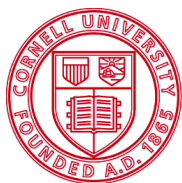




Lake Erie Regional Grape Program



Cornell University
Cooperative Extension



PennState Extension

Trace bloom on Concords at CLEREL - photo, Kim Knappenberger,
LERGP at CLEREL

Crop Update June 20, 2019




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In this Crop Update:

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- Vineyard Improvement Program- Kim Knappenberger
- 2019 Coffee Pot Schedule

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<p>7472 Buffalo Rd. Harborcreek, PA 16421</p>		
<p>mmagconsulting@gmail.com</p>		

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.

IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Banded Grape Bug

The cool weather which has delayed bloom is providing excellent conditions for damage from banded grape bug (BGB) nymphs. Because the nymphs feed directly on the florets they can quickly decrease crop size. Typically by this time we are seeing the nymphs grow into the adult stage which is actually a beneficial insect as it feeds on other soft bodied insects in the vineyard. Since insect development is directly related to temperature accumulation, the same weather pattern that is delaying bloom is also delaying the changeover of BGB nymphs to adults. The significance of this is that it provides more time for feeding on the florets. If you have seen BGB feeding in the past, scout those areas for BGB nymphs. Or, if you have areas of a vineyard that had no crop and no good explanation of why not, scout those areas for BGB.

Scouting is easily accomplished by taking a white paper plate and holding it under a clusters or shoot tips of a vine. Tap the shoot and take a look at what falls out. Banded grape bug are easily identified by the black and white stripes on their antennae. Banded grape bug are considered a secondary pest in most years and it is rare that an entire vineyard block needs to be treated.



BGB Nymph



Grape rootworm feeding

Grape Rootworm

While you are out looking for banded grape bug you might want to take a look for foliar feeding by grape rootworm. Research in Lake Erie vineyards shows that we are nearing the time when the adults emerge from the soil, move up into the canopy, feed and mate. Scouting will allow you to catch the emergence early and get insecticides applied. Since grape rootworm spend most of their time underground, the adult stage provides the best opportunity for control by timing management strategies prior to mating and egg laying. While grape rootworm appears to be making a comeback in Lake Erie vineyards, it is still considered to be a secondary pest and automatic insecticide applications are not recommended. Scout

vineyards with a history of grape rootworm, or vineyard blocks where vine vigor is going down for no apparent reason. There are a number of insecticides that will work for grape rootworm so growers in Pennsylvania can pick a material that fits into their insect management strategy. In NYS, both the pest and the site need to be on the label so we worked with Greg Loeb to obtain FIFRA 2(ee) recommendations for five insecticides for use in NYS vineyards. You must have a copy of the FIFRA 2(ee) recommendation in addition to the insecticide label when applying one of these materials. You can find them on the LERGP website at <https://lergp.com/fifra-recommendations>

Grape Berry Moth

One of the questions at the Coffee Pot meeting yesterday was “when are we going to hit 810 DD and will we have a third generation this year?”. The answer to that question was to keep checking the GBM model on NEWA. The reason that question does not have a more definitive answer is that, as mentioned above, insect development is heavily dependent on temperatures. Looking at the information from the Versailles station, (See Table 1 below) if we stay in our current weather pattern the model shows us averaging 20.2 DD (base 47.14). If you subtract the current DD total of 238 from our goal of 810 DD for timing the first insecticide application you can see that we are currently 572 DD short of that goal. If we average 20.2 DD each day it will take over 28 days (July 18) for us to get to 810 DD. If the temperatures warm up, this time frame will shrink, the only way to really know will be to access the GBM model on the NEWA station closest to you on a regular basis. It is also important to remember that while the model will provide you an estimated date of wild bloom (the biofix date to start the collection of DD's) your results will be more useful to you on a site by site basis if you take advantage of the ability to input the observed date of wild grape bloom for each site.

Spotted Lanternfly

Continue to examine shipments from quarantine areas for evidence of spotted lanternfly (SLF). A trip down to Southeast Pennsylvania earlier this week showed SLF to be in the 1st and 2nd instar stages. I found the black nymphs with white spots on wild grapes and young tree of heaven bordering a vineyard. There was evidence of them moving into the vineyard. If you find SLF make sure you report it! In New York email a photo and information on location to spottedlanternfly@dec.ny.gov and in Pennsylvania provide the same information by calling 1-888-4BAD-FLY or go on line [to report a spotted lantern fly sighting](#).



