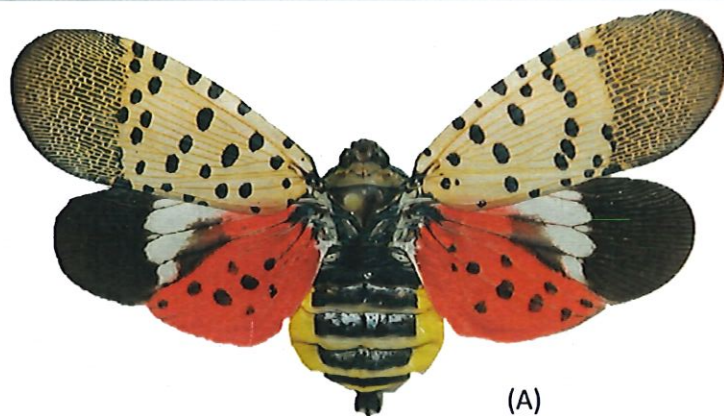


Pest Alert

Spotted Lanternfly

Lycorma delicatula (WHITE)
(Hemiptera: Fulgoridae)

The spotted lanternfly, *Lycorma delicatula* (White), an invasive planthopper, was first discovered on September 22, 2014 in eastern Berks County, Pennsylvania. It is native to China, India, Vietnam, and was unintentionally introduced to Korea where it has become a major pest. This insect prefers to attack tree of heaven, but it will feed on many other host plants including grapes, apples, stone fruits, and has the potential to greatly impact the grape, fruit tree, and forest products industries. Early detection is vital for the protection of Pennsylvania businesses and agriculture.



(A)



(B)



(C)



(D)



(E)



(F)



(G)



(H)



(I)

(A) Spotted lanternfly adult showing the forewings and hind wings (B) Adults at rest on bark (C) Lateral view of an adult (D) 1st instar nymph (E) 4th instar nymph (F) Adult feeding on wild grape, *Vitis* sp. (G) Weeping sap trail on bark (H) Egg mass (oothecum) covered in coating (I) Old hatched egg mass on tree trunk.

Identification:

The spotted lanternfly adult is approximately 1" long and 1/2" wide at rest. The forewing is gray with black spots and the wing tips are reticulated black blocks outlined in gray (A, B, C). The hind wings have contrasting patches of red and black with a white band (A). The legs and head are black; the abdomen is yellow with broad black bands. Young nymphs are black with white spots, and in the last (4th) instar develop red patches (D, E).

Hosts:

In the fall, adults congregate on tree of heaven (*Ailanthus altissima*), willows (*Salix* spp.), and other trees in groups of up to 20. Egg masses are laid on the trunk and branches of medium to large trees. After hatching in the spring, nymphs will move off the tree and search out new hosts, including several kinds of agricultural crops. In Korea, it has been reported to attack 65 different tree species, 25+ of which are known to grow in Pennsylvania.

Symptoms and Signs:

Trees, such as tree of heaven and willow, will develop weeping wounds. These wounds will leave a grayish or black trail along the trunk (G). 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 other structures. Newly laid egg masses have a gray mud-like covering that can take on a dry cracked appearance over time (H). Old egg masses appear as rows of 30-50 brownish seed-like deposits in 4-7 columns on the trunk, roughly an inch long (I).

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 listed below.

Collect a specimen: Specimens of any life stage may be submitted to the Pennsylvania Department of Agriculture's Entomology Lab for verification. Directions for submission are on the reverse side of this alert.

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 1-866-253-7189 and leave a message detailing your sighting and contact information.



ENTOMOLOGY PROGRAM SAMPLE SUBMISSION FORM

*The Entomology Program at the Pennsylvania Department of Agriculture can provide identification.
Please complete this form to be submitted with the specimen(s).*

SPECIMEN COLLECTION REQUIREMENTS:

1. All specimens should be dead.
2. Most specimens should be placed in 70-80% ethyl or isopropyl alcohol in a leak proof vial.
(Moths, butterflies, and mealybugs should be frozen and placed in a hard plastic container with dry paper toweling)
3. The leak proof vial should be placed in a zip-style plastic bag.
4. Specimens from different locations (if applicable) should be placed in different vials.
5. A completed sample submission form must accompany the vial/container.

