2023 Deputy Administrator's Safeguarding Award: Spotted Lanternfly Lampshade Trap Development Team

The invasive Spotted Lanternfly (SLF) remains an economically important pest since its initial detection in the U.S. in 2014. Targeting the egg-laying portion of the pest's lifecycle has become a sharp focus. The Lampshade trade development team set out to develop a tool that would improve the survey, detection, and control efforts targeting SLF in emerging and established SLF populations over a broad geographic area. The result was the development of cheap and easy-to-deploy trap that can be used in nurseries, grape production, transportation hubs, and any other areas of concern. After several prototypes, 250 traps were deployed to the field by Plant Protection and Quarantine and state partners in six different states (Connecticut, Delaware, New Jersey, New York, Pennsylvania, West Virginia) and the results were better than expected. The traps concentrated egg masses 100-300-fold, greatly enhancing the egg mass targeting effort. Average trap-catch by state ranged from 25 to > 85 SLF egg masses, totaling over 8,200 egg masses. Several individual traps contained well over 200 egg masses. In contrast, 57 nearby control trees contained only 140 egg masses from the base of the tree to a heigh of 10 feet.

The Lampshade trap development team's ingenuity led to the successful development and implementation of a tool that will undoubtedly assist those currently battling SLF infestations. The team's efforts directly align with the APHIS mission to protect American agriculture and natural resources, which SLF continues to significantly impact.

Team Members

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