

Cornell Cooperative Extension Lake Erie Regional Grape Program



Newsletter Apríl 2020



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.

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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

Joining and Configuring Audio & Video (1 minute):

https://www.youtube.com/embed/HqncX7RE0wM?rel=0&autoplay=1&cc_load_policy=1

The Lake Erie Regional Grape Program is a partnership between Cornell University, Penn State University and the Cornell Cooperative Extension Associations in Chautauqua, Erie and Niagara County NY and Penn State Extension in Erie County PA.

Business Management

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

CARES Act

As a response to COVID – 19, the federal government passed the CARES Act. This is the second piece of legislation passed in response. The first was for health related issues. This legislation is an attempt to hold up an economy that has been virtually shut down. It is important to keep the legislative purpose in mind when trying to fit yourself into the economic benefits of the law. Without the food system we cannot eat, a virus no matter how benign or serious, isn't relevant if there is no food. Agriculture has not been shut down. That means, for the most part, this law was not designed for farm businesses. That doesn't mean farm businesses cannot benefit, it just means it feels more like a square peg in a round hole.

There are about 5 key highlights to the bill. A 2.2 trillion dollar spending bill means there will be other programs of significance that get lost in the details. There is just not enough time yet to research and cover all aspects of the bill.

\$1,200 for everyone! Not exactly everyone, of course. The bill doesn't include children, dependents, and phases out above certain income levels. Children (or their parents) get \$500. The benefits phase out at \$75,000 for singles and \$150,000 for couples. Payments will also be made to people that did not file income taxes. For example, SSI recipients will receive payments automatically, even if they did not file a return. Others that didn't file and don't receive SSI will need to file a tax return to get a payment.

Unemployment Insurance

A few changes were made to unemployment. Payments will be \$600 a week extra through the end of July. Farmers are eligible to collect unemployment benefits if they have been affected by Covid-19 and are unable to work. This does not require a diagnosis of Covid-19. Most relevant to agriculture, contract employees (1099) will also be eligible for unemployment. This could impact small business Ag Service providers. With the extra payments there is some concern that it will be more difficult to recruit labor as well. Hopefully those concerns are misplaced. Individuals should realize that this is no time to give up a job in exchange for \$10,000 between now and July. There is a real possibility that jobs will not be available in August. This chart of unemployment filings is a great illustration of the economy (jobs) turning off. If individuals in or related to your operation are looking for temporary layoffs and that labor is needed; make sure they understand the precarious nature of this economy. On the other hand, if you or your family members are part of the massive layoffs; the extra \$600 a week will be extremely helpful. More than 22 million individuals have applied for unemployment since March 14th.

Payroll Protection Program

Update: The Payroll Protection Program exhausted all funding as of April 15th, 2020. Impacted businesses should continue to apply as Congress has stated an intent to increase funding to the program. Many banks continue to accept applications and most anticipate that the first come, first serve method will continue to apply. It is possible, though many think unlikely, that PPP will not receive further funding.



Figure 1: The scale of people applying for unemployment benefits is historical. The number the past two weeks are so high; the graph is essentially broken. The worst losses in history were just over 600,000 in a single week. Now they're over 6 million.

The PPP is a loan program for all small businesses (less than 500 employees). **Borrowers must certify that their business has been affected by the coronavirus slowdown.** Credit scores are part of the application process but banks will not require any collateral. The size of the loan is capped at average monthly payroll times 2.5. Date ranges for calculating payroll are different for seasonal businesses and new firms. Any of the loan used for certain business expenses will be forgiven. These expenses must all be incurred in the first eight weeks of the loan. Borrowers that show expenses related to payroll, mortgage interest, rent or utilities will have the loans forgiven within 60 days of submitting the request.

Typical Loan Amount Total payroll: \$100,000 Average Monthly Payroll: \$8300 Maximum Loan: \$20,800 Mortgage Interest, Payroll, Rent and Utilities (April 15 – June 10): \$17,200 Total Principal Remaining: \$4,600 Interest: \$170 or less

Employee Retention Credit

As an alternative to a loan a more generous Employee Retention Tax Credit was established. Businesses have to choose one program or the other. The ERC requires that businesses had operations fully or partially suspended during 2020 OR experience a 50% decline in gross revenue for the 2nd quarter of 2020. The credit is 50% of qualified wages, including health plan expenses. Eligible Employers may claim the Employee Retention Credit for qualified wages that they pay after March 12, 2020, and before January 1, 2021. The credits are fully refundable. That is to say that a firm may get a refund if the amount of the credit is more than certain federal employment taxes the Eligible Employer owes.

Reducing gross revenue in the second quarter of 2020 will be very difficult for grape growers that usually do not realize revenue in the 2nd quarter unless the Cooperative pays them. Cooperative payments have been healthy (great news!) so a massive reduction in revenue is unlikely.

USDA Funding

USDA funding was also increased as a result of this legislation. Funding was earmarked toward a number of specific programs. \$14 billion was allocated to replenish the commodity credit corporation. Another 9.5 billion was earmarked for livestock and specialty crop producers that were most impacted by COVID-19. Existing USDA programs like conservation also received funding.

Paid Sick Leave Refundable Credit

This is a two-part program that includes both paid sick leave and an expansion of family medical leave act. Most importantly, this expansion includes employers with less than 50 employees. Exceptions for small businesses are complicated and not something I would recommend unless absolutely necessary. Most small businesses looking for hardship exceptions are hiring legal representation to minimize the risk of litigation. Also, all of this paid sick time is related to Covid-19, so it is a temporary program. All of the businesses paying Covid-19 leave will be reimbursed by the federal government.

