



Concord Cluster 7/18/2022-
Kim Knappenberger

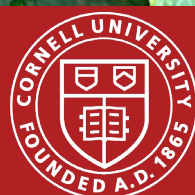
CROP UPDATE July 21, 2022

Cornell Cooperative Extension
Lake Erie Regional Grape Program



PennState Extension

Building Strong and Vibrant New York Communities
Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.



In this copy:

2022 Summer Demo Day at CLEREL- Registration is open- [page 5](#)

North East Updates- *Bryan Hed-* [page 6](#)

NEWA, VIP- *Kim Knappenberger-* [page 10](#)

How to reach us:

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

Kim Knappenberger – LERGP NEWA and Vineyard Improvement Program Contact

ksk76@cornell.edu

716-792-2800 ext 209

Kate Robinson – Administrative Assistant

kjr45@cornell.edu

716-792-2800 ext 201



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.



Worth its Weight

TímaCal

Designed to Increase
Calcium Uptake

Contact us:

Bryan Schillawski: 315 567-6290

Kayla Heineman: 718 714-8281

Laing-Gro Fertilizer: 716 992-3830

www.us.timacagro.com



Far past the frozen leaves

**YOU'RE GREAT AT FARMING.
WE'RE GREAT AT INSURANCE.**



27 E MAIN STREET
WESTFIELD, NY

716 269 4322



There's no end to the potential hazards your crops face: freeze, hail, wind, insects and disease. And those are just the natural disasters. As a fruit farmer, you also have to deal with other variables like fluctuating market prices.

Crop Growers is here to help. Our multi-peril crop insurance will protect your business when Mother Nature (or the market) lashes out, making sure you're still standing when the skies clear.

Call a Crop Growers agent today.

CROP GROWERS
Your first choice for crop insurance.

**ACTUAL PRODUCTION HISTORY PLAN
WHOLE FARM REVENUE PROTECTION
CROP HAIL COVERAGE**

800.234.7012 | CropGrowers.com

CROP GROWERS, LLP IS AN EQUAL OPPORTUNITY PROVIDER

LaPorte

Farm Equipment

"Large and small, we sell them all"

Sales - Parts - Service
Westfield NY (716) 326-4671

CASE III
AGRICULTURE

laportefarmequipment.com

Custom Built 2 Tank Weed Sprayer



We sell and service CaseIH Tractors, Oxbo Harvesters, and Turbomist Sprayers. We also custom manufacture single and dual tank sprayers, spray booms, pre-pruners, brush sweepers, & wire winders.



 **Clover Hill**
Sales ^{LLC} 

10401 Sidehill Road, North East, PA 16428

814-725-3102

sales@cloverhillsales.com

www.cloverhillsales.com



**DURAND
WAYLAND**

WOODS

Woods Equipment Company



EDWARDS
EQUIPMENT COMPANY



TISCO



**STOLTZFUS
SPREADERS**

Harvester Parts and Belting
Southern Yellow Pine Posts
Tractor Tires & Tubes • And So Much More!

LERGP Summer Demo Day at CLEREL!

August 2, 2022

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

[Register Now!](#)

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

[REGISTER ONLINE](#)



PA Update

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

Weather: As of July 20, we have recorded 2.01" of rainfall for the month and we have accumulated about 441 growing degree days (gdds) so far during July at our location by the lake. We now have about 1384 gdds as of April 1, several days ahead of average for the season. The short term National Weather Service forecast for North East looks dry for Friday, July 22, with a 20% (day) to 40% (night) chance of rain on Saturday, increasing to 50% (day) to 70% (night) chance of rain on Sunday. High temperatures over the next three days will range from the low to mid 80s.

Phenology and Diseases: Our last infection period for black rot and downy mildew took place over the rain period on July 17-18. Any downy mildew resulting from this period will become manifest (you'll see the white sporulation on leaves) by Sunday. On the other hand, any black rot from this rainfall period may not become manifest until the second week in August. Fruit of native varieties are close to being fully resistant to black rot at this time and the risk of new infections from the July 17-18 rain is minimal. On the other hand, varieties of *Vitis vinifera* may still be at risk of fruit infection.

Continue scouting for downy mildew in your susceptible varieties. There's probably not a lot of downy mildew out there at this time, but rain on Sunday night could feed small amounts of it that resulted from the July 17-18 rain period and breath new life into the disease on leaves. Just keep an eye open on your susceptible acreage. I'm concerned primarily about susceptible wine varieties here but leaves of natives like Niagara and Catawba may also be at risk over the next week or so. I am not concerned about downy mildew on Concord grapes.