SLF nymphs on grape

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Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Precision Vineyard Management Field Day & Shaulis Symposium

The Lake Erie Regional Grape Program and Cornell Research and Extension Laboratory has been working to **Improve the Bottom Line** for commercial competitive grape production using Precision Vineyard Management techniques. The goal was to deliver an innovative, science-driven, and approachable precision viticulture platform to measure and manage sources of vineyard variation. The 44th American Society for Enology & Viticulture – Eastern Section (ASEV-ES) Annual Meeting is held this year in Geneva, NY from July 16 to the 18th along with the Nelson J. Shaulis Symposium, entitled “Digital Viticulture: New Tools for Precision Management” that will demonstrate our research efforts.

Dr. Terry Bates and the collaborative efforts of a group of viticulturists, engineers, scientists, economists, extension educators, and industry representatives from Cornell, Carnegie Mellon, IRSTEA, and UC Davis worked together to bring to the grape industry the latest in modeling, sensing, and management technologies.

The Shaulis symposium’s focus this year is on applying viticulture principles to address within-vineyard variability using the three-step process: Measure, Model, and Manage. New technologies such as inexpensive sensors, digital imaging, geographical information systems, and precision machinery are converging to make precision viticulture possible.

On July 17th, there is a Field Day and Bus Tour that focuses on demonstrations of sensors, mapping technology, and variable-rate GIS-ready equipment for vineyard management. Attendees will spend their morning at Clearview Vineyards in Branchport, NY for demonstrations on spatial crop load management, yield monitors, mechanical yield estimation, tractor mounted normalized difference vegetation index sensors (NDVI), Brix mapping, and GPS-enabled tractors. Attendees will break for lunch, with area wine included, and then travel to Anthony Road Vineyards, Seneca Lake, NY to see demonstrations with drones, imaging systems including drones and cluster imaging systems, novel sensors, and tools for canopy management.

On July 18th the Nelson J. Shaulis Symposium will be held at the Scandling Campus Center of Hobart and William Smith Colleges in Geneva, NY. The day consists of twelve speakers delivering research from across the globe over four sessions.

Session 1 focuses on physiology of vine balance and precision viticulture. Session 2 is metrics for management using sensors, drones, satellites, and analytical equipment. Session 3 focuses on models for management of the flood of data to practical tools for deciding ‘what I need to do and where’; and the 4th session are examples from around the world. The Shaulis Symposium will conclude with a reception for attendees after the last session.

Information about the ASEV-ES conference, registration forms, and hotels is available on the website asev-es.org. The options for hotel and room accommodations for the conference and the Shaulis Symposium include the Ramada Geneva Lakefront hotel in Geneva, NY, the Hampton Inn by Hilton Geneva, and dorm rooms at Hobart and William Smith Colleges.

Dr. Nelson Shaulis was the professor of viticulture at Cornell University’s New York State Agricultural Experiment Station in Geneva from 1944 until his retirement in 1978. He also worked at Cornell’s Vineyard Laboratory in Fredonia, N.Y.

DIGITAL VITICULTURE Nelson J. Shaulis Symposium
NEW TOOLS FOR PRECISION MANAGEMENT
July 17-18, 2019 Hobart & William Smith Colleges in Geneva NY
 Held in conjunction with ASEV-Eastern Section Conference July 16.
 For more information about the conference and symposium visit www.asev-es.org

ASEV AMERICAN SOCIETY FOR ENOLOGY & VITICULTURE Eastern Section

Vineyard Tour and Demonstrations July 17

- **View demonstrations** of new sensors, robots, imaging technologies, and map-guided, variable-rate equipment
- **Experience** equipment demos by industry vendors
- **Enjoy Lunch, Reception, and Wine Tastings** from Keuka and Seneca wine trails while networking

Nelson J. Shaulis Symposium July 18

- **Learn from experts** how digital tools are applied to manage variable vineyards, reduce labor, and improve yield and quality
- **See digital tool application** examples from New York, California, and France

