



What to do if you Find the Spotted Lanternfly on your Property



The invasive spotted lanternfly has been found in southeastern counties in Pennsylvania. We are trying to eradicate this potential pest. **There is a quarantine order in place that prohibits movement of any living life stage of this insect to areas outside of the quarantine area. To find information about identifying the spotted lanternfly, current information about the distribution, quarantine order, and compliance go to:**

www.agriculture.pa.gov/Protect/PlantIndustry/spotted_lanternfly

If you find a spotted lanternfly in a municipality where it is not known to exist, you should try to capture it and put it into a vial filled with alcohol to kill and preserve it, or at least take a good picture of it. Report it to the Pennsylvania Department of Agriculture (PDA) by emailing badbug@pa.gov or call the Invasive Species Hotline at 1-866-253-7189. Your discovery could add additional municipalities to the quarantined area.

If you find spotted lanternfly in a municipality where it is known to exist, you should try to kill it. This insect is considered a threat to crops and many people are working to try to prevent it from spreading. Soon the females will begin to lay eggs. Each female will lay up to 100 or more eggs this fall, so by destroying even one female, you are reducing the potential population for the future.

In the late summer and fall, the spotted lanternfly prefers feeding on *Ailanthus altissima*, commonly known as the "Tree of Heaven." They can be found feeding on other plants and trees, but if you have *Ailanthus altissima*, you should start searching for spotted lanternfly on those trees. For information on how to identify *Ailanthus altissima* and how to control it, see this fact sheet: <https://pubs.ext.vt.edu/420/420-322/420-322.html>.

The spotted lanternfly is not known to bite humans. You can kill spotted lanternflies mechanically, by swatting or crushing them. However, when you threaten them, they are able to quickly jump far away from you, so mechanical control is not easy to achieve.

People have asked if there are any natural enemies of the spotted lanternfly. Birds don't seem to like to eat them, and researchers have not found predatory or parasitic insects that are making a great impact on the population yet. Over time, natural enemies often do find invasive insect species, but for now this does not seem to be happening on a level that is making a difference.

Many residents are asking if they can kill spotted lanternfly using pesticides. In Pennsylvania, pesticide regulations require that a product may only be used according to the directions on the label. The label must list the site (or location) where a pesticide (in this case an insecticide) may be used. There are insecticides available with labels that list ornamental trees as an allowed site. It is legal to use them on ornamentals trees, including *Ailanthus altissima*, to try to kill insects, including the spotted lanternfly. You can check at your garden center to see what they offer. Some of these products may be more effective than others, so you should take note if the product you tried works well or not.

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Before you purchase an insecticide, there are other things to consider.

In some infested properties there are thousands of spotted lanternflies and many of them are very high up in trees. It will be difficult to reach the insects with a small can of spray or even a backpack sprayer. In this case you might consider hiring a professional tree care service to do the application.

Also, when the canopy of a tree is sprayed, the insecticide can come into contact with beneficial insects, including pollinators. People are looking for more specific approaches to pest management to minimize off-target exposure. This type of strategy is known as Integrated Pest Management (IPM). The PDA has been using an IPM strategy for spotted lanternfly infestations, and landowners may consider using the same IPM strategy on their properties, or hiring a professional service to do it.

IPM Strategy for the Spotted Lanternfly:

1. Locate *Ailanthus altissima* trees on the site. For reasons not understood, spotted lanternfly seem to prefer some individual *Ailanthus altissima* trees over others. Try to identify the specific *Ailanthus* trees that are most attractive to the insects, based on how many are feeding on them.
2. Destroy approximately 90% of the *Ailanthus altissima* trees, leaving only a few that are most attractive to the insect. They will serve as "trap" trees. It is recommended that you try to kill all the female *Ailanthus altissima* trees, because they produce seed and contribute to the spread of this invasive tree.

Be careful handling *Ailanthus altissima* wood, leaves, and branches. Chemicals in the sap of this tree can cause headaches, nausea, and possible heart problems. Wear gloves and protect yourself from exposure.

When you cut down *Ailanthus altissima* trees, they will sprout profusely from the stumps and can grow back in a few years. Because they regenerate so easily, it is highly recommended that you treat the stumps with a herbicide to kill them and prevent them from sprouting new shoots.

Herbicides that are labelled for this use usually contain one of the following active ingredients: triclopyr, dicamba, imazapyr or glyphosate. Use the herbicide carefully and according to the label directions. Alternative methods for using herbicides to kill *Ailanthus altissima* trees include foliar sprays, basal bark applications, and a method called frill application or "hack and squirt." For more information about these methods go to <http://extension.psu.edu/publications/uh174>. Whatever method you choose, remember that you will have dead *Ailanthus* trees which may eventually have to be removed.

3. Treat the remaining *Ailanthus altissima* trees with a systemic insecticide that will move throughout the tree. The insecticide must be applied according to the label and at the right time of year for the trees to absorb it. When spotted lanternflies feed on correctly treated trees, they will die. Systemic insecticides that are labelled to treat ornamental trees usually contain the active ingredients dinotefuran or imidacloprid. The PDA is using dinotefuran in their IPM strategy.

Treating only a few trap trees with a systemic product can reduce the amount of insecticide released into the environment and may help conserve beneficial insects.

It is important for landowners in the affected area to avoid spreading the spotted lanternfly. One good practice is to avoid parking your vehicle under trees because spotted lanternflies that are living in the trees will lay eggs on the cars that are under the tree. Inspect items, including the wood from killed *Ailanthus* trees, and destroy any living spotted lanternflies or egg masses before you move them out of the area. If you must move items from inside the affected area, complete this checklist to be in compliance with the quarantine:

http://www.agriculture.pa.gov/Protect/PlantIndustry/spotted_lanternfly/Documents/SLF%20Checklist%2011-12-2014.pdf

Many sites within the infested area have high populations of spotted lanternflies. Every landowner who effectively uses control measures will help to reduce the potential for this insect to spread to new territory.

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Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

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