

INVASIVE SPECIES & EXOTIC PESTS

Spotted Lanternfly *Lycorma delicatula*

Juliet Carroll and Nicole Mattoon, New York State Integrated Pest Management Program, Cornell University

The spotted lanternfly, also known as Chinese blistering cicada, is a plant hopper native to China and Southeastern Asia. Discovered in Pennsylvania in 2014, the spotted lanternfly presents a threat to both woody and non-woody hosts that are present throughout the United States. While their list of hosts is large, the greatest agricultural concern falls on grapes, apples, and stone fruits. Effort is underway to try to eradicate this insect in Pennsylvania.

Concern

Due to the fact that this insect has already been found in the United States, there is great concern about its effect on vineyard, orchard, and forest industries. Its presence could lead to crop loss and increased management costs. Spotted lanternfly eggs are laid on any smooth surface, including plants, trunks, stones, and bricks. Because of this, egg masses may be spread unknowingly. Spotted lanternfly nymphs are able to feed on many hosts, while adults prefer Tree of Heaven (*Ailanthus altissima*) and grapevine (*Vitis vinifera*).

Description

Spotted lanternfly adults are very colorful when their wings are displayed during hopping. They have red hind wings with black spots, have a black head, and a yellow abdomen with black bands. Their grayish forewings have black spots with a distinctive black brick-like pattern on the tips. There is one generation per year, with adults developing in July, laying eggs in September, and overwintering as eggs. Each egg mass contains 30-50 eggs that are covered in a waxy brown substance. The first nymphs to develop are wingless, black, and have white spots, while the final nymph stage turns red before



Spotted lanternfly egg mass. Photo: Holly Raguza, Bugwood.org.



The final nymph stage of the spotted lanternfly, shown on a branch, is distinctively colored. Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org.



becoming adults. Adult males are slightly smaller than the inch-long females, but are almost identical in appearance. Adults and nymphs commonly gather in large numbers on host plants to feed, and are easiest to see at dusk or at night.

Damage

This plant hopper is able to feed using specialized mouth parts that can pierce the plant and suck up sap. Both nymphs and adults feed this way, on leaves, stems, and trunks. Piercing the plant's tissues and feeding on the sap weakens the plant, causing it to ooze and weep, which may result in a fermenting odor and a gray/black trail on the bark. Spotted lanternflies also excrete honeydew while feeding, which overtime may encourage the growth of sooty mold if infestation levels are high. The presence of the fermenting odor and honeydew may also attract other insects.

For More Information

Pest Alert: Spotted Lanternfly. 2014. USDA-Animal and Plant Health Inspection Service: Plant Protection and Quarantine. https://www.aphis.usda.gov/publications/plant_health/2014/alert_spotted_lanternfly.pdf

Pest Alert: Spotted Lanternfly. 2015. Lawrence Barringer, Pennsylvania Department of Agriculture. http://www.agriculture.pa.gov/Protect/PlantIndustry/spotted_lanternfly/Documents/Lycorma%20delicatul%20Pest%20Alert%2002-09-2015.pdf



Spotted lanternfly adult at rest on a branch. Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org.



Collected spotted lanternfly adult with wings spread. Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org.



<http://hdl.handle.net/1813/43943>