



## CROP UPDATE July 28, 2022

**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.



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## LERGP Summer Demo Day at CLEREL! August 2, 2022

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

8:30 AM – Registration and Check In 9:00-10:45 AM - Welcome and Indoor Flash Talks CELL Dr. Terry Bates, Director of the Corr will give the Welcome Opening, bi Dr. Lynn Sosnoski ocience Horticulture Section Corr precision spot sprayer. Dr. Rot Institute of Technology, Chester F. K on sensor imaging for nutrient deficien-...on University, Robotics Institute Project Scientist, will introac pruner. See next page for restructured Dr. Debb plans for this event! able soil man

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** 



## Rescheduled LERGP Research Demo at CLEREL! August 31, 2022 9:00am-1:00pm

Due to low registration numbers we had to cancel the previous event as it would not be fair to guest speakers and vendors to put the travel, money and time towards speaking to such a small group. We have restructured this event a bit to still highlight all of our research and inform the growers what we have going on for research around the farm, but it will be presented by your friendly researchers, specialists and staff housed at CLEREL.

This event is free of charge but we need a head count so it is greatly appreciated if you would register by either <u>registering on line</u>, calling (716) 792-2800 ext 201 or e-mailing Katie (<u>kjr45@cornell.</u> <u>edu</u>)

Please come spend the morning with us and then join us for a cookout lunch. NYSDEC Pesticide credits have been applied for.







# Business Management

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

### Cost Trends

While most growers are not actively purchasing supplies at this time of year, the cost of goods continues to experience volatility. With this volatility an update seemed relevant. Costs continue to move in all directions for grape producers. While macroeconomic news stories focus on the rising cost of a basket of consumer goods, we focus on the expenses associated with grape production. Trends specific to grapes are mixed based on the needs of the operation. Of course, overall, costs are rising but in planning it's important to know which ones are rising. One reason for this is the idea of a chained price index. What that means is, as the price of certain goods rise buyers replace those goods with something else. This is well publicized behavior that consumers engage in. Grape growers do it too.

#### Debt

Debt has certainly gotten more expensive. In addition to an increase in prices of things people typically use debt to buy, the interest rates are also higher. A typical vineyard tractor, if purchased with debt will cost \$15,193.00 per year for 5 years. Up from \$13,000 just eighteen months ago. Over 50% of the increase in cost is attributable to interest rates, which is moderately good news for cash buyers.

#### Fungicides

These costs have not changed much at all. There are movements for individual items. Smaller buyers of chemicals might see an increase in costs. Handling small amounts requires labor, those costs have increased. For the largest buyers, we are seeing enough of a dip in fungicide prices to offset trucking costs and the occasional material that is priced higher.

#### Fuel

Fuel costs continue their steady decline at the retail pumps. They're down nearly 10% from peak but still high at \$5.34 nationally. Off-road diesel prices experienced more volatility, perhaps due to local issues in the supply chain. The high price of \$6+ a gallon was very brief and has settled back down at least 20% lower than those brief highs.

#### Fertilizer

Fertilizer prices have steadily declined over the last 3 months. This decline has been fairly slow and is not anywhere near the scale or pace of the rise in fertilizer prices. As a result, prices are still significantly more expensive than they were in 2021. Current prices are in line with what they were in the spring of 2022. So if you were not caught buying late this year, prices are probably in line with what you paid for springtime applications. The good news is that this appears to be a trend. If it continues, there is potential for lower prices in 2023, as compared to 2022.

#### Posts

Not a lot of posts are purchased by the truckload locally this time of year. We haven't seen any movement in this area. As I've mentioned at a few coffee pots, this is an area of potential chained pricing. Our grape industry in whole or in part is free to change the model and start purchasing steel posts. Whether or not steel posts are cheaper, really depends on longevity. That assessment is up

to the individual grower. Traditionally 225 wood posts are used in an acre of grapes. If steel posts are used at a rate of 337 posts per acre and they last 30 years, we know they're cheaper than wood posts. The upfront cost is about 9% greater but the decrease in labor easily pays for the greater upfront cost.



### **Viticulture** Jennifer Russo, Viticulture Extension Specialist, LERGP

#### In the Vineyard

Finally, our region was graced with some rainfall! I know that some areas received more than others, but it was getting a bit worrisome for some of us. Dr. Terry Bates reported that the rain did give us a bump in fresh berry weight. It is now running on par with the long-term mean. Along with the benefits of the rainfall comes disease infection periods. Please be sure to read Bryan Hed's contribution to the crop update.



Figure 1. Concord fresh berry weight curve

The following article was a press release that the American Society of Enology and Viticulture published along with a blurb from Hans Walter-Peterson.