The program requirements include central posting of the benefit. Compliant posters can be found here:

<u>http://agworkforce.cals.cornell.edu/2020/04/01/covid-19-employee-leave-and-farm-employers/</u> <u>https://www.dol.gov/sites/dolgov/files/WHD/Pandemic/FFCRA-Employee_Paid_Leave_Rights.pdf</u> <u>https://www.dol.gov/sites/dolgov/files/WHD/Pandemic/FFCRA-Employee_Paid_Leave_Rights_SPANISH.pdf</u>

- 1. the employee is under a Federal, State, or local quarantine or isolation order related to COVID-19;
- 2. the employee has been advised by a health care provider to self-quarantine due to concerns related to COVID-19;
- 3. the employee is experiencing symptoms of COVID-19 and seeking a medical diagnosis;
- 4. the employee is caring for an individual who is subject to a Federal, State, or local quarantine or isolation order related to COVID-19, or has been advised by a health care provider to self-quarantine due to concerns related to COVID-19;
- 5. the employee is caring for the child of such employee if the school or place of care of the child has been closed, or the child care provider of such child is unavailable, due to COVID-19 precautions;
- 6. the employee is experiencing any other substantially similar condition specified by the U.S. Department of Health and Human Services.

Rates of paid sick leave vary based on the category or reason for the absence. Very new or brand new employees are eligible for leave, depending on leave type. Including basically all employers in such a generous policy might seem unusual. It's important to keep in mind that any expenses associated with this program will be reimbursed. That means, the payroll for any paid sick or family time related to COVID-19, needs to be tracked and documented.

EMPLOYEE RIGHTS

PAID SICK LEAVE AND EXPANDED FAMILY AND MEDICAL LEAVE UNDER THE FAMILIES FIRST CORONAVIRUS RESPONSE ACT

The **Families First Coronavirus Response Act (FFCRA or Act)** requires certain employers to provide their employees with paid sick leave and expanded family and medical leave for specified reasons related to COVID-19. These provisions will apply from April 1, 2020 through December 31, 2020.

PAID LEAVE ENTITLEMENTS

Generally, employers covered under the Act must provide employees:

Up to two weeks (80 hours, or a part-time employee's two-week equivalent) of paid sick leave based on the higher of their regular rate of pay, or the applicable state or Federal minimum wage, paid at:

- 100% for qualifying reasons #1-3 below, up to \$511 daily and \$5,110 total;
- ²/₃ for qualifying reasons #4 and 6 below, up to \$200 daily and \$2,000 total; and
- Up to 12 weeks of paid sick leave and expanded family and medical leave paid at $\frac{2}{3}$ for qualifying reason #5 below for up to \$200 daily and \$12,000 total.

A part-time employee is eligible for leave for the number of hours that the employee is normally scheduled to work over that period.

ELIGIBLE EMPLOYEES

In general, employees of private sector employers with fewer than 500 employees, and certain public sector employers, are eligible for up to two weeks of fully or partially paid sick leave for COVID-19 related reasons (see below). *Employees who have been employed for at least 30 days* prior to their leave request may be eligible for up to an additional 10 weeks of partially paid expanded family and medical leave for reason #5 below.

> QUALIFYING REASONS FOR LEAVE RELATED TO COVID-19

An employee is entitled to take leave related to COVID-19 if the employee is unable to work, including unable to **telework**, because the employee:

isolat	pject to a Federal, State, or local quarantine or ion order related to COVID-19; ween advised by a health care provider to	5.	is caring for his or her child whose school or place of care is closed (or child care provider is unavailable) due to COVID-19 related reasons; or
self-c 3. is exp	juarantine related to COVID-19; beriencing COVID-19 symptoms and is seeking dical diagnosis;	6.	is experiencing any other substantially-similar condition specified by the U.S. Department of Health and Human Services.
	ing for an individual subject to an order described or self-quarantine as described in (2);		

ENFORCEMENT

The U.S. Department of Labor's Wage and Hour Division (WHD) has the authority to investigate and enforce compliance with the FFCRA. Employers may not discharge, discipline, or otherwise discriminate against any employee who lawfully takes paid sick leave or expanded family and medical leave under the FFCRA, files a complaint, or institutes a proceeding under or related to this Act. Employers in violation of the provisions of the FFCRA will be subject to penalties and enforcement by WHD.



WAGE AND HOUR DIVISION UNITED STATES DEPARTMENT OF LABOR For additional information or to file a complaint: **1-866-487-9243** TTY: 1-877-889-5627 **dol.gov/agencies/whd**



WH1422 REV 03/20

Small Business Relief

Supply Chain

The supply chain is creating delays in the procurement of pesticides. So far delays are related to delivery as warehouses and transportation industries socially distance and struggle with the logistics of this strange world. With the snow falling and no pesticide applications being made, there have been no reports of actual shortages yet. Pricing reports have been mixed. The initial forecast of pesticide prices trending lower is holding steady but declines in pricing are less than initially expected. As our local suppliers and growers source from a number of different places, please check in with us if your results vary. (You can reach me via email, text and cell throughout this quarantine period). The need for specialty chemicals in low volumes is usually during the post-bloom period. While our high volume chemicals are currently being delivered; few growers are purchasing things like Movento and Altacor in April. We'll continue to monitor this potential issue.

Fertilizer prices remain lower than last year. This trend is virtually across the board. Prices bottomed in late January through February, depending on the product. Since then, prices have increased modestly. The price increase is impressive, considering the downswing in commodity market pricing. The increase in price is likely related to Covid-19 as business practices have changed and the cautionary approach has slowed deal making and distribution.

Labor Supply

In a strange turn of events, anecdotal evidence has been an increase in labor availability over the last three weeks. I suspect this is a result of errors in anecdotal evidence. Other farm industries have seen a labor shortage, some of those shortages have been significant. The good news is, at least for some growers, labor for renewal work is more than adequate. If you don't like this take on the labor supply, please connect with us through office hours or our upcoming coffee pot meetings.

Please keep in mind that any labor you do have is only allowed to be working because they are deemed essential personnel. Essential personnel must be provided face coverings in NYS. As governors try to unite policies going forward, I would recommend PA growers also source face coverings as well.

Pruning crews, just like paid full time workers are eligible for COVID-19 related sick time and family leave. This leave is paid by the employer and only for specific events related to COVID-19. Check out the rest of the newsletter for more information.

