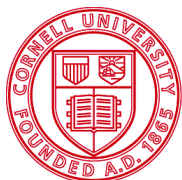




## Lake Erie Regional Grape Program



**Cornell University**  
Cooperative Extension



**PennState Extension**

## Crop Update May 16, 2019

*A beautiful spring day in the vineyard-*



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.



## In this Crop Update:

- Integrating Herbicide and Cover Crop Management for Cost Effective Results
- Spotted Lanternfly Update
- Working Together
- In the Vineyard, PA
- Variable Rate Shoot Thinning
- Grape Canopy Management Seminar
- 2019 Coffee Pot Schedule



SPECIALIZING IN:  
FERTILIZER  
(BULK & BAG)  
CHEMICALS  
VINEYARD & ORCHARD  
SUPPLIES  
AND MUCH MORE

2297 KLOMP ROAD, NORTH EAST, PA 16428

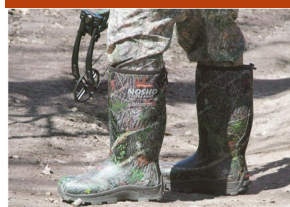
PHONE: 814.725.3705

OPEN YEAR-ROUND MONDAY - FRIDAY 8AM - 5PM

SATURDAYS APRIL- DECEMBER 8AM - NOON



**DRYSHOD BOOTS AVAILABLE NOW!**



**DRYSHOD**  
WATERPROOF FOOTWEAR  
The world's most wearable rubber boot.

[dryshodusa.com](http://dryshodusa.com)

*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.*

**Gowan**<sup>®</sup>  
USA  
GOWANCO.COM

**Torino**<sup>®</sup>  
FUNGICIDE

**The Only FRAC Group U6 Fungicide**

Labeled for Grapes & Cucurbits

Highly Effective on Powdery Mildew

No Cross-Resistance

Protectant / Preventative Action

**METTLE**<sup>®</sup>  
125 ME  
FUNGICIDE

**FRAC Group 3**

Labeled for Grapes

Controls Powdery Mildew,

Black Rot, & Anthracnose

Protectant + Curative Activity

Highly Systemic

**Badge SC**  
Fungicide/Bactericide

**Badge X<sub>2</sub>**  
Fungicide/Bactericide



High Quality Copper

Excellent Mixing Characteristics

Highly Active at Lower Rates

Enhanced Crop Safety



**EcoSwing**<sup>®</sup>  
BOTANICAL FUNGICIDE



Flexibility, versatility & a unique approach

for your disease control program

EPA registered with tolerance exemption

Torino<sup>®</sup> is a registered trademark of Nippon Soda Company, LTD. Mettle<sup>®</sup>, Badge<sup>®</sup> SC, Badge<sup>®</sup> X<sub>2</sub> are registered trademarks of Isagro USA. EcoSwing<sup>®</sup> is a registered trademark used under license by Gowan Company, LLC.



**Dave Pieczarka**  
**315.447.0560**

# Business Management

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

## Integrating Herbicide and Cover Crop Management for Cost Effective Results

We are starting to see increases in herbicide management costs. Some of you know all too well that 1-2 applications of herbicide do not provide adequate control of weed competition in vineyards. Complicated tank mixes that cost over \$100 per applied acre are not a practice I would consider sustainable. Some growers, though, would disagree.

Herbicide costs are not increasing substantially. More frequent applications and a need to apply better materials more often is driving costs up. The majority of herbicides used by growers are off patent these days and available almost exclusively in generic form. A third or even fourth vineyard pass, could be sustainable. The cost of materials and materials selected needs to be looked at comprehensively with the number of passes required to obtain adequate control. I see a potential to reduce herbicide costs by increasing the number of passes and reducing the cost of materials. This trend is not universal but when tank mixes exceed \$60 per acre sprayed it might be time to consider additional passes. This trend and cost saving strategy is typical for under-row management.

With the decline in the effectiveness of round-up, efficient row middle strategies may need to be revisited. One potential to help minimize or avoid the use of high cost materials in row middle management is the use of cover crops. Cover crops do not offer the potential to reduce herbicide applications in situations where growers are applying between 1 and 3 per year. Rather, they offer an option to improve results without adding an additional pass. Particularly where hard to control species get established, some growers have added a late summer or fall application to bring their total number of herbicide application to 4-5. In this scenario, the right cover crop mix offers the potential of superior control with one less pass.