#### Renowned Cornell University Grape Pathologist Dr. Wayne Wilcox Receives ASEV's Highest Honor

At its annual meeting last month, Wayne Wilcox was given the Merit Award by the American Society of Enology & Viticulture. I meant to include this announcement in an earlier edition of the Vineyard Update before the meeting but forgot to do so. I know the entire industry in the Finger Lakes and beyond is incredibly grateful for the work that Wayne has done to help improve our ability to manage diseases in the vineyard, and I'm sure everyone would agree that the award is well-deserved. - HWP

After an impressive career spanning nearly 35 years, **Dr. Wayne Wilcox** will be awarded of the American Society for Enology and Viticulture's (ASEV) highest honor, the <u>ASEV</u> <u>Merit Award.</u> Dr. Wilcox dedicated his career to researching and understanding the various factors of fruit diseases and finding ways to manage those disease through practical control programs. He will be presenting the Merit Award



presentation, *"Molds, Mildews, and Rots: Bread and Butter to a Grape Pathologist"* at the <u>73<sup>rd</sup> ASEV</u> <u>National Conference</u>, on June 22, in San Diego, Calif.

Always interested in fruit production, Dr. Wilcox began his research focus on the biology and management of fruit crop diseases in graduate school at the University of California at Davis. There, he received his B.S. in Plant Science as well as his M.S. and Ph.D. degrees in Plant Pathology. He joined the Department of Plant Pathology at Cornell University's New York State Agricultural Experiment Station in 1984, working with tree fruit and berry crop growers. In 1994, he assumed the role leading Cornell University's grape pathology program where he remained until his retirement in 2018.

"For me, one of my favorite things throughout my career was getting to interpret and share new findings with those who could benefit from them," said Dr. Wilcox, who often extended knowledge through oral presentations, fact sheets, newsletters, and trade publication articles. "Growers have so many challenges to face, so it's very rewarding when science and research can make them more manageable. I feel honored to be recognized with this award and look forward to my participation in the conference."

Dr. Wilcox has authored and co-authored over 100 research publications in refereed journals, including three awarded Best Viticulture Paper of the Year from the <u>American Journal of Enology</u> <u>and Viticulture</u> and the Australian Journal of Grape and Wine Research. He was also the senior editor of the 2<sup>nd</sup> Edition of the Compendium of Grapevine Diseases, Pests, and Disorders (2015), for which he authored or co-authored nine individual segments.

The ASEV Merit Award, presented since 1955, is designed to celebrate the accomplishments of an individual in the field of enology or viticulture. The yearly award acknowledges achievement or excellence in any field directly or indirectly related to enology or viticulture, including education, technology, research, management and public relations.



#### Entomologists seek safer pest management tech for NYS By <u>Sarah Thompson</u> <u>Cornell AgriTech</u>

July 19, 2022 Facebook Twitter Email Share

Specialty crop entomologists from Cornell AgriTech and the New York State Integrated Pest Management Program (NYSIPM) will use a three-year, \$450,000 grant from the New York State Department of Agriculture and Markets to evaluate alternatives for controlling insect pests that threaten the state's \$1.4 billion specialty crop industry.

The scientists will explore alternatives to neonicotinoids and chlorpyrifos, which have been shown to harm the environment – as well as pollinators and other beneficial insects – by mounting evidence, including a 2020 analysis of neonicotinoid use in New York by Cornell's Dyce Lab for Honeybee Studies.

"Cornell is at the forefront of critical IPM research, long working to innovate options for our farmers in managing damaging pests and safeguarding their crops," said Richard A. Ball, state agriculture commissioner. "The department is proud to support this project that will build on the research underway for our field crops and identify additional solutions to protect our specialty crops and increase economic viability while also protecting the environment."

After a statewide ban in 2021, the Environmental Protection Agency banned chlorpyrifos earlier this year. Now New York lawmakers are considering actions restricting the use of neonicotinoids, commonly referred to as neonics.

"We have invested a lot of time highlighting the risks and benefits of these chemicals, and now it's time to help farmers assess alternative pest management solutions and provide better digital tools to improve IPM practices," said Alejandro Calixto, NYSIPM director and co-director of the grant. "We're in a place right now where there are big gaps in information."

To close those gaps as quickly as possible for policymakers and growers, NYSIPM joined forces on an existing specialty crop grant with co-directors Brian Nault, professor of entomology, and

Kyle Wickings, Cornell's turfgrass entomologist, to study alternatives that are easy to use, cost effective and pose minor risks to farmers and environment. Another research team at the College of Agriculture and Life Sciences is working simultaneously to find alternatives for field crops such as corn, soybeans and wheat.

From western New York to Long Island, Cornell's specialty crop team will test all currently available options for farmers – biological, cultural, physical and chemical – while evaluating the interactions between different tools. Those interactions are critical, Nault said, because farmers will have to use multiple tools to get the equivalent effectiveness of neonics or chlorpyrifos insecticides. And growers can't wait five years or more for private industry to develop and gain approval for new insecticides. "In some crops, we aren't going to have a one-to-one replacement," Nault said. "That means growers will need to rely more on other nonchemical approaches but could require another insecticide or two."