Map-based Management Zones

GPS Enabled Tractor

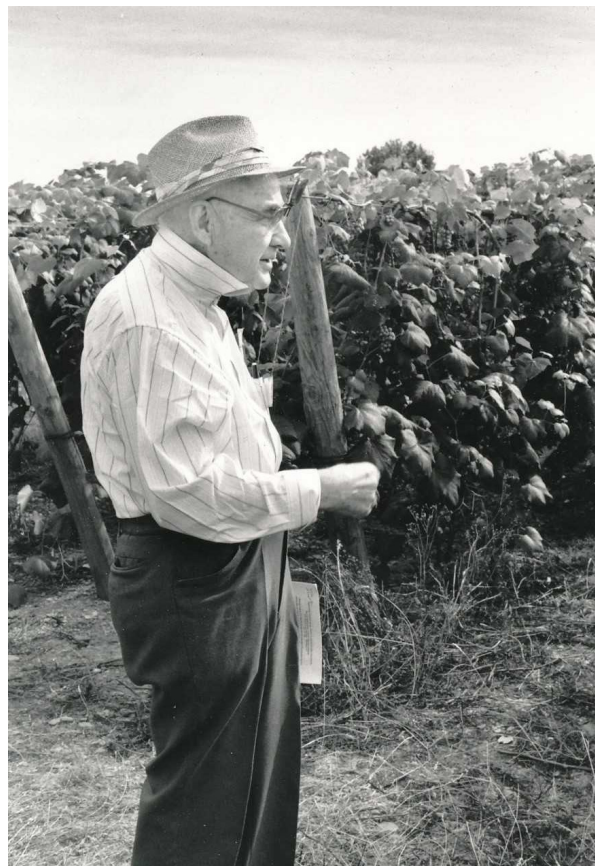
Variable-Rate Thinning

NDVI Sensor

3-D Cluster Imaging

Dr. Shaulis is considered by viticulturists to be the father of canopy management to control vine diseases and improve grape yields and wine quality through techniques to broaden the exposure of leaves and grapes on trellises to the sunshine. He also worked with Cornell's department of agricultural engineering to develop the mechanical grape harvester, especially for use with the Geneva Double Curtain trellis system. Today, industry and growers use harvesters modeled after the Cornell machine to bring in grapes everywhere.

Dr. Shaulis, along with others, developed principles of vine physiology that formed the basis of modern viticulture that we use today. Their work has allowed New World, areas outside of Europe and the Middle East, juice and winegrowing to emerge as a major factor in international trade in the last 50 years.



Caption: Dr. Nelson Shaulis at the Shaulis Symposium in Fredonia, NY July 1993



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PA Update

Andy Muza, LERGP Extension Educator, Penn State University

In the Vineyard (6- 20 -19) – Andy Muza, LERGP Extension Team & Penn State Extension – Erie County

First Postbloom Fungicide Spray (10-14 days after Immediate Prebloom Spray) – The wet, humid weather conditions since budbreak have been ideal for the development of diseases. While scouting vineyards this week in both the Lake City and North East, PA areas, I observed an increase in the number of black rot leaf lesions and even a few Concord leaves with small patches of powdery mildew.

However, considering the weather, I expected to see more black rot leaf lesions (Figure 1). So, I am assuming that growers have been doing a good job, so far, in keeping up with their fungicide applications.

The next critical spray, especially for protection of the clusters, is the first Postbloom Fungicide Spray (**10-14 days after Immediate Prebloom Spray**). By now, all Concord blocks should have at least some bloom occurring. This means that the first Postbloom spray should be applied soon (depending on the timing of the Immediate Prebloom Spray). Again, **DO NOT** stretch spray intervals beyond 14 days during this critical period and use fungicide products which are highly effective against Phomopsis, Black Rot, Downy Mildew and Powdery Mildew.



Figure 1. Black rot leaf lesion on Concord leaf. Photo – Andy Muza, Penn State.

Also, considering the wet, humid conditions so far, a second Postbloom fungicide spray is highly advised in another 10-14 days.

Rose Chafer – Last week I reported that emergence of rose chafer adults had begun. Well, they are still feeding on flower clusters (Figure 2). If vineyard blocks have rose chafers and you haven't scouted yet (and sprayed if necessary) then chances are economic losses have already occurred. Vineyard blocks should continue to be scouted for about 2 weeks after bloom. An insecticide should be applied if a threshold of 2 beetles per vine is reached.



Figure 2. Rose chafer beetles feeding and mating on a Concord flower cluster. Photo – Andy Muza, Penn State.

PA Update

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

Weather: With another half inch of rain this morning, our June total is 3.6", already surpassing our 23 year average of about 3.25" for the entire month. We have accumulated about 260 growing degree days so far in June and we now have 543 gdds as of April 1, about 220 gdds short of last year at this time. The good news is that the 3 day forecast looks to be relatively dry and sunny. However, high temperatures will remain below average throughout the weekend and we will continue to build our below average heat accumulation.