(Updated 4/24/20)- Child Care Grant

As of 3/20/2020 licensed child care businesses in New York State are considered essential services and allowed to operate. NYS announced on 4/24/2020 that child care scholarships will be available for child care expenses for essential workers; which includes food processing and farm employees. Scholarships are being paid for from \$30M in federal CARES Act funding received by NYS, and are open to families who are at 300% or less of the federal poverty level – or \$78,600 or less for a family of four. More information can be found here: https://ocfs.ny.gov/main/news/article.php?idx=2119. The parent application is here: https://ocfs.ny.gov/main/news/article.php?idx=2119. The parent application is here: https://otrs.ny.gov/main/news/article.php?idx=2119. The parent application is here: https://otrs.ny.gov/main/news/article.php?idx=2119. The Scholarships will be available for th

during this current time. In certain regions, local YMCA's have been expanding child care options for local essential workers and may be an option to explore. The ABCD program, which serves as a primary resource for the children of farm employee and food system employees, is currently closed and will re-evaluate its status regularly so please call local Centers for availability.

Zoom! Recurring Office Hours

If you haven't heard about this opportunity to connect with LERGP; make sure you check your e-mail. We have office hours at 10:00 am on Monday and 1:30 PM on Thursday.

Laptop: Use of a laptop is recommended if you have access to one.

Zoom In: To use a computer make sure you have a microphone. Many desktops do not. Simply click the link to connect. You'll automatically be prompted to install zoom software to connect to the meeting. This might take some time so feel free to do it before the scheduled meeting. You can use the same link as a smartphone to connect. https://psu.zoom.us/j/8757764969

Tip: If you have a pop up blocker installed, you may be prompted to launch the zoom application after you click the link Office Hours 1:30

Thursday, Apr 16 · 1:30–2:30 PM Repeats every week

- 2 hours before as email
 1 day before as email
- Toaccess these Zoom meetings with a PC, Mac, Linux, iOS or Android go to <u>https://psu.zoom.us/j/8757764969</u>. If using aniPhone one-tap (US Toll): +16468769923,8757764969# or +13126266799,8757764969# Or to call in dial: +1 646 876 9923 (US Toll)



Tip: If prompted make sure you give zoom access to your microphone and video camera. Particularly on a Mac computer it is a little more complicated to give access to the devices once you initially deny zoom access. A pop up window will typically request this access the first time you click a zoom link.

Calling In

There are a number of ways to connect and I wanted to provide some details on how to do that.

For each meeting the number to call in will change. We will send out an invitation that gives you the number, date and time. One way to connect is to call in.

iPhone Only: Click the telephone number for the iPhone one-tap, circled in red. Next, a call button will pop up. It is shown in figure one, also circled in red. Click that pop-up on your iPhone to dial in.

Other Phones: <u>+1 646 876 9923</u> After dialing in you'll be prompted for a meeting ID. The meeting ID is 875 7764969. Zoom In: Smart Phone

On any smartphone you can install a zoom app. Once you have the app, you can click the link provided in the e-mail invitation and you'll be connected to the meeting. The link will prompt the app to open automatically, if it is already installed. This will provide you with an audio and video connection. We think we'll be better able to communicate in small groups if you connect this way, but it does require an app. Also, if you have limited data on your phone, please make sure you're connected to wi-fi as Zoom is fairly data intensive.

Viticulture

Jennifer Phillips Russo, Viticulture Extension Specialist, LERGP

The Vines Are Waking Up

The weather this winter has been mild due to our climate moderating Great Lake Erie and the past few weeks have been beautiful and conducive to waking up the grapevines. I am receiving grower reports that sap is running, and buds are swelling. I welcomed the chance to leave the house during this time of social distancing (working at home with four children homeschooling...you get the picture). I spent a quiet and serene morning on April 1st wandering in the vineyards pruning and scouting the buds.

If you scroll to the bottom of the page on the home screen of our <u>https://lergp.com/</u> website, you will find the Modified Shaulis Field Score Chart. Use this as a tool to help you determine what stage your Concord buds are in at this time. I have included it in this article as well for your reference, see it at the end.

Below are photos that I took on April 1, 2020. The first is a close up of a Concord bud that you can see the brownish wool is clearly visible, corresponding with a 2.0 on the Modified Shaulis Field Score guide. The second photo is of a recently pruned cane that the sap is bleeding (dripping) from the fresh cut. This indicates that the vines are de-acclimating and the root system is activating. Positive osmotic root pressure drives water in the soil from the roots up the trunk and to the growing material inside the buds.





Okay, this is where we make the connection to why this water is important at this time. Note the photo below developed by Terry Bates, it illustrates the progression of a bud into a shoot with corresponding Critical Freezing Temperatures. At this stage, 2.0, there is water in the bud and you can physically palpate, or feel, the bud softening. Using the photo below, a score of 2.0 is similar to the second bud photo. Note the numbers above the photos. These numbers are the critical freezing temperature where bud damage will occur at that stage. A 2.0 bud falls between 13 and 21°F,

indicating that as long as our temps stay above 20°F the primary buds should survive. Our ten-day forecast for Portland, NY projects a low of 35 so that is good news for the buds at this stage.



The ten-day forecast for Portland, NY also projects rain in over half of them. The warmer temperatures will continue to activate the roots and our growing season is afoot, or aroot? Too much? Moving on, the 40-year average Bud Break date for Concord grapes at the Cornell Lake Erie Research and Extension Lab is May 5th. At the rate the vines are moving and the projected warmer temperatures, there is nervousness around a spring frost. We cannot control dear 'ole Mother Nature, but there are a few management practices that are within our control. Our partners at Penn State University have a great article, *Understanding and Preventing Spring Frost and Freeze Damage to Grapes,* that can be found here: https://extension.psu.edu/understanding-and-preventing-spring-frost-and-freeze-damage-to-grapes.

For most of us, site selection has already occurred and cannot be changed, but for those who are planning a new vineyard this is very important. Cold air is denser than warm air and sinks, or drains, to the lowest spots in the vineyard. Look for a site that will allow for adequate air drainage and avoid trapping cold air in spots where vines are planted.