REQUIRED INFORMATION:

Name of Submitter: _____

Contact Information: Telephone: _____

Email: _____

Address Where Specimen Was Collected: _____

Date Collected: _____

Plant Host/Habitat: _____

Name of Person Who Collected Specimen: _____

Comments/Special Instruction: _____

Mail the vial/container and completed form or deliver in person to:

Pennsylvania Department of Agriculture
Entomology - Room 111
2301 North Cameron Street
Harrisburg, PA 17110

Contact: Sven-Erik Spichiger at 717-772-5229 or Lawrence Barringer at 717-772-5228

Dealing with spotted lanternfly



As we move into spring and summer, you may begin to notice spotted lanternflies around your home. Spotted lanternflies are invasive insects impacting communities around southeastern Pennsylvania and pose a serious threat to agriculture and our state's economy. You can help stop the spread of this destructive insect by scraping eggs, removing favored breeding grounds and using chemical control when appropriate.

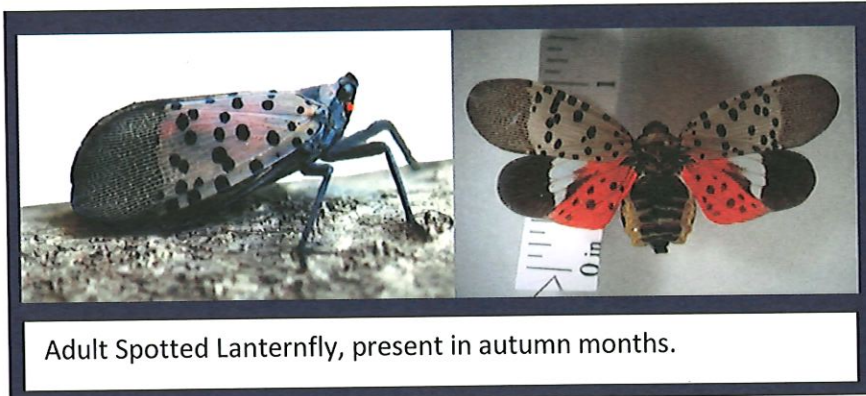
To learn more or to report a sighting, you can call the Penn State Extension office at 1-888-422-3359 or visit their website at extension.psu.edu/spotted-lanternfly.

Checklist for Residents

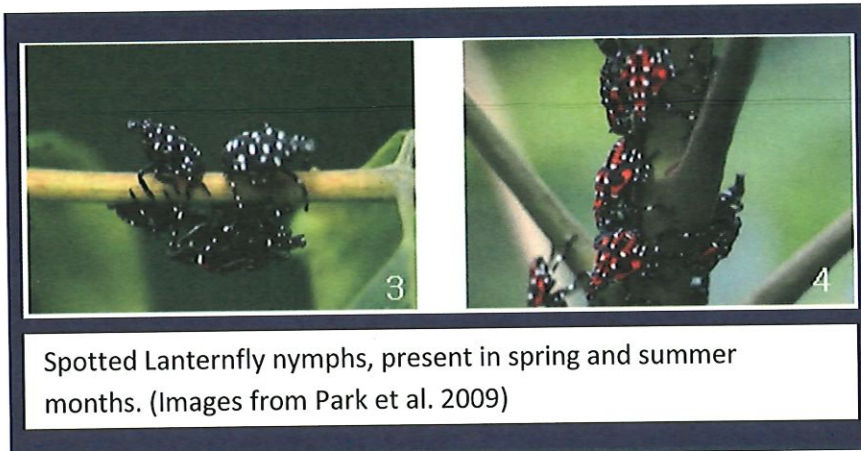
Living in Spotted Lanternfly Quarantine Areas

IMPORTANT: Before you move outdoor items from the quarantine area, check for spotted lanternfly egg masses, adults, and nymphs. Make sure all items are pest free before you move them. Help keep this pest from spreading.

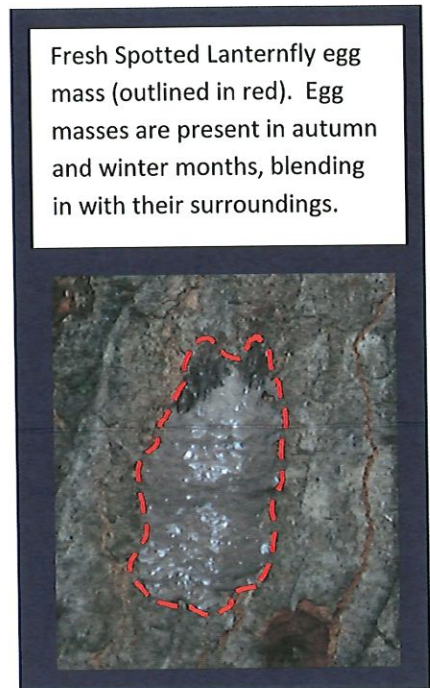
If you find any of these life stages of the Spotted Lanternfly, remove, devitalize, place in a sealed bag, and dispose of bag in the garbage.