Phenology: Here by the lake we are still not seeing more than a trace-of-a-trace of bloom in Concord. The only varieties in bloom here are Elvira and Somerset, which are typically our earliest bloomers. Vineyards farther inland (route 20 and south) are in the midst of bloom, but many other varieties have still not begun blooming there either.

Diseases: Rainfall during 5 of the past 7 days has generated infection periods for black rot, Phomopsis, downy mildew, and powdery mildew. Do not stretch the interval between the immediate pre-bloom and first post bloom spray beyond 10-14 days (less is better). This is a no brainer; use best materials you can afford, spray every row, bump up gallonage to maximize coverage, etc. After the first post bloom spray, reassess your situation by scouting and closely watching the weather forecast. Black rot infections that slipped through your spray program with the recent rain will become manifest about 14 days after the infection period. Downy mildew infections will probably take about a week or so (about half as much time as black rot) to manifest themselves at these temperatures. Knowing the first appearance of symptoms will give you some idea as to when infection occurred and where holes in your spray program were exploited by the pathogen. This season has turned out very wet, and just at a critical time for fruit protection. I can't emphasize enough how these conditions are just ideal for all the major diseases! Stay vigilant with your spray programs on all varieties.

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Vineyard Improvement Program

Kim Knappenberger

The New York State Department of Agriculture and Markets through the Lake Erie Regional Grape Program has established this reimbursement grant opportunity funded by the Southern Tier Agricultural Industry Enhancement Program. Our goal is not to remove Concord grapes from the industry, but instead to remove abandoned or poorly producing Concord vineyards and then replace them with an agricultural commodity. This can even be with a new Concord vineyard. Removing sources of pest and infection will help neighboring commercial vineyards by reducing the amount of inoculum present and reducing the inputs required to keep those vineyards “clean”.

So far we have had 8 applicants for this program and are getting ready to distribute our first payment. The amount of Concord acreage represented on those applications amounts to over 98 acres and of those acres, about 40 are currently committed to being replanted as grapes, with the remainder changing to peaches, apples, raspberries, and some to seed crops.

If you have, or know someone that has, a vineyard that might resemble the one pictured here, take a look at the website to see what we can do to help. Go to lergp.com and click on the Vineyard Improvement Program button in the middle of the page.



Vineyard overgrown with trees



INSURING GRAPES

NY, 2019

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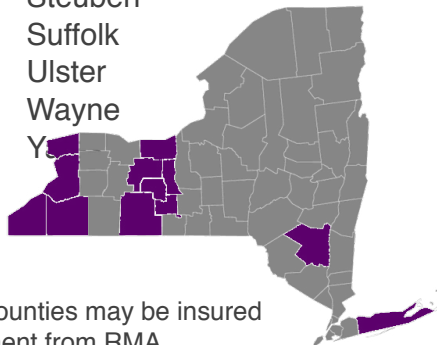
Important Insurance Deadlines

- **Aug. 15, 2018:** Premium Billing Date
- **Nov. 20, 2018:** Sales Closing, Policy Change, Cancellation, Termination Date
- **Nov. 20, 2019:** End of Insurance Period
- **Jan. 15, 2019:** Acreage / Production Report Date



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Seneca	



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

NYS Grape Crop Insurance



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

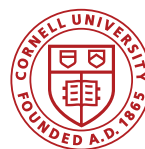
Learn more & sign up:

Learn more about crop insurance options available to New York producers at agriskmanagement.cornell.edu

To sign up, contact a crop insurance agent. Find an agent using the Agent Locator tool at rma.usda.gov/en/Information-Tools/Agent-Locator-Page

