



Cornell University Cooperative Extension



PennState Extension

Crop Update April 4, 2019



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.



Core Pesticide Credit Training- 9:00am- 12:30pm-CLEREL, April 11, 2019 Register here: <u>Core Pesticide Training Registration</u>

DEC Pesticide Applicator License Test- CLEREL, April 11, 2019 contact the DEC-(716) 851-7220

In this Crop Update:

*Pesticide Class information *Lake Erie's Contribution to the Area Climate *Spotted Lantern Fly Spreading Distribution *2019 Coffee Pot Schedule







The Only FRAC Group U6 Fungicide

Labeled for Grapes & Cucurbits Highly Effective on Powdery Mildew No Cross-Resistance Protectant / Preventative Action



FRAC Group 3

Labeled for Grapes Controls Powdery Mildew, Black Rot, & Anthracnose Protectant + Curative Activity Highly Systemic

Badge SC Fungicide/Bactericide

High Quality Copper Excellent Mixing Characteristics Highly Active at Lower Rates Enhanced Crop Safety



Flexibility, versatility & a unique approach for your disease control program EPA registered with tolerance exemption

Dave Pieczarka 315.447.0560



IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Spotted Lanternfly Update

As temperatures warm up and the growing season approaches I want to take this opportunity to send out yet another reminder that, as an industry, we need to remain vigilant against the introduction of spotted lanternfly (SLF), an invasive planthopper, into our vineyards. Grapes, both cultivated and wild, appear to be one of this pest's favorite foods. Heather Leach, SLF coordinator for Penn State Extension, reports finding up to 400 adults per vine in vineyards within the quarantine zone in southeast PA. At our Lake Erie Regional Grape Growers Conference in March, Heather reported that feeding caused significant vine death in, at least, one vineyard and led to poor return bloom and crop loss in a number of others that experienced heavy feeding over the 2017 and 2018 growing seasons. We have continued to update the SLF distribution map over the winter. The big changes since I last shared the map in December 2018 is that Massachusetts has been added due to a SLF adult being found in a Poinsettia plant in Boston and Delaware has instituted an internal quarantine, by zip code in New Castle County. We have just heard from the New Jersey Department of Agriculture that SLF was found in five additional counties last summer; Cape May, Salem, Camden, Burlington and Somerset.

This information is particularly important to consider when you are purchasing anything that will be shipped in from out of state. Take the time to find out where your purchases will be shipped from. If it is originating from one of the counties that are currently within a quarantine zone – either an internal state quarantine, or the New York State external quarantine, take the time to work with the shipper to ensure no SLF is being transported along with the shipment. According to the New York quarantine, any regulated article entering New York from a quarantine area requires a certificate of inspection issued by the state where the shipment originated. Following are the items regulated by the NYS external quarantine.

- Any living life stage of the SLF.
- Brush, debris, bark, or yard waste.
- Landscaping, remodeling, or construction waste.
- Logs, stumps, or any tree parts.
- Firewood of any species.
- Packing materials, such as wood crates or boxes.
- All plants and plant parts, including but not limited to nursery stock, green lumber, fruit and produce and other material living, dead, cut, fallen (including stumps), roots, branches, mulch, and composted and uncomposted chips.
- Outdoor household articles, including, but not limited to, recreational vehicles, lawn tractors and mowers, mower decks, grills, grill and furniture covers, tarps, mobile homes, tile, stone, deck boards, mobile fire pits, and any equipment associated with these items, and trucks or vehicles not stored indoors.

• Any other article, commodity, item, or product that has or that is reasonably believed to be infested with or harboring SLF.

