

Cornell Cooperative Extension Lake Erie Regional Grape Program





Crop Update - March 19, 2020



## In this Crop Update: Reminders for Important Events

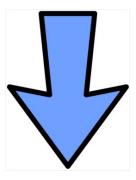
- Please Respond to Survey for Rescheduled Grower Conference-
- LERGP Operating Procedures/On-line Meetings and Virtual Office hours-Spotted Lantern Fly - Jennifer Phillips Russo
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The Lake Erie Regional Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extensions in Chautauqua, Erie and Niagara county NY and in Erie County PA.



## 2020 Winter Growers Conference Rescheduled

It is with regret that we had to reschedule our Annual Winter Growers Conference. Cornell University is taking proactive steps to minimize future community spread of the COVID-19 virus. This includes the rescheduling of all large events. Our conference has been rescheduled for August 12th (class day) and 13th (field day). Refunds will be issued for all paid attendees of the conference, or you may choose to have the fee applied to the August conference. Please take a moment to go to the link below to answer a few questions in order to help us execute this plan as streamlined as possible. Thank you!



Refund or Apply to Summer Conference link





Read through this edition of the Crop Update for several opportunities and instructions of how to join on-line meetings, visit virtual office hours and stay in touch with us!



## Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Hello Everyone,

I wanted to give a brief update on our Lake Erie Regional Grape Program. At this time, all of our specialists are working remotely. We have cancelled all of our in-person programming through April 15<sup>th</sup>, and are looking to reschedule many of our events as the current situation, and its timeline, becomes more clear.

We have been communicating these changes to our grower audiences via Facebook, website updates, email, and paper mailings. During this time, we will continue to curate and develop research-based content to assist all of our industry stakeholders. These resources will be featured in our Crop Updates, Newsletters, and podcasts – if you have any information that you would like for us to include, please feel free to share!

The Lake Erie Regional Grape Program remains open with modified capacity. What has changed is that the offices are physically closed to practice responsible social distancing during these pandemic times. The Centers for Disease Control and Prevention (CDC) guidance recommends that we all practice social distancing. In order to do that effectively while keeping the program operating, it is important that we activate remote work arrangements for those whose work can be done from an off-CLEREL location.

There is much we simply do not know about this public health situation, and actions that are taken out of an abundance of caution can sometimes feel very stressful. Please know that we are doing our very best to support you through these challenging times.

The Lake Erie Regional Grape Program will not be conducting in-person meetings for the foreseeable future. Individual consultations can still be fielded by our specialists remotely. All team members are available via email and phone and their contact information is listed below. We are also transitioning to Zoom meetings and Virtual Office Hours. We plan on starting virtual hours from 10-12 PM on Mondays and on Thursdays from 1:30-3:00 PM. The virtual office hours' links are listed below along with two quick instructional videos on how to use Zoom. You do not need to be connected the entire time, we are offering this opportunity for you to pop in with questions in order to have virtual 'in-person' face-time with Kevin Martin and I, Jennifer Phillips Russo. Please contact us if you would be interested in evening office hours.

Please feel free to continue to refer production related questions our way and reach out to update us on your concerns and well-being!

#### **Contact Information:**

Jennifer Phillips Russo - LERGP Viticulture Specialist:

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**Kevin Martin – LERGP Business Management Specialist:** 

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#### Andy Muza - LERGP Disease and Pest Management Specialist:

Ajm4@psu.edu (814) 825-0900

## Kim Knappenberger – LERGP NEWA and Vineyard Improvement Program Contact Ksk76@cornell.edu

#### Kate Robinson - Administrative Assistant

Kjr45@cornell.edu

#### How to join a Zoom meeting video (1 minute):

https://www.voutube.com/embed/vFhAEoCF7ig?rel=0&autoplay=1&cc\_load\_policy=1

#### Joining and Configuring Audio & Video (1 minute):

https://www.youtube.com/embed/HgncX7RE0wM?rel=0&autoplay=1&cc\_load\_policy=1

# LERGP Virtual Office Hours' Time: Mar 23, 2020 10:00 AM Eastern Time (US and Canada)

Join from PC, Mac, Linux, iOS or Android:

https://psu.zoom.us/j/598304307

Or iPhone one-tap (US Toll): +16468769923,598304307# or +13126266799,598304307#

Or Telephone:

Dial:

+1 646 876 9923 (US Toll)

### **Virtual Office Hours' Time:**

Thursday, Mar 26, 2020, 1:30 PM Eastern Time (US and Canada)

Join from PC, Mac, Linux, iOS or Android:

https://psu.zoom.us/j/995999436

Or iPhone one-tap (US Toll): +16468769923,995999436# or +13126266799,995999436#

Or Telephone:

Dial:

+1 646 876 9923 (US Toll) Meeting ID: 995 999 436

## **Social Distancing Reading**

Hopefully all of you are practicing social distancing and keeping yourselves at a safe distance from others during these pandemic times. I wanted to share with you an article written by Penn State Extension Associate, Heather Leach, whom I went down and spent time with in the spotted lanternfly quarantine zone last fall. Heather has been on the front lines of this invasive species since 2018 and she has given many talks about this pest. Take this time to read her article and learn more about what may be coming our way to better prepare yourself. Her article was written for a Pennsylvania audience, which includes some of you, but it is a worthy read to gain knowledge of what is being done in regards to combatting this pest. I have included New York State information below.

The following information is posted on the New York State Integrated Pest Management website: https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/

#### If you find Spotted Lanternfly in New York:

- Take pictures of the insect, <u>egg masses</u>, <u>or infestation you see and</u>, <u>if possible</u>, <u>include</u> something for size, such as a coin or ruler.
- If possible, collect the insect. Place in a bag and freeze, or in a jar with rubbing alcohol or hand sanitizer.
- Note the location (street address and zip code, intersecting roads, landmarks, or GPS coordinates).
- Email pictures and location to <u>spottedlanternfly@agriculture.ny.gov</u> **OR fill out the form** at <u>Spotted Lanternfly Observation</u>, which includes specimen information.
- For more information, visit the <u>New York State Department of Environmental Conservation</u> website page on Spotted Lanternfly.

For more information on the Spotted Lanternfly background, biology, hosts, damage, monitoring and management, please see our website https://lergp.com/spotted-lanternfly or the NYSIPM link.

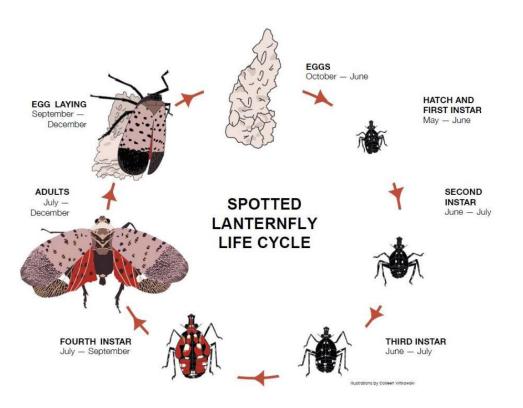


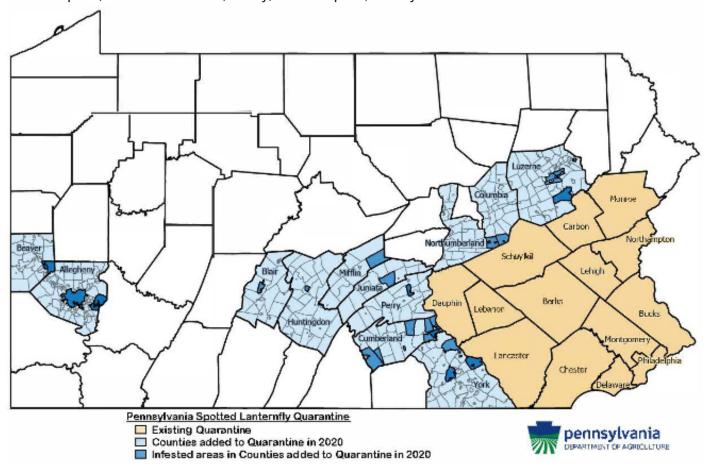
Illustration of Spotted Lanternfly Life Cycle by Colleen Witkowski

