

Homeowners Guide to Spotted Lanternfly

**General Wayne Elementary School Auditorium
November 29, 2018**



Willistown Township Parks & Recreation Department
Mary Hundt, Director



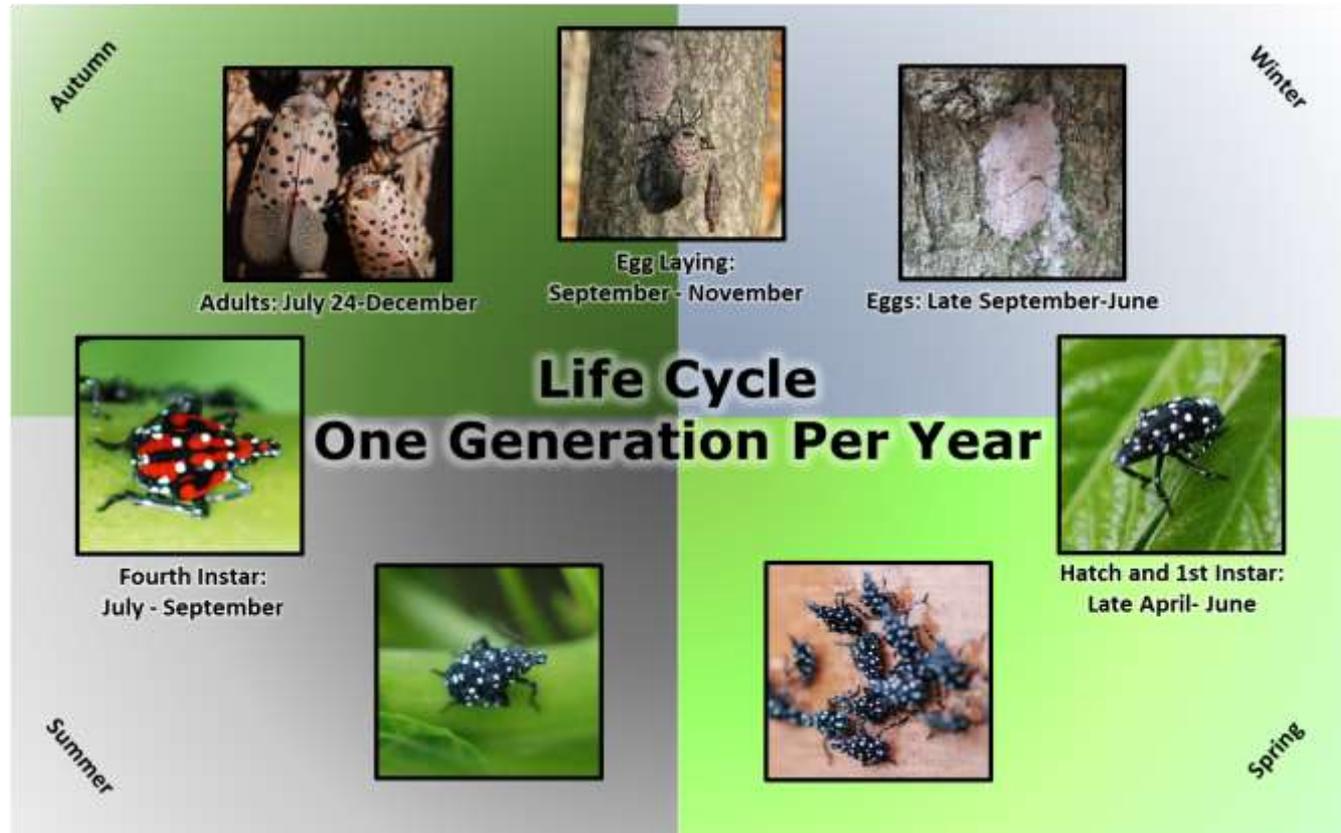
Bureau of Plant Industry/Entomology Division
Michael Panuschka, Forester

