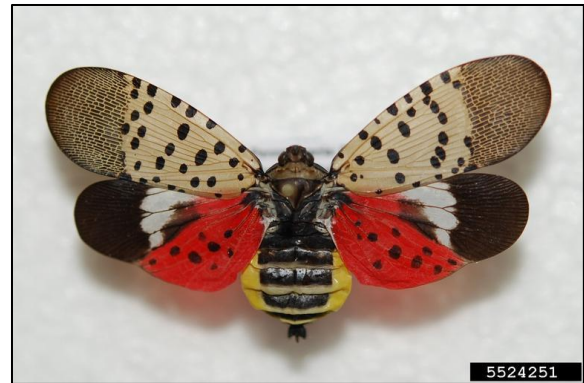


The Spotted Lanternfly (*Lycorma delicatula*)

The Spotted Lanternfly (SLF) is an invasive planthopper native to China, India and Vietnam. It was first detected in Pennsylvania in September 2014. This insect has the potential to greatly impact agricultural crops. It feeds on a wide range of fruit, ornamental and woody trees, with Tree of Heaven (*Ailanthus altissima*) being one of the preferred hosts. The Spotted Lanternfly can be transported long distances by people who move infested material or items containing egg masses. If allowed to spread in the United States, this pest could seriously impact the country's grape, orchard, and logging industries.

Description

Adults are ~1" in length with brown colored forewings with black spots and red hindwings. Immature nymphs are black with white spots and gain red markings as they mature. Eggs are brown and are covered in a gray secretion.



Spotted Lanternfly adults (top). Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org



Spotted Lanternfly immatures (left) Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org

Life Cycle

Eggs hatch into nymphs in late spring (May). Nymphs ascend trees to feed on leaves and branches. They frequently fall due to environmental conditions (wind, rain), and will ascend the tree again. The nymphs have four instars and develop into adults in mid-summer (July). Adults then mate, lay eggs in late summer, and die in late fall. These insects overwinter as eggs. Feeding takes place from May – November. There is one generation per year.

Damage

This pest has been detected on numerous host plants, including many agricultural crops, such as wild and cultivated grapes, stone fruits (plums, cherries, peaches, nectarines, apricots, and almonds), apple, willow, pine and various hardwoods. The Spotted Lanternfly will change hosts as it develops. Nymphs feed on a wide range of plant species, while adults prefer to feed and lay eggs on Tree of Heaven.



Spotted Lanternfly egg clusters on tree (left)
Kenneth R. Law, USDA APHIS PPQ, Bugwood.org



Tree of Heaven (above) Donna Ellis, UConn, IPM Extension

Tree of Heaven is an invasive plant that can rapidly grow up to 80 ft. in height and 6 ft. in diameter. Foliage is one of the best identifying characteristics for this species. The leaves are pinnately compound and 1-4 ft. in length with 10-41 leaflets. This species resembles native sumac and hickory species, but it is easily distinguished by the notched base on each leaflet. For more information:

<https://extension.psu.edu/tree-of-heaven>

Spotted Lanternfly nymphs and adults feed by piercing plants with their mouthparts and withdrawing nutrients. The loss of sap from stems and leaves reduces photosynthesis. In addition, large amounts of honeydew are excreted by the plant which provides a medium for the growth of fungi. Sooty mold is often found covering leaf surfaces and will stunt plant growth. Honeydew also attracts other insects such as wasps and ants. Plants with heavy infestations may not survive.

Signs and Symptoms

- Muddy-grey egg masses on or around host trees until eggs hatch in late spring.
- Dark streaks or sap flowing down the bark of the tree.
- Honeydew secretions at the base of a host tree can become covered in a sooty-colored mold.
- Increased bee, wasp and ant activity due to exposed sap and honeydew.
- Adult insects congregating on host trees (especially *Ailanthus*) in the fall.



Integrated Pest Management Program

Plant Science and Landscape Architecture Extension

Where to Look

Spotted lanternfly adults and nymphs frequently gather in large numbers on host plants. The insects are easiest to spot at dusk or at night as they migrate up and down the trunk of the plant. During the day, they tend to cluster near the base of the plant if there is adequate cover or in the canopy, making them more difficult to see. Egg masses can be found on smooth surfaces on the trunks of host plants including brick, stone, and dead plants.

Distribution and Spread

Since first being discovered in Pennsylvania, the Spotted Lanternfly has been found in New York, New Jersey, Maryland, Delaware and Virginia. In 2018, a single dead adult was found at a private residence in Connecticut. The insect appeared to have been a hitch hiker that was likely transported on a vehicle from Pennsylvania. No other Spotted Lanternflies were found on the property. The public is urged to report potential sightings of this invasive pest to CAES.StateEntomologist@ct.gov. Submission of a photograph with any report is encouraged.

Please click on the link below for more information and a submission form:

https://www.ct.gov/caes/lib/caes/documents/publications/pest_alerts/3-22-18_spotted_lanternfly_pest_alert_ct.pdf

References

USDA, APHIS Pest Alert. Spotted Lanternfly

https://www.aphis.usda.gov/publications/plant_health/2014/alert_spotted_lanternfly.pdf

Spotted Lanternfly, USDA, APHIS webpage – Spotted Lanternfly

<https://www.aphis.usda.gov/aphis/resources/pests-diseases/hungry-pests/slf/spotted-lanternfly>

Pennsylvania Department of Agriculture website – Spotted Lanternfly

https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/Pages/default.aspx

Connecticut Agricultural Experiment Station – Pest Alert, Spotted Lanternfly

https://www.ct.gov/caes/lib/caes/documents/publications/pest_alerts/3-22-18_spotted_lanternfly_pest_alert_ct.pdf

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