Cover crop mixes being trialed are similar in cost to an herbicide application. Higher end seed mixes with oats, more radishes or even buckwheat range between \$12 and \$15 per seeded acre in materials. Legumes increase costs but potentially reduce fertilizer use. Easy to kill hybrid crimson clover complicates the economic analysis. It may reduce urea applications by 50%, reduce termination costs but could be more difficult to grow. Understanding effective seed mixes, their primary benefits and potential secondary benefits will be key to the success of moving cover crops into perennially systems in a cost-effective (saving) way.

We continue to work with seed mixes to help define spring cover crop mixes that do not result in undesirable competition with vines. If we are able to delay termination guidelines to the 12" shoot growth stage or later, our ability to reduce the number of passes in row middle management would be significant. The plan is to try both spring seeding of cover crops as well as fall seeding cover crops that over-winter. Different seed mixtures would be focused on their ability to choke out weeds and use less water than traditional bio-mass mixes.





# 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.

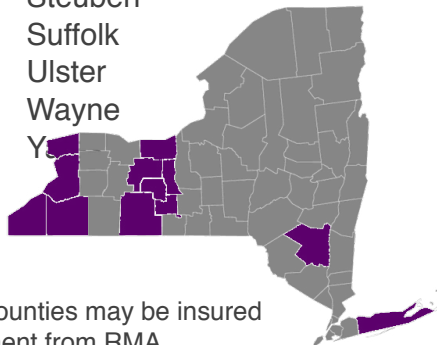
## Important Insurance Deadlines

- **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:

Cattaraugus	Steuben
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

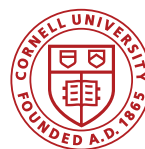
## Learn more & sign up:

Learn more about crop insurance options available to New York producers at [agriskmanagement.cornell.edu](http://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](http://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.



**Cornell**  
**CALS**  
College of Agriculture  
and Life Sciences



# IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

## Spotted Lanternfly Update

While there are currently no known infestations in New York State we continue to find spotted lanternfly (SLF) hitchhiking into New York State. As you can see in the map below, SLF has been reported in 11 New York counties. Because there are no known infestation our current management strategy is based on proper identification and reporting [spottedlanternfly@dec.ny.gov](mailto:spottedlanternfly@dec.ny.gov). The current life stage(s) to be vigilant for are egg masses (photo). Spotted lanternfly appear to be willing to lay their eggs on any surface so it is important to be vigilant in inspecting anything coming out of the quarantined areas. First instar nymphs will be emerging soon and can be identified by the white spots on their black bodies.