Adult Spotted Lanternfly, present in autumn months.



Spotted Lanternfly nymphs, present in spring and summer months. (Images from Park et al. 2009)



Fresh Spotted Lanternfly egg mass (outlined in red). Egg masses are present in autumn and winter months, blending in with their surroundings.

By signing this checklist, I am confirming that I have inspected my vehicle and those items I am moving from the Spotted Lanternfly quarantine area, and do not see any egg masses or insects in or on anything I am moving.

Signature _____ Address _____ Date _____

Please sign, date, and keep this checklist in your vehicle with you – use it each time you need it.

For more information, visit the Pennsylvania Department of Agriculture website:

www.pda.state.pa.us/spottedlanternfly

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DEPARTMENT OF AGRICULTURE

Checklist for Residents

Living in Spotted Lanternfly Quarantine Areas

IMPORTANT: Before you move outdoor items from the quarantine area, check for spotted lanternfly egg masses, adults, and nymphs. Make sure all items are pest free before you move them. Help keep this pest from spreading.

Check before you move

Recreational or Camping Items

- | | | |
|--|--|--------------------------------|
| <input type="checkbox"/> Backpacks | <input type="checkbox"/> Ice chests | <input type="checkbox"/> Tarps |
| <input type="checkbox"/> Basketball backboards | <input type="checkbox"/> Motorcycles | <input type="checkbox"/> Tents |
| <input type="checkbox"/> Bicycles | <input type="checkbox"/> Motor homes | <input type="checkbox"/> Other |
| <input type="checkbox"/> Boats/Boat trailers | <input type="checkbox"/> Recreational vehicles | |
| <input type="checkbox"/> Campers | <input type="checkbox"/> Snowmobiles | |

Outdoor Household Items

- | | | |
|--|---|---|
| <input type="checkbox"/> Barrels | <input type="checkbox"/> Propane or oil tanks | <input type="checkbox"/> Storm/Screen doors and windows |
| <input type="checkbox"/> Cardboard or wooden boxes | <input type="checkbox"/> Trash cans | <input type="checkbox"/> Window awnings |
| <input type="checkbox"/> Outdoor poles | <input type="checkbox"/> Refrigerators/Freezers | <input type="checkbox"/> Outdoor furniture |
| <input type="checkbox"/> Plant containers | <input type="checkbox"/> Storage sheds | <input type="checkbox"/> Other |
| <input type="checkbox"/> Firewood | <input type="checkbox"/> Shutters | |

Building Materials

- | | | |
|---|--|--|
| <input type="checkbox"/> Bricks/Cinder blocks | <input type="checkbox"/> Roofing materials | <input type="checkbox"/> Skidsters/Forklifts |
| <input type="checkbox"/> Cement mixing tubs | <input type="checkbox"/> Tools and toolboxes | <input type="checkbox"/> Pipes |
| <input type="checkbox"/> Lumber | <input type="checkbox"/> Workbenches | <input type="checkbox"/> Other |

Yard and Garden Items

- | | | |
|---|---|---|
| <input type="checkbox"/> Dog houses, rabbit sheds, chicken coops, etc | <input type="checkbox"/> Garden tillers | <input type="checkbox"/> Signs and posts |
| <input type="checkbox"/> Barbecue grills | <input type="checkbox"/> Yard decorations | <input type="checkbox"/> Storage sheds |
| <input type="checkbox"/> Carts | <input type="checkbox"/> Garden tools | <input type="checkbox"/> Tractors and trailers |
| <input type="checkbox"/> Cold frames | <input type="checkbox"/> Backhoes | <input type="checkbox"/> Trees, shrubs and plants |
| <input type="checkbox"/> Fencing | <input type="checkbox"/> Lawnmowers | <input type="checkbox"/> Other |

Children's Playthings

- | | | |
|---------------------------------------|---|--------------------------------|
| <input type="checkbox"/> Play houses | <input type="checkbox"/> Bicycles, scooters | |
| <input type="checkbox"/> Kiddie pools | <input type="checkbox"/> Sandboxes | <input type="checkbox"/> Other |