Pruning practices can also be used as a frost mitigation strategy. If you have a large labor force, then delayed pruning until late winter early spring is one tactic. When buds break, they break along the cane starting at the apical bud, or buds at the end of the cane furthest away from the basal bud, located next to the cordon. I have been pushing buds inside to demonstrate this very concept, please see the photos below. The apical bud position is located at 5. and is the most developed with a Modified Shaulis Field Score of 4.0, or bud break, where half or more of the leaf edge is exposed. The basal bud located at point 1., is at a Modified Shaulis Field Score of 2.0, with progressive bud development as you reach the end of the cane. Employing a double pruning technique is another option. Leave up more buds on your first pruning pass, and when the threat of frost has passed then go back and prune again to the number of buds that fit your goals. Yes, there is a cost to the extra pruning, so you need to be certain that the cost outweighs the risk in your operation.

For those who are considering bud break delaying chemicals or oils, please be sure that your buds are not past the point of application. These products are meant to be applied on dormant buds.

Another risk strategy is middle-row management. I discussed air drainage earlier in this article and the need to remove obstacles that can trap cold air. If you have high biomass in your row middles, whether it be tall weeds from last fall or cover crops, this will slow the drainage of the cold air and also keep the vineyard temperature cooler. In our recent podcast, we discussed that bare, moist ground will absorb heat and keep the vineyard slightly warmer, however, there is rain in our forecast more days than not in the next ten-days. Having a bare floor can create disadvantages such as the risk of erosion, loss of soil organic matter, destruction of soil structure, etc. During the frost-prone



period, mow ground cover short. Mowed biomass will only decrease the temperature slightly, and you can reap the benefits of healthier soils as well.

In this time of social distancing, take a quiet walk in your vineyards and note the phenology of your vines. Keeping great records can help to see trends throughout the seasons and analyze management strategy effects on your vineyard. I know that most of you are concerned of the potential for a frost event, but hopefully some of these passive frost protection methods, which are often less costly than frost fans or frost drains, can help in the event that Mother Nature gets cranky this spring.

Please feel free to reach out with any questions, comments, or suggestions for informational articles at either our virtual office hours on Monday and Thursdays during this pandemic time, or by email at <u>jjr268@cornell.edu</u>. I hope that you all stay safe and healthy and I look forward to when we can gather together again.



New York Pesticide Certification and Business Registration during Pause-NY

Note: Information listed below from NYSDEC references Executive Order 202 (<u>https://www.governor.ny.gov/news/no-202-declaring-disaster-emergency-state-new-york</u>). That emergency order currently has an expiration date listed as September 7, 2020 but as indicated below that is a date that could be extended.

We've received a few questions about New York State pesticide applicator certification/recertification during the Covid-19 crisis.

The following information is from the New York State Department of Environmental Conservation's Bureau of Pesticides Management website (<u>www.dec.ny.gov/chemical/298.html</u>):

Pesticide Certification and Business Registration during Pause-NY: DEC is taking the following actions to temporarily allow regulatory flexibility and continued pesticide application and business operations during Pause-NY due to the unique conditions facing New York and the entire nation.

Certification Exams

In light of the Governor's Directive for all non-essential state workers to continue to work from home through April 29th due to concerns with the coronavirus outbreak, at this time all certification exams currently scheduled through the end of April will be cancelled. The cancellations are necessary to attempt to protect the health and safety of those people seeking pesticide certification by examination, as well as DEC staff administering the exams. DEC will re-evaluate the situation in late April to determine if additional exams would need to be cancelled. DEC will also explore other ways to conduct exam sessions when scheduling resumes in order to accommodate such social distancing and other protective practices.

Recertification

Certified applicators and technicians are required to have a valid certification ID card in their possession in order to work. Many of them will not be able to obtain the continuing education credits required for recertification because all classroom courses are cancelled in the near term. Additionally, the only other method of qualifying for recertification, via a recertification exam, is not an option because the certification exam sessions through the end of April will be cancelled. There is computer-based training available, but that is not a good option for people in remote parts of the state or those who do not have access to computers or are not computer proficient. Enforcement discretion is being pursued to delay enforcement of the pesticide certification period.

At this time, DEC will allow any applicator whose certification lapsed on or after November 1, 2019, to continue to operate until 60 days after the expiration of Executive Order 202 and any extensions issued to it. Penalty training credits that would otherwise be required for these applicators, will also be waived. This extension will allow time for courses to start opening back up, recertification exams to become available, and for staff to keep pace with pending applications.

DEC will re-assess the situation periodically to determine if this allowance for certifications will need to be extended further. Certified applicators for whom this extension applies can carry a copy of the enforcement discretion letter along with their ID card to show customers, inspectors, commercial

permittees, and others, as necessary, that they are still allowed to operate.

Business Registration

DEC will allow businesses and agencies whose registrations lapsed on or after March 1, 2020, to continue to operate during the current crisis, until 60 days after the expiration of Executive Order 202 and any extensions issued to it. This allowance for business registration expiration shall also apply to the expiration date on the pesticide application equipment/vehicle decals. The equipment/vehicle operator can carry a copy of the enforcement discretion letter as part of their proof that they are still allowed to operate.

Even though we will allow these applicators with expired certifications and businesses and agencies with expired registrations to continue to operate during this time, pesticide applicators and pesticide businesses are encouraged to submit their recertification and business registration renewal information to the DEC as soon as possible to avoid any future delays in the processing of these items. This action will not change recertification dates and when the recertification paperwork is completed applicators will remain on their current recertification cycle.

Pay your Pesticide Applicator/Technician Certification and Business/Agency Registration Application Fees Electronically Online: You can now pay your pesticide certification and business/ agency fees electronically. Please do not submit a check with your application. After reviewing your application, we will mail you an invoice that you can pay via electronic check, debit card or credit card. Note: Certain payment types incur related transaction fees. Please visit the On-Line Invoicing section of the <u>Doing Business with DEC</u> webpage, the <u>Pesticide Applicator/Technician Certification</u> webpage, or the <u>Business/Agency Pesticide Information</u> webpage for more information regarding electronic payments.

Link to New York State Department of Environmental Conservation Enforcement Discretion for Extension of Pesticide Applicator Recertification and Business and Agency Registration during the COVID-19 Emergency letter:

http://www.dec.ny.gov/docs/materials_minerals_pdf/enfdiscretion.pdf.