While there are some specific items mentioned above, you should take note of the last bulleted sentence which is actually a catch all category as anything coming out of a quarantine zone should be considered to have the ability to be infested or harboring SLF. Especially at this time of year where our concern is for overwintering egg masses, which can be laid anywhere. The SLF female will lay up to two egg masses each year with each egg mass containing between 30 – 50 eggs. It was reported early on that they preferred to lay their eggs on a hard smooth surface, but experience has shown that egg masses can be found on almost any surface from tree bark to rusted metal to outdoor furniture cushions. Females will lay their eggs on the underside of things so it is very important to inspect packing materials, pallets, etc. when you get a delivery. Females cover their egg masses with a putty like substance that starts out white, then turns pinkish-grey and then to a grey/tan appearance in about a week. As it weathers the covering starts to crack and the egg mass starts to resemble a splotch of mud, making identification that much more difficult.

Since we do not currently have this pest in our region, the best management strategy is to do our best to keep this pest from entering our area and becoming established. Learn how to properly identify all stages of SLF, know where your shipments are originating from, and continuously monitor for SLF - keeping in mind that they are excellent hitchhikers and move primarily through human activity.

Finally, if you see it, report it. In New York, take a photo and send it, along with location of the sighting to <u>spottedlanternfly@dec.ny.gov</u> In Pennsylvania, report SLF sighting by calling 1-888-4BADFLY (1-888-422-3359) or visit <u>https://extension.psu.edu/have-you-seen-a-spotted-lanternfly</u> In either case, if possible, capture and kill the SLF and keep the specimen for positive identification by regulatory personnel.

For more information on SLF visit the NYS IPM SLF webpage at; <u>https://nysipm.cornell.edu/</u> <u>environment/invasive-species-exotic-pests/spotted-lanternfly/</u> For more information on the NYS External quarantine you can find the press release at; <u>https://www.agriculture.ny.gov/AD/release.asp?ReleaseID=3821</u>





Spotted Lantern Fly Known Distribution Map from November 2018



Spotted Lantern Fly Known Distribution Map Update April 2019

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

How does Lake Erie influence our growing season?

There are approximately 30,000 acres of vineyards in the Lake Erie region of New York and Pennsylvania grown on 840 farms, making this the largest grape-growing region outside of California. Our grape belt is nestled between Lake Erie, our climate moderator, and the Allegheny Plateau, which traps the moderating effects.

Lake Erie is the driving force that creates the climate and weather conducive for growing grapes in our cool climate region. It influences the climate and weather by acting as a heat source and a heat sink, but what does that mean?

Lake Erie acts as a heat sink when it absorbs more heat than it is giving off. Conversely, it also acts as a heat source when the lake is giving off more heat than it is absorbing. So what, right?

Because the lake acts as a heat source during the winter, holding onto the heat accumulated as a sink from the summer and fall, air temperatures closer to the lake are more moderate than the air temperature inland. It is this climate buffering effect that moderates fewer temperature extremes in our Lake Erie Grape Region and provides ideal conditions for our industry with mild winters (for the most part) and warm growing seasons.

Here's how it works throughout the year as well as how it influences the grape belt region:

During the winter, the days are shorter with less radiation from the sun, generally making temperatures cooler. That means Lake Erie is warmer than the air. Then it becomes a heat source, giving the stored heat energy to the atmosphere throughout the winter. As the winter winds blow across the lake, the air warms up due to the lake releasing its heat, and warms our region. Until the lake freezes, its moisture creates snow to insulate the vines from the terribly cold temperatures of the north shore.

When spring finally arrives, the ice starts to melt and the water stays cool longer than the air and land do. Now the air passing over the lake cools off moderating cool temperatures in the Lake Erie Grape Region. This cooling prevents early bud break, pushing buds later when there is less chance of damage by frost, saving the crop from disaster.

Finally, when the long awaited summer temperatures arrive, Lake Erie's water temperature increases, storing up extra solar energy from the atmosphere, and acting as a heat sink throughout the summer. Then, during late summer and early fall, the warmed water of the lake warms the cool autumn air, extending the growing season, and protecting the mature fruit from damage by early frosts.

