

SPOTTED LANTERNFLY



The Spotted Lanternfly, *Lycorma delicatula* (White), an invasive planthopper, has been discovered in Berks County, Pennsylvania. It is native to China, India, Vietnam, and introduced to Korea where it has become a major pest. This insect has the potential to greatly impact the grape, hops and logging industries. Early detection is vital for the protection of Pennsylvania businesses and agriculture.

If you live outside of the current (quarantine area) in Pennsylvania and find a spotted lanternfly, report it! Use this interactive [Plant Pest Quarantine Search](#) to see if you're in the spotted lanternfly quarantine area.

Identification:

The Spotted Lanternfly adult is approximately 1" long and 1/2" wide at rest. The forewing is grey with black spots and the wings tips are reticulated black blocks outlined in grey. The hind wings have contrasting patches of red and black with a white band. The legs and head are black; the abdomen is yellow with broad black bands. Immature stages are black with white spots, and develop red patches as they grow.

Signs & Symptoms:

Trees, such as tree of heaven and willow, will develop weeping wounds. These wounds will leave a greyish or black trail along the trunk. This sap will attract other insects to feed, notably wasps and ants. In late fall, adults will lay egg masses on host trees and nearby smooth surfaces like stone, outdoor furniture, vehicles, and structures. Newly laid egg masses have a grey mud-like covering which can take on a dry cracked appearance over time. Old egg masses appear as rows of 30-50 brownish seed-like deposits in 4-7 columns on the trunk, roughly an inch long.

What to do:

If you see egg masses, scrape them off, double bag them and throw them away. You can also place the eggs into alcohol or hand sanitizer to kill them. Please [report all destroyed egg masses](#) on our website.

Collect a specimen: Specimens of any life stage can be turned in to the Pennsylvania Department of Agriculture's Entomology lab for verification. Submit samples with the [Entomology Program Sample Submission Form](#).

Take a picture: A photograph of any life stage (including egg masses) can be submitted to Badbug@pa.gov.

Report a site: If you can't take a specimen or photograph, call the Automated Invasive Species Report Line at 1-866-253-7189 and leave a message detailing your sighting and contact information.

PA Agriculture Department Adds Seven Counties to Spotted Lanternfly Quarantine Zone

Change from municipal to county-level quarantines intended to protect at-risk areas; Residents urged to 'Look Before You Leave' to avoid spreading destructive pests

Harrisburg, PA - The Pennsylvania Department of Agriculture announced today that it has expanded the areas quarantined due to Spotted Lanternfly, but unlike past quarantine expansions, is now applying the designation at the county level in order to provide an additional level of protection. Previously, quarantines were imposed only at the municipal level.

Prior to today's expansion, the quarantine covered municipalities in Berks, Bucks, Chester, Lehigh, Montgomery, and Northampton counties. As part of a strategic effort to contain the insect's spread, the department expanded the quarantine countywide in those six counties, and today added Carbon, Delaware, Lancaster, Lebanon, Monroe, Philadelphia, and Schuylkill counties. The quarantine now includes areas where the insect is not yet confirmed, but where there is a high risk of its rapid spread beyond the region.

"Eradicating the Spotted Lanternfly is important not only for our citizens, but for our economy, as well," said Agriculture Secretary Russell Redding. "This invasive insect threatens to destroy \$18 billion worth of agricultural commodities here like apples, grapes and hardwoods, inflicting a devastating impact on the livelihoods of our producers and businesses. It's also undermining the quality of life for Pennsylvanians who are coping with hoards found in many infested areas"

With the expanded quarantine zone, seasonal changes, and the insect's life-cycle, the department has shifted its control strategies, enlisting additional support from local, state, and federal agencies and universities. During summer months, control efforts focused on eliminating insects and *Ailanthus* trees, or the Tree of Heaven, where the Spotted Lanternflies prefer to breed and feed. Work crews continue to concentrate on areas that pose the greatest risk for transporting insects, such as railway beds, interstates, and other transportation corridors where the *Ailanthus* tree grows.

Last month, Redding addressed a joint hearing about the pest of the Senate and House Agriculture and Rural Affairs committees. He also wrote U.S. Secretary of Agriculture Sonny Perdue to request additional federal support. The department received \$2.9 million from the U.S. Department of Agriculture this year to control the insect and \$25,000 for outreach efforts. USDA has also contributed personnel at no expense to the state. The state Agriculture department has requested \$10 to \$12 million in additional federal support to address the expanding problem. The department also spearheaded a multi-agency response plan with the state departments of Transportation and Conservation and Natural Resources.

"Three years into this infestation, we've been successful at keeping the Spotted Lanternfly solely a 'Pennsylvania problem' thanks to our cooperative federal and state containment efforts," said Redding, "but it is becoming apparent that we must bring more resources to bear if we want to eradicate this pest. It's also going to take the cooperation and support of the public."

The state is asking the public and those traveling through quarantined counties to:

- Scrape egg masses from trees or other surfaces, double bag them, and throw them in the garbage, or place the eggs in alcohol or hand sanitizer to kill them. Egg masses, which are laid in the fall, are initially waxy-looking, grey-brown blobs, and later look like dried mud. Each egg mass contains 35-50 young Spotted Lanternflies.
- Check vehicles for egg masses before leaving an infested area.
- Buy firewood locally. Do not take it with you when you leave.
- Check lawn furniture, wood products, construction materials, tarps, lawnmowers, trailers and other items stored outdoors before bringing them in for the winter, covering them or moving them.
- Do not transport brush, yard waste, remodeling or construction waste outside quarantined areas.

