

# KEEP A LOOKOUT FOR: SPOTTED LANTERNFLY

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## WHAT IS SPOTTED LANTERNFLY?

**Spotted lanternfly (SLF)** is a new invasive insect. Originally detected in PA in 2014, SLF has quickly spread and now can be found in 11 states in the US. **In 2020, SLF was found in Jefferson county, and has since been detected in 2 additional Ohio counties.** SLF has a long stylet (straw-like mouthpart), which it inserts into plants to feed on phloem (plant sap). This means it's hard to tell if SLF has fed on plants without observing active feeding. However, we can rely on other insect tells, including copious amount of honeydew (which may or may not develop into sooty mold), or unusually high amounts of plant stress (e.g., early senescence of leaves).

## WHAT CROPS ARE IMPACTED?

(full list of impacted crops is unknown)

The full impact of SLF in agriculture is undetermined. **Certain crops, like grape and nursery crops, have been impacted by SLF** and some growers have documented losses from large SLF infestations. Most research has centered around reports from PA. While these initial reports are incredibly useful to direct research efforts, we still need information on if this pest will damage crops to economically damaging levels.



Grape



Nursery



Apple?



Hops?

## HOW DO I IDENTIFY SLF?

SLF are active from May to October. Nymphs hatch in late spring, and are **polka-dotted** with white or red spots (Fig. 2a-b).

Adults emerge in July and are easily distinguished by their **bright red markings** and large size (>1 inch) (Fig 1). In October, adults will lay egg masses which can resemble concrete or mud (Fig. 2c-e). **Be on alert for their preferred plant host, the tree of heaven (*Ailanthus altissima*).** This invasive plant species is a fast grower that multiplies through root sprouts and seeds. Researchers have reported that the female tree can produce approximately 10 million seeds over a 40-year life-time!



Fig. 1. Adult spotted lanternfly



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H. Leach



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**Fig. 2:** SLF has key characteristics and habits that can help with identification. **A)** Early-instar nymphs are active from May to June and are black with white polka dots. **B)** Later-instar nymphs are black, white, and red. These instars develop into adults (**Fig. 1**) in July and August. Adults remain active until October-November. Females will lay eggs (**C-E**) beginning in October, which are typically greyish and have a cracked appearance. **F)** Tree of heaven is a favorite host plant and should be monitored carefully for the presence of SLF.

## THINK YOU'VE SPOTTED THE SPOTTED LANTERNFLY?

If you think you've seen SLF, reports can be made to the Ohio Department of Agriculture by calling (614-728-6400), emailing ([plantpest@agri.ohio.gov](mailto:plantpest@agri.ohio.gov)), or reporting on their **online reporting system**. Photos, actual specimens, and exact locations are extremely important. You can also make reports on the Great Lakes Early Detection Network (GLEDN) App, which relies on citizen reporting for invasive species across the Great Lakes region.



Adult spotted lanternfly