For more on downy mildew, I've borrowed this from a previous crop update. Most of this information applies to wine grapes, especially premium *vinifera* varieties.

Once we get past the critical sprays for fruit protection, scouting for the white 'downy' sporulation on the undersides of leaves is very important, and yields valuable information with regard to future need to spray. Growers of susceptible varieties do well to keep closely monitoring their vineyards for active sporulation and use that information to determine if and when infection periods have occurred or will occur.'

'Leaves will remain susceptible all season, though they do become less susceptible as they age. For this reason, the limiting or elimination of new shoot growth by veraison, through good nutrient and/or canopy management, can help to reduce the supply of susceptible tissue in the vineyard during ripening, and make post veraison control of this disease more manageable. I have gone into vineyards in late August-early September and observed that downy mildew was largely present on new shoot growth, but not on mature leaves at older nodes. There were at least two reasons for this: i) new shoot growth is more susceptible than older, mature growth, and ii) new shoot growth, unless just sprayed, is unprotected or less protected by previous fungicide applications. Symptoms on mature leaves in late summer may appear different from those on young leaves in early spring.'

'The sight of active, white sporulation on green vine tissues means the downy mildew pathogen is capable of spreading quickly under wet conditions, and that sprays for downy mildew should con-

continue for susceptible varieties. Even humid nights that result in heavy dews by morning, can continue to fuel downy mildew development, generating fresh sporulation that can spread the disease rapidly when plant surfaces are wet. If you let downy mildew get out of control, it can strip vines of their leaves and in the worst cases, effectively end fruit ripening for the year, and shoot ripening for next year's crop. Your grapevines go into winter dormancy in poor condition, and are more vulnerable to damage by severe cold, leading to crown gall and expensive trunk renewal the following season, with little or no crop to pay for it; all that stuff is connected, so you want to keep downy mildew under very tight control, especially on *Vitis vinifera*.

'Chemical control: Your list of chemical control options will start to dwindle as we get within 66 (Mancozeb products, Ridomil MZ), 42 (Ridomil copper), 30 (Ranman, Reason), 21 (Ziram), and finally 14 (Revus, Revus Top, Zampro) days of harvest. There is also the list of strobilurin containing fungicides that control downy, mainly Abound (not in Erie county PA) and Pristine. However, be aware that widespread resistance to strobilurins by the downy mildew pathogen has been documented in many places in the Northeast, and so this class of fungicides may not be among your best options. In the end you'll be left with Captan, copper, and phosphorous acid products (0-day pre-harvest interval), which have their own shortcomings, discussed below.'

'Products like Ridomil (the mefenoxam component), Ranman, Reason, Revus/Revus Top, Phos acid products, and Zampro, are more rainfast than the 'old standard' surface protectants like copper, mancozeb, ziram, and captan, but contain chemistries that are prone to the development of resistance. Therefore, they should not be used to put down an epidemic, which will only speed up the resistance development process. Even phosphorous acid products can be lost to resistance through repeated applications on a diseased vineyard, so keep downy mildew well under control. The resistance prone materials (Ridomil, Ranman, Reason, Revus/Revus Top, Zampro, Phos Acid products) are best used to maintain a clean vineyard, NOT to put down an epidemic. Conversely, the surface protectants would be least risky in terms of the development of resistance and can be an effective means of controlling downy mildew late into the growing season. Just be aware of seasonal limits, so plan ahead as best you can.'

'Here are some precautions to consider with use of the 'old standard' surface protectants:

Captan is toxic to plants, and for that reason, is formulated to remain on the surface of the plant as a protectant. Tank mix partners, like oils, solvent based insecticides, and emulsifiable concentrates, may enable captan to penetrate into plant tissues which can lead to plant injury. Therefore, oils and some liquid insecticides should not be applied with Captan or within 14 days of a Captan application. Check out this link from Dan Ward:

<https://plant-pest-advisory.rutgers.edu/grape-injury-from-captan-mixed-with-oil-containing-products/>

Always read the label carefully.

There is the concern for plant injury by copper applications, which will be exacerbated by application under slow drying conditions and application to wet canopies (for example, don't make applications to dew covered canopies in the early morning). The addition of lime to the application raises the pH of the spray solution, reduces the solubility of the copper, and reduces the chances for plant injury by copper.