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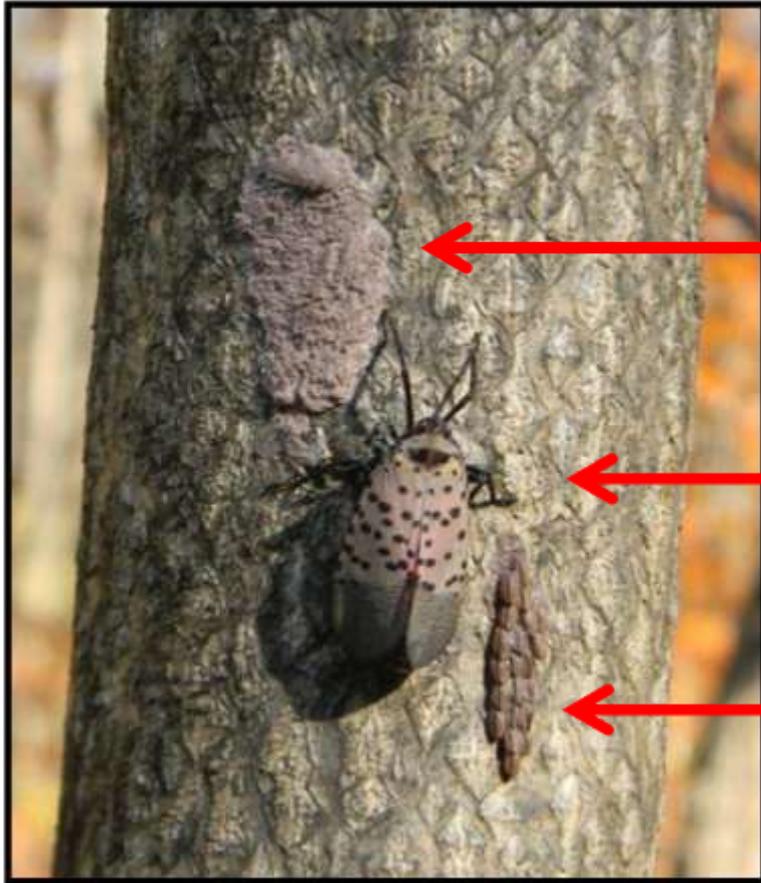
Spotted Lanternfly (SLF), *Lycorma Delicatula* (White), is an invasive planthopper native to China, India, and Vietnam first discovered in Berks County in 2014. It has since traveled to 12 other Pennsylvania counties. The insect has the potential to greatly impact agricultural crops such as grapes, hops, and hardwoods, and reduce the quality of life for people living in heavily infested areas.



Life Cycle



Egg Mass Identification



Covered Egg Mass

Adult Spotted Lanternfly

Uncovered Egg Mass

When to use Management Practices

Best times to use management practices:

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Destroy egg masses												
Use sticky bands to capture spotted lanternfly												
Registered insecticides can be effective ¹												
Avoid moving gravid (fertilized) females ²												
Avoid moving viable egg masses ²												
Treat most tree-of-heaven (<i>Ailanthus altissima</i>) trees with herbicide ^{1,3}												
Treat tree-of-heaven "trap" trees with systemic insecticides ^{1,4}												

Source: Penn State Extension

Life stage present (one generation per year in Pennsylvania):

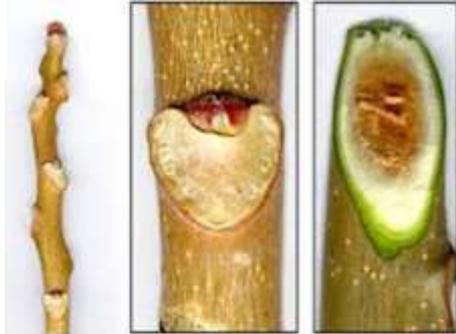
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Eggs												
Nymphs												
Adults												

Source: Penn State Extension

How to Control Adult Spotted Lanternfly

- Spotted Lanternfly prefer to feed on *Ailanthus altissima*, commonly known as the Tree-of-Heaven.
- If you have Ailanthus on your property: Please consider reducing the number of trees with herbicide. This will prevent the tree from root suckering, this will make thousands take its place. Then treat remaining “trap trees” with insecticides.
- If you want to kill Spotted Lanternfly without controlling Ailanthus:
 - When there are only a few insects, you can kill them by swatting or crushing them.
 - You can also use sticky tape to trap the insects
 - For large populations, there are two kinds of insecticides widely available that will kill the adults:
 - Contact insecticides kill Spotted Lanternflies when the chemical contacts the insect directly; and
 - Systemic insecticides are absorbed by the tree and kill insects feeding on it.
- Chip all woody debris on site to no larger than 1-inch pieces of two dimensions.
- Leave all chips or woody debris on site or take chips or debris to an organic materials recycler within the quarantine area.