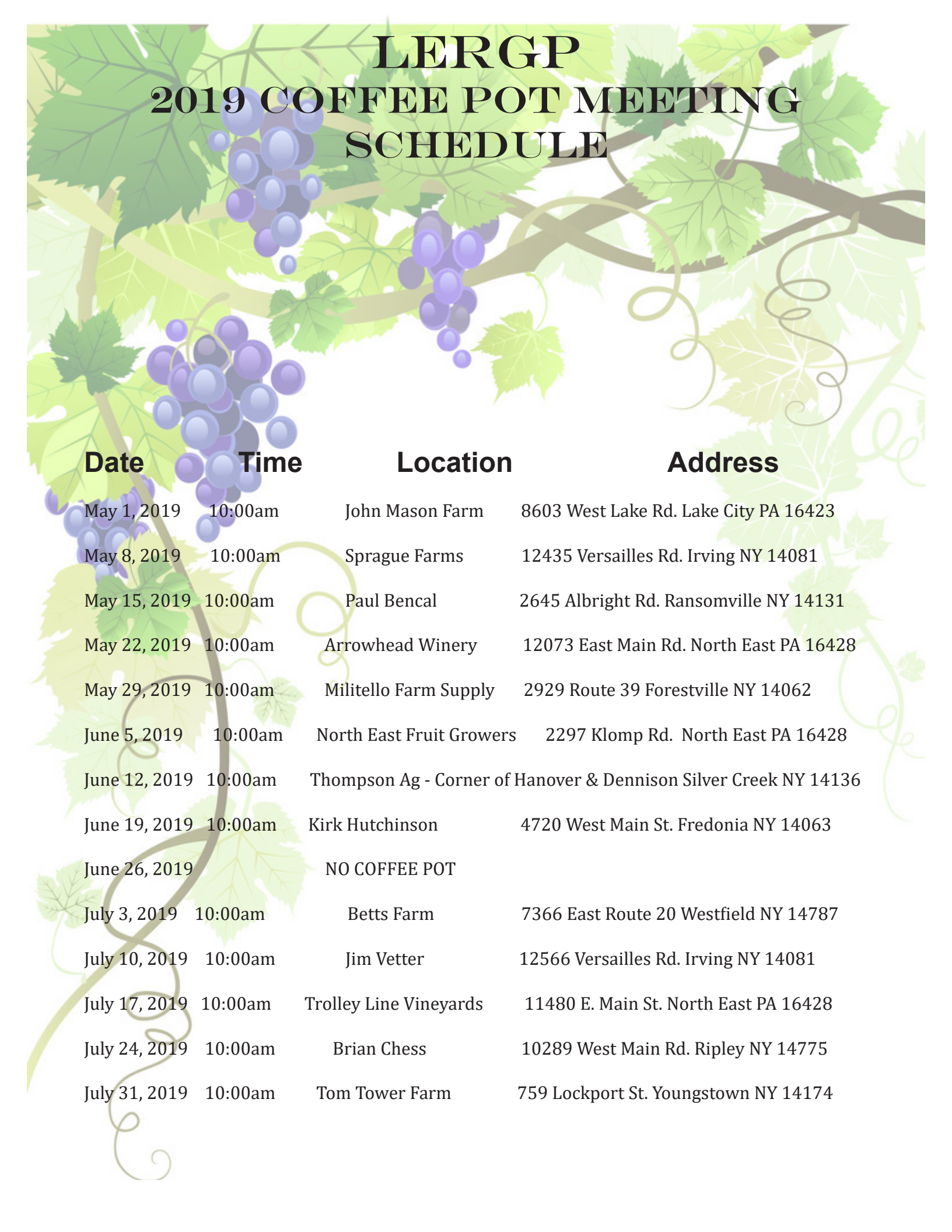


Cornell University delivers crop insurance education in New York State in partnership with the USDA Risk Management Agency. Diversity and Inclusion are a part of Cornell University's heritage. We are an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.



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LERGP 2019 COFFEE POT MEETING SCHEDULE

Date	Time	Location	Address
May 1, 2019	10:00am	John Mason Farm	8603 West Lake Rd. Lake City PA 16423
May 8, 2019	10:00am	Sprague Farms	12435 Versailles Rd. Irving NY 14081
May 15, 2019	10:00am	Paul Bencal	2645 Albright Rd. Ransomville NY 14131
May 22, 2019	10:00am	Arrowhead Winery	12073 East Main Rd. North East PA 16428
May 29, 2019	10:00am	Militello Farm Supply	2929 Route 39 Forestville NY 14062
June 5, 2019	10:00am	North East Fruit Growers	2297 Klomp Rd. North East PA 16428
June 12, 2019	10:00am	Thompson Ag - Corner of Hanover & Dennison	Silver Creek NY 14136
June 19, 2019	10:00am	Kirk Hutchinson	4720 West Main St. Fredonia NY 14063
June 26, 2019		NO COFFEE POT	
July 3, 2019	10:00am	Betts Farm	7366 East Route 20 Westfield NY 14787
July 10, 2019	10:00am	Jim Vetter	12566 Versailles Rd. Irving NY 14081
July 17, 2019	10:00am	Trolley Line Vineyards	11480 E. Main St. North East PA 16428
July 24, 2019	10:00am	Brian Chess	10289 West Main Rd. Ripley NY 14775
July 31, 2019	10:00am	Tom Tower Farm	759 Lockport St. Youngstown NY 14174