Farms</td>
<td>18 Shaver St. Ripley, NY 14775</td>
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<td>June 8, 2022</td>
<td>10:00am</td>
<td>TrolleyLine Vineyards</td>
<td>12029 Middle Rd. North East, PA 16428</td>
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<td>June 8, 2022</td>
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<td>register now</td>
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<td>June 15, 2022</td>
<td>10:00am</td>
<td>Dan Sprague Farm</td>
<td>12435 Versailles Rd. Irving, NY 14081</td>
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<td>June 22, 2022</td>
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<td>NO COFFEE POT MEETING</td>
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<td>June 29, 2022</td>
<td>10:00am</td>
<td>Betts’ Farm</td>
<td>7365 East Route 20 Westfield, NY 14787</td>
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<td>July 6, 2022</td>
<td>10:00am</td>
<td>Paul Bencal Farm</td>
<td>2645 Albright Rd. Ransomville, NY 14131</td>
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<td>July 13, 2022</td>
<td>10:00am</td>
<td>Liberty Winery</td>
<td>2861 Route 20, Sheridan, NY 14135</td>
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<td>July 13, 2022</td>
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<td>register now</td>
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<td>July 20, 2022</td>
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<td>Beckman Farm</td>
<td>2386 Avis Dr. Harbor Creek, PA 16421</td>
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<td>July 27, 2022</td>
<td>10:00am</td>
<td>Arrowhead Spring Winery</td>
<td>4746 Town Line Rd. Lockport, NY 14094</td>
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**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 register on our web-site. In addition to registering, you must supply a copy of your license, date of birth and phone number to me at kjr45@cornell.edu.

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.