



Lake Erie Regional Grape Program



Cornell University
Cooperative Extension



PennState Extension



Crop Update May 23, 2019

Touched by the Sun- Photo by Kate Robinson, LERGP at CLEREL



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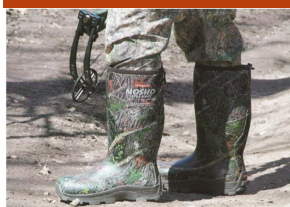
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Business Management

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

Crop Insurance 2018 – 2022

The 2018 Farm Bill made some tweaks to crop insurance, though the core of the program remains the same. Legislatures continue to attempt to enhance whole farm revenue protection. (WFRP). Farm bill legislation did a number of things to attempt to expand the scope of WFRP. Highlights include education, reduced paperwork, incentives for “beginning” farmers and directing RMA to investigate regulatory schemes that could further encourage participation.

Noninsured Crop Assistance Program (NAP) was also changed. Fees and premiums for beginning farmers were reduced. NAP now has a streamlined policy for small farms that reduces recordkeeping requirements.

RMA has traditionally funded education efforts for producers. This farm bill also has funding to educated adjusters and agents in agronomic and conservation practices that are common in particular regions.

The enhancements to WFRP are the most interesting result that may modify risk management practices of our growers. In concept a good whole farm revenue policy could provide excellent risk management for some of our growers, particularly those engaged in significant production of multiple agricultural commodities. Even when it was a good fit in the 2014 farm bill the regulatory hurdles and delayed processing was enough to get producers to avoid the program. These changes might make the program relevant for some of our growers. Producers that have very low revenue history (cash market) should carefully consider how rising prices might undermine the effectiveness of WFRP over the next 2-3 years.

Urea Applications

Just as a reminder, it's nitrogen season. If weather patterns continue to hold urea applications will be very straightforward. These applications can be made next week prior to a rainfall event to maximize uptake efficiency and availability over the next eight weeks. The use of urease products is discouraged as the delay in availability is undesirable. The cost is also greater than the risk associated with loss. Bare soil temperatures are high enough in this area to cause some volatilization. Urease type products are just not well suited to controlling that risk at current prices. The probability that soil is bare, temperatures are hot, and rainfall is non-existent is just too low. For growers with 2% - 5% organic matter, the primary goal is to intensify nitrogen availability over the next 6 weeks.



INSURING GRAPES

NY, 2019

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

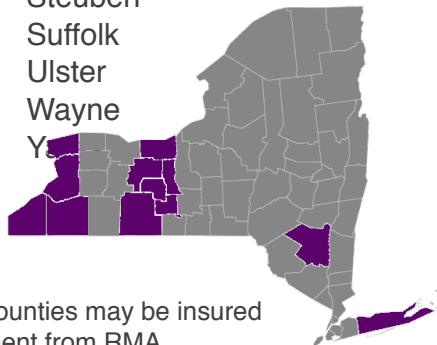
Important Insurance Deadlines

- **Aug. 15, 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



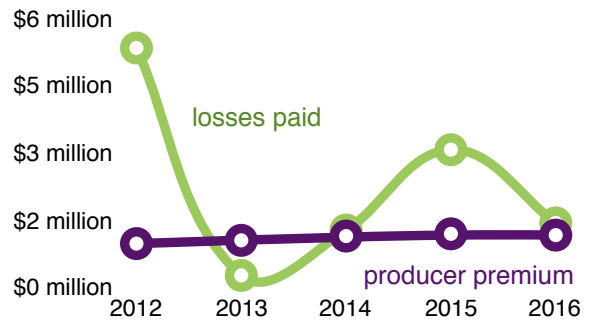
Over 40 grape varieties are insurable in these counties:

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Chautauqua	Suffolk
Erie	Ulster
Niagara	Wayne
Ontario	Y
Schuyler	
Seneca	



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

NYS Grape Crop Insurance



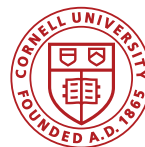
for every \$1 grape producers spent on crop insurance premiums from 2012 to 2016, **they received \$2.07** in losses