Virtual Office Hours Trial

The extension team has scheduled Virtual Office Hours on Mondays from 10:00 AM to 12:00 PM and Thursdays from 1:30 PM to 3:30 PM. During these hours you can join the already in progress Zoom meeting for as long as you need to get some questions answered.

The team consists of Jennifer Phillips Russo, LERGP Viticulture Extension Specialist, Kevin Martin, Business Management Specialist, and Andy Muza, IPM Extension. The team is planning to continue to hold these meetings until we are able to meet face to face again. We encourage all grape growers with questions to come and ask! The growing season will not wait, and we know there will be questions.

See Kevin's article for connection links and information.

With a Little Help from Our Friends

I hope that this Crop Update finds you all well and able to find time to continue about your everyday vineyard responsibilities, as well as, adjust for our current way of life during these pandemic times! I know that juggling it all can sometimes be difficult, but I will hold onto the cliché that this too shall pass. Please know that the Lake Erie Regional Grape Program is still here for you. We continue to have our Virtual Office Hours and are expanding the availability for the foreseeable future to accommodate those of you with different schedules during this time. We continue to take phone calls via cell and email is always a great way to reach any of the team members. If you are experiencing issues or have questions in the vines, please reach out and we can address them.

Okay, I am sure that you woke up and looked out the window to a snowing greeting. I don't want you to get too nervous. The buds are still pretty tight at this point and I am including the information from a previous crop update for your review. Note the photo below developed by Terry Bates, it illustrates the progression of a bud into a shoot with corresponding Critical Freezing Temperatures. At this stage, 1.5 to 2.0, there is water in the bud and you can physically palpate, or feel, the bud softening.

Using the photo below, a score of 2.0 is similar to the second bud photo. Note the numbers above the photos. These numbers are the critical freezing temperature where bud damage will occur at that stage. A 2.0 bud falls between 13 and 21°F, indicating that as long as our temps stay above 20°F the primary buds should survive. Luckily, we have been above those temperature limits with the exception of higher elevations around the escarpment last night. Our Versailles NEWA station registered a 19.6°F this morning and my fingers are crossed that the buds are just plain tougher up that way being used to colder temps and that a layer of snow helped to insulate them. Please check in via email (jjr268@cornell.edu), to share your thoughts, concerns, or ask questions.

Bud scales and down form extraorgan "ice sinks" Less water

Less water -----More Water

Floral tissues do not supercool but they do resist dehydration during extracellular ice formation



photo 1. illustration of the progression of a bud into a shoot with corresponding Critical Freezing Temperatures by Terry Bates

The information that I share with you this week comes from my colleagues, Dr. James Meyers, Dr. Juliet Carroll, Dr. Lynn Sosnoskie, Dr. Bryan Brown, and Dr. Toni DiTommaso and is speckled with my thoughts and musings.

Dr. James Meyers, Viticulture Specialist with the Cornell Cooperative Extension Eastern New York Commercial Horticulture Program graciously agreed to add Portland, NY to his software system that interfaces with several weather data services and to generate the information below. The purpose of these reports is to compliment with historical, current, and forecasted weather data that is specific to your vineyard location. The reports aggregate data from Cornell's Network for Environment and Weather Applications (NEWA) stations, Cornell's Northeast Regional Climate Center's (NRCC) high-resolution gridded weather database, forecast information from the National Oceanic and Atmospheric Administration (NOAA), and digital elevation models from United States Geographical Survey (USGS). He explained that the contents and frequency of the report will be variable as the bugs are worked out, new data sources become available, and feedback comes in. Also, the content will vary throughout the season to highlight relevant details and actionable data. As you read through the information, there are links available to the various data sources. It is my intention to share this with you throughout the season and please feel free to contact me with any questions. I am very thankful for the collaboration with Jim Meyers and the information he shares for you all. I hope that you find it a useful tool to incorporate into your operations.



Figure 1. CLEREL Local Weather Conditions with Growing Degree Days, Precipitation, and Latitude/Longitude

Notes: Year-to-date Growing Degree Days (GDDs) are reported as color-coded symbols your vineyard (star), nearby vineyards(circles), and CCE offices (squares). Year-to- date precipitation is reported as color-coded contours. Site symbols are annotated with GDD and precipitation (e.g. 110 | 12 indicates 110 GDDs and 12 inches of rain). Yellow circles are NEWA stations closest to your site. GDDs and precipitation are sourced from Cornell's Northeast Regional Climate Center (NRCC) high resolution gridded data service which calculates GDD using daily high/low temperatures, not hourly. Elevation data is sourced from United States Geographical Survey (USGS) digital elevation model.

NOAA's National Weather Service Forecast by 12 Hour Period

Notes: Weather forecasts are sourced from National Oceanic and Atmospheric Administration's (NOAA) National Weather Service.

National Weather Service Forecast (click to link) NOAA's Disclaimer (click to link)

UTC Forecast Time: 2020-04-23T04:37:21-04:00

Today: Rain and snow showers before 8am, then a chance of rain showers between 8am and 2pm. High near 46. East wind 7 to 9 mph. Chance of precipitation is 80%. Little or no snow accumulation expected.

Tonight: A chance of showers, mainly after 10pm. Cloudy, with a low around 40. East wind 7 to 9 mph. Chance of precipitation is 40%. New precipitation amounts of less than a tenth of an inch possible. Friday: A chance of showers, mainly before noon. Cloudy, then gradually becoming mostly sunny, with a high near 50. Northeast wind 11 to 16 mph. Chance of precipitation is 40%. New precipitation amounts of less than a tenth of an inch possible.

Friday Night: Partly cloudy, with a low around 38. North wind around 6 mph becoming southeast after midnight. Saturday: Partly sunny, with a high near 62. Southeast wind 7 to 9 mph. Saturday Night: A chance of showers, mainly between 8pm and 11pm, then rain likely after 11pm. Cloudy, with a low around 41. Chance of precipitation is 70%. New precipitation amounts between a tenth and quarter of an inch possible.

