



Borough of Florham Park

Pests Impacting Our Trees

Emerald Ash Borer and Spotted Lanternfly



Arboday.org

Emerald Ash Borer (EAB)

- Beetle native to Asia that is now widespread in U.S., including NJ
- First discovered in Michigan in 2002
- Four life stages: adult, egg, larva, pupa
- Primarily attacks ash trees (*Fraxinus* spp.)
- Larvae eat the cambium thus restricting the flow of nutrients



ecolandscaping.org

UGA1460071



Emeraldashborer.info



How to Detect EAB

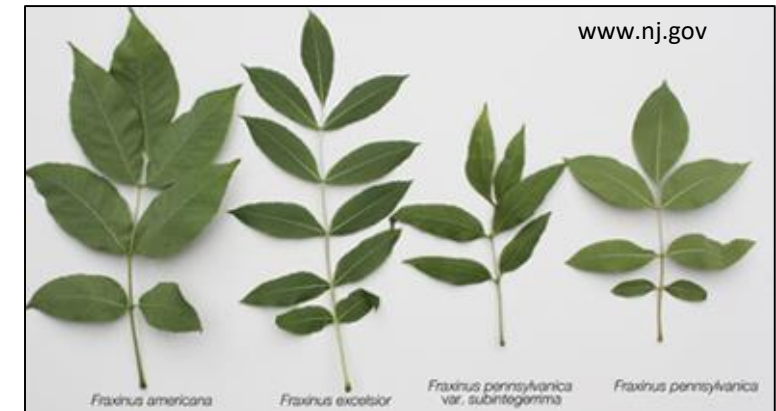
- First step is to identify ash trees on your property
- Increased woodpecker damage on ash tree
- D shaped holes on branches and bark from adults exiting tree
- Etched tunnels under bark from larvae feeding
- Reduction in canopy after 2 years of infestation
- Trees dies 3-4 years after infestation





Infected Ash Trees

- Insecticide treatments are most effective on healthy uninfected trees
- High value ash trees may be treated to stop additional damage, but will not reverse existing damage
- If treatment is not an option, infected trees shall be removed and chipped immediately
- If left untreated, the tree will become infected with EAB and become a hazard

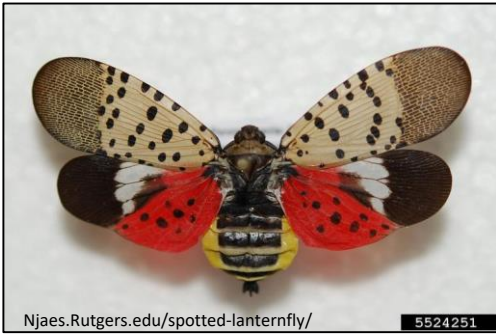


EAB Additional Information

<https://www.nj.gov/agriculture/divisions/pi/prog/emeraldashborer.html>

<https://www.arborday.org/trees/health/pests/emerald-ash-borer.cfm>

<https://www.aphis.usda.gov/aphis/resources/pests-diseases/hungry-pests/the-threat/emerald-ash-borer/emerald-ash-borer-beetle>



Spotted Lanternfly (SLF)

- Native to China, India and Vietnam
- Presence confirmed in Pennsylvania in 2014 with a quarantine in place for 13 counties in eastern PA
- Populations found in Mercer, Hunterdon and Warren Counties with a quarantine in place
- Feeds on over 70 different tree species
- Must feed on Tree of Heaven at one point in life cycle
- There is one generation per year



Tree of Heaven

Spotted Lanternfly Damage

- Adult and nymphs feed on phloem
- When feeding SLF excrete honey dew which results in plant damage, fungus and mold
- SLF may destroy grape, apple, hop, cherry and other harvests
- Sooty mold from honey dew reduces aesthetics; becomes a nuisance
- Adults may swarm infested areas



Identification



A

E. Swackhamer



B

PA Department of Agriculture



C

PA Department of Agriculture



D

ACTUAL SIZE: 1"

PA Department of Agriculture



E

PA Department of Agriculture

- A. Egg masses
- B. Early nymph
- C. Late nymph
- D. Adult, wings closed
- E. Adult, wings open

Quarantine Areas in NJ: Mercer, Hunterdon & Warren Counties

To prevent the spread of the SPL a quarantine has been put in place, the following precautions must be taken:

- Inspect vehicles, grills, boats, outdoor furniture and any flat surface for egg masses and hitchhikers
- Close windows when parking vehicles
- Park away from tree line
- Do not move firewood
- Tuck pants into socks and inspect





If you spot a SLF

- If egg mass is identified, scrape off mass and put in a double bag to discard. Eggs may also be put in alcohol, bleach or hand sanitizer to be killed.
- Collect a specimen at any life stage and submit it to New Jersey Department of Agriculture's lab for verification by contacting: SLF-plantindustry@ag.nj.gov. Do not put specimens in mail before contacting NJ Department of Agriculture.
- Take a photograph with a camera with GPS or mark location and submit to: SLF-plantindustry@ag.nj.gov
- A sighting may also be reported to New Jersey Spotted Lanternfly Hotline at **1-833-223- 2840 (BADBUG0)**

SLF Management

- Stop the spread
- Scrape and destroy eggs
- Band trees to catch nymphs
- Remove Tree of Heaven
- Apply insecticides



Nymphs trapped on banded tree



Egg mass being removed from tree

SLF Additional information

<https://ento.psu.edu/extension/fruit/pest-alert-spotted-lanternfly>

<https://www.nj.gov/agriculture/divisions/pi/prog/spottedlanternfly.html>

<https://njaes.rutgers.edu/spotted-lanternfly/>