Department of Agriculture

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Spotted Lanternfly (SLF)

Adult SLF feeds on grapevine and tree of heaven. Credit: Lawrence Barringer, PA Dept Agriculture,

The Pest: The spotted lanternfly (*Lycorma delicatula*)

The Threat: Nymphs and adults feed in large numbers on sap from grapevines and other perennial and annual plants, resulting in wilting, dieback and sooty mold damage.

Distribution in Ohio: Widespread

ODA's Response: Slow the spread by quarantine and monitoring

The spotted lanternfly, *Lycorma delicatula,* (SLF) is an invasive pest that is capable of damaging certain plants such as grapevines, black walnut saplings and **tree-of-heaven** (*Ailanthus altissima*). SLF was first identified in Ohio in 2020, and has since been found in several counties across the state. SLF and regulated articles are currently under quarantine in several counties in Ohio, including Cuyahoga, Franklin, Hamilton, and Lucas.

- Although SLF cannot bite or sting, both nymphs and adults often jump when approached.
- Slow the spread of SLF by checking your vehicle and any outdoor equipment and firewood when going in and out of a quarantined county.
- Manage SLF on your property by removing host plants, destroying eggs, and using chemical control when appropriate.

Control tips for your property

- ODA is not currently removing SLF or tree of heaven from private properties. Please view our **Management Guide (pdf)** for treatment options.
- **Inspect Items:** Check outdoor furniture, garden equipment, and firewood for SLF before moving them. Follow quarantine regulations if moving to a new area.
- **Remove Host Plants:** Remove SLF host plants like the invasive tree-of-heaven and wild grapevine.
- **Destroy Egg Masses:** Scrape egg masses into soapy water or rubbing alcohol, or treat with horticultural oils in winter or early spring.
- **Control Nymphs and Adults:** Swat or stomp them when populations are low. Live and dead lanternflies can also be removed with a vacuum cleaner or shop vac, promptly disposing of the vacuum bag.
- **Use Low-Toxicity Insecticides:** Apply horticultural oils and insecticidal soaps for nymphs and adults, reapplying as needed.
- **Apply Contact and Systemic Insecticides:** Use bifenthrin, carbaryl, malathion for spot treatments, and dinotefuran or imidacloprid for longer protection. Consider hiring a **professional pest control business** for severe infestations or to remove tree-of-heaven.

Special Management Notes

- Protect Pollinators! Do not apply systemic insecticides when trees or shrubs are in flower, or if nearby flowering plants may take up pesticide (as in soil drenches).
- Use products labelled for control of spotted lanternfly in a manner consistent with the label. The Label is the Law!

Steps to take if you see SLF on public or vacant property

- Report SLF or tree-of-heaven infestations on public property to the property owner or responsible party, like a park manager or municipal office. While they are not required to control the infestation, they may choose to do so.
- If you believe the infested property to be vacant, you can contact your local code enforcement department or municipal office.

Ohio SLF quarantined counties

Infestations outside the Quarantine

If you suspect a spotted lanternfly outside a quarantined county, please take a picture and report the finding to the ODA Plant Pest Control using the **Ohio Plant Pest Reporter**. **SLF found in or around known infestations do not need to be reported.**

***Please note**: reports are only used to monitor the pest spread. Refer to the control tips on this page to determine how best to manage the infestation on your property.*

Quarantine

ODA first announced a quarantine (**OAC 901:5-56**) in October 2021 to combat the spread of the spotted lanternfly. SLF is now designated a destructive plant pest under Ohio law, which increases inspections and restricts movement of certain items from infested counties in Ohio and other states into non-infested Ohio counties.

Regulated articles include, but are not limited to:

- the spotted lanternfly in any living stage of development;
- live or dead trees, nursery stock, firewood, logs, perennial plants, garden plants, agricultural produce;
- other products or articles, or means of conveyance that may carry spotted lanternfly.

Producers who ship regulated articles of regulated areas to non-regulated areas must have their stock inspected and each load must be accompanied by a certificate which attests to the fact that their product is free of SLF. Producers who make repeated shipments are urged to take steps necessary to qualify for a Compliance Agreement and master certificate, otherwise they will face delays in obtaining certificates.

Compliance agreements are written agreements that certify all shipments coming from a regulated area are free from SLF. An **inspection certificate** certifies a single shipment is free from SLF and allows the movement of regulated articles **within** the state. A **state phytosanitary certificate** can be issued for individual loads of regulated articles being moved **out of state**, but within the continental US. A **federal phytosanitary certificate** must be issued for any regulated articles being moved out of the United States to another country.

Damage

SLF damage is caused by the insect feeding on the trunk and branches of woody plants. Nymphs feed on a wide range of plants, sucking sap from young stems and branches. Adults tend to focus feeding on tree of heaven and grapevine. The feeding can result in oozing sap, wilting, leaf curling, and dieback. In addition, during feeding the SLF secretes honeydew which can buildup on and underneath the plant, which in turn promotes the growth of **black sooty mold**. Black sooty mold around the base of plants or oozing sap may indicate the presence of the spotted lanternfly, however other pests can cause these symptoms as well.

SLF is not known to kill plants other than grapevines, black walnut saplings and tree of heaven. SLF can feed on more than 100 plant species, and has the potential to greatly impact the viticulture, tree fruit, nursery, and timber industries.

Identification and Life Cycle

Egg Masses

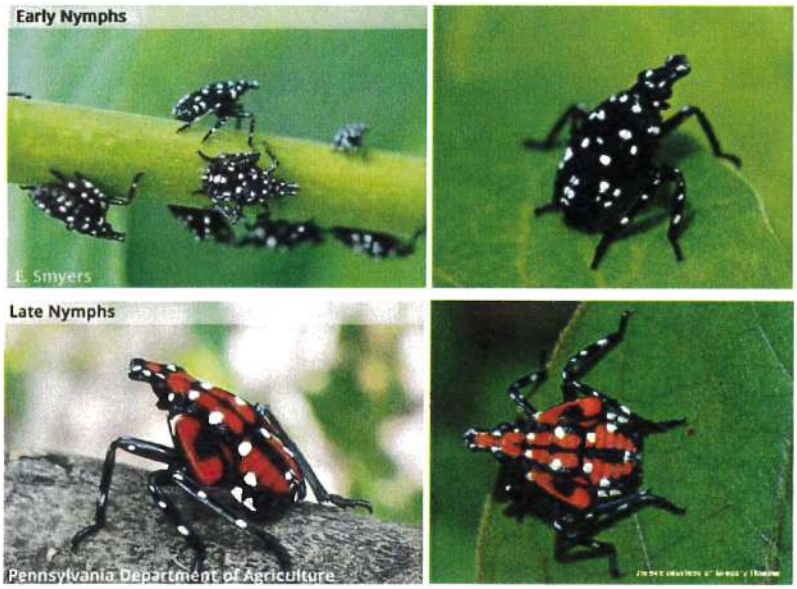
SLF will lay eggs beginning in October through December. The egg masses of the SLF are small, grey masses protected by a waxy covering. Egg masses are placed in sheltered areas of trees, buildings, fire wood, outdoor furniture, lawn equipment, and even rocks.

Early Instar Nymph

SLF will usually begin hatching in April and will grow through four nymph stages. Beginning at 1/8" long, the first first three nymph stages are black with white spots.

Fourth Instar Nymph

Closer to June, the SLF will grow into the fourth nymph stage. This red nymph with white dots and black stripes is approximately 1/2" long.



Adult

Adult lanternfly start to appear in late June and will be active until winter. The adult SLF is larger than those in the nymph stage (~1" long), with black bodies and brightly colored wings.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