

Cornell Cooperative Extension Lake Erie Regional Grape Program



PennState Extension

Concords in Sheridan on September 10, 2020 Photo: Jennifer Phillips Russo

Crop Update - September 10, 2020

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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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How to join a Zoom meeting video (1 minute): https://www.youtube.com/embed/vFhAEoCF7jg?rel=0&autoplay=1&cc_load_policy=1

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

Efficient Harvest

The abbreviated harvest season will certainly create some challenges as growers try to cover 20% more acreage per week than a typical harvest season. At least, that is the goal. On one hand, you'll only have to be as efficient as your compatriots. The plant will not close if nobody has finished harvest. On the other hand, it appears likely that early harvest will have the potential to substantially improve the bottom-line. I suspect it will be a race for early schedules, at least as much as the harvest crew can fit in a day or week given the lighter tonnage.

With the pace of ripening thus far it seems clear that most growers will have adequate brix accumulation early in the season. The potential for shelling and other fruit loss seems high if the harvest season extends beyond four weeks. With such a mature crop, shelling could occur even earlier. Picking up extra loads in the first week if possible, will help manage that risk. Particularly in that first week it will be important to understand maturity and yield by block. Severe frost damage will ensure high brix but it will simply take too long to turn trucks in those conditions. Moderate or high yields with high brix should probably be targeted first, if such a thing exist. Over maturity in frost damage vineyards could turn out to be a problem by the third week. If you have blocks that would likely qualify for crop insurance claims it would make sense to reduce shelling risk in blocks where a crop insurance claim is unlikely.

This basically just means, like every year, it pays to have good crop and brix sampling protocols. Knowing where to harvest in ten days will be just as important as knowing when to harvest. As you do that, make sure to target desired brix for the processor. For most growers that will fall into the range of 15.0 - 15.5 in the first week. If you are not chasing yields to fill extra trucks harvesting the high brix first and lower brix last will make sense if nothing is over-cropped. Since we do not see much over-cropping in 2020, this will likely be the most profitable path for growers.

There are some reports that dairy and field crops operations, specifically in western NY have grown wary of Covid-19 protocols. Workforce availability is crucial to a successful harvest. Make sure you have a farm safety plan and review that plan with the harvest crew. Most critical to that plan is to wear a mask, keep six feet apart and decrease passenger transportation when possible. Good luck!



Viticulture Jennifer Russo, Viticulture Extension Specialist, LERGP

Here at the Cornell Lake Erie Research and Extension Laboratory (CLEREL) in Portland, NY we monitor our Concord vines in our phenology block that are minimally pruned through vines where we leave up 120 nodes. Data collected throughout the growing season includes berry weight and °Brix. Dr. Terry Bates updates the Concord Berry Curve graph and this week all berry samples in this phenology block averaged 2.9 grams, which is higher than the 21-year average and catching up to the berry weight of 2017 (Figure 1). The samples taken on August 31, 2020 averaged 2.6 grams with a weekly average accumulation of .3 grams of berry weight.



Figure 1. Cornell Lake Erie Research and Extension Laboratory 9-8-2020 Concord Berry Curve



Figure 2. Cornell Lake Erie Research and Extension Laboratory Concord °Brix Accumulation 9-8-2020

The °Brix accumulation is well above the 21-year average with the phenology samples averaging at 15.46 °Brix (Figure 2). On August 31, 2020, the average °Brix for these vines was 12.98. A weekly average accumulation of 2.48 °Brix.

In speaking with grape industry representatives around the region, I have been told that the list of varieties still hanging on the vines is much shorter than those harvested. All are in agreement that we are ahead of the average °Brix for the season and that things are going to go real fast. One producer starts Concord on Saturday, September 12th, and another by September 21st. There are concerns that °Brix accumulation is happening quickly but on the positive juice side of things, product will be much sweeter which leads to quality in the jar.

CLEREL Weather

Per the Network for Environmental and Weather Applications (NEWA) for the station located at CLEREL in Portland, NY, the average air temp for the first 10 days of September is 67.9°F with a maximum of 80.6° and minimum 52.8°. The AgriTech lab received 0.5 inches of precipitation and 21 hours of leaf wetness (Table 1).

