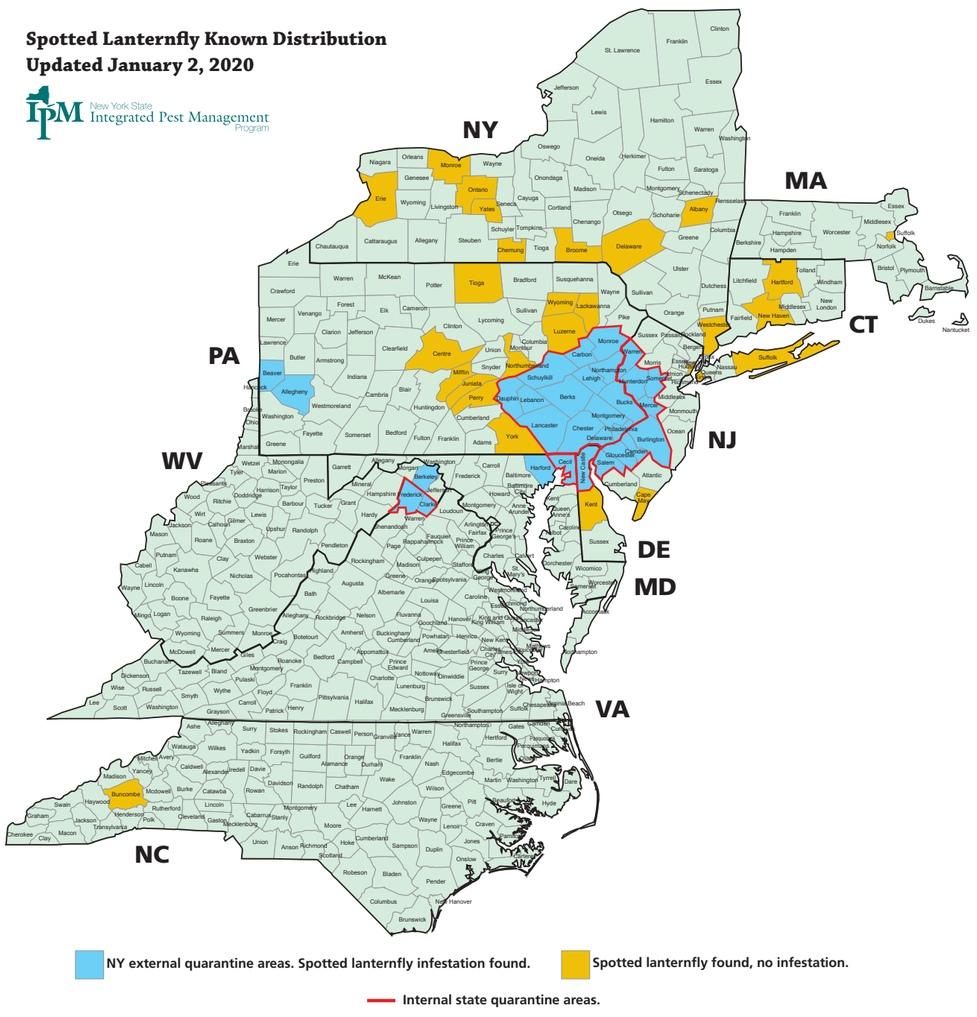
New York State Integrated Pest Management Program | Cornell Cooperative Extension

HAVE YOU SPOTTED LANTERNFLY?

BACKGROUND

- Spotted lanternfly (SLF) is an invasive species of planthopper native to China, India, and Vietnam.
- Infestation in the United States began in Berks County, Pennsylvania, in 2014. The presence of SLF in Northeast US counties is shown in the map below.
  - In several counties, shown in blue, there are established colonies of SLF, and the counties are externally quarantined by New York State.
  - In other counties (gold), SLF adults or egg masses have been found, but there is no evidence that the insects are established and reproducing there.



IDENTIFICATION

- Nymphs (immatures): The first three instars (stages) grow from ⅛" to ¾" long, and are black and white. Fourth-instar immatures are ¾" long, and are black, white, and red.
- Adults: 1" long by ½" inch wide. The wings are tinted pink and ¾ of the forewing is spotted black; tent-shaped at rest. SLF appear moth-like with partially red hindwings seen when wings are spread.
- Eggs: laid in rows. Each egg mass contains 30 – 50 eggs and is usually covered by a waxy, mud-like substance (see photo below).

Adult SLF laying eggs.

Monitoring for SLF using sticky bands.

MOVEMENT

- Most movement is by hitchhiking as adults or eggs via human transport.
- Eggs can be laid on virtually any hard surface; metal, plastic, and wood are all suitable substrates.
- Beginning in late September, SLF adults leave Tree of Heaven and move to vineyards and shade trees (especially noticeable in residential areas).


Adult SLF with wings spread.

