

Spotted Lanternfly Management for Residents

This fact sheet was adapted from a resource by Penn State Extension in collaboration with the Pennsylvania Department of Agriculture and the United States Department of Agriculture.

Spotted lanternfly (SLF), *Lycorma delicatula*, is an invasive planthopper, native to Asia, that was first detected in southeastern Pennsylvania in 2014. It feeds on many plants, including economically important crops like grapevines and ornamentals. If you think you have SLF, do not panic! First, make sure the insect you are seeing is the spotted lanternfly. Second, learn about its life cycle and habits. Third, determine what plants it is infesting and what it is not. Fourth, employ effective management strategies at the proper time of the year.

There is one generation of SLF per year. The eggs are laid in the fall and hatch in the spring. Egg masses are laid on hard surfaces (trees, decks, houses, outdoor equipment, rocks, etc.) and protected with a mud-like covering. Each egg mass contains 30–50 eggs. After hatching and before reaching adulthood, SLF goes through four nymphal stages. Nymphs are small ($\frac{1}{8}$ to $\frac{1}{2}$ inch) and can be hard to find. The first three stages (instars) are all black with white spots, and the last instar is red with white dots and black stripes (Figure 1). SLF adults emerge in July and are active until winter. This is the most obvious and easily detectable stage because they are large (~1 inch) and highly mobile. Adults have black bodies with brightly colored wings.



Egg Mass. Found September-June. Photo Credit: E. Swackhamer



Adult, wings closed (Actual size = 1 inch)
Photo credit: PA Department of Ag

Quick Facts

- SLF is a **destructive invasive pest** threatening agricultural and ornamental plants.
- As of May 2020, **26 counties in Pennsylvania are under quarantine** for SLF. SLF has also been **found in 5 other states in the northeastern U.S.**
- SLF **does not bite or sting.**
- SLF **does not kill all trees it feeds on.** SLF is a **plant stressor** that, along with other stressors, can cause significant damage to its host.
- **Stop the spread** of SLF by checking your car and any outdoor equipment (grills, mowers, firewood, etc.) when going in and out of the quarantine zone.
- Manage SLF on your property by **scraping and destroying eggs, carefully using bands or traps on trees, removing preferred hosts, and using registered insecticides for control** when appropriate.

Stop the Spread

When you travel in and out of the quarantine zone, check your car and any outdoor items you are moving (grills, outdoor furniture, landscaping supplies, mowers, etc.). Check for SLF egg masses from September through June. Remember that egg masses may be underneath your car or in your wheel wells. During all other times of the year, check for nymphs and adults, and keep your windows rolled up when you park. Don't store things or park under infested trees, and don't move firewood.

Egg Scraping

Walk around your property to check for egg masses on trees, cement blocks, rocks, and any other hard surface. If you find egg masses on your property from September to May, you can scrape them off using a plastic card or putty knife (Figure 3). Scrape them into a bag or container filled with rubbing alcohol or hand sanitizer and keep them in this solution permanently. Egg masses can also be smashed. Remember that some eggs will be unreachable at the tops of trees, in other well-hidden areas, and throughout your neighborhood and community. Be aware that this method may not reduce the number of nymph or adult SLF you see later in the year.



Figure 3. Scraping SLF egg masses from a tree. Photo credit: PA Department of Agriculture

Tree Traps

After the eggs hatch, nymphs will walk up the trees to feed on the softer new growth of the plant. Nymphs frequently fall to the ground, walk to trees, and walk back up the trunks. Take advantage of this behavior by wrapping tree trunks in tree traps to catch the nymphs (Figure 4). Traps can be used on any tree, but we recommend only banding trees where SLF is abundant. You can use either sticky bands or a funnel-style trap. Sticky bands may be purchased online or from your local garden center. Push pins can be used to secure the band. While some bands may catch adults, banding trees is most effective for nymphs. Be advised that birds and small mammals stuck to the bands have been reported. To avoid this, you should cage your sticky bands in wire or fencing material wrapped around the tree. Read more about trapping SLF visit:

<https://extension.psu.edu/using-traps-for-spotted-lanternfly-management>

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