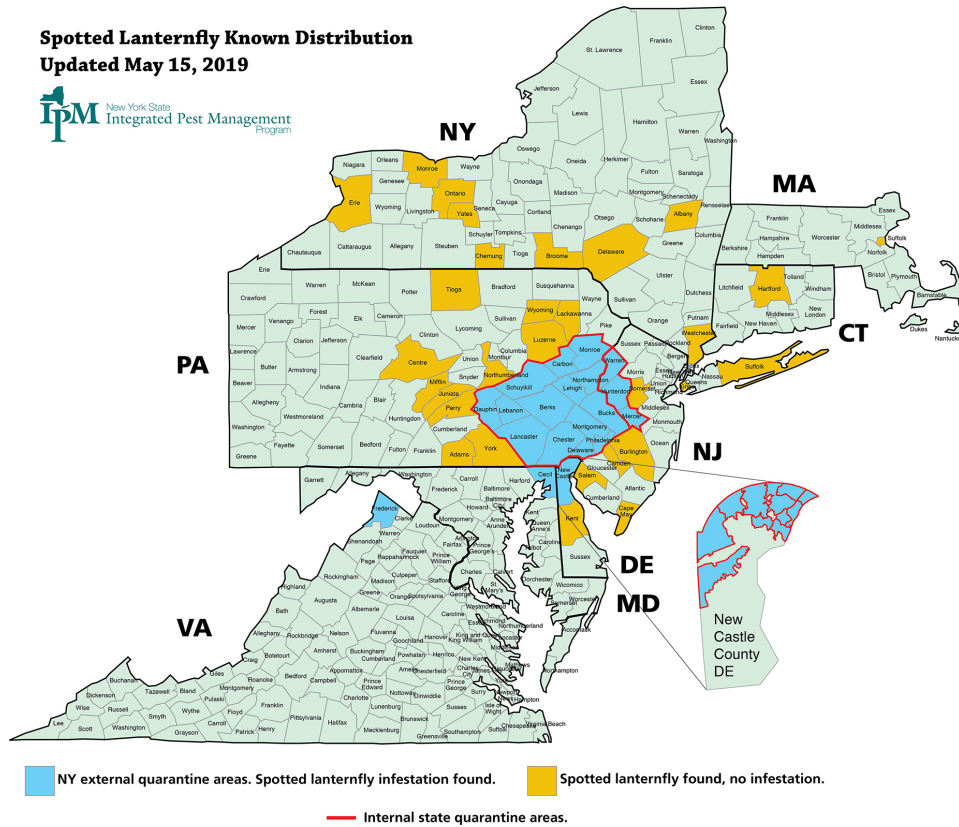


For those of you who do business in the quarantine zone it is important that you comply with the NYS External Quarantine that has been put in place. If you stop for an extended amount of time in the quarantine zone you must acquire a SLF permit. A permit is not required if you just stop for gas, have a roadside emergency or if you just drive through the quarantine zone. New York does not currently have a permitting process and are using the permit provided by the Pennsylvania Department of Agriculture. To obtain a permit you should visit the [Spotted Lanternfly Permit Training for Businesses web page](#). The training is free and takes about 2 hours to complete. According to the website, a permit provides evidence that you have completed training on how to follow the rules of a quarantine order, and you agree to do all you can to ensure that you are not carry SLF. After completing the training you will receive a tag for your vehicle(s) that show you have the SLF permit from the PDA>

If you are traveling to any of the external quarantine areas (blue counties on the map) on other than business you do not need a permit but you are still required to comply with the NYS External Quarantine. Click here for [Information on the external quarantine](#).



**Spotted Lanternfly Known Distribution**  
**Updated May 15, 2019**



**LaPorte**

**Farm Equipment**

"Large and small, we sell them all"

**Sales - Parts - Service**  
**Westfield NY (716) 326-4671**

**CASE II**  
**AGRICULTURE**

**laportefarmequipment.com**

**Custom Built 2 Tank Weed Sprayer**



We sell and service CaseIH Tractors, Oxbo Harvesters, and Turbomist Sprayers. We also custom manufacture single and dual tank sprayers, spray booms, pre-pruners, brush sweepers, & wire winders.



# Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

## Working Together

We all know the challenges that our cool-climate in the Lake Erie Grape Region presents, and it isn't the easiest of places to grow grapes. We have a short growing season, freezing temperatures, and extreme weather events that contribute to an already pressing agricultural system. Not only do our viticulture practices vary from the other parts of the world, but also there are different management decisions within our own grape belt. These differences are due to many factors including temperature, Growing Degree Days, the notion that we don't see the sun for what seems like an eternity, and distances from our lakes. For instance, I was at a vineyard in Niagara County yesterday and the bud/shoot progression is behind that of the other vineyards in our region due to the climate influences of Lake Ontario.

The challenges cool climate viticulture present demands that vineyard management practices must be tailored to your specific farm/block to achieve quality goals. From vine spacing and training system choices to pruning practices, canopy management practices, winter protection methods, and water/nutrient management decisions that vary within a vineyard, our growers must be flexible and efficient to thrive, and sometimes just survive, in our region.

I want to learn from you, the experts in the Lake Erie Grape Region. Many of you and your families have been farming these parts for generations, and that knowledge of sustainability from confronting each season's different challenges is unique to each of your vineyards. Our growers need to be creative, patient, well informed, and have big shoulders to handle the hard times. I want to learn about your creativity and flexible practices that have sustained your vineyards to better understand how I may help in the future. It is my growing season goal to get my boots on as many farms in the Lake Erie Regional Grape Program as I can to learn from the experts. Combining your expertise with the knowledge of team that comes along with me, not just Cornell Cooperative Extension, but my contacts within Viticulture and Enology programs across the country and overseas will help us all achieve a balance between healthy vines and optimum yield of mature, quality fruit.

