

Lake Erie Regional Grape Program

PENNSYLVANIA STATE UNIVERSITY



CROP UPDATE APRIL 5, 2018

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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.

Dates of interest:

Thursday, April 12- Concord Summit, Grape Discovery Center
1:00pm-4:00pm

May 2, 2018- Coffee Pot Season Begins!
10:00am- Clover Hill Farm, 10401 Side Hill Rd., North East, PA 16428
See full coffee pot schedule in this edition, and on <https://lergp.cce.cornell.edu/>

Tuesday, June 5- LERGP Hopyard Tour - 6:00pm-7:30pm at CLEREL, \$5.00 per person, light refreshments

Saturday, June 30- Hops Conference, CLEREL

Tuesday, July 10- LERGP Hopyard Tour- 6:00pm-7:30pm at CLEREL, \$5.00 per person, light refreshments



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Business Management

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

Winter Labor Supply

Despite threats of a trade war, positive macro-economic data continues to roll in. This appears, so far, to have mixed results on the local grape market. With higher GDP growth and tighter labor markets, cost pressures are troublesome. Price increases have been mixed and linked more closely to short-term business fundamentals than the retail juice market. Eventually, obviously, the health of that market will translate to the grower price. Growers continue to shift more pruning activities away from hand labor and toward mechanization. As this acreage increases there remains no universal solution to ensure a reliable supply of labor to maintain vineyard sustainability. Hand follow-up labor has improved as the demand for good hand follow-up labor has outpaced hand pruning it is a skill more readily available. Renewal work is a greater challenge. The weather restrictions labor markets place on renewal work creates real management challenges for the smaller workforce. If anything the current model of pushing vineyards toward over-cropping increases the need for renewal work every year. Despite that increase, less is being done.

While all operations are different, skipping renewal work because of low grape prices does not put the grower in a position to produce large crops when prices are higher. Historically, we have seen high quality renewal work when grape prices are high. Often vineyard production recovers and increases after grape prices peak. Pointing out these management problems is relatively easy, coming up with solutions is a much greater challenge.

In general, pruning labor is reimbursed at a rate much higher than typical wage rates for comparable activities. Renewal labor rates, however, remain low. In fact, renewal labor rates are so low, they've faced direct pressure from NYS minimum wage increases. The same workers that prune see their pay reduced by 20% - 30% when renewal work begins. Over the years this cultural expectation has been reinforced and might not be easy to break. The likely solution is to pay more for renewal work but the ability of the manager to pay less for pruning is unlikely. The only real option for savings might be to build a relationship with a crew and slow the pace of pruning rate increases while rapidly accelerating the rate of renewal work pay.

At a minimum a meaningful impact on actual labor supply might cost a grower as much as \$30 per acre, per year. That increase in cost holds all other variables equal, which of course is not reality. In addition to that \$30 per acre growers will be facing increasing pressure to raise wages over the next 3-5 years. Minimum wage is an issue often cited but supply, immigration policy and overall labor supply/demand will have a greater impact on pruning costs that could reach 45 cents per vine.

So far this year supply has been adequate, at higher rates. A later spring might take the pressure off renewal work but I do think management of inadequate supply will remain key to sustainable vineyard operations going forward.

Viticulture

Jacqueline Dresser, LERGP Viticulture Extension Support Specialist

TRANSITIONS OUT OF DORMANCY TOWARD BUDBREAK

INTRODUCTION

April is a month of anticipation. Spring has technically begun, but we are still waiting for that pivotal moment when buds come out of their hibernation and those first fuzzy pink leaves emerge. Budbreak is a phenological event brought on by a complex interaction between a grapevine's environment and physiological processes and is difficult to predict. We'll discuss what vines need to transition out of dormancy and some historical averages for bud break.

ECODORMANCY AND CHILLING HOURS

Grapevines are in a hibernation of sorts during the winter. The first stage of dormancy, leading to maximum cold hardiness is endodormancy. Endo (Greek – “within”) refers to the physiological processes inside the vine that keep it in a state of dormancy. At this stage, buds are disconnected from the vascular tissues of the vine and are protected from freezing by supercooling. As we discussed in our February newsletter, grapevines will only transition into ecodormancy when necessary chilling requirements are met (Table 1). At this point, dormancy is maintained by the grapevine's environment, namely temperatures below freezing.