Date 9/1/2020	Avg Air Temp (°F) 72.5	Max Air Temp (°F) 79.1	Min Air Temp (°F) 66.9	Total Precip (inches) 0	Leaf Wetness Hours 0	Avg Wind Speed (mph) 5.6
9/2/2020	72.9	77.8	68.7	0.03	0	7
9/3/2020	71.2	80.6	61.2	0	0	4.1
9/4/2020	66.4	69.7	55.7	0	0	6.2
9/5/2020	62	70	56.5	0.11	8	3.5
9/6/2020	63.1	70.5	52.8	0.1	9	2.3
9/7/2020	68.4	72.3	63.9	0.26	3	8.4
9/8/2020	69	78.5	60.9	0	0	3.4
9/9/2020	68.2	77.1	60.3	0	0	2.1
9/10/2020	65.7i	68.5i	63.9i	0.00i	1i	1.6i
Monthly summary	67.9	80.6	52.8	0.5	21	4.4

Table 1. network for Environmental and Weather Applications September 2020 monthly data

Phenological Resources:

- <u>Newsletter: Veraison to Harvest #2</u>
- <u>Newsletter: Veraison to Harvest #1</u>
- New York State Announces Confirmed Finding of Spotted Lanternfly on Staten Island
- (Your input requested) Grapevine powdery mildew fungicide resistance survey | Nancy Sharma and Tim Miles, Michigan State University
- 2016 Organic Production and IPM Guide for Grapes | New York State IPM Program
- Insecticides for control of spotted wing drosophila | Art Agnello, et al., Cornell University
- Grape Insect and Mite Pests-2018 Field Season | Greg Loeb, Cornell University
- Early Season Grape Disease Management | Katie Gold, Cornell University

Regional Resources & Activities (3 pesticide recertification credits available):

• <u>ASEV Webinar: Lifecycle Modeling and the Impacts of Climate Change</u> | *Gwen-Alyn Hoheisel,* WA State University | Oct-22

- <u>ASEV Webinar: Invasive Species Response: Lessons from the European Grapevine Moth</u> <u>Collaborative Program</u> | *Monica Cooper, UC, Cooperative Extension* | Nov-12
- <u>Spotted Lanternfly -- Understanding its Ecology and the Threat</u> | *Pesticide Management Education Program, Distance Learning Center* (1 DEC credit)
- <u>Management of Grape Berry Moth</u> | *Pesticide Management Education Program, Distance Learning Center* (1 DEC credit)
- <u>Implementing NEWA into a Vineyard IPM Strategy</u> | *Pesticide Management Education Program, Distance Learning Center* (1 DEC credit)

As always, we are here for our grower population albeit not in the usual sense. Please feel free to reach out with any questions or comments to us via email or cell phone. Our information is located on the website if not already in your files.



Do you have your sanitizer and masks for harvest? *Kim Knappenberger*

As I am sure you are all aware, Chautauqua County has had a recent uptick in confirmed Covid-19 cases, especially in the Fredonia area. Although most have been associated with the college and they have been working hard to keep that contained, it is not time to relax our efforts to prevent the spread of the virus. As harvest begins we need to stay vigilant in protecting ourselves and others by wearing face masks and using hand sanitizer. It is a good idea to have masks in trucks and tractors to be available when drivers come in contact with other people. The small spray bottles are convenient to have there as well to quickly spray hands, steering wheels, whatever you feel needs a quick sanitizing, and those can easily be refilled with the gallon jugs of sanitizer. The NYS Department of Agriculture has provided both sanitizer and masks to be distributed in the counties of New York by their local Cornell Cooperative Extension agencies. CCE Chautaugua County has made sure that we have

an ample supply available in the county. You can request supplies at <u>http://chautauqua.cce.cornell.</u> <u>edu/resources/hand-sanitizer-and-face-mask-request</u> and then we will arrange a pick-up time at the Cornell Lake Erie Research and Extension Lab in Portland, NY. If you have any questions please contact Kim at <u>ksk76@cornell.edu</u>. These supplies are available to all agricultural producers in the county, so if you know of a producer that is in need, please share this resource with them!

In the Vineyard (9-10-20) – Andy Muza, LERGP Extension Team & Penn State Extension – Erie County

PA Update

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

Grape Berry Moth (GBM) - On Wednesday (9/9) I checked 5 High – Severe Risk areas for 4th generation GBM egg laying (2430 GBM DD). I found at least a few eggs at 3 of the 5 sites. At only 1 site were eggs easy to find, even though 2430 GBM DD had not yet been reached. This indicates the variability that occurs even at High and Severe Risk sites, particularly later in the season.

So, it is likely that some egg laying is occurring at all High Risk sites. However, each site is unique, and it is difficult to predict the amount of egg laying that will occur at an individual site. Late season GBM Model information is not a good predictor of population pressure in extremely warm years. Therefore, according to the GBM Model, "Multiple additional insecticide applications may be necessary in high pressure vineyards to address extended egg-laying and overlapping generations."