Please reach out to me to schedule a visit to your vineyard(s) to learn the unique viticultural practices that have driven our industry since 1870; my contact information is [jjr268@cornell.edu](mailto:jjr268@cornell.edu) (716)792-2800 ext. 204. I want to learn from you so that we can work together to make our region and industry stronger, more sustainable, efficient, and profitable. Together, let's be a part of the solution by integrating your knowledge accompanied with sound scientific research in efforts to remain sustainable and competitive by delivering commercial vineyard management practices that deal with variation in vineyards within the Lake Erie Grape Region. Here's to a great partnership and productive season!



# PA Update

Andy Muza, LERGP Extension Educator, Penn State University

## In the Vineyard

There has not been much shoot growth in Concord vineyards over the past week due to the cool, wet weather. Shoot growth just south of Rt.5 (in PA.) ranged from 0.25" – 1", between Rt.5 and Rt.20 shoot growth ranged between 0.5" – 1.25", and south of I-90 the longest shoots were about 1.75".

According to the National Weather Service there is a 70% chance of precipitation on Friday. During the period, Saturday – next Wednesday, the chance of showers/thunderstorms ranges from 30-50%. Temperatures are expected to reach 78 degrees this Sunday then be in the 60's through mid-week. With temperatures warming up and the amount of soil moisture, Concord shoots should start to take off.

Phomopsis - The only potential problem to be concerned about at this point is PHOMOPSIS, so I will repeat what I said in last week's Crop Update.

The abundance of Phomopsis cane lesions throughout vineyards in the Lake Erie Region indicate that inoculum levels range from moderate to high (Figure 1). Frequent and extended periods of rainy weather during the early season provide ideal conditions for infections to occur. Be prepared to apply a broad-spectrum protectant fungicide application (i.e., mancozeb, captan, ziram) when shoots are around 3 inches long, especially if an extended period of wet weather is predicted during this time. Check the [NEWA station](#) closest to your vineyard blocks for 5 day weather forecasts and Phomopsis model information. Fungicide protection against Phomopsis infections on rachises, pedicels and berries is important until berries have reached about pea size.



Figure 1. *Phomopsis* lesions on Concord canes. Photo – Andy Muza, Penn State

### Mosier-Maille Ag Consulting Soil and Crops

Jared Mosier  
Consultant  
(814) 923-1372



Dave Maille  
Consultant  
(814) 572-5781

7472 Buffalo Rd.  
Harborcreek, PA 16421

[mmagconsulting@gmail.com](mailto:mmagconsulting@gmail.com)

# PA Update

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

**Weather:** At our site by the lake, we have accumulated 1.9" of rainfall (right on average) and only 56 growing degree days (below average) in the first half of May. As of April 1, growing degree day accumulations stand at 110. Looking at a short-term forecast, there is a chance of rain pretty much every day through the weekend, though conditions look to be drying out a little bit. Temperatures will hover around average (high of 67F), except for Sunday when the high could push into the upper 70s and we might see some serious shoot growth!

**Phenology:** We are quite a bit behind in gdd accumulations and Concord and Niagara shoots here by the lake are at 0.5-1.5" in length. Farther inland shoots are anywhere from 1.5-2.5" (approaching 3"). In view of the constant threat of rain, some growers have already applied that initial spray for Phomopsis. And understandably so; an examination of shoots at 2.5" reveals that 2-3 leaves are unfolded, and the first four internodes and 1-2 clusters are exposed and vulnerable. Captan and mancozeb products are the materials of choice at this time as they are very cost effective and they work!

**Diseases:** With the frequent rainfall, we have had Phomopsis infection periods around the 9th-10th of May (just at (by the lake) or shortly after (farther inland) bud break) and probably during the long wetting period of May 12-14, when we recorded about 50 hours with some wetness over a 60 hour period of time. However, NEWA did not issue an infection period for this precip event, likely because the average temperature came out below the low threshold for the model. This latest extended wetness period is likely to result in Phomopsis lesions on internodes 1 and 2 in more southerly vineyards, but hopefully not on cluster stems as they were mostly unexposed at that time (with the possible exception of vineyards located at the southern edge of the belt). During that wetness period, cold temperatures held growth in stasis with virtually zero gdd accumulations. We also had a black rot infection period during that May 9-10 rainfall period.