## Preparing for spotted lanternfly management in vineyards in 2020

By Heather Leach, Extension Associate, Penn State Entomology

#### **Quarantine and Permits**

In March 2020, the Pennsylvania Department of Agriculture (PDA) added 12 counties to the spotted lanternfly (SLF) quarantine, creating a total of 26 counties under a state-imposed quarantine: Allegheny, Beaver, Berks, Blair, Bucks, Carbon, Chester, Columbia, Cumberland, Dauphin, Delaware, Huntingdon, Juniata, Lancaster, Lebanon, Lehigh, Luzerne, Mifflin, Monroe, Montgomery, Northampton, Northumberland, Perry, Philadelphia, Schuylkill and York.



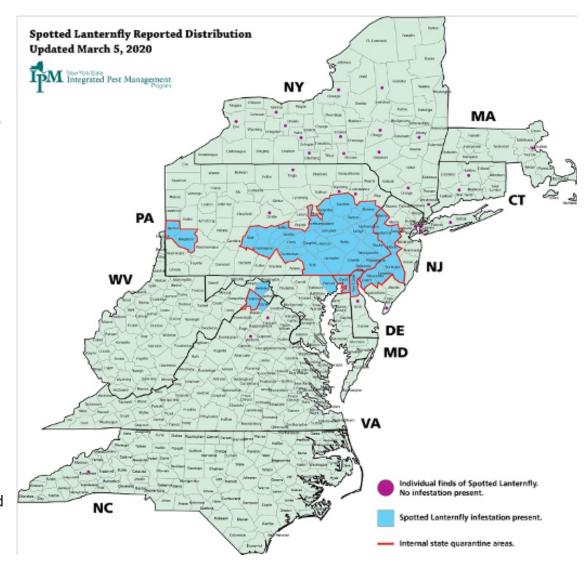
SLF populations are also found in 5 additional states: New Jersey, Maryland, Delaware, Virginia, and West Virginia.

A county is placed under quarantine when evidence of a reproducing population of SLF, such as an egg mass, is found by the PDA. The newly added 12 counties are not completely infested, but rather have a few municipalities with a known infestation, which led to a quarantine being placed on the entire county. This action is taken as a precaution and reflects the importance of awareness for early detection and stopping this pest in these new areas. The SLF quarantine regulates the movement of plants, plant-based materials, and outdoor household items out of the quarantine area to keep this pest from spreading. More information on how to comply with the quarantine can be found on our website.

Businesses/organizations that operate in or travel through quarantined counties are required to obtain a SLF permit. A permit shows other businesses and states that a company has done its due diligence to avoid transporting the pest to new areas. This applies to the entire county quarantined, not just the affected municipalities. Businesses should plan to become permitted as

soon as possible and may send any questions regarding the permit to SLFPERMIT@ pa.gov. Additionally, businesses may check whether they need a permit by using PDA's online resource.

Because the populations in the new areas are much smaller compared to the original population in southeastern Pennsylvania, it is critical that we do our part to prevent further spread of this insect to new areas. If you see it, destroy it, take a photo if possible and make note of when. where and how many were seen. Then, report it by



calling the SLF hotline at 1-888-422-3359 or <u>report it online</u>. Be sure that you do not move any life stage of SLF, including the egg masses. Newly found SLF populations, such as those in the newly added quarantine area, will be intensively managed by the Pennsylvania and U.S. Departments of Agriculture with the goal of local eradication. To that end, regulatory representatives may need access to properties near the infestation area to conduct treatments or monitoring. We encourage cooperation with these treatments. These officials will always provide proper documentation and identification.

#### Research

Research is ongoing at Penn State to evaluate best management practices for SLF in vineyards and the impact SLF has on grapevines. A few of the PSU research projects planned for 2020 in vineyards are below. Note that there are many other projects planned (not listed here) that will help to improve our understanding of SLF biology, behavior, and management. In particular, we are looking to evaluate biopesticides (the commercially available fungal pathogen, *Beauveria bassiana*) on a landscape-scale. If this proves effective, aerial application could be possible and represent a way to control SLF over large areas. Additionally, researchers from USDA are currently evaluating biological control (parasitoid wasps) to potentially be released in the U.S. for control of SLF. This is a long-term program and will require several more years of data to determine if release might be possible. Stay tuned for updates on this research!