Consider that copper is poisonous to yeasts and that excessive copper residues at harvest can interfere with fermentation, and wine stability and quality. Unfortunately, it's impossible to predict how high residues will be on fruit at harvest; that's going to depend on the copper formulation (some

of the newer coppers utilize lower copper concentrations, but may also be more rainfast), rate of material used, number and timing of applications made, spray coverage, and amount of rainfall from application to harvest. I am not aware of any information that establishes a nice, clean cut-off date or pre-harvest interval for avoiding excessive copper residues at harvest, but I have heard that cutting off copper use about a month before harvest may be sufficient in most cases.

There is also evidence that late Captan sprays can delay fermentation and have negative effects on wine quality, but the consequences seem less severe and irreversible than those associated with copper use. For more on this, consider this online article by Annemiek Schilder, former fruit pathologist at Michigan State University: https://www.canr.msu.edu/news/late_season_fungicide_sprays_in_grapes_and_potential_effects_on_fermentatio

'If you are protecting a non-bearing, young vineyard from downy mildew (you're not selling/harvesting a crop), you can continue to use mancozeb products to control downy mildew past the 66-day pre-harvest interval. You can also consider using mancozeb after harvest to keep canopies clean of downy mildew and 'firing on all cylinders' until that first frost. The longer your vines can continue to produce and store carbohydrates after harvest, the better prepared they'll be to withstand winter cold without damage (and the crown gall that follows).'



Figure above: Late summer leaf symptoms of downy mildew (Niagara) showing 'blocky' lesion development and discoloration on the top side and 'downy' white sporulation on the underside of a grape leaf. The late summer leaf blotches can differ dramatically from the yellow 'oil spot' symptoms that are observed in spring.

And finally, a bit about Powdery mildew: We've been seeing powdery mildew show up on Concord leaves now for a week or two. It first becomes observable in July as yellow spots on the tops of the youngest leaves. Immature, infected leaves are often distorted and do not develop normally. The sporulation on these infected leaves is actually on the underside of the leaves and is masked by the natural hairiness of the leaves. However, the more typical sign of powdery mildew on leaves is the light gray powdery sporulation on the tops of leaves...that comes next. We are not observing mildew sporulation on the tops of Concord leaves yet.

Powdery mildew control should focus on leaves at this point and the decision to continue spraying on native juice varieties, like Concord and Niagara, will be based on crop size. If you'll be ripening an above average (or way above average) crop, keeping canopies clean and 'firing on all cylinders' is a good insurance policy. The more 'above average' your crop is, the more likely it is that you will

need to keep canopies clean for longer in order to ripen the crop. But unfortunately, there is no formula for this and it takes a bit of guesswork simply because we don't know what the weather will bring.

Your options for powdery mildew could still include something like Quintec, Vivando, Cevya, Torino, or Endura, if you're looking at a very large crop and want to keep your canopies looking clean for another 2-3 weeks. However, be aware that these materials carry a risk of resistance development and applying them to a mildewed crop will accelerate that process. They're best used to keep your vines clean and will not eradicate a mess. That said, it's probably better to stick to that 2 week interval rather than wait four or five weeks from your last spray, to put that next spray on...after mildew has already moved in. Sulfur can be a good choice on sulfur tolerant wine varieties/vinifera and is a more prudent choice for application to vines already diseased with mildew. Other options that won't risk resistance development and will provide modest control of powdery mildew are potassium products like Nutrol (monopotassium phosphate), potassium bicarbonates (Armcarb, Kaligreen), and HarvestMore (not a pesticide, but a foliar nutrient). These materials will generally provide modest control of mildew at best, but they can be used repeatedly to keep mildew from progressing faster than it otherwise would.

And lastly, our next berry moth spray will need to be centered on 1620 degree days, according to the berry moth model in NEWA. This season, this target will most likely fall within the first week of August and could signal the potential for at least a partial September generation of berry moth. Insecticides like Intrepid and Altacor will provide the longest lasting residual activity against berry moth and will be easiest on beneficial insects. However, they are not as broad spectrum as the pyrethroids (bifenthrin formulations, Danitol, Mustang Max), that carry shorter residual activity. For this reason, the longer residual materials can be applied a little ahead of the 1620 dd mark, to catch some of the earlier hatchlings in this next brood, whereas the shorter residual materials may be best applied a few days to a week or so, after reaching the 1620 dd mark. Even better control can be achieved with two sprays: a longer residual (and more expensive) material first, a few days ahead of the 1620, followed by a shorter residual, broad spectrum (and cheaper) material about a week after the 1620 dd target. Coverage is always a greater challenge for this spray, so the more gallonage per acre you can apply, the better value you'll achieve from your spray.



LARRY ROMANCE & SON, INC.