So, Phomopsis is a threat at this time, but it would appear the weather will offer some windows of opportunity to apply a spray as we approach the 3-5" shoot growth stage. The good news is that the forecast does not predict another long, cold, extended period of precipitation and wetness....for now. Developing clusters and shoot internodes/leaves are very susceptible and very close to inoculum sources (wood) and there is still a lot of inoculum in wood from previous seasons (particularly 2017). This is a tough timing target to get just right when you have but one shot at it, not to mention that the weather will almost never cooperate. But our focus for this first fungicide application should always be minimizing cluster stem infections when they become exposed.



## Variable Rate Shoot Thinning

By Heather Barrett

The concern over late spring frosts are a relatively common issue for grape growers in the Lake Erie Region. For these growers, preparing for bud loss due to late season frost is a normal part of operations and is built into their management plans. Growers leave extra nodes (potential buds) as a cheap insurance policy so that if some buds do succumb to frost damage, the remaining buds will still produce enough fruit to meet demands.



Shoot thinning can be used as a follow up to dormant season pruning. In the event that there isn't any frost damage, the vines could potentially be over-cropped. This is where shoot thinning comes in. Shoot thinning removes excess shoots on a vine to bring it down to a manageable level where the vine remains healthy while still producing a healthy crop (vine balance). This is usually done at a set rate where the vineyard is thinned back to the same number of shoots per foot of row across the entire management block. This plan ignores variability within the vineyard; in the soil, the vine health, and the water availability. These characteristics need to be taken into account to achieve vine balance.

BEFORE



Crop estimation for Concord grapes is done at 30 days post bloom. The long-time practice has been to prune during the dormant season and then crop thin after crop estimation, if needed. Shoot thinning is a process in between those two events that gives a farmer more control over yield and the amount of energy expended by the plant to produce fruit. Vine size can change across a vineyard creating variability which up until recently, has not been considered in the set rate management plan. Shoot thinning is exactly the process which can be used to implement variable rate management plans.

AFTER



Shoot thinning is being explored as an addition to management plans in the Lake Erie region as a way to control yield. Mechanization generally arises out of necessity because the labor it's replacing is either disappearing or becoming too expensive. If a machine can prove to be more economically feasible and reliable in doing a similar job, then it can fill that labor void.

Across a management block there will be vines capable of producing larger crops and vines that are limited in what they can ripen. Using variable rate shoot thinning, a farmer can acknowledge these differences in vigor and shoot thin accordingly. Variable rate management relies on the use of prescription maps made from scanning data (NDVI) with georeferenced data points. All that is meant by this is when a data

point is collected for a vine, which could relate to any number of characteristics in a vineyard, it is tagged with a GPS location telling the farmer where in the vineyard that vine is located. This makes it possible to create a map with management zones reflecting whichever characteristic was measured across a vineyard.

From this, the prescription map is made with management zones embedded with instructions for the variable rate thinner to spin paddles at a certain speed to remove a desired amount of shoots. Since no two vineyards are



the same, paddle speed should be calibrated for each management block. This can be done using a sampling zone where the number of shoots can be counted. In this zone, the machine is operated with the paddles moving at various speeds. After the machine goes through, shoots should be recounted to get a percentage of shoots removed. Management zones should be based on vine health and input from the vineyard manager or grower.

The Efficient Vineyard project is funded through the USDA and NIFA. Its overarching theme of mechanizing vineyard operations aims at reducing variability within a vineyard to increase vine uniformity and health throughout a vineyard. For more information on variable rate shoot thinning or the **Loaner Sensor Program**, check out **efficientvineyard.com**. There you will find a **Contact Us** page or feel free to come in and talk to our resident viticulturist!

 **Clover Hill**  
**Sales** LLC

10401 Sidehill Road, North East, PA 16428

**814-725-3102**

sales@cloverhillsales.com

**www.cloverhillsales.com**



**DURAND  
WAYLAND**

**WOODS**

Woods Equipment Company



**EDWARDS**  
EQUIPMENT COMPANY



Harvester Parts and Belting  
Southern Yellow Pine Posts

**Tractor Tires & Tubes • And So Much More!**

# 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](mailto: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**
- **Nutrien Ag Solutions**
- **Helena Agri-Enterprises**

**For additional information, contact Jim Bedient 315-521-1057**

## FROM JUICE TO WINE... AND EVERYTHING INBETWEEN



At Farm Credit, we've been making loans to rural America for more than 100 years. We finance all aspects of the grape industry and understand the credit and financial service needs of the growers.