- Determine the effect of SLF feeding on grapevine physiology (led by Michela Centinari)
- Evaluate insecticides and biopesticides for SLF efficacy (led by David Biddinger)
- Evaluate phenology and document damage in vineyards (led by Heather Leach)
- Evaluate netting and traps for SLF in vineyards (led by Heather Leach)
- Evaluate in-field insecticide programs for SLF control (led by Heather Leach)
- Evaluate the ability for SLF to transmit viruses (e.g. Red Blotch, Pierce's Disease, etc.) (led by Cristina Rosa)

#### **Vineyard Management**

Given the large numbers of egg masses laid in the fall and the mild winter, we expect a large population of SLF in 2020. Significant damage has been reported from SLF feeding on grapevines, including increased susceptibility to winter injury, failure of vines to set fruit in the subsequent year, and death of vines. SLF should be considered as a landscape-level pest— it has a broad host range and is not just present in your vineyard. When you consider management, remember to think about wooded areas surrounding your vineyard and other possible hosts they may feed on.

**No SLF currently in your area:** Tree-of-heaven is a preferred host for SLF and is also invasive; it is frequently found on wood edges or in disturbed habitats. Scout for <u>tree-of-heaven</u> on and around your property. **Monitor tree-of-heaven season-long for SLF, along with your vineyard edge** (especially vines near the wood edge). Train all vineyard employees on the proper identification of SLF and to report it if they see it. Monitoring (visual inspection) should be emphasized in the late summer/early fall when detection of SLF as adults is most likely.

**Low SLF populations:** Typically, you will see only a few SLF in your first 1-2 years after detecting SLF in your vineyard. Likely, this represents SLF beginning to start a population in your area but is still in low numbers. In subsequent years, we tend to see large populations that infest vineyards and are most problematic beginning in late August through October. As above, monitor your vineyard edge and any tree-of-heaven in your area for SLF. See below for information regarding thresholds and insecticide recommendations, but you may not need to intensively manage your vineyard until populations grow larger.

**High SLF populations:** There may be a large number of egg masses in your vineyard and the surrounding landscape resulting from last year's population. While we have not fully evaluated egg mass removal in vineyards as a management tactic, many growers feel that this did not help them control adult SLF later in the season. Moreover, only Lorsban (chlorpyrifos) has been found to be effective at killing egg masses, and nymphs are much easier to kill. Based on our observations, SLF nymphs are seldom problematic in vineyards. In mid-May through early June, after SLF hatch, you should scout for SLF nymphs on your vines. If large numbers are found (~15 per vine or more), we suggest you apply a contact insecticide. Nymphs are fairly easy to control with good coverage and several insecticide options are available, including products that will also help with Japanese Beetle (e.g. carbaryl). See a full list of insecticides for SLF here.

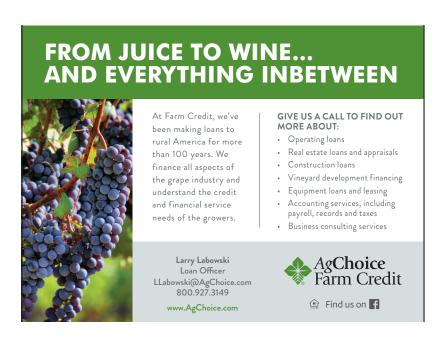
Expect adult SLF to begin arriving in low numbers to your vineyard in late July. **On average, there are 30 days between first adult detection and peak SLF activity in vineyards**. Regular scouting is imperative during the high dispersal phase of adult SLF, which begins in late August. SLF may continually invade your vineyard from the surrounding landscape and will be most problematic at the vineyard edge, especially vines close to trees or a woodlot. Please note that we do not currently have thresholds for SLF numbers on vines, but we are actively researching this question. Researchers from Korea, another region invaded by SLF, suggested a threshold of 5-10 SLF per vine throughout your vineyard. We have not confirmed these numbers on vines in the U.S. (or by age, variety, vine