Later this month, Nault expects to have preliminary findings from trials of a promising new class of insecticides to control soil-borne pests in vegetables. He'll also soon start trials of an RNA-interfering pesticide targeting the Colorado potato beetle.

Right now, turfgrass managers at golf courses and athletic fields can use <u>a free online tool</u> <u>developed by CALS</u> to identify and scout for white grubs. And by the end of the year, Calixto said farmers will be able to run real-time crop risk forecasts for the seedcorn maggot in New York's fruit, vegetable and field crops using <u>NEWA</u>, an online decision support system combining weather and biological data.

"As we seek greater farm sustainability, it's important to equip New York growers with the best combination of pest management tools and techniques," said state Assemblymember Donna Lupardo. "Investing in this research can lead to more reliable and cost-effective options for growers, helping to design approaches that benefit our environment, our agricultural industry and the citizens of our state."

Sarah Thompson is a writer for Cornell AgriTech.

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# PA Update

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

#### Weather:

Rainfall for July at our location is totaling about 3 inches, about three quarters of an inch below our long term average for the month. However, it's raining as I write. Heat accumulation for July at our location by the lake, is at about 607 growing degree days, with the forecast predicting that we will finish the month just slightly ahead of average for July, and several days ahead of average for the season. After today, the weekend forecast looks dry and sunny with highs around 80F.

#### Diseases:

Rain this morning (July 28) will likely generate another downy mildew infection period. This means that we will have had three infection periods for downy mildew over the past 12 days (also on July 17-18, and 25). The best thing you can do right now is scout your susceptible vineyards to know what your downy mildew 'situation' is; do you have active sporulation that could spread the disease under wet, rainy conditions in the near future? Fortunately, it looks to be dry in the short term. But active sporulation can also be kept progressing at a 'slow burn' under late summer conditions where we typically get dewy nights after warm, humid days. Under these conditions, the disease can slowly 'chew' on leaves that are essential to getting your crop ripe. Then, if rains return, the disease suddenly spins out of control and vines can be defoliated. If disease begins to creep in, take good care of those leaves and apply a fungicide to keep downy under tight control, especially on varieties of Vitis vinifera. Any disease born from today's infection period should become visible in about 4-5 days.

For Concord growers, the disease to watch at this point is powdery mildew on leaves. At our location, in our Concord mildew trials, we are now seeing that shift from mildew affecting the youngest leaves first (yellow spots on tops of immature leaves/sporulation on undersides of leaves, curling/ distortion), to that more familiar gray/white powdery colony development on the tops of older, mature leaves. The longer you can delay the colonization of your mature leaves by this disease, the more you improve your odds of getting that crop to minimum sugar standards before autumn takes the leaves off or harvest ends...whichever comes first. For smaller than average crops, one or two post bloom mildew sprays are all that may be needed. But for larger than average crops and especially for 'monster' crops, it may be critical to apply several (3 to 4?) post bloom sprays for powdery mildew. These sprays are insurance policies against load rejection, especially if the weather becomes less than ideal for ripening after veraison. There's no formula for just how many more sprays to apply because every year is different. And, you'll do yourself an added favor if you've been applying the newer fungicides (Gatten, Cevya, Endura (Endura is not new per se, but new to Concord growers) instead of the older standards (Quintec, Vivando, Torino, tebuconazole products). But for large crops, keeping leaves reasonably clean through July and into early August is a prudent goal. The wild card is the weather, and with a little luck, we'll all have big smiles on our faces come end of October.

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 Alticor 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.



# **Updates and Information**

Kimberly Knappenberger, Viticulture Assistant, LERGP

#### **NEWA Update**

Just another reminder to keep an eye on the precipitation amounts that we are receiving in these occasional cloud bursts lately. The fact that they are very spotty and not region wide makes it difficult to know whether or not there is a problem. I was able to clean a wasp nest out of the underside of the rain bucket at the East Fredonia station. In this picture there is a nest located directly under the hole that the rain water is funneled to in order to measure it with the tipping mechanism. This nest was completely blocking the water from falling into the mechanism and being measured.



If you notice a problem please send me an email at <u>ksk76@cornell.edu</u> and I will go take a look.

#### 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 <u>https://lergp.com/about-vip</u>. If you would like to apply click on VIP Application or click this link <u>https://lergp.com/vip-application</u>. 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. <u>Ksk76@</u> <u>cornell.edu</u> or 716-792-2800 ext 209. Pictured here is a removal in progress. Trellis and vines are in the process of being removed.



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



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### Thank you!

Thank you to everyone who hosted a coffee pot meeting for the program this season. We greatly appreciate you opening your doors to us and your fellow growers. We had another successful coffee pot meeting season with great attendance and discussion at all. We look forward to the 2023 growing season. If you would like to host a coffee pot meeting next season please give Katie a call (716) 792-2800 ext 201 or <u>e-mail</u> her.

### 2022 Coffee Pot Meeting Hosts

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