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



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IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Spotted Lanternfly Update

We had a good discussion on spotted lanternfly at the Coffee Pot meeting yesterday. After much discussion about what could be done, and by whom, I think the take home message remains constant. We still do not have any active infestations in the Lake Erie region at this time so the best management strategy available is to know how to properly identify all the different life stages of this pest, monitor for the pest (concentrating on movement of vehicles and items from the quarantine zones), and report any sightings to the correct agencies. If you see spotted lanternfly in New York, take a photo and send it, along with location information to spottedlanternfly@dec.ny.gov. In Pennsylvania you can call 1-8884BAD-FLY (1-888-422-3359) or go [on-line to report](#).

If spotted, please kill and collect the specimen so its' identity can be confirmed as spotted lanternfly. If confirmed, the appropriate agency will respond and conduct grid searches to determine if it is a case of a hitchhiker or if it is part of an infestation. Don't be shy about sharing information about the dangers of this pest to the grape industry and spread the word on how to identify and monitor for the different life stages of this pest. While Pennsylvania requires businesses shipping materials and goods from the quarantine zone to undergo training to receive a permit, this alone is not enough to completely stop the movement of SLF into our region. In 2018, the NYS Department of Agriculture and Markets conducted inspections on major routes coming into New York from Pennsylvania and found that the majority of truckers hauling goods from inside the quarantine zone were not aware of spotted lanternfly or the quarantine. The ability of this pest to spread, even with quarantines in place, is shown in the latest SLF distribution map updated on May 15, 2019 where three more counties in New York (Erie, Ontario and Broome) were added to the list of counties where hitchhiking SLF were found.

Reports from down in the quarantine zone in Southeast PA tells us that spotted lanternfly has started to hatch from overwintering eggs. The first instar nymphs are approximately 1/8-inch in length and are black with white spots. Because their beaks are not fully developed they will be found feeding on annuals or first year growth of perennials. At this time of the year, you should keep an eye out for both first instar nymphs and overwintered egg masses.



SLF first instar. Photo credit UDSA/APHIS

Worker Protection Standard

The group here at CLEREL just went through our yearly Worker Protection Standard training and it served as a good reminder that the new WPS regulations require all workers to be trained using WPS training materials prior to their starting work. Previously, owners of a business had a grace period to get people trained but that is no longer the case.

If you are not sure what to do, take advantage of the thunderstorms rolling through the area today to review [How to Comply with the 2015 Revised Worker Protect Standard](#).

You can find some good [WPS training materials](#) here for;


- Workers
- Handlers
- Trainers of Workers
- Trainers of Handlers
- Agricultural Employers
- Handler Employers

According to the PERC website;

- Training must be conducted in a manner that can be understood, in a location relatively free from distractions.
- When training workers or handlers, the trainer must remain present at all times to be available to answer questions, even when showing a video.
- Trainers must be qualified, most often by holding a pesticide applicator's license or by completing an EPA approved Train-the-Trainer Course.

Training workers does not have to be difficult. It can be as simple as having them watch a video once a year. The important thing is to get it done prior to them starting work (no grace period anymore), document the training, and keep the records for use in the event you are ever inspected.

Mosier-Maille Ag Consulting
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<p>Jared Mosier Consultant (814) 923-1372</p> <p>7472 Buffalo Rd. Harborcreek, PA 16421</p>		<p>Dave Maille Consultant (814) 572-5781</p> <p style="text-align: center;">mmagconsulting@gmail.com</p>
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Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Shoot Thinning Cultural Practice

While most growers use dormant pruning as the primary management tool to maintain vine structure and manage sustainable crop loads, shoot thinning is another canopy/crop load management tool to balance your vines. Shoot thinning is the act of removing shoots **in order to facilitate improved fruit size and fruit quality in retained fruit, as well as to reduce vine stress.**

Shoot thinning goals include:

- Obtain balance between exposed leaf area and retained fruit
- Allows for optimal airflow and sunlight in the canopy
- Minimize disease by allowing air and sunlight to dry leaves and clusters
- Decrease fruit shading to optimize fruit quality
- Increase spray penetration
- Encourage uniformity in shoot and crop development along the cane or cordon

The time to shoot thin is early in the growing season when shoots are four to six inches in length. This is the sweet spot to thin because the shoots snap off clean at the cuticle, after that, the shoots are a bit too lignified for a clean snap, but growers can thin up to 12 inches taking care not to damage the cane or cordon. Shoot thinning should also be timed after the threat of frost. There are many factors that influence vine vigor and the capacity to fully ripen a crop, such as cultivar, soil type, and climate.