**GIVE US A CALL TO FIND OUT MORE ABOUT:**

- Operating loans
- Real estate loans and appraisals
- Construction loans
- Vineyard development financing
- Equipment loans and leasing
- Accounting services, including payroll, records and taxes
- Business consulting services

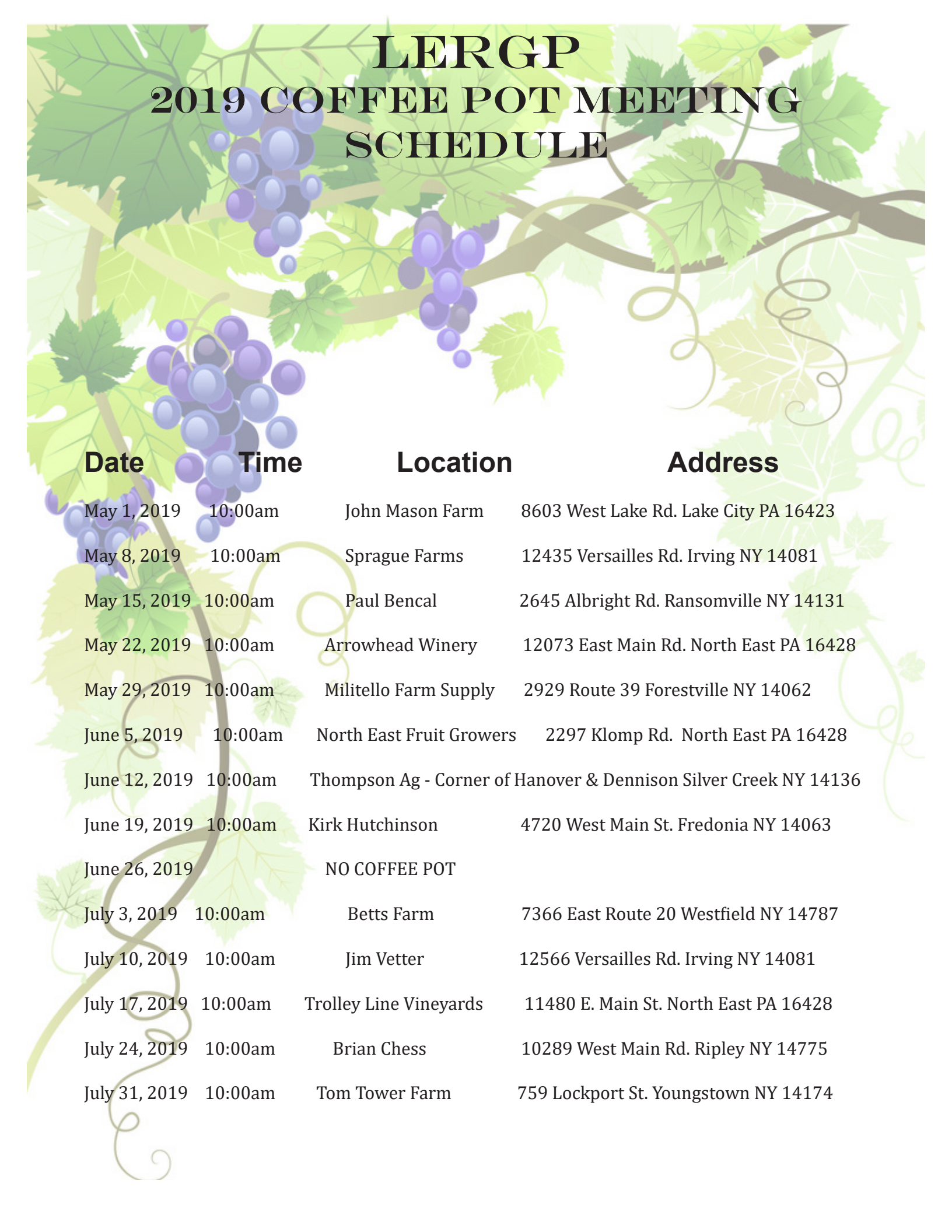
Larry Labowski  
Loan Officer  
[LLabowski@AgChoice.com](mailto:LLabowski@AgChoice.com)  
800.927.3149  
[www.AgChoice.com](http://www.AgChoice.com)



**AgChoice  
Farm Credit**

 Find us on 





# 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