SPOTTED LANTERNFLY

**Adult (with wings closed)** can be found July–December

**Nymph (early stage)** can be found late April–July

**Egg mass (fresh)** can be found October–December

**Adult (with wings open)** can be found July–December

**Nymph (late stage)** can be found July–September

**Egg mass (older)** can be found January–June

Spotted Lantern fly is still an issue. Do you know what to look for?

CROP UPDATE AUGUST 8, 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.
In this Crop Update:

- Cover Crop Season - Kevin Martin
- Grape Berry Moth/NEWA Update - Tim Weigle
Cover Crop Season

It is cover crop season. We’ve seen a number of trends this year in seed buying that I’d like to touch on. Growers are simplifying their seed blends and narrowing their goals for cover crops. When seed mixes get too complex, I think the natural reaction is to assume that species are in competition. While that can happen, most mixes have the potential to work better. This can work particularly well for increasing biomass production. There has been some research showing, in the right conditions, rye grass as a monoculture does outperform mixes for weed suppression. Growers switching to monocultures as a cost savings technique might be disappointed. Base monoculture grasses require high seed rates that can cost nearly as much as blends.

Nitrogen fixation

When organic matter is above 3%, nitrogen fixation can be helpful but should not be a primary goal. Nitrogen fixation only occurs when legumes cannot find adequate N in soil. Advertised recommendations for medium red clover indicate that an early August planting may fix 65 lbs. of nitrogen per grape acre. For grapes, this may be too much and its release may not be well timed. Medium red clover seeded at rates of 5 – 7 lbs per acre will provide supplemental nitrogen at more appropriate rates when terminated. By cutting the cost of legume seed by 65%, growers can continue to use urea, which will ensure ideal timing for 20 -25 lbs of actual N around bloom. Well managed legume cover crops can fix 1lb. of nitrogen for $.75. While that is nearly double the price of urea, it is more available and stable. Given the differences in cost, until we know more about the efficiency of uptake and bloom availability, it makes sense to supplement urea not replace it altogether.

Weed Control

While it’s hard to beat annual rye grass for weed control, other options do exist. Companion crops, such as oats or grain rye often provide moderate to excellent levels of weed control. At low rates these companion crops provide weed control in row middles at least as good, if not better than two applications of round-up. Due to timing issues, typically, only one application of round-up is saved. While trips through the vineyard are not saved, the quality of the weed control is superior.

Annual ryegrass outperformed grain rye and oats in trials so far. A rate of 4 – 9 pounds per grape acre would be appropriate depending on other seeds in the mix. Seed cost would range from $8 - $16 per grape acre. In addition to weed control, a companion crop would enhance the performance of other seeds and prevent erosion (particularly during harvest).

We haven’t had much experience yet, but the growth pattern of berseem clover is supposed to aid in weed suppression. Like crimson clover, over wintering is questionable. This does limit the value of the clover, but aids in ease of termination.

Erosion Control

Erosion control is often the primary concern of conservation programs. The environmental costs of erosion are high. Costs of erosion shouldered by growers are specific to sites, practices and weather. On most sites, in most years, erosion and field disturbance is not severe enough to justify a cover crop. Flooding or wet soil can require significant rehabilitation efforts in wet years. These costs can easily result in 3-5 days of labor and tractor work for a small 10-acre block. Erosion control, for most growers, is just an added bonus.

Barley, Cereal Rye, Sorghum and Cowpea are the highest rated choices for control. Cereal Rye is one of a number of companion crops often used in vineyards. If erosion is a severe problem, one might start to favor cereal rye for that block. Annual Ryegrass, oats, wheat and radish are all very
good at erosion control. Since most growers are not necessarily focused on erosion, a very good rating opens up the possibilities of nearly all companion crops commonly used in vineyards.

If wet weather resulted in medium to heavy tillage in the last 6-12 months erosion control going into a potentially wet fall and late harvest might make a lot of sense.

**Managing Water Status**

For growers that get the basics right, vine size is still driven by water status. In the east, this is typically outside of the control of the growers. Where drainage can be installed it usually is. Well drained soils are generally more productive and often profitable. Cover crops offer another tool, one that is badly needed as rainfall can manipulate production and vine size dramatically.

Theoretically, higher quality soils will be more resilient to excess and deficient rainfall, increasing productivity in unusually dry and wet years. We have already started to see cover crops influence vine size prior to quantifiable changes in soil health. Benefits of enhancing vine size significantly outweigh the costs of cover crop. With one notable exception, vine size improved significantly across all treatments, with all seed mixes. Improvements in smaller vines were most notable, thus variability within a block was somewhat reduced.