size, etc.), but this threshold (5-10/vine) might be a good place to start. Because spatial distribution is not equal, you may exceed these numbers at your vineyard edge (>400 per vine) but be much lower in your vineyard interior (0-10 per vine). If possible, spray select "problem areas" only. SLF invade close to and during harvest, making the insecticide options limited to those with short pre-harvest intervals (PHIs). The most commonly used short PHI compounds include: carbaryl, malathion, zeta-cypermethrin, and dinotefuran. For post-harvest application, bifenthrin and thiamethoxam offer the best long-residual activity. Initial field data from 2019 suggests that bifenthrin will offer greater residual activity than thiamethoxam. See a <u>full list of insecticides for SLF here</u>.

The most current information on SLF management in vineyards is <u>available online</u>. Should you have questions about SLF management in vineyards, you can contact Heather Leach (<u>hll50@psu.edu</u>).

#### **Survey on SLF for Grape Industry**

To better assess the SLF problem in vineyards, we need more information about its distribution and population levels. If you are in the SLF quarantine zone, please fill out this quick survey: <a href="https://forms.gle/SvSupgYLo5QTwciV9">https://forms.gle/SvSupgYLo5QTwciV9</a>





## Business Management

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



I know relying on technology is not the most highly rated form of communication but right now, amidst COVID-19, that's all we've got. When CLEREL opened just over 10 years ago, our proximity to more grape acreage led to a spike in office visits and a decrease in phone calls. It was great, but now that we are

working remotely for the foreseeable future, the best solution we've come up with is a virtual office. The meeting style is a group meeting. Think of it as an office with the door open. If just one or two people connect at a time, it'll be like an office visit. If 20 people connect it'll be more of a virtual coffee pot. Make sure to bring your own coffee, the virtual stuff won't keep you awake.



## Calling In

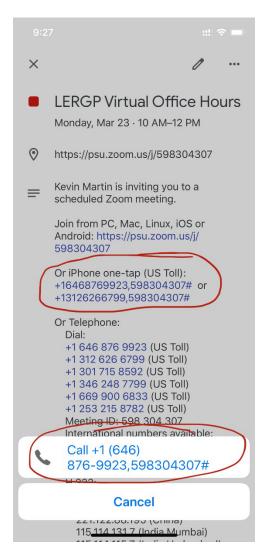
There are a number of ways to connect and I wanted to provide some details on how to do that.

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 onetap, 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 526 583 831.



#### 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. Here is the link for Monday 10-12:

## https://psu.zoom.us/j/598304307



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

You can use the same link as a connect.





## COVID-19 and Vineyard Businesses

Kevin Martin

It appears as issues relating to the virus will persist for the foreseeable future. Though I do continue to hold out hope that the foreseeable future is not a very long period of time. I would like to make some future crop update articles a pleasant distraction from virus information overload. Having said that, I don't plan on doing that today. I wanted to give you an update about the real business implications that growers should prepare themselves for.

#### International Borders

The flow of goods internationally will be slowed. The extent of that slowdown remains to be seen. We have already seen delays in ports and container storage. Some of these issues have already hit juice. Imports are also important to grape growers. Chemical, parts, materials and fertilizer supplies could be impacted. Reports in those areas have been limited to conjecture, but given complex supply chains if these restrictions drag out for months it would seem possible that 2021 supplies would be short. The mostly open border to our north has long been taken for granted. The impact of a restricted border with Canada would substantially increase the supply chain issues we've discussed. So far the restrictions at to border are limited to tourism and travel; not the flow of goods. Currency markets have also been volatile with the dollar moving in different directions, depending on which currency you're comparing it to. The value of different currencies will be linked to the local impact of COVID in those countries.

#### Domestic Issues

Grocery stores have been hit hard with high demand. Maybe this will provide a short-term bump for domestic juice sales. There is no doubt that a severe economic slow-down is becoming increasingly likely. The severity of the downturn is largely unknown, as is the direct impact on juice sales. More concerning would be any interruption in the supply chain that prevents or slows the manufacture or distribution of product. Our current reality shows everything continuing fairly smoothly in the domestic supply chain.