But even with the lake's influence, not every year is safe from extreme cold temperatures that may have devastating effects on our vines. These extreme temperature events can damage buds and vascular tissues; all vines have limits to their cold-hardiness. Hopefully, assessing your vine size and adjusting pruning techniques, have allowed you to leave additional buds to protect against extreme cold events.

The ice cover on Lake Erie has regulated our cooler weather over the past months and per NOAA's Great Lakes Environmental Research Laboratory, there is still more ice cover to date than 2018. However, the warmer temperatures and wind may prove useful to breaking the remaining ice up this week.

Our Lake Erie Grape Region did experience some extreme lows in January, so take a trip out into your vineyards and check bud mortality. Most of the pruning will have been done by now for Concords. There still might be some cold sensitive Vinifera that growers are leaving to prune at the last minute, but only those who have not pruned yet will really be able to compensate for the damage, if any. Take a look to see what you have now and then again at bud break. If there is a lot of damage, our LERGP Team can help come up with a management strategy more in line with your cropping levels.

The following are grape cultural practices when assessing bud damage:

- We consider 10% bud mortality to be 'normal', and that vines will compensate for anything < 20% bud injury (no adjustment needed).
- From 20-70%, we recommend leaving an equivalent amount of 'extra buds' to compensate.





Above 70%, we recommend only minimal pruning, with adjustments after budburst.

• Even when growers leave extra buds, yield will probably be lowered (i.e. if I leave 60 buds instead of 30 buds when 50% of buds are injured, I may get 70 or 80% of a normal crop, but not 100%).

• With over 50% bud injury, it's likely that growers will have to plan on renewing (replacing) trunks.

• We will not know how much the bud injury has affected the crop until sometime in late May to early June, after the vines have started growing. There may be trunk injury (harder to evaluate in the winter) and some injured vines may develop crown gall lesions and mid-season vine collapse if the trunk vascular tissue is injured.

The following URL is a brief tutorial on Bud Injury Testing: <u>https://grapesandwine.cals.cornell.edu/</u><u>extension/bud-hardiness-data/about/checking-bud-mortality-your-vineyard/</u>. You can also go to the Seasonal Bud Low Temperature Exotherms data tab on that same website to see 2018-2019 Bud Hardiness Data collected.

Sources

NOAA - Great Lakes Environmental Research Laboratory. April 3, 2019. <u>www.glerl.noaa.gov/res/glcfs</u>.

Teaching Great Lakes Science – Lessons & Data Sets. April 3, 2019. www.miseagrant.umich.edu.



LERGP **2019 COFFEE POT MEETING** SCHEDULE

Date	Time
May 1, 2019	10:00am
May 8, 2019	10:00am
May 15, 2019	10:00am
May 22, 2019	10:00am
May 29, 2019	10:00am
June 5, 2019	10:00am
June 12, 2019	10:00am
June 19, 2019	10:00am
June 26, 2019	
July 3, 2019	10:00am
July 10, 2019	10:00am
July 17, 2019	10:00am
July 24, 2019	10:00am
July 31, 2019	10:00am
9	

John Mason Farm **Sprague Farms** Paul Bencal Arrowhead Winery Militello Farm Supply North East Fruit Growers Kirk Hutchinson NO COFFEE POT Betts Farm

Location

Jim Vetter Trolley Line Vineyards Brian Chess

Tom Tower Farm

8603 West Lake Rd. Lake City PA 16423

Address

12435 Versailles Rd. Irving NY 14081 2645 Albright Rd. Ransomville NY 14131 12073 East Main Rd. North East PA 16428 2929 Route 39 Forestville NY 14062 2297 Klomp Rd. North East PA 16428 Thompson Ag - Corner of Hanover & Dennison Silver Creek NY 14136 4720 West Main St. Fredonia NY 14063

> 7366 East Route 20 Westfield NY 14787 12566 Versailles Rd. Irving NY 14081 11480 E. Main St. North East PA 16428 10289 West Main Rd. Ripley NY 14775 759 Lockport St. Youngstown NY 14174



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