Generally, shoot thinning on cane-pruned vines is faster and easier than spur-pruned vines, which require more decisions depending on what your goal is. Weak, non-fruitful shoots should be removed, especially if they grow in crowded areas. Secondary and tertiary shoots should be removed, if a primary healthy shoot has emerged, and all sucker shoots should be removed unless you are saving them for renewals in certain varieties.

For vinifera varieties, we use shoot thinning as a canopy management tool. Growers want to leave three to five shoots for every linear foot of canopy; typically leaving 5 for white varieties and a little less for reds. In hybrid cultivars, it is recommended to leave four to six shoots per linear foot of canopy. For vinifera cultivars shoot thinning has been shown to result in higher Brix and pH in fruit and sometimes results in an increase in berry skin phenolics and anthocyanins. These effects are likely due to a combination of managed crop levels and increased sunlight exposure of the canopy and fruit.

In the world of Concord, the goal is to achieve the highest possible yield with minimum commercial threshold for juice soluble solids (Brix). The price paid for Concord continues to be the lowest of any grape cultivar grown in the state, therefore tools have been developed to decrease labor cost leading to mechanically pruned vineyards. Achieving high yields and acceptable juice soluble solids within the framework of healthy vine balance has been a challenge. Using a machine pruner leaves more nodes on the vine and crop load potential needs further adjusting as the season progresses. Concord research conducted in the Lake Erie Grape Region looked into using both fruit thinning and shoot thinning as crop load management tools, and concluded that using either option yielded the

same results, more control over yield and the amount of energy expended by the plant to produce fruit.

When vines are under-cropped, the fruit will ripen but the canopy tends to be over vigorous. Conversely, the un-thinned vines are overcropped with little exposed leaf area and excessive retained fruit, which delayed both fruit ripening and wood maturity while stressing the vines crop load potential for the following growing season. Balanced vines will ripen fruit while retaining enough exposed leaf area to sustain the next year's crop load. Vineyard balance really depends on the grower reading the vine's capacity and maximizing that production capacity and/or quality with reasonable and economic inputs.

So if your shoots are in the four to six-inch length and you need to manage your canopy or crop load, then using shoot thinning as a canopy/crop load management tool will aid in bringing vines into vegetative and fruiting balance by reducing shoot density and the number of clusters per vine. Fruit thinning later in the season may be needed in order to balance highly-fruitful vines.

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PA Update

Andy Muza, LERGP Extension Educator, Penn State University

In the Vineyard (5-23-19)

Concord shoot growth north of Rt.5 (in PA.) ranged from 1.5" – 4", between Rt.5 and Rt.20 shoot growth ranged between 2" – 6", and south of I-90 shoot growth ranged between 3" – 7".

Phomopsis – A broad-spectrum protectant fungicide application (i.e., mancozeb, captan, ziram) should be applied when shoots are at the 3" – 5" stage to protect rachises and pedicels against Phomopsis infections.

Black Rot – Vineyard blocks that had black rot problems last season should receive a protectant fungicide application (e.g., mancozeb or ziram) when new shoots are about 10" – 12" long.

Powdery Mildew – The first fungicide application for powdery mildew should not be delayed beyond the 3" – 5" shoot growth stage in blocks with *Vitis vinifera* varieties.



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PA Update

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

Weather: We have accumulated about 2" of rainfall and 116 growing degree days (below average) so far in May at our site by the lake. We have accumulated about 170 gdds as of April 1. There is currently a chance of rain every day in the short-term forecast for North East PA. The highest probability of rain appears to be for Saturday night. Temperature highs will bounce around average during that period, being warmest on Saturday (upper 70s).

