PennState
College of Agricultural Sciences

Norristown Farm Park Spotted Lanternfly Research Frequently Asked Questions

What is the spotted lanternfly and why should we be concerned about it?

The spotted lanternfly (SLF) is an invasive insect from Asia that first was found in North America in Berks County, Pennsylvania, in 2014. The pest since has spread to at least 26 Pennsylvania counties, as well as to New Jersey, Delaware, Maryland, West Virginia and Virginia.

At risk are agricultural commodities — including grapes, tree fruit, nursery plants and hardwood lumber — as well as natural habitats, parks and backyards. Economists warn that this insect, if not contained, could drain Pennsylvania's economy of at least $324 million annually and cause the loss of about 2,800 jobs.

What is being done to stop the pest?

To sustainably manage spotted lanternfly populations and slow the pest from spreading, Penn State's College of Agricultural Sciences and Penn State Extension is researching the insect's biology and behavior, evaluating management tactics, and educating growers and other businesses, local officials and the public on this pest. Meanwhile, our partners, the Pennsylvania Department of Agriculture (PDA) and the U.S. Department of Agriculture (USDA) are also working to manage populations in high-risk areas to limit further spread.

Several methods are being used to help manage the pest, including destruction of egg masses, placement of tree traps, and removal of preferred hosts, including the invasive plant, tree of heaven (*Ailanthus altissima*).

Spotted lanternfly also is currently managed using broad-spectrum insecticides applied to individual trees. While this method can successfully kill spotted lanternflies, this is labor intensive, can have other environmental impacts, and is not cost-effective to manage the SLF population across large areas.

What is the purpose of the spotted lanternfly research at Norristown Farm Park?

Penn State is again conducting field studies at the Norristown Farm Park in Montgomery County to test the effectiveness of a fungal biopesticide in killing spotted lanternfly populations. Researchers conducted a successful trial at the site in 2019, and now are testing a newer product that may be even more effective.

Where, how and when will the research be carried out?

The research is taking place on several forested sections of the park. The locations will be marked with signs and bright plastic tape to alert those in the area of the studies. Using a backpack mist sprayer, the sections will be sprayed for spotted lanternfly nymphs in early July 2020.

Does the product present a danger to humans, insects or animals?

The formulation (Bioceres WP, BioSafeSystems, LLC) that will be used at the site contains *Beauveria bassiana*, a naturally occurring soilborne fungus. It is EPA-registered and certified as organic and has undergone rigorous reviews to ensure that it will not have adverse effects on human health, vertebrate animals or the environment.

Studies on more widely used *Beauveria bassiana* products show that they also have little or no impacts on non-target insects, especially pollinators. Moreover, the product is used on a wide range of insect pests and crops, including vegetables, fruits, and shade and ornamental trees.

Biopesticides such as the one used at the Norristown research site are inherently less toxic than conventional pesticides. Biopesticides have greater specificity toward the target pest (in this case, the spotted lanternfly) and closely related organisms, in contrast to broad spectrum, conventional pesticides that may affect organisms as different as birds, reptiles and mammals.

Penn State's College of Agricultural Sciences takes very seriously the health and safety of those who may be affected by its research programs, and as such, follows strict safety protocols. Walking paths may be closed to the public during the early July application. Signs will be posted 72 hours before the application to notify public users of the trails.

Additionally, the potential effects on pets consuming spotted lanternfly have not been investigated. However, there have been reports of dogs becoming ill after ingesting large quantities spotted lanternfly. People walking their pets are asked to stay out of marked research plots and not to tamper with research equipment (e.g. tree traps, tarps, etc.).

What agencies are involved in this study?

Project partners include Penn State, Penn State Extension and officials from the Norristown Farm Park, a 695-acre county-operated park. Their partnership and support of this project is vital for finding solutions to sustainable spotted lanternfly management.

Will the community receive updates on the study?

The public will be kept informed of the project's status through media outreach, social media and on-site communications, e.g., signage. Additionally, more information and updates are available at extension.psu.edu/spotted-lanternfly.

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