Parts - Sales - Service

Come see us for all your Vineyard - Dairy - Construction & Consumers Needs

SHERIDAN, NY • 2769 ROUTE 20
(716) 679-3366 • tractorsales@netsync.net

ARCADE, NY • 543 W. MAIN ST.
(585) 492-3810

www.larryromanceandson.com

Updates and Information

Kimberly Knappenberger, Viticulture Assistant, LERGP

NEWA

These recent rains are giving us an opportunity to make sure that the precipitation sensors are recording accurately in the region. There are two big culprits that cause problems during this time of year – dirty rain buckets and wasp nests. Both of these will not allow the water to pass through the bucket to the tipping gauge where the sensor counts each tip as 0.01” of precipitation. We have identified two of the stations that need attention. The Portland station had only recorded half of the precipitation of the Portland (LERGP West) station in the small storm that passed on Wednesday evening. That was just a dirty rain bucket and is now clear. The other station is East Fredonia. It is scheduled for some maintenance tomorrow (Friday) so it should be good after that.

If you notice that a station does not seem accurate – no precip at all or only small amounts, please contact Kim at ksk76@cornell.edu and we will try to get it straightened out asap! We certainly don't want to miss out on any of that rain!

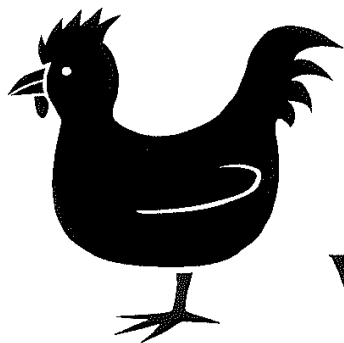


Vineyard Improvement Program

We are still accepting applications for the Vineyard Improvement Program. Any Concord vineyard removal must be done during this year so that the paperwork can be finalized before March 31, 2023. Unless you have done a planting in the past few years, it is likely that we will only be able to reimburse for removal projects. This means that we will still pay 50% of removal costs up to \$1,500 per acre (\$50,000 maximum) but there is not time to replant to vineyards or orchards at this time. These removal projects will still need to be planted to another agricultural crop in order to qualify for the

reimbursement. Cover crops and field crops are a quick way to finalize the project. At the end of the season I would need to see complete removal of the trellis and vines (no to few vines growing in the seed crop) with 4-6” of growth of the seed crop.

To learn more about how the program works visit <https://lergp.com/about-vip>. If you would like to apply click on VIP Application or click this link <https://lergp.com/vip-application>. We are in the process of asking for an extension and will keep you updated on the status. Please feel free to call or email Kim with any questions or to see if this will work for you. Ksk76@cornell.edu or 716-792-2800 ext 209.



Erie County Horticultural Society Chicken BBQ Wednesday, July 27, 2022 Gravel Pit Park

3:30-7:00 Farm Equipment Display by various vendors

Program

5:00-5:30 Respirator Fit Testing Requirements,
Joni Davis – Worker Protection Standard Specialist
PA Office of Rural Health – Penn State University

5:30-6:00 Insect and Disease Management Updates
Bryan Hed – Research Support Technologist, Penn State
Flor Acevedo – Assistant Professor of Entomology
Arthropod Ecology, Penn State

Free Chicken Dinner – No Reservation Required



DRYSHOD
WATERPROOF FOOTWEAR
The world's most wearable rubber boot.

dryshodusa.com

ALL-NATURAL
Aspen Song
WILD BIRD FOOD

NORTH EAST FRUIT GROWERS
2297 KLOMP ROAD, NORTH EAST, PA 16428
814.725.3705
NEFRUITGROWERS@VERIZON.NET
OPEN YEAR-ROUND MONDAY - FRIDAY 8AM - 5PM
OPEN SATURDAYS APRIL - NOVEMBER 8AM - NOON

**BULK FERTILIZER
BAGGED FERTILIZER
CHEMICALS
VINEYARD SUPPLIES
ORCHARD SUPPLIES
PRUNING SUPPLIES
GLOVES & BOOTS
POND PRODUCTS
PRODUCE PACKAGING
HOME OWNER SUPPLIES
& SO MUCH MORE!**



ORIGINAL
LÖWE

FELCO
SWISS MADE



CORONA
SEASON AFTER SEASON

**Chautauqua County Farm Bureau®
is working hard to gain workforce
options, retain necessary
protectants, and ensure policy
that benefits our growers**



Join Today!
NYFB.org 800-342-4143



2022 LERGP Coffee Pot Meeting Shedule

April 27, 2022	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
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
June 15, 2022	10:00am	Dan Sprague Farm	12435 Versailles Rd. Irving, NY 14081
June 22, 2022	NO 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
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