Phenology: Here by the lake Concord shoots are falling within that 3-5" range for the first mancozeb spray for Phomopsis. So if you haven't put it on yet, don't delay any longer.

Diseases: According to NEWA, we have had several Phomopsis infection periods so far, extending back to early May, very similar to 2017 when the entire grape belt got nailed with this disease. The difference this year is that bud break was very much delayed and we escaped most of the worst cold, wet, crappy weather. Now that shoot growth is resuming at a moderate pace, our wetting periods have been more brief and most have not generated additional infection periods (we've only recorded 0.14" of rain over the past 8 days). Nevertheless, I suspect we will see some lesion development along the first and second internodes of new shoots. Those first few internode regions of shoots (and their leaves), will be susceptible to Phomopsis lesion development for as long as they are continuing to expand. The severity of lesion development will depend on the severity of the weather of course (how long shoots were wet and how warm it was during the wetting period), but also the stage of elongation those internode regions were in when they got infected. Internodes that got infected early in their expansion are likely to have more severe lesion development than internodes that were nearing the end of their expansion.

Our next fungicide application will target the 8-12" shoot stage and should be timed about 14 days from that early Phomopsis spray. The next spray should include something for Phomopsis, black rot, and downy mildew. The trigger for downy mildew is the 5-6 leaf stage. We aren't there yet here by the lake, but vineyards farther inland will be farther along and will likely see that stage soon. Also, be mindful of black rot if you had problems with this disease last year. Now is the time that leaves in the fruit zone are most vulnerable to that disease. Black rot lesions that develop on those leaves in the fruit zone will be capable of producing spores for fruit infection by bloom and early post bloom, and can set you up for a difficult time controlling this disease on your fruit.

We have had very little in terms of powdery mildew primary infection periods (0.1" rain, temps above 50F) since bud break. The amount of disease in a vineyard last year should also be an important consideration when deciding how early to begin sprays for this disease: vineyards that harbored heavy amounts of powdery mildew last year should be including a material for control of this disease in their next spray. This is especially the case with susceptible wine grapes, particularly *Vitis vinifera*.

The Respirator Fit Test Process –

Jim Harvey, Office of Rural Health, Penn State

It's been over three years since the EPA released the revised Worker Protection Standard (WPS) and all aspects of that revision are in effect and are being inspected for now. Probably the area that has created the most confusion is the respirator fit test. The only Handlers that must go through this are those Handlers working with pesticides requiring a respirator as part of the required personal protective equipment. This requirement also includes owner handlers – no family exemption here! The respirator fit test is a three part process. The first part is getting a medical evaluation done. This can be done at a local occupational safety and health department which is often affiliated with a hospital. The medical evaluation can also be done online through a number of providers. In some cases the evaluation might raise a red flag that might require an actual physical. Once the evaluation or physical is passed be sure to keep the release documentation for at least two years and longer if the release is longer.

The second part of the process is the actual fit test and it must be completed every year as long as the Handler is using pesticide products requiring a respirator. This can be done at an occupational safety and health department or it can be done on the farm using a fit test kit from a safety supplier such as Gemplers or Grainger. No special training or certification is required for the fit test kit testers. The kits come with easy to read instructions. Be sure to document the test and keep that documentation at least two years.

The third step in the fit test process is the respirator training. This is an annual training as long as handlers are using pesticides requiring a respirator. It involves seven basic topics such as how often should canisters & filters be changed out, how to clean your respirator and how to deal with a respirator emergency and other essential respirator issues. Owner-handlers must self- train. Document the training and keep the documentation for at least two years.

Growers that want more details or sample documentation forms can get those from me (e-mail - jd18@psu.edu or call at 814-863-8656). I will also be speaking at the Coffee Pot meeting at North East Fruit Growers, 2297 Klomp Road, North East, PA on June 5th

If any Erie County, PA growers want me to visit your farm June 4 – 6, to go over the WPS regulation in general or the respirator fit test process with you, then contact me as soon as possible to schedule an appointment. I will also have my loose fitting powered air purifying respirator (PAPR) with me if anyone wants to try it out. Loose fitting PAPRs will exempt handlers from the actual fit test but NOT the medical evaluation or respirator training. See you in June.