All but the most severe restrictions will have a fairly limited impact on grower operations. Wide open spaces and isolation have always been inherent to agriculture. The vineyard operations do not rely on large groups, working in teams or confined spaces. The larger concern would be the impact of an actual illness; most farmers do have very small labor supplies. If a key employee is sick for 2-3 weeks, it would typically mean 35% - 50% decrease in labor supply for the operation. I won't get into best practices and CDC recommendations, there should be plenty of communications and information on those issues. Just make sure you take them seriously to try and prevent lost labor.

#### Macro-economic Concerns

This started out as a typical market downturn. The stock market fell quite dramatically and bonds, particularly treasuries saw yields decrease to record lows. Good news for farmers was the potential for very cheap debt. That's all turned around. Market concern has reached a stage where the cost of debt is increasing. Increasing bond yields is caused by one of two factors. The market is thinking things will get so bad debt (including US Govt debt) will not be repaid. The market is thinking things will get so bad that banks, hedge funds and large corporations need their mattresses full of cash. Even something like a treasury is not liquid enough. They need cash now and it may potentially be running out. Quantitative easing started today. That's a fancy way of saying all the central banks started printing extra money. This will prevent debt from becoming even more expensive. Due to

people staying home and this potential credit crunch, farmers refinancing debt might be out of luck in the short term. This has happened very quickly but where data is available leading indicators are all pointing toward a fairly significant economic decline expected by the market and corporations.

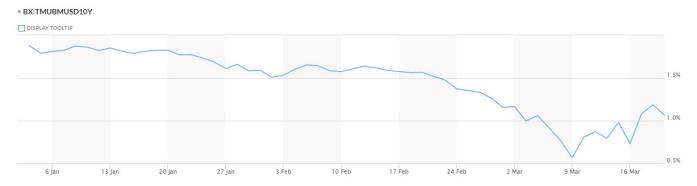
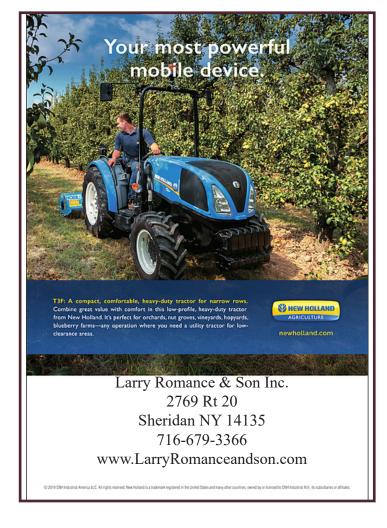


Figure 1: Treasury yields began to fall in mid-February as expected. Yields bottomed on March 9th despite economic conditions continuing to deteriorate. The general upward trend since then looks like the market is short of cash.





# Vineyard Improvement Program

Kimberly Knappenberger, Viticulture Assistant, LERGP

Recently we were asked if this program applies to removal of a Concord vineyard if the intended use would include installing solar panels. After consulting with Ag and Markets, it was decided that it could be. As with any of those sorts of agreements, we would need to look over the conditions of the lease agreement with you. If the company is already covering the cost of removal, then this program would not be available for you. If however, you are responsible to clear the land, it could be used to offset your costs at a 50% reimbursement rate for eligible costs. As always we are more than willing to discuss this, or any other



questions you might have. Currently we are using email and phone only due to recommendations to limit contact to reduce the spread of COVID-19. Please feel free to contact us. Kim Knappenberger- ksk76@cornell.edu or Kevin Martin kmm52@psu.edu

The Vineyard Improvement Program has been in full swing for almost 1 ½ years. During that time we have had 18 applicants. Three of those applicants have already finalized their projects and been reimbursed, for the rest this is definitely a work in progress. These are projects that take some time to complete and because of that the process allows for 1 year for the removal of the Concord vineyard, and then for another two years to complete the replant. In some cases where the land is being returned to agricultural use by way of field crops or cover crops, the process is much shorter. If the grower intends to replant grapes, or branch out into another more permanent crop like apples, it takes time to get that established. This program is set to run for 5 years, which makes the end point October 2023. If you are considering this as an option, you might want to start the process by submitting an application.