Table 1. Chilling requirements of some grape cultivars

Cultivar	Chilling requirement (32°F<h<45°F)	Min days needed for maximal budburst
Concord	1250	21
Seyval Blanc	750	21
Cabernet Franc	750	14
Cabernet Sauvignon	1250	21
Riesling	750	14

Data from Londo et al. 2014

So, how do we know when vines have transitioned into ecodormancy? An educated guess can be made based on chilling hours. A chilling hour is typically recorded when temperatures are between 32°F and 45°F, though there are several other models that have been developed. In a mild winter, chilling hours can be accumulated earlier and increase the risk for an early budbreak. Using weather station data, it is possible to

determine when chilling hours have been met. Some researchers at Mississippi State University have developed a [web app](#) to save you the trouble of calculating chilling hours manually. Simply enter your location and the app will find the closest weather station to determine your chilling hours in a user-defined interval. At CLEREL, chilling requirements for Concord were met by April 1, 2018 (Figure 1), so the vines are now ready to respond when temperatures rise and conditions for budbreak are favorable.

https://webapps.msucare.com/chill_hours/chillhours.php

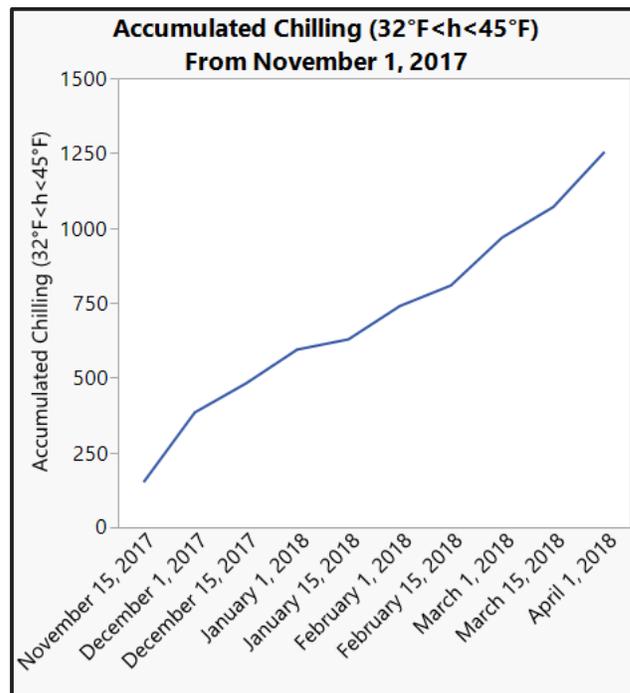


Figure 1 Chilling hours accumulated in Portland, NY from November 1, 2017

GROWING DEGREE DAYS TO BUDBREAK

Historically, budbreak has occurred somewhere between 46 and 12 GDD (base 50°F) from April 1st with the mean budbreak occurring at 110 GDD on a Julian date of 125 (May 5th). Since April 1st, we have accumulated just 10GDD at CLEREL, up 5GDD from 2016 and down 5GDD from last year. So, we seem to be tracking right on average for budbreak. [NEWA](#) is a great tool to track how GDDs are accumulating as we move into May. We will check back in with more on the next crop update. newa.cornell.edu/

IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

New to NEWA!

If you remember back to 2014, there was much written about the NYS Mesonet that was part of the Early Warning Weather Detection System. The NYS Mesonet consists of 125 stations across the state and delivers weather data from a host of sensors to a central facility located at the University of Albany. You can access graphs representing many of the weather parameters at <http://www.nysmesonet.org/data/meteogram#?stid=FRED>. This link is for the station in Fredonia but you can choose any of the 125 stations in the Mesonet. So what does this have to do with NEWA? Part of the excitement back in 2014 was that these machines were going to have the ability to provide weather data to NEWA. This would allow the data to be used by the various weather and pest models NEWA provides. Unfortunately, this took a bit longer to happen than expected.