			GDD		GDD50_		
Network	Name	Elev_ft	50	T_Data_ Pct	HL	Prcp_i n	P_Data_Pct
'newa'	Portland	700	'57'	'100.0'	'31'	'12.8'	'95.3'
'newa'	Portland Escarpment	1076	'49'	'74.6'	'26'	'5.2'	'59.1'
'newa'	East Westfield	835	'56'	'100.0'	'25'	'8.3'	'98.4'

Sunday: Rain likely. Cloudy, with a high near 47. Chance of precipitation is 70%.

Table 1. Temperature and Precipitation at Local Weather Stations data derived from hourly weather station data from NEWA

Portland (click to link) Portland Escarpment (click to link) East Westfield (click to link)

Historical Growing Degree Days (base 50)

Notes: Current season accumulation is reported as the thick blue line from January 1 through date of this report. Historical season data is reported between January 1 and December 31 of each year. The legend indicates how many GDDs had accumulated by the same date in previous years and the final total for the year on December 31.

Data is sourced from Cornell's Northeast Regional Climate Center (NRCC) high resolution gridded data service.



Figure 2. Average Cumulative Growing Degree Days (base 50 F)

7-Day GDD Forecast

Future GDD total accumulations are estimated using temperature forecasts sourced from National Oceanic and Atmospheric Administration's (NOAA) National Weather Service. If you report a date (send me an email) for wild grape bloom near you the GBM model will use it, otherwise wild bloom date will be estimated.

Date	Phenology (GDD base 50F)	Grape Berry Moth Model (GDD base 47F, after wild bloom) New Generations (start scouting at 750 and 1470)
04/24/20	18	0
04/25/20	10	
		0
04/26/20	19	0
04/27/20	19	0
04/28/20	19	0
04/29/20	21	0
04/30/20	22	0

Table 2. 7-Day Growing Degree Day Forecast

Herbicide-Resistant Super Weeds

Author: Juliet Carroll jec3@cornell.edu Published on <u>April 15, 2020</u> on <u>http://blogs.cornell.edu/</u> swd1/2020/04/15/herbicide-resistant-super-weeds/

Are they in New York State? Yes! Where are they? We're going to find out! A statewide weed herbicide resistance screening project will start this year. Dr. Lynn Sosnoskie, specialty crop

weed science, Dr. **Bryan Brown**, IPM weed management specialist, and Dr. **Toni DiTommaso**, soil and crop sciences, will find out. *Help them to help you!*

Weeds compete with crops for light, water, and nutrients, which can result in yield reductions. Weeds can also interfere with crop production by serving as alternate hosts for pests and pathogens, providing habitat for rodents, and impeding harvest operations. Consequently, growers employ a variety of control strategies, including the application of herbicides, to manage unwanted vegetation. Although herbicides can be extremely effective at controlling undesirable plants, failures can and do occur. Weeds may escape chemical treatments for many reasons including the evolution of herbicide resistance.

Worldwide, there are 512 confirmed cases (species x site of action) of herbicide resistance. With respect to the United States, 165 unique instances of resistance have been documented.



Figure 3. Current status of herbicide resistance, globally, over time according to the International Survey of Herbicide Resistant Weeds (www.weedscience.org)

Current status of herbicide resistance, globally, over time according to the International Survey of Herbicide Resistant Weeds (www.weedscience.org)

In New York, only four herbicide resistance occurrences have been formally reported:

- common lambsquarters (*Chenopodium album*)
- smooth pigweed (Amaranthus hybridus)
- common ragweed (*Ambrosia artemisiifolia*)
- common groundsel (Senecio vulgaris)
- All described as insensitive to photosystem II inhibitors (e.g. atrazine and simazine).

This, however, does not reflect the current on-the-ground situation in the state. Work done by Drs. Julie Kikkert (CCE) and Robin Bellinder (Cornell) indicates resistance to linuron in some populations of Powell amaranth (*Amaranthus powelli*). Recent studies by Drs. Bryan Brown (NYS IPM) and Antonio DiTommaso (Cornell) suggest that horseweed (*Conyza canadensis*) and waterhemp (*Amaranthus tuberculatus*) populations may be resistant to one or more herbicide active ingredients.

Pennsylvania has nine reported cases of herbicide resistance including glyphosate resistance

in Palmer amaranth (*Amaranthus palmeri*), which was recently identified here in NY. While it is tempting to believe that herbicide resistance is a hallmark of agronomic cropping systems, *herbicide resistance can and has developed in orchards, vineyards, vegetable crops, pastures, and along roadsides*.



photo 2. Yellow nutsedge (Cyperus esculentus) inflorescence. Photo: L. Sosnoskie

Beginning in 2020, we will undertake a screening effort to describe the distribution of herbicide resistance in the state. You can be a part of this important work. This coming summer and fall, growers, crop consultants and allied industry personnel who suspect they have herbicide resistance are encouraged to contact Dr. Lynn Sosnoskie (Ims438@cornell.edu, 315-787-2231) to arrange for weed seed collection.

Indicators of suspect herbicide resistance:

- Dead weeds intermixed with live plants of the same species.
- A weed patch that occurs in the same place and continues to expand, yearly.
- A field where many weed species are controlled but a previously susceptible species is not.
- Reduced weed control that cannot be explained by skips, nozzle clogs, weather events, herbicide rate or adjuvant selection, and calibration or application issues.

Growers can take several actions to stop the spread of herbicide resistant weeds and to prevent the development of new ones.

- 1. First and foremost is scouting fields following herbicide applications and keeping careful records of herbicide performance to quickly identify weed control failure.
- 2. Pesticide applicators should ensure that their equipment is properly calibrated and that they are applying effective herbicides at appropriate rates to manage the target species.
- 3. Whenever possible, diversify herbicides to reduce chemical selection pressures that result from the repeated use of a single herbicide or site of action.
- 4. If possible, incorporate physical and cultural weed control practices into a vegetation management plan.
- 5. Be sure to control unwanted plants when they are small and never allow escapes to set seed.
- 6. Clean equipment to prevent seeds of herbicide-resistant weed species from moving between infested and non-infested sites and harvest areas with suspected resistant populations last.

Juliet Carroll, your friendly SWD blogger, says, "It's that time of year, you've put on your pre-emergent and post-emergent herbicides in the rows or between the rows, and you're keeping an eye on things to make sure those weeds are dying or not emerging. Continue your vigilance, flag suspects, and contact the "Super Weed Team" to collect suspect seeds to help them help you fight herbicide resistance."