If you do decide to apply an insecticide at this point in the season, check the pre-harvest interval before application.



Figure 1. Downy mildew lesion on Concord leaf. Photo – Andy Muza, Penn State

Downy Mildew – Finally, for the first time this season, a few downy mildew leaf lesions were found at 2 different Concord blocks (Figure 1).

As Bryan Hed indicates in this Crop Update, "The rain we have had over the past 2 weeks has generated several downy mildew infection periods and enabled a resurgence of this disease to some extent. This level of mildew comes from infection periods over August 28-29." Although not a threat at this point in Concord vineyards, this indicates the tenacity of this disease to hang around even under hot, dry conditions for most of the season. However, vineyard blocks with susceptible varieties should still be scouted for the presence of this disease. Although

downy mildew is at low levels in our region, if present this disease has the potential to increase rapidly under favorable weather conditions (e.g., frequent thunderstorms/rain showers, elevated dew levels). As Bryan also indicates, "Wine varieties that are susceptible can be very vulnerable to leaf loss from downy mildew (especially vinifera) and may need continued protection."

PA Update

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

Weather: At our location by the lake, our monthly total rainfall stands at a meager 0.29 inches for the first nine days of September. Our growing degree day total for the month of September is currently at 174, and we have accumulated 2448 gdds from April 1. High temps will bounce around average over the next few days, and there is rain forecast for the weekend, possibly Sunday.

Phenology: Two days ago, our Concord was at 11.3 brix and our Niagara was at 12.5. Wine varieties are maturing rapidly with Riesling at 17.5 brix, Gruner Veltliner at 19 brix, Vignoles at 22.2 brix, and Chancellor at 17 brix.

Diseases: At our location, we are seeing small bits of downy mildew chewing on leaves of some of our wine varieties. What a testament to the ability of this disease to linger after a long hot summer. The rain we have had over the past 2 weeks has generated several downy mildew infection periods and enabled a resurgence of this disease to some extent. This level of mildew comes from infection periods over August 28-29, and may not be enough to generate the need to spray now with just a few days to harvest and a shrinking list of options to use. However, continue to scout your vineyards for this disease in order to know just how much you have; its easy to identify downy mildew on leaves, especially early in the morning after a heavy dew. Wine varieties that are susceptible can be very vulnerable to leaf loss from downy mildew (especially vinifera) and may need continued protection. After harvest, you can resort to mancozeb products for downy mildew if the need arises, in order to ensure good cane ripening and optimum winter hardiness, while avoiding concerns regarding the development of fungicide resistance. Late season copper and lime can also be used.

As for powdery mildew, Labor Day sort of marks a 'point of no return' for the pathogen causing this disease. Powdery mildew colonies resulting from infections occurring after Labor Day generally do not have time to develop to the point of leaving mature chasmothecia (the tough, overwintering structures of the pathogen), before the first hard frost takes the leaves off. In other words, if you've controlled powdery mildew up to Labor Day, you have greatly reduced the 'bank' of overwintering inoculum for this disease to start from the following spring. This can be an important part of an effective program for controlling this disease on particularly susceptible varieties (vinifera), from year to year.



Announcements

Safe Harvest 2020: COVID-19 Office Hours for Agricultural Producers and Packers

September 15, 2020 September 22, 2020 September 29, 2020

Cornell CALS and CCE will host office hours for farmers and packers to answer any questions they might have about managing and responding to protect the farm workforce during COVID-19. Participants will be able to log in from a computer or call in from a phone to ask questions or just to listen. A panel of experts will be available to answer questions immediately, questions that the experts cannot answer right away will be recorded, studied and answered later. The next 6 weeks are a critical time for the farm workforce as seasonal harvest ramps up, so the office hours will repeat every Tuesday at 4:00 PM EST through the end of September. Look for log in information and phone numbers in coming news releases and watch this website: www.agworkforce.cals.cornell.edu.

CORE pesticide training on September 22nd from 9am - 10:50am or September 24th from 6pm - 7:50pm

Josh Putman, Southwest NY Dairy, Livestock and Field Crops Program will provide an overview of the basic information involved in the pesticide application certification process and will present the basics of Integrated Pest Management (IPM) as well as general pesticide safety, regulations and pesticide resistance.

Register now for this event!

Other links of interest:

LERGP Web-site:

Cornell Cooperative Extension website:

Cornell CALS Veraison to Harvest Newsletter:

Efficient Vineyard:



Appellation Cornell Newsletter:

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)