NDVI Scanning for Vine Health

Heather Barrett, Program Extension Aide, LERGP

The Loaner Sensor Program is still available for free for members of the Lake Erie Regional Grape Program through the 2019 growing season. The available Crop Circle canopy sensors can be used to detect vineyard areas where vine vigor may be lower or higher and aid in focusing scouting activities for pests. For vine health sensing, vines should be scanned by mid-July to prevent excessive growth from saturating the signals. The sensors scan for NDVI or the Normalized Difference Vegetation Index which is a measurement of how much green is detected using infra-red scanners. This tells us which parts of the block are more vigorous (higher amounts of green) and less vigorous (lower amounts of green) relative to the other vines scanned in that block.

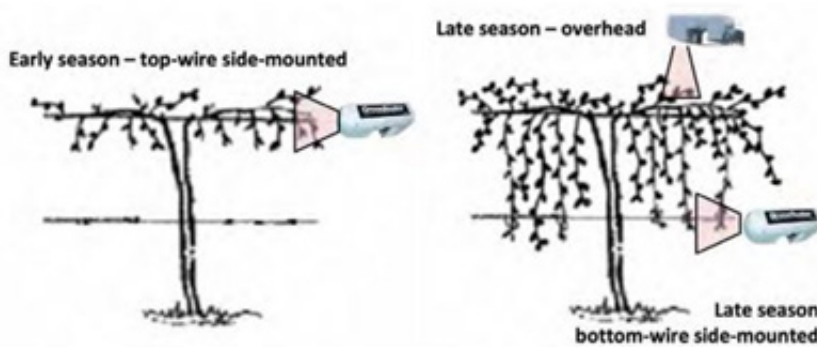


Figure 1. A schematic diagram of the orientation of the sensor relative to the canopy early and late in the season.

Sensors can be mounted on tractors, sprayers, gators, and four wheelers. Many growers like to attach the sensors to a sprayer so that data is collected during a normal vineyard operation. This reduces the necessary input from a grower to collect the data. Sensors can be delivered to your farm where a technician will set them up and connect them to the desired equipment. Once the scanning is

completed, a technician will return and remove the sensors and bring the data back to the Cornell Extension office in Portland, NY where a vineyard map will be developed and provided to the grower. We recommend that growers come in to discuss their maps with our viticulturist or another extension agent to go over problem areas, if any, and measures to address those.

Sensor technology is the first step toward implementing a variable rate management plan on your farm. Variable rate equipment is typically powered using hydraulics which can be used to control the speed that something is completed. Examples include shoot thinning, crop thinning, and lime application. For more information on the Loaner Sensor Program, visit efficientvineyard.com **Loaner Sensor** page. Extension agents at the Lake Erie Regional Grape Program can also be reached at (716) 792-2800.

Grape Canopy Management Seminar

New York State Wine Grape Growers will be hosting a half day seminar on grape canopy management and grape vine trunk disease featuring Dr. Richard Smart, the Flying Vine Doctor, on Monday June 3, 2019. The event will be held at Hazlitt 1852 Vineyards, 5712 Route 414, Hector, NY, from 1 to 5 PM. The seminar will be free to members of New York State Wine Grape Growers and their employees. The cost will be \$30 each for non-member. Those who are not members will be encouraged to join NYSWGG at a reduced half year rate of \$40. We ask that anyone planning to attend make reservations to nyswgg@gmail.com to ensure we have space for everyone.

Dr. Smart has studied and lectured on grape growing all around the world, including in the Finger Lakes, where he did studies for his Doctorate under Dr. Nelson Shaulis at Cornell. His book, "Sunlight Into Wine", has been heralded for many years as the ultimate guide to canopy management for optimum yield and wine quality, and has been used by growers worldwide to increase their bottom line.

A wine and cheese reception will be held after the seminar for all who attend. We ask those attending to bring along a favorite bottle of wine to share. Cheese and snacks will be provided, and Women for New York State Wine will provide their services for the reception.

