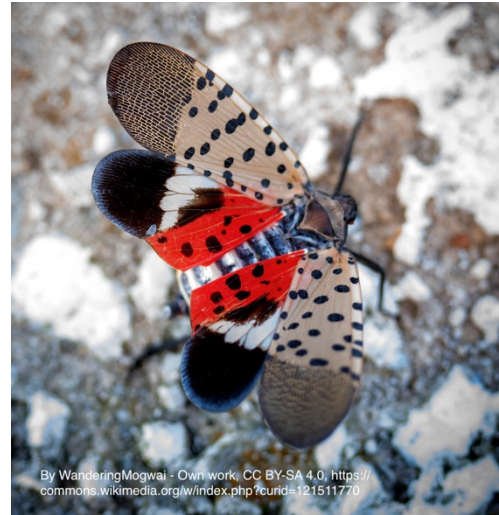




# Crop Pest

## Spotted Lanternfly

*Lycorma delicatula*



### Description

The Spotted Lanternfly (SLF) is an invasive pest native to Asia. It was first found in Pennsylvania in September 2014. Spotted Lanternfly feeds on a wide range of fruit, ornamental and woody trees. SLF is considered a plant stressor and may contribute to the long-term weakening of established plants and trees. It is currently considered to be a nuisance pest in residential landscapes. They feed on sap through a straw-like mouth part and produce an excrement called honeydew. This is colonized by a sooty mold which decreases photosynthesis and can stain objects below.

### Target Crops

SLF targets Tree of Heaven (*Ailanthus altissima*), apples, hops, walnuts, hardwood trees and is a significant pest of grapes. The nymphs will also feed on vegetable, fruit, and herb plants. They generally do not feed on conifers but will lay their eggs on them. SLF nymphs generally feed on herbaceous plants for less than one week then move on.

### Life Cycle



Eggs are laid in the fall and hatch in the spring. Egg masses are laid on the surfaces of trees, decks, houses, outdoor equipment, rocks, etc., and are protected with a mud-like covering. Each egg mass contains an average of 35 eggs. After hatching and before reaching adulthood, SLF goes through four nymphal stages. The first three instars are black with white spots. The last, fourth, instar is red with white dots and black stripes and are about ½" long. SLF nymphs and adults are strong jumpers. They produce one generation a year in Pennsylvania. Climate, host plants and natural enemies will influence the distribution and population size of SLF in the future.

### Biological Controls

Currently, there are no known natural enemies of SLF that are expected to significantly reduce SLF populations in the United States. Some generalist predators (spiders, praying mantises, parasitoids, birds, etc.) will attack and eat SLF.

### Insecticide Options- Use in rotation for best results.

For a quick knockdown, use [Pyganic](#) with Pyrethrin for an organic adulticide. [AzaGuard](#), [Molt-X](#), and [Azatin O](#) can also be used for SLF management. Mycoinsecticides containing entomopathogenic fungal spores work well. These include [Botanigard](#), [Mycotrol](#), [NoFly](#) and [PFR 97](#). [Horticultural oils](#) and [insecticidal soaps](#) are also effective on both nymphs and adults.

## Stop the Spread

Penn State Extension suggests “If you are in the known range of SLF, do your part to prevent moving them farther. If you find SLF and are outside the known range, you should take a picture of them or collect some samples for evidence, destroy them if you can, and report your findings on the [SLF website](#). When you travel within and out of the quarantine zone, check your vehicle and outdoor items (grills, outdoor furniture, landscaping supplies, mowers, etc.). Check for SLF egg masses from fall to summer.

Remember, egg masses may be underneath your vehicle or in your wheel well. During the growing season, check for nymphs and adults, and keep your windows rolled up when you park. Don’t store things or park under infested trees, and don’t move firewood.”

## Cultural Control Tips

Before you attempt control, it’s important to consider the following. The number of SLF present, whether they are on a preferred host plant, where they are likely to remain, or on a plant they will move away from shortly, the size and health of the plant, the presence or absence of preferred host plants in the landscape and the life stage of SLF present.

- Identify and possibly remove preferred host plants
- Finding and destroying SLF eggs
- Using traps
- Predict the egg hatch by using the [Penn State Spotted Lanternfly Hatch Map](#)



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## Sources

[Penn State Spotted Lanternfly Management Guide](#)

[Getting Ready for Spotted Lanternfly in 2024](#)

[StopSLF.org](#)



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