

Spotted lanternfly collective flights in late summer not dangerous to public

August 25 2021, by Amy Duke



Late summer/early fall dispersal flights involving groups of spotted lanternflies are short-lived and do not present a danger to the public, according to Penn State Extension educators. Credit: Emelie Swackhamer

When leaving a Sunday morning church service in the village of Huffs

Church, Berks County, in September 2017, parishioners were greeted—or more fittingly, startled—by a multitude of spotted lanternflies flying around their place of worship.

Hundreds—maybe even thousands—of the colorful planthoppers landed on the building and then launched themselves into the air in the direction of nearby trees. Those not successful in leaping from brick to branch plummeted to their final resting place on the church steps and lawn.

"People watched in amazement," said Emelie Swackhamer, who was among those observing the surprising incident. "It felt like we were being invaded. I guess we were being invaded."

A horticulture educator with Penn State Extension, Swackhamer used the opportunity to share what she knew about the destructive pest, which first was discovered in Berks County in 2014. The insect hails from Asia and has a penchant for more than 70 types of fruit and landscape trees, grapevines, and woody ornamental plants.

Swackhamer reassured her friends and neighbors that the insects did not present a danger to them or to the church. "People can be frightened when they encounter these spotted lanternfly hordes," she said. "I have heard people say they don't want to shop at certain stores when spotted lanternflies congregate around the entrances."

Scientists from Penn State's College of Agricultural Sciences have been researching the invasive planthopper's behavior, including its late summer/early fall dispersal flights involving legions of spotted lanternflies, which some people have dubbed "swarming."

However, that reference is not accurate—at least from an entomological perspective—according to Amy Korman, another extension educator, who, like Swackhamer, is versed on the pest.

"Swarming occurs when certain insects move in aggregations when stimulated by chemical and environmental cues," Korman said. "With spotted lanternflies, there may be some trigger that causes individual lanternflies to take to flight, but we have nothing to suggest these are deliberate formations of groups."

She added that in areas of smaller populations, lanternflies also engage in flight activity, but it is not as noticeable compared to areas where the population density is very high and flying behavior is more pronounced.

While research continues, the current hypothesis about why adult spotted lanternflies behave this way revolves around the need to find food, according to Kelli Hoover, professor of entomology.

She explained that when early fall arrives, the spotted lanternfly's favorite food, *Ailanthus altissima*, commonly referred to as tree of heaven, goes into senescence, meaning that it stops moving sap and drops its leaves. This is about the same time spotted lanternflies can be seen moving in large numbers onto other trees.

"We believe they leave an area when they individually sense that they have used up a food resource and need to find a better one," Hoover said. "With prolonged heavy feeding on the same trees, such as tree of heaven, the food resource may be exhausted, and this motivates them to move to find other suitable food."

Hoover added that this behavior might partially explain why in areas where populations were high, there are not many again the following year. However, after trees "recover," high populations may again occur in that area.

Whatever the reason, being in the vicinity of one of these mass movements can be alarming, especially for people unfamiliar with the

pest. However, the educators emphasized that spotted lanternflies do not bite or sting, and the behavior is short-lived, lasting a few days.

Damage to buildings is another concern that citizens and business owners have expressed. But, unlike other insects, spotted lanternflies are not trying to get into structures or homes to find sheltered spots to overwinter, noted Swackhamer.

"The adults will die with the killing frost," she said. "The only life stage that overwinters are the eggs. While sooty mold from honeydew produced by spotted lanternflies feeding in [trees](#) above structures can cause discoloration, the insects will not chew on the wood in the walls or otherwise hurt the structure."

For the educators, the most problematic aspect of the spotted lanternfly movements is the potential for spread to other regions. "When they are attracted to storefronts and the tall canopies over gas station pumps, there is potential for them to get into vehicles and items that are being transported, which could allow them to spread to new areas," Korman said. "It's important for everyone traveling in spotted lanternfly-infested areas to check their vehicles before leaving."

Finally, when presented with the question—"Will insecticides help?"—the educators are mindful of their response because there are safety, environmental and regulatory concerns that accompany the use of insecticides. "Some insecticides used on the outside of structures have a few weeks of residual activity, but new spotted lanternflies could keep coming, so spraying likely won't completely eliminate them," said Swackhamer.

They strongly advise against the use of home remedies such as dish detergent concoctions and the like. Instead, they suggest using mechanical methods, such as swatting and stomping, to destroy as many

insects as possible.

"When you're dealing with one of these flight events, keep in mind that it won't last long," Swackhamer said. "As unpleasant as it is, you just have to wait it out."

Provided by Pennsylvania State University

Citation: Spotted lanternfly collective flights in late summer not dangerous to public (2021, August 25) retrieved 20 September 2024 from <https://phys.org/news/2021-08-lanternfly-flights-late-summer-dangerous.html>

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