There are lots of reasons to use cover crops beyond these goals. For most grape acres I’d like to continue to see 3-4 species. A grass or grain blended with a legume and radish is a pretty standard mix that allows species to work together to ensure a good establishment and inexpensive seed rates. Buckwheat can be added optionally but should probably be seeded at very low rates. If seeding at low to medium rates, legume cost should be decreased, as the risk of lower performance may become an issue. In well drained soils, cover crops provided significant and unwanted competition in a dry year. I like to think of this as a starting point for a diverse mix. As goals, needs and soil conditions change there are plenty of ways to modify this mix. With an overwhelming number of options, vineyard managers just need a place to start.
Grape Berry Moth

If you have visited the NEWA website http://newa.cornell.edu today you may have noticed that a number of stations have not reported data since yesterday, August 7. This appears to be a widespread problem across the network of instruments. The folks at NEWA are working with Rainwise to correct the problem. So take the results of this week’s table with a grain of salt as most of the results are not coming from stations, rather it is being generated from forecasts. The good news is that we are still a ways away from the timing for the next insecticide application (1620 DD). Looking at the forecasted temperatures, it looks like most areas will be hitting 1620 DD toward the end of next week. Scouting is important to see if vineyard blocks are at, or above, the economic threshold of 15% damaged clusters. Prepare to scout all vineyard blocks for grape berry moth damage when the model reports DD between 1470 and 1620. Keep checking the NEWA website for the most current information from the model. Remember to type in the wild grape bloom date from your area each time you visit to get the best information out of the model.

I will be out of the office next Thursday at the NYS IPM Program’s Spotted Lanternfly conference in Binghamton, NY (see the flyer later in this Crop Update). While the meeting agenda is packed with experts on pest biology, regulation, research and extension, I know many of you are looking for pesticide recertification credits. This meeting has received 6 NYS Pesticide recertification credits and Pennsylvania has given 6 – 10 credits for this meeting depending on category.

Rainwise Servers are Down

According to the NEWA blog, Rainwise Inc. has been experiencing a complete server outage since 5PM EST Wed August 7, 2019. You can check the NEWA blog http://blogs.cornell.edu/yourenewa/2019/ for regular updates. Or you can follow Rainwise, Inc. on Twitter @RainwiseNet for immediate updates or @yourNEWA where they will be reposted.
<table>
<thead>
<tr>
<th>NEWA Location</th>
<th>Wild grape bloom date*</th>
<th>DD Total on August 8, 2019</th>
<th>Forecasted DD for August 13, 2019</th>
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<tr>
<td>Corwin</td>
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* Estimated date provided by NEWA website

Table 1. Phenology-based Degree Day model results for Grape Berry Moth by NEWA station location in the Lake Erie Region on August 8, 2019.
Spotted Lanternfly: At Our Doorstep or Already in Our Fields?

It’s not if but when and where this invasive pest will show up in NYS. Be on the front line of stopping the invasion! Learn where to look and how to correctly identify and report sightings of all Spotted Lanternfly life stages.

Spotted Lanternfly is a concern to: Growers; Foresters; Nursery, Greenhouse and Christmas Tree Operations; Landscapers, Master Gardeners and all NYS residents. In fact, anyone whose business or travel takes them through quarantine zones should understand New York State’s regulations.

August 15, 2019
8:30 am - 4:30 pm
Statewide Public Conference
Broome County Regional Farmers Market
840 Upper Front St., Binghamton NY

Experts from across PA and NY will provide updates on what is being done to prevent SLF’s establishment in New York and tools available to combat this threat to our fields, forests and homes.

Register at: lergp.cce.cornell.edu/event.php?id=416

More information: tinyurl.com/y39aeemh

This conference has been approved for 7.5 Certified Nursery Landscape Professional credits, and 6 NYS Pesticide Recertification credits in the categories of 1a, 2, 3a, 6a, 9, 10, 22 and 25.
FROM JUICE TO WINE... AND EVERYTHING INBETWEEN

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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
- Chautauqua
- Erie
- Niagara
- Ontario
- Schuyler
- Seneca
- Steuben
- Suffolk
- Ulster
- Wayne
- Yates

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

NYS Grape Crop Insurance

<table>
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<tr>
<th>Year</th>
<th>Producer Premium</th>
<th>Losses Paid</th>
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<tr>
<td>2012</td>
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<td>2013</td>
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<tr>
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<tr>
<td>2016</td>
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<td>$5 million</td>
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</table>

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.