USDA

United States Department of Agriculture

30th USDA Interagency Research Forum on Invasive Species

Urban Island Invasion

Annapolis, MD | January 14-17, 2020

US Forest Service

Forest Health Assessment
& Applied Sciences Team

FHTET-2020-01
August 2020

ENTOMOPATHOGENIC FUNGI INFECTING SPOTTED LANTERNFLIES

Eric H. Clifton[1] and Ann E. Hajek[1]

[1]Department of Entomology, Cornell University, 129 Garden Ave, Ithaca, NY 14853

ABSTRACT

The spotted lanternfly, *Lycorma delicatula* (White), was first detected in southeastern Pennsylvania in 2014 and has since expanded its range to five more states and has been detected in four more. In fall 2017, spotted lanternfly cadavers with fungal outgrowth were sent to our lab and determined to be killed by *Beauveria* – a genus of fungal entomopathogens known to infect sap-sucking insects. In 2018, our lab made repeated visits to Berks County, Pennsylvania and we found epizootics occurring in fall, caused by the fungal entomopathogens *Beauveria bassiana* and *Batkoa major*. In 2019, we conducted field trials spraying *Beauveria bassiana* to manage spotted lanternfly populations in a public park in southeastern Pennsylvania. Preliminary results found that one application of *Beauveria bassiana* could kill approximately 50% of 4th instar nymphs or adults within 14 days. We will also share some work on lab and field-based bioassays that used biopesticides, with fungal entomopathogens as active ingredients, to control spotted lanternflies on grapes.