Ailanthus



Look A-Likes



Black Walnut



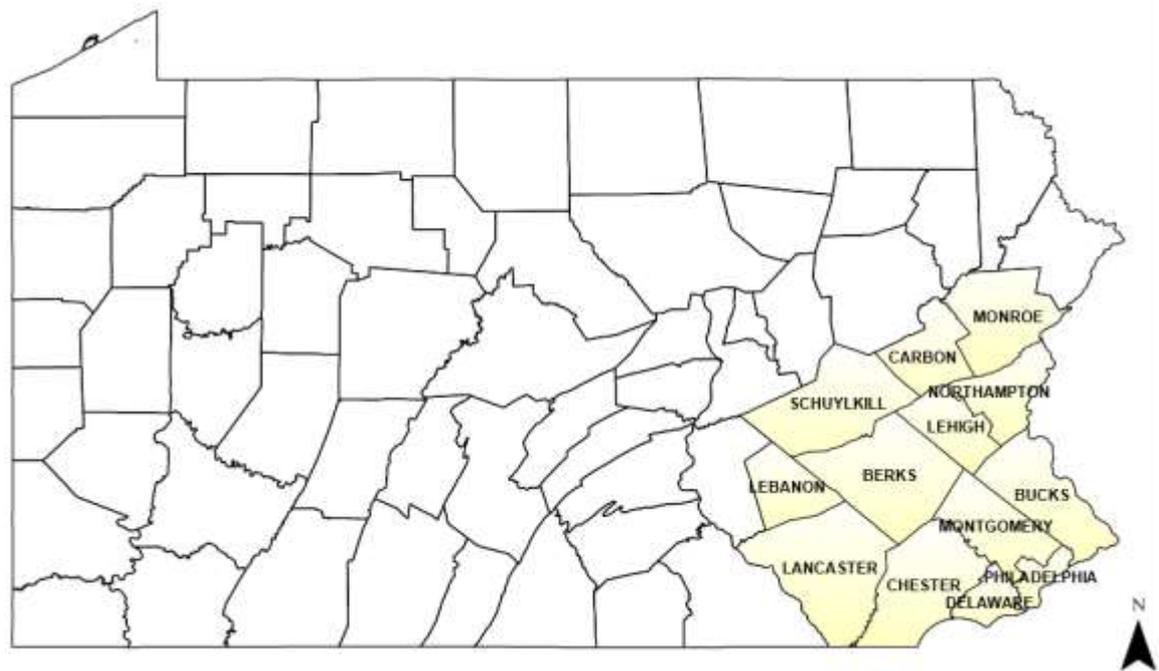
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Quarantine Information

- The quarantine restricts the movement of certain articles.
- The following Pennsylvania counties are included in the quarantine order as of November, 2018:

- Berks
- Bucks
- Carbon
- Chester
- Delaware
- Lancaster
- Lebanon
- Lehigh
- Monroe
- Montgomery
- Northampton
- Philadelphia
- Schuylkill



- Any living stage of the Spotted Lanternfly, *Lycorma delicatula*, including egg masses, nymphs, and adults are not to be removed/moved to a new area.

Quarantine Information

The following items must be checked for Spotted Lanternfly or egg masses prior to moving to a new area:

- Brush, debris, bark, or yard waste
- Landscaping, remodeling or construction waste
- Logs, stumps, or any tree parts
- Firewood of any species
- Grapevines for decorative purposes or as nursery stock
- Nursery stock
- Crated materials
- Outdoor household articles including recreational vehicles, lawn tractors and mowers, mower decks, grills, grill and furniture covers, tarps, mobile homes, tile, stone, deck boards, mobile fire pits, any associated equipment and trucks or vehicles not stored indoors

Compliance Checklist

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"/> Skidlers/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 tiles | <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"/> Other |
| <input type="checkbox"/> Kiddie pools | <input type="checkbox"/> Sandboxes | |

Checklist for Residents Living in Spotted Lanternfly Quarantine Areas

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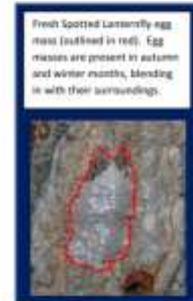
If you find any of these life stages of the Spotted Lanternfly, remove, devitalize, place in a sealed bag, and dispose of bag in the garbage.



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



What is Being Done

- Penn State Extension, United States Department of Agriculture (USDA) and PA Department of Agriculture (PDA) have joined forces to control and contain the spread of Spotted Lanternfly.
- Penn State is leading research efforts, currently underway to answer questions about the insects biology, pesticide studies, and the ability of the insect to adapt to the environment in Pennsylvania.
- USDA and PDA are actively treating locations where SLF has been reported:
 - USDA is working along the outer edges where the populations are small; and
 - PDA is treating areas where the population numbers are high, as well as high-risk pathways which may contribute to moving the insect to other locations.
 - PDA is also surveying all counties in the state outside the quarantine looking for SLF.

What you can do

- The insect is easily moved if no one is looking.
 - Inspect vehicles, trailers, or any outdoor items before you move around or out of the quarantine is important.
 - If possible, don't park in tree lines and keep windows rolled up when you park your vehicle.
 - Using the recommendations developed by Penn State, you can control measures on your own property.
 - Any efforts you make in destroying the Spotted Lanternfly or its egg masses helps your property and community.
 - Please join the effort to control and prevent the spread of Spotted Lanternfly. We need everyone to protect their properties, communities, and the commonwealth from this invasive insect that has the potential to change our landscape and quality of life.

How You Can Help in Willistown's Parks and Preserves

- Look for the egg masses and insects at our parks and preserves.
- We will be providing sanitizer dispensers, scrapers, and bags.
- Please take action and report the following to Mary via email or phone at mhundt@willistown.pa.us or 610-647-5300 x224:
 1. Which park or preserve you were in
 2. What life cycle stage the lanternfly was in
 3. What action you have taken
 4. Where in the park or preserve you were

Thank you for helping to protect our treasured public lands!



Okehocking Preserve Powwow Field in fall.
Photo by Mary Hundt.



For More Information

- To report any sightings of Spotted Lanternfly or its egg mass, please call 1-888-4BAD-FLY (422-3359)
- For more information regarding Spotted Lanternfly, please visit <https://extension.psu.edu/spotted-lanternfly>