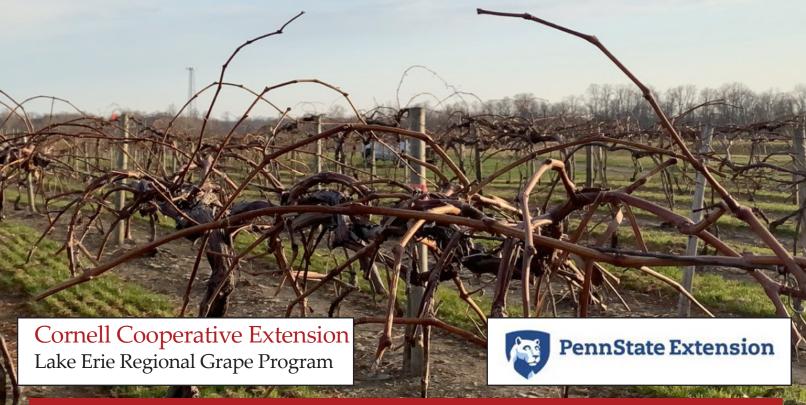






CLEREL Vineyard this week-Jennifer Philllips Russo

CROP UPDATE April 8, 2021



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- 2021 Spray Program- Andy Muza
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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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Business Management

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

Pesticide Price Update

At this moment corn prices are 5.79, up 3% just today and up dramatically since last fall. Local prices were basis +22 but local bids are updated daily. In any event corn appears to be trending toward \$5 or more for the 2021 harvest. This continues to impact not just total acreage planted but also how that acreage is cared



for. While we've covered fertilizer, \$6 corn will dramatically impact pesticide use. Higher prices justify further crop protection as dollar losses related to disease and insect pressure are nearly double what they were.

Falling corn prices in the fall led to some deals on herbicides, fertilizer and a few inexpensive fungicides. Those deals are gone as corn price trends reversed. However, pesticide price changes are not as dynamic as fertilizer. The chemical companies left dollars on the table as demand surged and supply dwindled. Book prices for many chemicals look similar to 2020. Some chemicals, in demand from this field crop trend, are simply not available. Prices rose quickly but not fast enough to compensate for swings in market traded commodities, like corn. We just are not seeing dramatic changes in prices for many of these chemicals. Instead, at the moment, we are seeing out of stock warnings.

Grape growers are in a good position to use alternative chemicals in most cases. Round-up is one exception in that it remains available and prices had more time to adjust before supplies ran out. Round-up is up 33% from recent lows and 14% from last year. Other chemicals in short supply may be restocked prior to June. Availability is unknown but chemical companies are hopeful that production will meet demand. If corn and other ag commodity prices remain high, chemicals widely used across Ag will likely see price adjustments similar to Round-Up.

Chemicals not used in field crops continue to trend upward much less dramatically. Prices of some specialty chemicals are actually lower in 2021. One trend we may see for 2021 in certain areas is the gap between inexpensive and expensive options close. With some prices moving quickly, it's hard to speculate accurately.

This will be a year it is very important to do the math. Price chemicals by the acre based on realistic use rates. Much like other commodities growers should be less willing to tolerate crop loss. While we could be wrong, growers should operate under the assumption that crop prices for 2021 harvest will be nearly as high as 2020. Prices at retail continue to perform well. Inventories continue to decline. While final crop payments for 2021 are still years away, the best information we have is that higher levels of investment in crop protection will be justified.

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Phenology Update

As of April 6, 2021 at noon in the Phenology block at Cornell Lake Erie Research and Extension Laboratory in Portland, NY, the team has called the Concord buds at 1.5 on the Modified Shaulis Field Score.

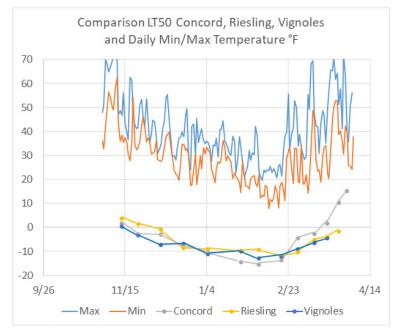
	% of	Modified Shaulis		
4/6/2021	Buds	Field Score		
Balance Pruned	38%	1.5		
120 Nodes	53%	1.5		
90 Nodes	47%	1.5		
Minimal Pruned	62%	1.5		
4/7/2021				
GDD (Base 50) from Jan 1 = 62.8				
GDD (Base 50) from Apr 1 = 4.5				

Where we are now; Progression to Bud Break

During the months of March and April it can be difficult to determine how far away we are to bud break. In the wake of last May's frost events there are some nervous growers in the frost-prone areas. With the continuous stretch of warm days, I've heard reports of bleeding fruiting canes after pruning and doeskin on Concord buds. This is the first observational sign that the vines are transitioning out of dormancy, however, we have been tracking the bud hardiness throughout the winter and the below graph indicates that de-acclimation began in February. In the graph you can visually see the Lethal Temperature Exotherm (LTE 50s), which is the temperature that 50% of the buds die, of the three different varieties tracked.