The Vineyard Improvement Program is available to landowners/growers with non-producing or under-producing Concord vineyards in eligible counties of New York State. It is not necessary that the vineyard has been farmed recently. It is necessary to prove that it was/is a Concord vineyard. Applications can be made for a vineyard as small as 1 acre, or can be for much larger ones. There is a cap on how much can be reimbursed - \$1,500/vineyard acre for removal and \$1,500/vineyard acre for replant, for a total of \$3,000 per vineyard acre. For larger projects there is a reimbursement cap of \$50,000, and people can apply only once for the program. For more details you can visit our website at <a href="Lergp.com">Lergp.com</a> and click the big purple button that says <a href="Vineyard Improvement Program">Vineyard Improvement Program</a>. Here you can find more details, FAQs, map of eligible counties, samples to help guide your business plan and budget development for the project, as well as the application.

Other than working from home, its business as usual!

# PA Update

Andy Muza, LERGP Extension Educator, Penn State University

### Online Pesticide Recertification Credits

All Penn State Extension meetings have been cancelled at least through April 6, 2020 (which date is subject to change) due to concerns concerning COVID – 19. Due to meeting cancellations, many Pennsylvania growers with Private Applicator licenses that expire on 3/31/20 are concerned about acquiring their necessary credits before their license expiration date. At this time, PDA is considering extending the March 31, 2020 deadline for Private Applicators and we will inform you **if/when** an official decision has been made.

If you need either Core or Category Credits by the Tuesday, March 31, 2020 deadline the following Online Recertification Courses are available:

On-line Pesticide Credits

- <u>Penn State's Pesticide Education Department</u> has an assortment of **Core Credit** courses online: <a href="https://extension.psu.edu/penn-states-online-recertification-courses">https://extension.psu.edu/penn-states-online-recertification-courses</a>

**Note:** Applicators can only take each online course ONCE in their lifetime for recertification credits. The same course cannot be taken more than once for credit because the content does not change.

- Penn State's Green Industry Team has an online course with 4 Category Credits: Plant Health Diagnosis: Assessing Plant Diseases, Pests and Problems
  This course focuses on ornamental plants, but it has 4 Private Applicator credits as well as
  4 credits in categories: 6,7, 18, 23.
- Penn State Extension (Online Courses Webinars) category or core credits depending on course <a href="https://extension.psu.edu/shopby/pesticide-applicator/online-courses--webinars">https://extension.psu.edu/shopby/pesticide-applicator/online-courses--webinars</a>
   Note: If you take and pass the above courses by the March 31, 2020 deadline, PDA checks the results several times a month.

Do not pay your renewal online (checks not allowed until further notice) until you have verified with PA Plants (https://www.paplants.pa.gov/PesticideApplicator/ExamSearch.aspx) that your credits have been applied to your license. If your Pesticide License expires on March 31, 2020 deadline and you have not yet acquired the necessary credits, there is a **one year** grace period when your license is held in escrow. That means that you will not have to take the pesticide examination over again as long as you get the required credits and submit your renewal fee within one year of the expiration date. However, you cannot purchase or apply Restricted Use Pesticides during the grace period, even if you've purchased the pesticides while your license was still valid.

Pennsylvania Department of Agriculture's approved online recertification courses Find other approved online recertification courses at the Pennsylvania Department of
Agriculture's website at: <a href="https://www.paplants.pa.gov">www.paplants.pa.gov</a>. Highlight Pesticide Programs on the left
hand side, then click on Recertification Course Locator. From there, select Online for

the meeting type, choose the category you need, from the dropdown menu (e.g., PC – Private Category) and click on *Search*. A list of meetings will appear and to find more information about the course, click on *Details* in the first column. **Note:** A successfully completed course number will count as recertification credits **only Once** in the lifetime of the applicator.

Other links of interest:

**LERGP Web-site:** 

**Cornell Cooperative Extension website:** 

**Cornell CALS Veraison to Harvest Newsletter:** 

**Efficient Vineyard:** 

**Appellation Cornell Newsletter:** 



