Spotted Lanternfly in Pennsylvania

USDA
APHIS
PennState
Kutztown University
Forest Service
Pennsylvania Department of Conservation and Natural Resources
On September 22, 2014, the Entomology Program of the Pennsylvania Department of Agriculture received a report from an educator from the Pennsylvania Game Commission.

The report detailed damage to Ailanthus altissima (Tree of Heaven) on private property in Eastern Berks County, PA being caused by an unknown insect.
The spotted lanternfly is native to Asia and is found in China, Bangladesh, Vietnam. It was introduced to Japan, South Korea, and Pennsylvania. In South Korea, it is considered an invasive pest and impacts grapes and peaches.
Spotted Lanternfly makes use of over 70 different plant species, but strongly prefers the invasive “Tree of Heaven”
Current Values of Some Commodities Affected

- Forest Products: $16.7 billion
- Grapes: $28 million
- Apples: $87 million
- Peaches: $19 million
- Nursery and Landscape: $944 million

Unable to Estimate Value of Losses

- Property Values
- Tourism at PA parks and Game Lands
- PA Ecosystems
- New Business Initiatives
  - Port of Philadelphia
  - PA Preferred Brew
Impact:
Damage reported on basil, blueberry, cucumber and horseradish in 2017.
Spotted Lanternfly in Pennsylvania

Adults: July - December
Egg Laying: September - November
Eggs: October - June

One Generation Per Year

Fourth Instar: July - September
Hatch and 1st Instar: May - June

Third Instar: June - July
Second Instar: June - July
Egg masses contain between 30-50 eggs, are laid on many different objects, and are often well hidden.
All life stages can hitchhike to new areas, but eggs and adults pose the greatest risk for movement.
Removal-Trap Tree Method
Most Ailanthus are removed or killed with herbicide
Incorporate in Vegetation Management Plans
Host Reduction
Remove Most Ailanthus
Leave a few male trees and treat with systemic insecticide
Trap trees

July-September
4th Instar and Adults

SLFs concentrate to feed on Tree of Heaven with insecticide and die
Impact on Adults is Dramatic
Impact:

Adult clustering, swarming and Honeydew accumulation can impact quality of life.
As the population of spotted lanternfly grows, and the insect adapts, new threats to multiple industries emerge.

It is clear that more help is needed to contain this pest.

Everyone needs to work to control the insect.
South Korea at 38,622 sq. miles is slightly smaller than Pennsylvania at 46,055 sq. miles

South Korea completely infested in 3 years with 3 introductions

PA still contained to small area, 1 introduction
Pennsylvania Spotted Lanternfly Quarantine Map by Year 2014-2017

Legend
- Yellow: Quarantine 2014
- Orange: Quarantine 2015
- Blue: Quarantine 2016
- Green: Quarantine 2017
Quarantine

Covers all life stages and conveyances

Limits movement of commodities and home articles

May allow continued interstate and international trade.

Requires inspection and safe movement from the quarantine

Slows processes and trade down, but does not completely stop trade

Wood recycling can still be completed, but may need think about how is done

Lumber harvest may still be made, but may need timelines
Quarantine

Working with Business

• Risk Assessment
• Education/Training
• Phytosanitary Certificate
• Permit
• Compliance Agreement
• Verification
• Phytosanitary Certificate
  • Limited use

• Permits – Coming Soon
  • Working within the quarantine
  • Lower risk

• Compliance Agreement
  • Moving in and out of the quarantine
  • Interstate/International businesses
  • Higher risk for movement
For Compliance Agreements for Spotted Lanternfly Quarantine

For information and questions regarding compliance agreements related to Spotted Lanternfly please contact your Pennsylvania Department of Agriculture Regional Office and speak with the Bureau of Plant Industry Supervisor (listed below).

Region 1: Clarion, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Venango, and Warren
Lisa N. Candelaro
Phone: (814) 332-6890

Region 2: Cameron, Clinton, Columbia, Lycoming, Northumberland, Montour, Potter, Snyder, Tioga, and Union
Jay P. Bagley
Phone: (570) 433-2640 ext. 206

Region 3: Bradford, Carbon, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne, and Wyoming
Richard J. Malak
Phone: (570) 836-2181 ext. 111

Region 4: Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland
Lisa N. Candelaro
Phone: (724) 832-1073 ext. 125

Region 5: Bedford, Blair, Cambria, Centre, Clearfield, Fulton, Huntingdon, Juniata, Mifflin, and Somerset
Abbie Clark
Phone: (814) 793-1849 ext. 216

Region 6: Adams, Cumberland, Dauphin, Franklin, Lebanon, Lancaster, Perry and York
Jeff Miller
Phone: (717) 772-5206

Region 7: Berks, Bucks, Chester, Delaware, Lehigh, Montgomery, Northampton, Philadelphia, and Schuylkill
Howard Walker
Phone: (610) 489-1003 ext. 108

Spotted Lanternfly Quarantine as of November 4, 2017
Everyone is Threatened

- We must work together to control
- Integrated Pest Management
  - Ailanthus control
  - Insecticide Application
  - Banding
  - Egg Mass Scraping
  - Look Before You Leave
- Educate the community residents and businesses
  - Spotted Lanternfly will not “eat” buildings
  - Spotted Lanternfly does not suck blood or bite people or animals
  - Licensed Professionals for control
Thank you.