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*Spotted lantern fly, a new pest from Asia*



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## UPDATE ON SPOTTED LANTERNFLY IN PENNSYLVANIA

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### ABSTRACT

An update of a program to contain and eradicate Spotted lanternfly (HEMIPTERA: FULGORIDAE: *Lycorma delicatula* (WHITE)) which was implemented in Pennsylvania by the Pennsylvania Department of Agriculture is summarized. Egg mass scraping was found to be effective to kill the egg stage, tree bands were found to be effective in killing first through third instar nymphs, and fourth instar nymphs and adults required active capture techniques. Adults were found to be associated primarily with tree of heaven (*Ailanthus altissima* (Philip Miller)Swingle) in late summer, so a strategy of tree of heaven removal and trap tree establishment was employed. Combined control measures including egg mass scraping, tree banding, and active capture performed by volunteers and paid crews killed 1,972,951 spotted lanternflies by the end of 2016. Spotted lanternfly was detected at 2,815 individual points on 956 separate properties since 2014. Many new sites were detected as a result of public reports which were 89% accurate. The insect is now known from six counties (Berks, Bucks, Chester, Montgomery, Lehigh, and Northampton) and 74 municipalities in Pennsylvania. A quarantine restricting the movement of the pest and conveyances was extended the new areas of detection. Surveys at 7,565 other locations in Pennsylvania were negative as were trace forward surveys in other states. Tree removal and trap tree establishment are taking place at several properties that were found to have the highest populations or were smaller remote populations. Though not yet quantified, visual evidence indicates that spotted lanternfly mortality is extremely high on treated properties. Property management is not keeping pace with the insect's expansion.

Excellent cooperation led to the early detection of and rapid response to this new invasive threat. Continued cooperation from the agencies and researchers involved, the local public officials, local businesses, and especially the owners of affected properties, who have in many cases volunteered, has been crucial for the response and containment to the introduction of this new pest.