This article was contributed by Lynn Sosnoskie, Ims438@cornell.edu, Horticulture, Cornell AgriTech. Please feel free to reach out with any questions, comments, or suggestions for informational articles at either our virtual office hours on Monday and Thursdays during this pandemic time, or by email at <u>jjr268@cornell.edu</u>. I hope that you all stay safe and healthy and I look forward to when we can gather together again.

Virtual Coffee Pot Meeting for NY and PA Pesticide Recertification Credits

Due to the fluidity of the COVID-19 situation and social distancing, the Lake Erie Regional Grape Program was hopeful that we would be able to continue to hold our Coffee Pot Meetings as scheduled, however, that is not the case. There is a silver lining to this ever-changing time. We have been working closely with the NYS Department of Environmental Conservation and the Pennsylvania Department of Agriculture to gain approval to hold our Coffee Pot Meeting virtually (online) and, with some modifications, still be able to offer recertification credits.

We have been approved to offer one NY and one PA credit for each Coffee Pot Meeting. We will hold them every Wednesday at 10 AM for the months of May, June, and July 2020. We are also setting up special guest speakers in viticulture and enology from all over the country since traveling isn't an issue with the virtual platforms. If you have any particular topics or researchers that you would like to learn about or from, then please send us an email and we can try to make that happen.

We are excited to be able to continue to offer recertification credits for our growers and sad that it will not be in person or with coffee and doughnuts. We are generating instructions to ease this transition from in person to a virtual platform and we will be sharing that with you upon completion. We would encourage you to check the lergp.com and out Crop Updates for the instructions before the Coffee Pots begin and also join us for our Virtual Office Hours for a trial run with Zoom.

Information for first Coffee Pot meeting:

Meeting ID - 924-2506-4496

Virtual Coffee Pot Meetings for NY and PA Pesticide Recertification Credits

Come join the LERGP team and fellow growers for pertinent discussion on what is happening in your vineyard right now. We have been approved to offer one NY and one PA credit for each Coffee Pot Meeting. We will hold them every Wednesday at 10 AM for the months of May, June, and July 2020. We are also setting up special guest speakers in viticulture and enology from all over the country since traveling isn't an issue with the virtual platforms. If you have any particular topics or researchers that you would like to learn about or from, then please send us an email and we can try to make that happen.

You are invited to a Zoom meeting.

When: May 6, 2020 10:00 AM Eastern Time (US and Canada)

Register in advance for this meeting:

https://cornell.zoom.us/meeting/register/tJYpdeyoqD8uE9LvZWrt3eNpaoI4r7BSFRUx

After registering, you will receive a confirmation email containing information about joining the meeting.

This is all new to us as well, so we are still figuring out logistics and best practices. You will be hearing more from us as we sort this out and refine our efforts! We appreciate your willingness to participate and, of course, your patience! See you on May 6th!

If you don't like something, change it. If you can't change it, change your attitude.

Maya Angelou

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PA Update

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

Insects of Concern in the Vineyard during Bud Swell -

It is hard to believe that I am talking about preparing to scout for insects in the vineyard when I look out my window and see snow falling today (4/20/20) in Erie County, PA.

But buds are starting to swell and this means that the first insects of economic concern will start to appear in vineyards. Both grape flea beetle and climbing cutworms feed on grape buds during the bud swell stage.

Grape flea beetle - these insects overwinter as adults and emerge in the spring to feed on buds of

grapevines and Virginia creeper. Adult beetles are small (about 3/16") and described as metallic blue in coloration (Figure 1). Beetles are most active on warm, sunny days and will jump like a flea when disturbed. Populations of grape flea beetle are usually localized around their overwintering sites (e.g., wooded or overgrown areas) around the edges of vineyards. Feeding by GFB adults can result in

Feeding by GFB adults can result in entire buds being eaten or enough tissue consumed that the developing bud is destroyed (Figure 2).

Scout vineyard rows bordering wooded



or overgrown areas throughout the bud *Figure 1. Adult Grape Flea Beetle.* swell stage. Examine canes for injured *Photo: https://ecommons.cornell. edu/handle/1813/43101* buds and/or presence of adult beetles.

If bud injury levels of 2% or greater are recorded then an insecticide treatment is advised. (Grape Flea Beetle fact sheet available at: <u>https://ecommons.cornell.edu/handle/1813/43101</u>).



Figure 2. Flea beetle injured grape bud. Photo: <u>https://ecommons.cornell.edu/han-</u> <u>dle/ 1813/43101</u>

<u>Climbing Cutworm</u> – about a dozen species of cutworm larvae have been documented in vineyards. These larvae are immature stages of noctuid moths. Climbing cutworm larvae feed on grape buds during the swell stage. A common climbing cutworm found in Pennsylvania and New York vineyards is the spotted cutworm (Figure 3). These larvae have a brown to gray coloration with darker stripes along the body. During the day cutworm larvae hide under stones or weeds beneath vines. Larvae climb vines during the night to feed on buds. Vineyards with weed cover under

the trellis and areas with sandy soils are at greater risk for

injury. Be aware that bud feeding by cutworm larvae can be confused with grape flea beetle injury. Scout frequently during the bud swell stage. Examine canes for injured buds and if injury is detected then examine weeds/soil beneath vines for presence of larvae. If bud injury levels of 2% or greater are recorded then an insecticide treatment is advised.

(Climbing Cutworm fact sheet available at: <u>https://ecommons.cornell.edu/handle/1813/43085</u>).



Figure 3. Spotted Cutworm Larva. Photo: <u>https://ecommons.cornell.edu/han-</u> <u>dle/ 1813/43085</u>



2020 Pest Management Spray Schedule – What's Your Plan?

Bryan Hed, Andy Muza, Kevin Martin, Jennifer Russo, LERGP Extension Team

In preparation for the 2020 season, a virtual (on line) meeting will be conducted via Zoom to assist growers in developing a pest management plan in the upcoming season. 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 2020 season. Topics that will be addressed include: timing of spray applications at critical growth stages; pesticide options, efficacy and cost; and resistance management.