Flash forward 4 years and NEWA is happy to announce that a number of the NYS Mesonet stations are now available on their website. In the Lake Erie region you will find Fredonia (Chautauqua) and Burt (Niagara) added to the list of available stations.

Keep checking the NEWA website as there will be a number of new Rainwise stations being set up across the Lake Erie region. IF you have not checked NEWA lately, you may have missed two new stations being set up after harvest. Lake City (Erie, PA) and East Westfield (Chautauqua) have been added to the site since the end of the 2017 harvest. These improvements have been made possible through a grant from National Grape Cooperative, Constellation Brands, Walker's Fruit Basket and the NY Wine & Grape Foundation.



NY Mesonet station located in Fredonia, NY area.

2018 New York and Pennsylvania Pest Management Guidelines for Grapes Now Available



2018 New York and Pennsylvania Pest Management Guidelines for Grapes

Cornell Cooperative Extension



PennState Extension

These guidelines are not a substitute for pesticide labeling. Always read and understand the product label before using any pesticide.

The Pesticide Management Education Program (PMEP) at Cornell University is pleased to announce the availability of the *2018 New York and Pennsylvania Pest Management Guidelines for Grapes*.

Written by Cornell and Penn State University specialists, this publication is designed to offer producers, chemical dealers, and crop consultants practical information on growing and managing grapes in New York State and Pennsylvania. Topics include an overview of pesticide use and pest management in grapes; managing common grape disease, insect, and weed concerns; and sprayer technology. A preview of the *Grape Guidelines* can be seen online at <https://cropandpestguides.cce.cornell.edu>.

Highlighted changes in the *2018 Grape Guidelines* include:

- Updated pesticide options for economically important grape pests.
- Information on how to use the Network for Environment and Weather Applications (NEWA) in grape integrated pest management.
- Addition of grapevine leafroll disease to diseases of concern.

Cornell Crop and Pest Management Guidelines are available as a print copy, online-only access, or a package combining print and online access. The print edition of the *2018 Grape Guideline* costs \$31 plus shipping. Online-only access is \$31. A combination of print and online access costs \$43.50 plus shipping costs for the printed book.

The Grape Guidelines can be obtained through your local Cornell Cooperative Extension or Penn State Extension office or from the Cornell Store at Cornell University. To order from the Cornell Store, call (844) 688-7620 or order online at <http://store.cornell.edu/c-875-pmep-guidelines.aspx>.

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LERGP

2018 COFFEE POT MEETING

SCHEDULE

Date	Time	Location	Address
May 2, 2018	10:00am	Clover Hill Farm	10401 Sidehill Rd. North East PA 16428
May 9, 2018	10:00am	Ann & Martin Schulze Winery	2090 Coomer Rd. Burt NY 14028
May 16, 2018	10:00am	Sprague Farms	12435 Versailles Rd. Irving NY 14081
May 23, 2018	10:00am	NE Fruit Growers	2297 Klomp Rd. North East PA 16428
May 30, 2018	10:00am	Double A Vineyards	10277 Christy Rd. Fredonia NY 14063
June 6, 2018	10:00am	Fred Luke Farm	1755 Cemetery Rd. North East PA 16428
June 6, 2018	3:00pm	Thompson Ag	Corner of Hanover and Dennison, Silver Creek NY 14136
June 13, 2018	10:00am	Jim Vetter Farm	12566 Versailles Rd. Irving NY 14081
June 13, 2018	3:00pm	Jerry Chessman Farm	11725 Middle Rd. North East PA 16428
June 20, 2018	10:00am	Duane Schultz	3692 Wilson Cambria Rd. Wilson NY 14172
June 20, 2018	3:00pm	Brant Town Hall	1272 Brant Rd. Brant NY 14027
June 27, 2018	10:00am	Betts Farm	7365 East Route 20 Westfield NY 14787
June 27, 2018	3:00pm	Beckman Farms	2386 Avis Dr. Harborcreek PA 16421
July 11, 2018	10:00am	CLEREL	6592 W. Main Rd. Portland NY 14769
July 18, 2018	10:00am	Tom Tower Farm	759 Lockport St. Youngstown NY 14174
July 25, 2018	10:00am	Ziesenheim	8760 W. Lake Rd. Lake City PA 16423



INSURING GRAPES

NY, 2017

Crop insurance is a safety net for farmers that helps you **manage risk**. If you have a crop failure, crop insurance can help you farm again next year.

