

Have You Spotted Lanternfly?

Tim Weigle, Jody Gangloff-Kaufmann, Ryan Parker, Jennifer Grant and Juliet Carroll

Executive Summary

Spotted Lanternfly (SLF) is an invasive planthopper that was first discovered in Berks County, PA in 2014 and is now established in 3 northeastern states. While no infestations have been found in New York State, spotted lanternfly adults and/or egg masses were confirmed in eight counties in 2018. The movement of spotted lanternfly has shown that it is not just an agricultural or residential pest; it has the ability to create economic damage and quality of life issues in both rural and urban settings, especially in vineyards and forest settings. Since there are no known infestations currently in NYS, the current best management practice is training in the proper identification of the different life stages of spotted lanternfly and how to report it. To this end, the NYS IPM Program is developing resources and providing outreach to all residents of New York State.

Issues, Needs and Audiences

Spotted Lanternfly (SLF) is an invasive planthopper that was first discovered in Berks County, PA in 2014 and is now established in 3 northeastern states. While no infestations have been found, spotted lanternfly adults and/or egg masses have been confirmed in eight counties in New York State. Its rapid spread is a testament to its ability to hitchhike, especially by the adult and egg stage. While it has only one generation per year, adults are present from July until the first hard freeze with egg masses present from September through June of the following year. This pest has been found to feed on over 70 species of plants in the US with a preference shown for *Ailanthus altissima* (Tree of Heaven), grapes, hops, apples, walnuts and maples. Spotted lanternflies are phloem feeders that suck sap directly from the trunks, limbs and shoots of plants. These large insects (adults are 1-inch long and ½-inch wide) are swarm feeders with reports from PA of up to 365 adult SLF feeding on a single grapevine. This type of feeding results in a weakening of the plant, making it more prone to other pest problems and, for perennial plants, winter injury. As they feed, they are looking for nitrogen and amino acids and need to get rid of the large amount of sugary sap pulled from the plant. This is accomplished by excreting a sugary substance called honeydew. Honeydew production has caused residents in the Pennsylvania quarantine zone to become prisoners in their own homes when large populations of SLF feed on backyard trees and produce honeydew in amounts that homeowners have compared to falling rain.

Extension Response

In a proactive response to the potential threats of spotted lanternfly to New York's agriculture, forestry, and tourism industries, as well as all residents, a NYS Spotted Lanternfly Incident Command System (NYS SLF ICS) was created. The NYS SLF ICS was formed to ensure that all the organizations involved with the regulation of, surveying for, and education on Spotted Lanternfly were represented and talking with each other. The NYS SLF ICS is a partnership involving New York State Department of Agriculture and Markets (NYSDAM), New York State Department of Environmental Conservation (NYSDEC), USDA Animal and Plant Health Inspection Service (APHIS) and the NYS Integrated Pest Management (IPM) Program. The IPM Program is part of the outreach team and has responsibility for providing recommendations for SLF to aid in pest detection and identification, management and reduction of spread of this insect pest in both agricultural and residential settings. Resources were developed to raise awareness of the

potential presence of this pest, teach pest identification, teach identification of the preferred host tree, Tree of Heaven (*Ailanthus altissima*), investigate management options and teach ways to reduce risk of spread on equipment, vehicles and other objects.

Since there are no known infestations currently in NYS, the best management practice is training in the proper identification of the different life stages of Spotted Lanternfly and how to report it. To this end, the NYS IPM Program has developed the following resources;

- NYS IPM Program Spotted Lanternfly webpage
<https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/>
- Spotted lanternfly checklist for visiting areas with SLF infestations
<https://nysipm.cornell.edu/sites/nysipm.cornell.edu/files/shared/documents/SLF%20checklist.pdf>
- Updated NYS IPM Invasive Species & Exotic Pests Factsheet – Spotted Lanternfly
<https://ecommons.cornell.edu/bitstream/handle/1813/60603/spotted-lanternfly-NYSIPM.pdf>
- Six videos on spotted lanternfly identification, management and its preferred host, Tree of Heaven
<https://www.youtube.com/playlist?list=PLoNb8IODb49tyuht80pQlxBuBw6XKMCnR>
- Database of insecticides labeled for planthoppers and FIFRA 2(ee) recommendations by crop in NYS.

Outreach provided

- Lake Erie Regional Grape Program Processor Field Rep Meetings – Portland, NY
- Sixteen Lake Erie Regional Grape Program Coffee Pot meetings – Lake Erie region
- Invasive Species Identified! Workshop, Finger Lakes Institute – Honeoye, NY
- NYS IPM Staff Meeting – Geneva, NY
- Hoptoberfest – East Aurora, NY.
- Poster at CCE Ag-Inservice poster session – Ithaca, NY
- Long Island Ag Forum – Grape Session and Craft Beverage Session – Riverhead, NY
- New York Pest Management Association Fall Conference – Melville, NY
- Spotted lanternfly resources distributed through the NYS IPM Program booth at the Producer’s Expo, Syracuse, NY
- Spotted lanternfly featured on the cover of the NYS IPM Program Annual Report calendar.
- Survey for spotted lanternfly and tree of heaven conducted as part of grape and tree fruit CAPS/Farm Bill Commodity surveys.
- New England, NY & Canadian Fruit Pest Management Workshop – Burlington, VT
- Cumberland-Shenandoah Fruit Workers Meeting – Winchester, VA

Accomplishments

While it has not been directly tied back to the resources and outreach developed and implemented by this project, spotted lanternfly was positively identified and reported in eight New York counties in 2018. Surveys were conducted by NYSDAM and NYSDEC staff in response to these sightings and all were found to be a result of hitchhiking adults rather than established infestations.

Funding for this project was provided by NYS Department of Agriculture and Markets