This meeting is scheduled during our Virtual Office hours for Monday (April 27) from 10 AM – NOON. <u>https://psu.zoom.us/j/8757764969</u>

NOTE: Pest management concerns will also be addressed at virtual (on line) Coffee Pot meetings. The tradition of regional Coffee Pot meetings during the season will continue but this season you can participate from the comfort of your home. Unfortunately, growers will have to supply their own coffee and doughnuts. However, pesticide recertification credits will still be available.

We have been approved to offer one NY and one PA credit for each Coffee Pot Meeting. We will hold them every Wednesday at 10 AM for the months of May, June, and July 2020. We are also setting up special guest speakers in viticulture and enology from all over the country since traveling isn't an issue with the virtual platforms. If you have any particular topics or researchers that you would like to learn about or from, then please send us an email and we can try to make that happen.









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Kimberly Knappenberger, Viticulture Assistant, LERGP

No eNEWA for the 2020 Growing Season

We regret to inform you that eNEWA will not be available to growers for the 2020 growing season. eNEWA is an email system that allows growers to select the NEWA station(s) nearest their vineyards and then have emails sent directly to their inbox with the latest weather information and disease updates.

Due to restrictions in place as a result of COVID-19, the resources critical to this service that are housed on the Ithaca campus are not accessible to technicians and so the notification service cannot be reliably provided this year.

We do want you to know that NEWA operations are continuing uninterrupted and as always we appreciate any feedback on station operating status. So if you see something that doesn't look right please contact Kim Knappenberger at <u>ksk76@cornell.edu</u>.

As a temporary alternative to eNEWA, Dan Olmstead, the NEWA Coordinator, has developed this one page guide that describes steps to directly access online NEWA reports that are typically summarized in daily eNEWA messages. As always, if you have any questions you can contact Kim at <u>ksk76@</u> <u>cornell.edu</u> or try the NEWA help desk at <u>support@newa.zendesk.com</u>.

Another resource available is the NYS Mesonet from the University at Albany. We have a few stations in our area which are actually linked to the NEWA network as well. If you would like to directly access that network you can go to <u>www.nysmesonet.org</u> to see weather across New York State. To directly access the station in Fredonia click on the Weather tab on the top of the screen and select Current and Forecast. Click on the blue rectangle with the station name to select the desired station.



How to access 2020 daily NEWA grape reports in lieu of eNEWA

Send a message to <u>support@newa.zendesk.com</u> to get help from NEWA Help Desk staff at any time regarding the use of online grape tools in lieu of eNEWA email notifications in 2020.

- 1. Go to <u>http://newa.cornell.edu</u>
- 2. In the blue menu bar, navigate to 'Station pages' and choose your state from the dropdown menu.



3. Click a location listed the left-hand weather station list OR click a location on the station map.

Weather Stations	Flick on a map marker to go to the weather station
Accord	
Albany	
Albion	
Amsterdam (Stony Brook Farm)	Map -
Appleton, North	
Arkport (Mahany)	
Ashwood	Kingstono
Aurora	
Baldwinsville (Abbett)	Toronto
Baldwinsville (Abbott)	
Bergen Binghamton	Mississaug Rocher Con A
Branchport	
Brocton (Escarpment)	Duffalo A CALE VY ORK OD AND WAY
Brookhaven	
Buffalo	
Burt	
Buller (Tree Crisp)	

4. Access NEWA grape tools directly from your chosen weather station page. Use this key to access information normally provided in your eNEWA daily updates.

Weather Data Quick Links	Portland (LERGP West), NY Weather Station Page	A.			
A cast 12 months shown: Current month highlighted Daily Summary Max Jun Jul Aug Seo Oct Nov Dec Jan Feb Mar Aet Hourly Data Max Jun Jul Aug Seo Oct Nov Dec Jan Feb Mar And Growing Degree Days (Base 50F)	These Station Page forecasts are most accurate when you use your own biofix dates. Otherwise, the current results displayed will use NEWA's <u>default</u> <u>biofix dates</u> . Enter your biofix dates on the forecast page, where prompted, for more accurate model predictions. After getting the Station Page forecast results, use the interface on the left to get query results for prior years, dates, and locations.				
C Max i Jun i Jun i Aug Sep Oct Nox Dec Jan Feb Mar Aug D Growing Degree Days (Base 50F BE) Max Jan Jan Feb Mar Agr Growing Degree Days (Base 86/50F) Max Jan Feb Mar Agr Growing Degree Days (Base 86/50F) Max Jun Jul Aug Sep Oct Noz Dec Jan Feb Mar Agr	Portland (LERGP West) Pest Forecast Apple Scab Plum Curculio Fire Blight Obliquebanded Leafr Sooty Blotch/Flyspeck Apple Maggot Leaf Wetness Events San Leas Scale Spotted Tentiform Leafr Brape Diseases Oriental Fruit Moth Grapevine Downy Mildew Codling Moth Tomato Diseases	da D. de on E.			
B This Station's 7-Day Forecast National Doppler Radar Sites	Station Location Last Download Lat/Lon: 42.16/-73.83 4/8/2020 11 AM Elevation: 243 ft. Statilite	Di F. Ma			

- A. Past and Current Weather Data
- B. 5-day weather forecast

C. Base 50F growing degree days (past and current only)

D. Base 50F BE growing degree days (past and current only)

E. Black rot and Phomopsis Disease Management

F. Grape Berry Moth Management



Pales Pales

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This publication may contain pesticide recommendations. Changes in pesticide regulations occur constantly, and human errors are still possible. Some materials mentioned may not be registered in all states, may no longer be available, and some uses may no longer be legal. Questions concerning the legality and/or registration status for pesticide use should be directed to the appropriate extension agent or state regulatory agency. Read the label before applying any pesticide. Cornell and Penn State Cooperative Extensions, and their employees, assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsements of products are made or implied. Cornell University Cooperative Extension provides equal program and employment opportunities. Contact the Lake Erie Regional Grape Program if you have any special needs such as visual, hearing or mobility impairments. CCE does not endorse or recommend any specific product or service.

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