The blue line on the upper most portion of the graph indicates the maximum daily temperature while the orange line is the minimum daily temperature. The three lines on the bottom of the graph track the different variety LTE 50s. If the orange line indicating the minimum daily temperature intersected with one or more of the dotted LTE 50 line, then we would worry about bud damage in those varieties. Thankfully, that line did not intersect this year.

The grey dotted line represents Concord LTE 50, the yellow is Riesling, and the dark blue is Vignoles. You will notice the grey line was the most cold hardy until mid-February, where it began to de-acclimate at a faster rate than Riesling and Vignoles but Concords are still below the minimum daily temperatures.



But what about the visual observations that growers are noticing in their vineyard blocks? The progression toward bud break is mostly weather dependent making it difficult to project when this event will happen. However, there are a few things that can help us determine where we are.

Figure 1. Comparison LT50 Concord, Riesling, Vignoles and Daily Min/Max Temperature in Fahrenheit.

Modified Shaulis Field Scale for Stages in Shoot Development in Grapevines

As part of our phenology project at Cornell Lake Erie Research and Extension Laboratory the staff, collects data on bud progression. Two milestones that are collected are when buds reach 10% pink and bud break. The "Modified Shaulis Field Score" (diagram) helps us define where we are at based on a numbering system.

Early definitions are:

- 1.0) Dormant Bud
- 2.0) First swelling
- 2.5) Intermediate Swell: half or more of bud doeskin visible
- 3.0) Full Swell: pink on side of bud
- 4.0) Budbreak: half or more of leaf edge exposed

We determine budbreak when we find 50% buds with half or more of leaf edge are exposed. Data going back to 1970 the average date for 10% pink (stage 3.0) at Fredonia is April 18th and bud break on May 5th.

So where does that leave us? Currently (April 7th) we have accumulated 62.8 GDDs from January and 4.5 GDD from April. The 10-day forecast has the above 60 degree days continuing through Saturday, and then decreasing into the 50s next week. The moderately cool temperatures should not accumulate very many GDDs next week. To put this in prospective, in 2012, we had a very early 10% pink which occurred on March 22. The accumulated GD D for that time was 111 GDDs.

Modified Shaulis Field Score				
	1.0	Dormant Bud	Sho	
<u> </u>	2.0	First Swell brownish wool clearly visible	oot and	
	2.5	Intermediate Swell half or more of bud doeskin visible	Inflo	
	3.0	Full Swell pink on side of bud	rescence [
	4.0	Budbreak half or more of leaf edge exposed	nce De	
	4.5	Leaf Emergence	velo	
	4.8	Full Leaf Blade Visible	pment	
	5.1	Flat Leaf Stage one leaf perpendicular to shoot		
	9.05	First Bloom 5% florets open	Flo	
	9.50	Bloom 50% florets open	wering	
	9.80	80% Bloom majority of caps off	Φ.	
	10.2	Fruit Set berry abscission fruit >2mm diameter	Berry Developme	
	10.7	Pea-sized Berries fruit 7mm diameter	evelo	
	10.9	Berry Touch	oment	
	11.5	Veraison 5% of berries have color	Ripe	
	12.0	Maturity Fruit ripe for harvest	ening	

I encourage you to use the Modified Shaulis Field Score seen in this article and on our website to help identify the phenology in your blocks, as well as, utilize the NEWA website to track the GDDs closest to your vineyard blocks.









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PA Update

Andy Muza, LERGP Extension Team & Penn State Extension- Erie County

2021 Pest Management Spray Schedule - What's Your Plan?

Bryan Hed, Research Technologist (Plant Pathology), Lake Erie Regional Grape Research and Extension Center, Penn State and Andy Muza, Lake Erie Regional Grape Program Extension Team & Penn State Extension - Erie County, PA will he conducting this Spray management class on April 21 via Zoom. You can attend from the location of your choice.

This meeting is intended to be interactive so that growers will have the ability to ask questions concerning specific pest problems or potential problems in the 2021 season. Topics that will be addressed include: timing of spray applications at critical growth stages; pesticide options, efficacy; and resistance management.

NY(2) and PA(4) credits have been applied for and approved. There is a \$10.00 fee to attend.

To register go to the LERGP web-site

There are instructions on what you will need to provide prior to the meeting on the web site link. If you have any questions please feel free to e-mail Kate Robinson at <u>kjr45@cornell.edu</u>.