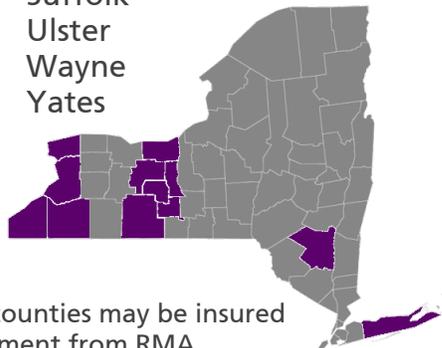
Important Insurance Deadlines

- **Aug. 15, 2017:** Premium Billing Date
- **Nov. 20, 2017:** Sales Closing, Policy Change, Cancellation, Termination Date
- **Nov. 20, 2017:** End of Insurance Period
- **Jan. 15, 2018:** Acreage / Production Report Date



Over 40 grape varieties are insurable in these counties:

Cattaraugus	Suffolk
Chautauqua	Ulster
Erie	Wayne
Niagara	Yates
Ontario	
Schuyler	
Seneca	
Steuben	



Grapes in other counties may be insured by written agreement from RMA

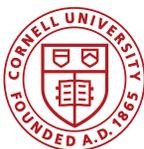
NYS Grape Crop Insurance Performance



for every \$1 grape producers spent on crop insurance premiums from 2012 to 2016, **they received \$2.07** in losses paid, on average

Learn more & sign up:

Explore your personalized crop insurance costs and loss payments under different yield outcomes at ag-analytics.org. To sign up, contact a crop insurance agent. Find an agent using the Agent Locator tool at rma.usda.gov/tools/agent.html



LERGP Links of Interest:

Go to <http://lergp.cce.cornell.edu/> for a detailed calendar of events, registration, membership, and to view past and current Crop Updates and Newsletters.

LERGP Web-site:

<http://lergp.com/>

Cornell Lake Erie Research & Extension Laboratory Facebook page

<https://www.facebook.com/Cornell-Lake-Erie-Research-and-Extension-Laboratory-678754995584587/?fref=ts>

Efficient Vineyard Web-site:

<https://www.efficientvineyard.com/>

Table for: Insecticides for use in NY and PA:

<http://lergp.cce.cornell.edu/submission.php?id=69&crumb=ipm|ipm>

Crop Estimation and Thinning Table:

http://nygpadmin.cce.cornell.edu/pdf/submission/pdf65_pdf.pdf

Appellation Cornell Newsletter Index:

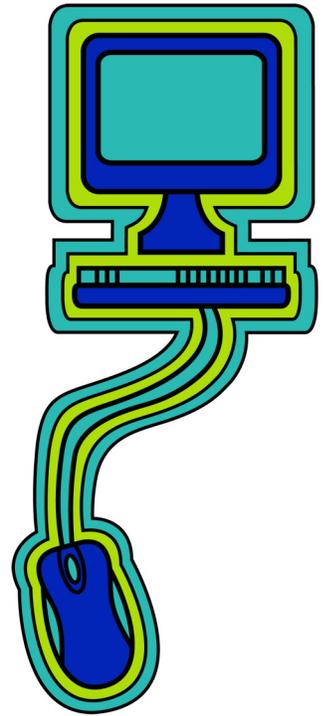
<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/>

Veraison to Harvest newsletters:

<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/veraison-to-harvest/index.cfm>

NEWA:

<http://newa.cornell.edu/>





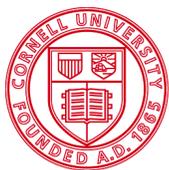
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