Thank you to our event sponsors:

- **Chris King, Sawtooth Vineyard Management and Consulting**
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For additional information, contact Jim Bedient 315-521-1057

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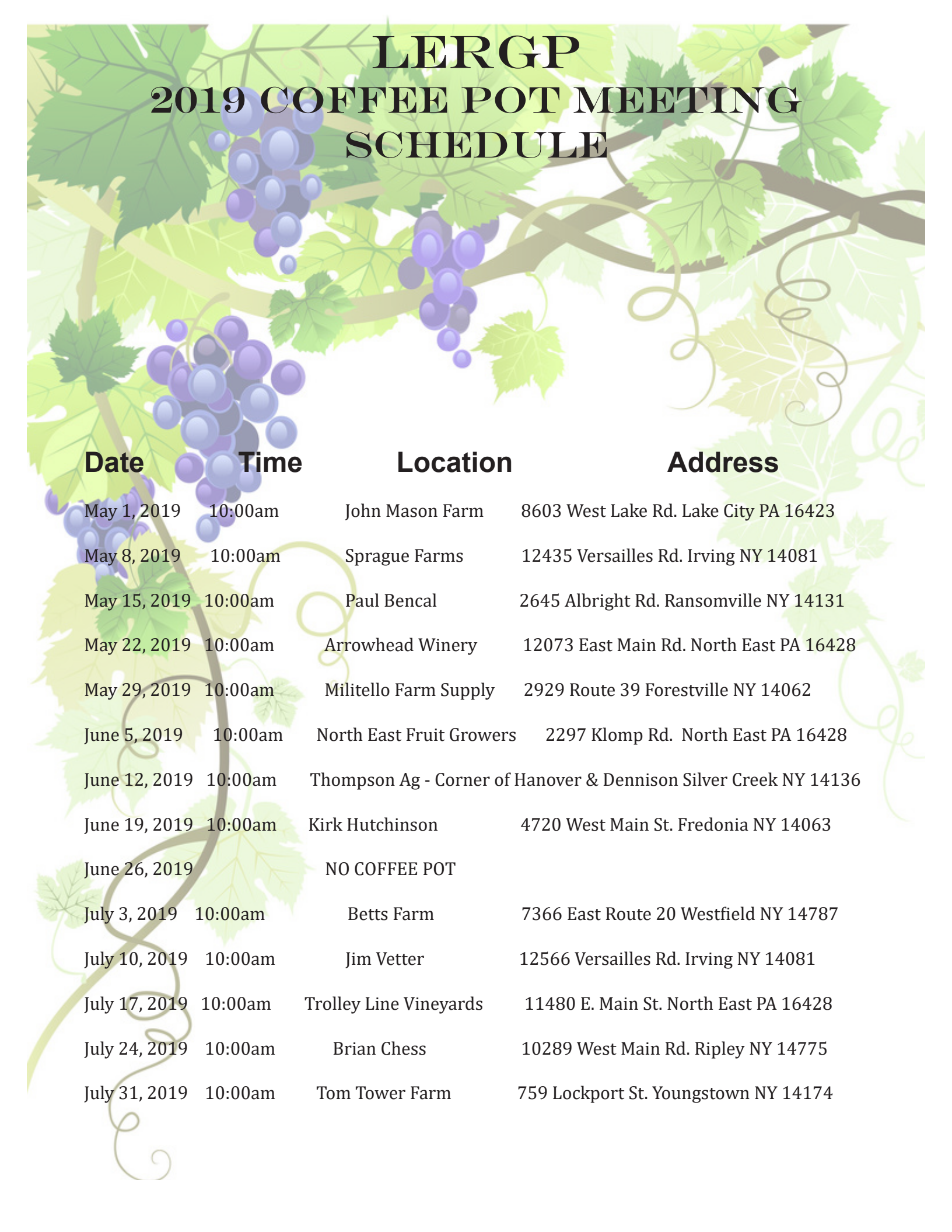
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LERGP 2019 COFFEE POT MEETING SCHEDULE

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