MONITORING

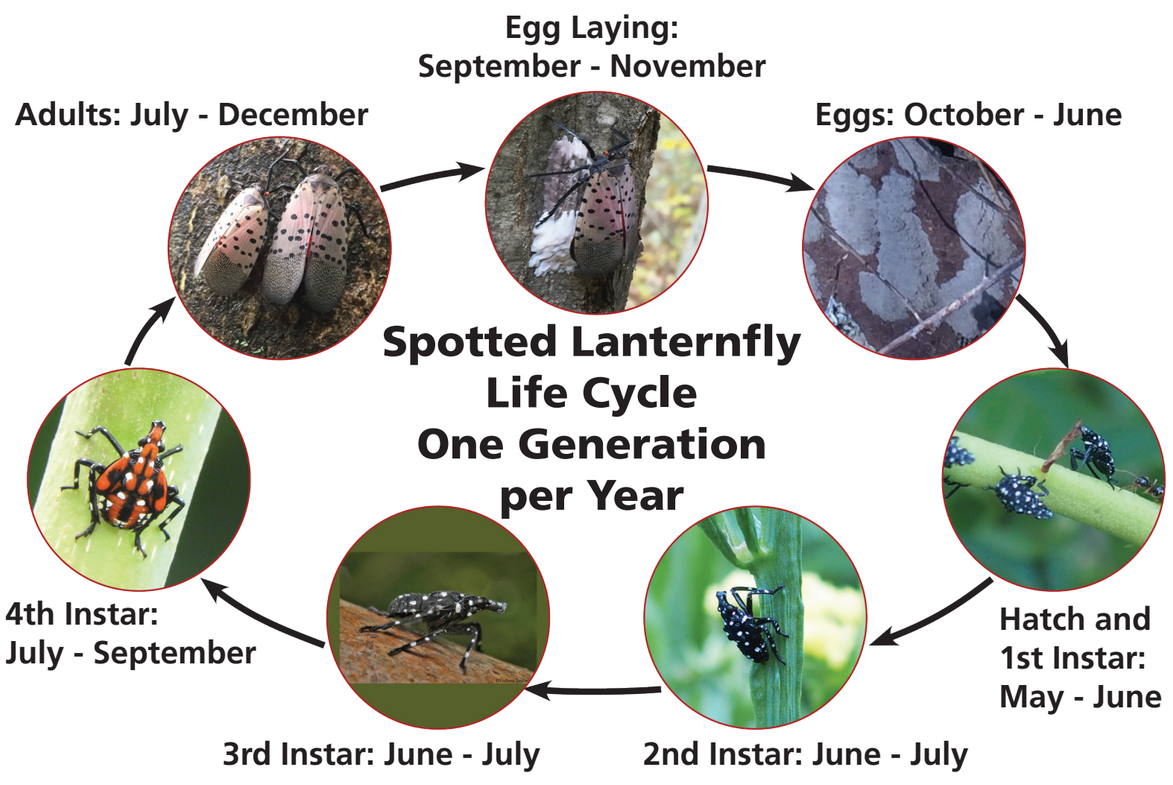
- Sticky bands on trees (see photo, left) are used to monitor and manage SLF populations.
- New York State Department of Agriculture and Markets (NYSDAM) has an external quarantine which restricts movement of certain materials out of the quarantine zones (blue counties on the map to the left).
- NYSDAM is operating checkpoints on major transportation routes into NYS looking for SLF and providing educational resources to truckers.
- NYSDAM and NYS Dept. of Environmental Conservation are doing grid surveys in areas surrounding all confirmed SLF sightings.

FOR MORE INFORMATION

- *NYS Implements New Actions to Prevent Spread of Spotted Lanternfly in New York State:* **www.agriculture.ny.gov/AD/release.asp?ReleaseID=3821**
- **NYSIPM Spotted Lanternfly webpage: nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly**

CONCERN

- Tree of Heaven *(Ailanthus altissima)* is the preferred host for nymphal stages and early adults. All stages preferentially feed on grapes, black walnut, willow, and up to 70 additional plant species in the U.S., including hops, apples, stone fruit, and many landscape trees – especially silver maple late in the season.
- SLF damage could directly impact the NY Grape and Wine Industry that provides NY $4.8 billion annually in economic benefit.
- SLF damage could potentially cost the NY Forest Industry economy $23 billion each year.
- Feeding SLF excrete copious amounts of honeydew. This by-product drenches understory plants and can cause a buildup of sooty mold that affects photosynthesis.
- Falling honeydew discourages tourism and negatively affects residential quality of life.



Credits for Life Cycle photos:

Egg Laying, Hatch and 1st Instar, 2nd Instar, Adults: Emelie Swackhamer, Penn State University, Bugwood.org

Eggs: Lawrence Barringer, PA Dept. of Agriculture, Bugwood.org

3rd Instar: Dalton Ludwick, USDA-ARS/ Virginia Tech

4th Instar: Richard Gardner, Bugwood.org

All other images on this page provided by NYSIPM Staff.

If You See It – Report It!

- Take pictures of the insect or egg masses. If possible, include something for scale such as a coin.
- Note the location: address, intersecting roads, landmarks or GPS coordinates.
- Email the information to: **spottedlanternfly@agriculture.ny.gov**

NEW YORK STATE | Agriculture and Markets | Environmental Conservation