Spotted Lanternfly Lifecycle in Virginia

ENTO-268NP

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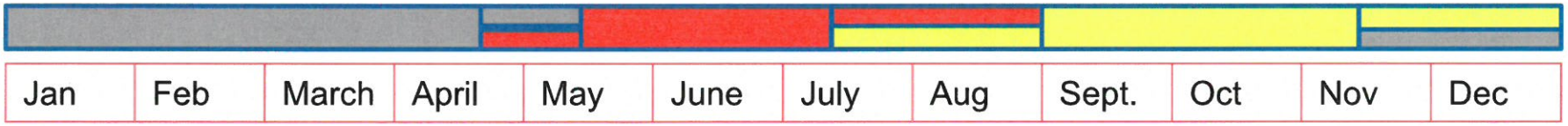
The Spotted Lanternfly (SLF) overwinters in an egg mass (gray bars) that starts out shiny gray and quickly turns to a dull brownish gray. The eggs hatch in late April or early May and the immatures or nymphs (red bars) are present until late July when the adults (yellow bars) emerge. Adults lay eggs in the fall. The life stages can overlap and depending on the time of year, multiple stages can be found at the same time.

Photo above: Berks Co. Conversation Dist. All others: Eric Day

Eggs | Nymphs | Adults | Eggs



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Time to use management practices.

SPOTTED LANTERNFLY MANAGEMENT CALENDAR

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Destroy egg masses												
Destroy most *Ailanthus altissima* trees[1]												
Treat most *Ailanthus trees* with herbicide[2,3]												
Use sticky bands to destroy nymphs												
Treat *Ailanthus* trap trees with systemic insecticides[3]												
Registered contact insecticides may be effective[3]												
Avoid moving gravid (fertilized) females[4]												
Avoid moving viable egg masses[4]												
PEDOMINANT LIFE STAGE PRESENT- (one generation per year in Pennsylvania in 2015 and 2016)												
eggs												
nymphs												
adults												

[1] Destroying all *Ailanthus* trees (Tree of Heaven) may result in spotted lanternfly moving to surrounding plants and increase the pest pressure on them. It is recommended about 10% of *Ailanthus* trees are left alive to serve as trap trees to attract the spotted lanternflies. Leave only male trees if possible.

[2] *Ailanthus* trees will re-sprout vigorously from cut stumps and roots, unless they are treated with a systemic herbicide. Repeat applications of herbicide may be necessary.

[3] ALWAYS READ HERBICIDE AND INSECTICIDE LABELS AND FOLLOW THE DIRECTIONS

[4] Before you move outdoor items from the quarantine area, check for spotted lanternfly egg masses, adults, and nymphs and destroy them. Use the checklist at http://www.agriculture.pa.gov/Protect/PlantIndustry/spotted_lanternfly/Documents/SLF%20Checklist%2011-12-2014.pdf

People are looking for specific approaches to pest management to minimize off-target exposure to pesticides. This type of strategy is known as Integrated Pest Management (IPM). The Pennsylvania Department of Agriculture (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 *Ailianthus 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. 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.

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 glyphoshate. 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.

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