We look forward to seeing you!



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Updates and Information

Kimberly Knappenberger, Viticulture Assistant, LERGP



NEWA

You will be able to access the Westfield station on newa.cornell.edu again in the near future. This station had been offline since January but has recently been upgraded with a cellular modem so it can connect again. A few kinks are currently being worked out, but NEWA expects the page back on the website by the end of this week.

As always, if you notice that a station does not seem to be operating as it should please contact Kim at ksk76@cornell.edu. This is the perfect time of year to ensure that everything is working like it should before the growing season begins. Thank you for partnering with us to make this tool as accurate as possible!

VIP

A quick follow up to our recent article about the Vineyard Improvement Program – we had a number of people interested, but have not received any new applications. If you are planning to take advantage of this program we urge you to submit the application prior to beginning the project. This nice weather we are having certainly makes us all want to be out there instead of inside reading articles or filling out applications, but it shouldn't take long. Kevin, Kim and Jennifer will be happy to help you get the ball rolling and answer any questions you might have.



To learn more about the program and to apply go to https://lergp.com/about-vip.



PPE

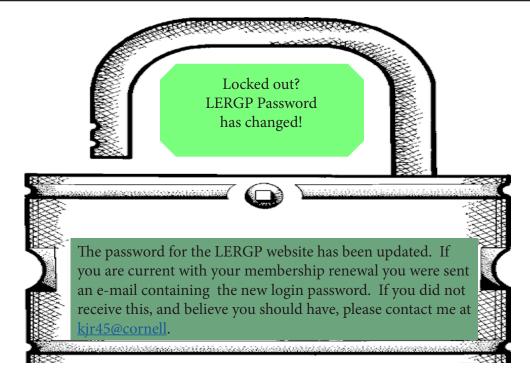
Hopefully we won't need this much longer, but we do still have gallon jugs of NY State Clean hand sanitizer as well as the Hanes masks for growers/farmers/producers. If you are running low, or still haven't picked up any and would like some, contact Kim Knappenberger at ksk76@cornell.edu to set up a time to meet at CLEREL. Please continue to stay safe and do your part!

Information for you

Kate Robinson, Administrative Assistant, LERGP

2021 Coffee Pot Meeting Schedule

Date	Time	Name	Address
May 5, 2021	10:00am	2021 LERGP Coffee Pot Meeting #1	Virtual Platform - Zoom
May 12, 2021	10:00am	2021 LERGP Coffee Pot Meeting #2	Virtual Platform - Zoom
May 19, 2021	7:00pm	2021 LERGP Coffee Pot Meeting #3	Virtual Platform - Zoom
May 26, 2021	10:00am	2021 LERGP Coffee Pot Meeting #4	Virtual Platform - Zoom
June 2, 2021	10:00am	2021 LERGP Coffee Pot Meeting #5	Virtual Platform - Zoom
June 9, 2021	10:00am	2021 LERGP Coffee Pot Meeting #6	Virtual Platform - Zoom
June 16, 2021	7:00pm	2021 LERGP Coffee Pot Meeting #7	Virtual Platform - Zoom
June 23, 2021	10:00am	2021 LERGP Coffee Pot Meeting #8	Virtual Platform - Zoom
June 30, 2021	10:00am	2021 LERGP Coffee Pot Meeting #9	Virtual Platform - Zoom
July 7, 2021	10:00am	2021 LERGP Coffee Pot Meeting #10	Virtual Platform - Zoom
July 14, 2021	10:00am	2021 LERGP Coffee Pot Meeting #11	Virtual Platform - Zoom
July 21, 2021	7:00pm	2021 LERGP Coffee Pot Meeting #12	Virtual Platform - Zoom
July 28, 2021	10:00am	2021 LERGP Coffee Pot Meeting #13	Virtual Platform - Zoom



Other links of interest:

LERGP Web-site:

Cornell Cooperative Extension website:

Cornell CALS Veraison to Harvest Newsletter:

Efficient Vineyard:

<u>Appellation Cornell Newsletter:</u>

COVID-19 resources:

Need information? View the following Cornell CALS and CCE Resource Pages Updated Regularly

General Questions & Links:

https://eden.cce.cornell.edu/

Food Production, Processing & Safety Questions:

https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/

Employment & Agricultural Workforce Questions:

http://agworkforce.cals.cornell.edu/

Cornell Small Farms Resiliency Resources:

https://smallfarms.cornell.edu/resources/farm-resilience/

Financial & Mental Health Resources for Farmers:

https://www.nyfarmnet.org/

Cornell Farmworker Program

www.farmworkers.cornell.edu

www.trabajadores.cornell.edu (en espanol)

