

Spotted Lanternfly Management Guide

Introduction

Spotted Lanternfly (SLF) was first identified in Ohio in 2020, and has since continued to be found in other areas across the state. SLF is a non-native, invasive pest that feeds on tree of heaven, *Ailanthus altissima*, but is also known to be a pest of grapes, hops, stone fruits, and other agriculturally important plants.

Identification

Adult SLF are approximately 1" (2.54 cm) in length, with light colored forewings marked with black spots and "lacey" black ends (Fig. 1). The hindwings are red, black, and white, but are covered when at rest (Fig. 2).

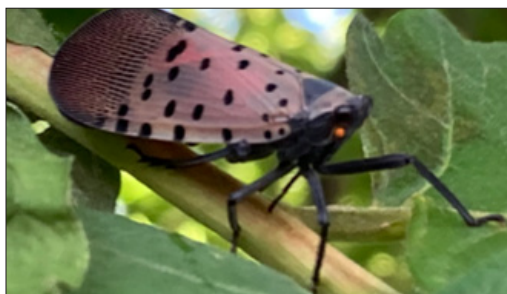


Figure 1. Adult Spotted Lanternfly (J. Shields, ODA)

Figure 2. Adult SLF with exposed hindwing (J. Shields, ODA)



Juvenile SLF (nymphs) are black with white spots on the body and legs, and grow up to about 1/2" (10-12 mm). The final immature stage is black and red with white spots (Fig. 3). Nymphs are wingless and cannot fly, but will jump when disturbed.

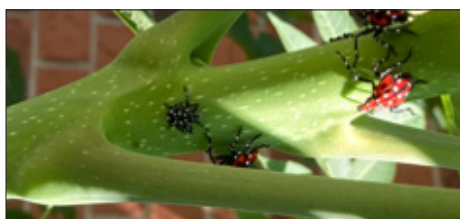


Figure 3. SLF nymphs on tree of heaven (J. Shields, ODA)

SLF egg masses are 1-1.5" long and 0.5-0.75" wide (25-38 mm X 13-19 mm). Egg masses are covered with a shiny, waxy white to grey substance (Fig. 4) that weathers to a dull greyish brown over time. SLF lay egg masses on trees and branches as well as many inanimate objects like stone, buildings, fences, vehicles, outdoor furniture, grills and decorative outdoor items, as well as decking, construction materials, and firewood. Do not move any objects that may have egg masses attached as they can hatch in the new location and establish new infestations.



Figure 4. SLF adult and several egg masses (J. Shields, ODA)

Life Cycle

SLF overwinter in the egg stage, and nymphs begin to hatch in late spring (Fig.5). Nymphs may persist through August, but adults typically begin to appear by July. Adults begin laying eggs in September and continue until they are killed off by cold weather. The life stages can overlap with multiple stages being seen at the same time.

Management

Management options vary depending on the SLF life cycle and environmental conditions at the time of application. Always use the least severe management tactic that yields effective control. With any pesticide treatment, be sure the site where you plan to use an insecticide is listed on the product label and use only according to label instructions—The Label is the Law! When in doubt, please contact a certified arborist or landscape professional.

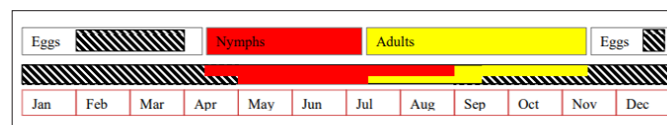


Figure 5. SLF Life stages and the time of year they are found (Virginia Cooperative Extension)

Managing Egg Masses

Egg masses may be destroyed prior to nymphs emerging, resulting in a reduction in nymphs the following season.

- Egg masses may be squashed—popping the individual eggs within the masses.
- Scraping egg masses with a knife or edge of a credit card into soapy water (dish soap works) or rubbing alcohol will kill the eggs.
- Egg masses may be treated with horticultural oils during the winter months or before bud break in the spring.

Managing Nymphs and Adult SLF

Spotted Lanternflies are susceptible to several management methods.

- When populations are low, acceptable control may be achieved by swatting or stomping nymphs and adults when you see them.
- Removing favored SLF hosts, some of which are invasive themselves (tree of heaven and grapevine, for instance) can result in a reduction in SLF populations on your property.
- Horticultural oils and insecticidal soaps can provide control of nymphs and adults, however they do not provide residual activity. These products would likely need to be reapplied throughout the season.
- Contact insecticides such as bifenthrin, carbaryl and malathion may be used as spot treatments against SLF nymphs and adults (Fig. 6). Repeat treatments may be necessary.
- Systemic insecticide treatments with dinotefuran or imidacloprid can be used as trunk sprays, trunk injections, or soil drenches depending on the label, and do provide more prolonged protection.

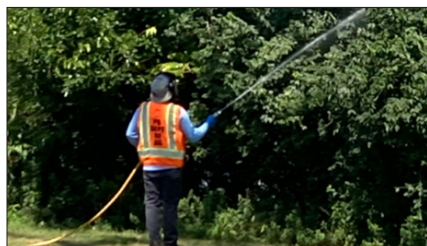


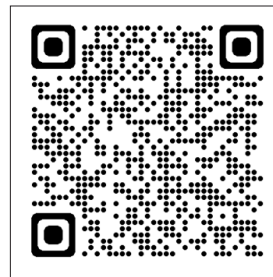
Figure 6. Contact insecticide treatment for SLF by PA Dept. of Agriculture (J. Shields, ODA)

Special Management Notes

- Some of the products above may need to be applied by certified commercial pesticide applicators, or may require specialized equipment to apply.
- 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).
- The site where you plan to use the insecticide must be listed on the product label. Remember to always use products in a manner consistent with the label. The Label is the Law!

Additional Resources

For more information on the Spotted Lanternfly in Ohio, visit the Ohio Department of Agriculture's (ODA) website <https://agri.ohio.gov/slf>.



A map of SLF regulated areas is available at the website, showing where SLF is known to have established populations in the state.

To report a suspected infestation in an area outside the known infestations, visit the ODA Plant Pest Reporter through the web address above.



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