Anyone who finds the insects or egg masses **outside** quarantined areas should report sightings to badbug@pa.gov. Include photos, if possible, to help confirm the sighting. Suspect specimens can be submitted to the department's headquarters in Harrisburg or to any of its six regional offices. Specimens also can be submitted to [county Penn State Extension offices](#). Do not submit live specimens. You may also call the Invasive Species Report Line at 1-866-253-7189. Please provide details, including the location of the sighting, and your contact information. Calls may not be returned immediately, as call volume is high.

Businesses that move goods can also play a role. Companies in quarantined areas must obtain a Phytosanitary Certificate or compliance agreement from the department to move articles outside the area. Those moving materials within a quarantined county need a permit to help ensure egg masses or insects are not spread beyond already-infested areas. Businesses should contact [a Pennsylvania Department of Agriculture regional office](#) to ensure that they are complying with quarantine restrictions and not spreading insects or eggs.

“We’ve overcome invasive pests in the past, and I know we can do it again, but that’s going to take an all-hands-on-deck approach,” Redding said. “For the sake of our agriculture and export industries, it’s something we must do. The more this pest spreads through Pennsylvania, the more susceptible we are to trade restrictions. That is something we simply cannot afford.”

The Spotted Lanternfly is an inch-long black, red and white spotted insect native to southeast Asia. An invasive species in South Korea, it has attacked 25 plant species there that also grow in Pennsylvania. It spread throughout that country, which is roughly the size of Pennsylvania, within three years. The pest had not been seen in the United States prior to the fall of 2014, when it was found in Berks County.

Find [more information on Spotted Lanternfly and what you can do to control its spread](#) here.

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Time to use management practices

SPOTTED LANTERNFLY MANAGEMENT CALENDAR

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Destroy egg masses												
Destroy most <i>Ailanthus altissima</i> trees ¹												
Treat most <i>Ailanthus</i> trees with herbicide ^{2,3}												
Use sticky bands to destroy nymphs												
Treat <i>Ailanthus</i> trap trees with systemic insecticides ³												
Registered contact insecticides may be effective ³												
Avoid moving gravid (fertilized) females ⁴												
Avoid moving viable egg masses ⁴												

PEDDOMINANT LIFE STAGE PRESENT - (one generation per year in Pennsylvania in 2015 and 2016)

eggs												
nymphs												
adults												

¹ Destroying all *Ailanthus* trees (Tree of Heaven) may result in spotted lanternfly moving to surrounding plants and increase the pest pressure on them. It is recommended about 10% of *Ailanthus* trees are left alive to serve as trap trees to attract the spotted lanternflies. Leave only male trees if possible.

² *Ailanthus* trees will re-sprout vigorously from cut stumps and roots, unless they are treated with a systemic herbicide. Repeat applications of herbicide may be necessary.

³ ALWAYS READ HERBICIDE AND INSECTICIDE LABELS AND FOLLOW THE DIRECTIONS

⁴ Before you move outdoor items from the quarantine area, check for spotted lanternfly egg masses, adults, and nymphs and destroy them.

People are looking for specific approaches to pest management to minimize off-target exposure to pesticides. This type of strategy is known as Integrated Pest Management (IPM). The Pennsylvania Department of Agriculture (PDA) has been using an IPM strategy for spotted lanternfly infestations, and landowners may consider using the same IPM strategy on their properties, or hiring a professional service to do it.

IPM Strategy for the Spotted Lanternfly:

1. Locate *Ailanthus altissima* trees on the site. For reasons not understood, spotted lanternfly seem to prefer some individual *Ailanthus altissima* trees over others. Try to identify the specific *Ailanthus* trees that are most attractive to the insects, based on how many are feeding on them. For information on how to identify *Ailanthus altissima* and how to control it, see this fact sheet: <https://pubs.ext.vt.edu/420/420-322/420-322.html>.
2. Destroy approximately 90% of the *Ailanthus altissima* trees, leaving only a few that are most attractive to the insect. They will serve as "trap" trees. It is recommended that you try to kill all the female *Ailanthus altissima* trees, because they produce seed and contribute to the spread of this invasive tree.

Be careful handling *Ailanthus altissima* wood, leaves, and branches. Chemicals in the sap of this tree can cause headaches, nausea, and possible heart problems. Wear gloves and protect yourself from exposure.

When you cut down *Ailanthus altissima* trees, they will sprout profusely from the stumps and can grow back in a few years. Because they regenerate so easily, it is highly recommended that you treat the stumps with a herbicide to kill them and prevent them from sprouting new shoots.

Herbicides that are labelled for this use usually contain one of the following active ingredients: triclopyr, dicamba, imazapyr or glyphosate. Use the herbicide carefully and according to the label directions. Alternative methods for using herbicides to kill *Ailanthus altissima* trees include foliar sprays, basal bark applications, and a method called frill application or "hack and squirt." For more information about these methods go to <http://extension.psu.edu/publications/uh174>. Whatever method you choose, remember that you will have dead *Ailanthus* trees which may eventually have to be removed.

3. Treat the remaining *Ailanthus altissima* trees with a systemic insecticide that will move throughout the tree. The insecticide must be applied according to the label and at the right time of year for the trees to absorb it. When spotted lanternflies feed on correctly treated trees, they will die. Systemic insecticides that are labelled to treat ornamental trees usually contain the active ingredients dinotefuran or imidacloprid. The PDA is using dinotefuran in their IPM strategy.

Treating only a few trap trees with a systemic product can reduce the amount of insecticide released into the environment and may help conserve beneficial insects.

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This publication is available in alternative media on request.

Quarantine Zone Delimitation Survey

From 10/15 Through 12 September 2017

