Which Is the Best Spotted Lanternfly Trap?

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Since entering the United States in 2014, the Spotted Lanternfly has proven to be a significant threat to plant life and the agricultural economy of its infested regions. As the flies expand their territory, their potential for destruction grows and could result in $324 million in damage to Pennsylvania property owners. Identifying effective traps can help control these pests and protect the habitats they affect. At the time of the study, citizens could not buy commercially made traps to solve this problem. The researcher conducted preliminary research to survey the do-it-yourself solutions currently being used by people. Four traps were designed for this study based on combining and using citizen ingenuity and scientific learning to optimize materials, construction, and placement for the traps. This study compared the effectiveness, cost, and time to build four potential traps and a control variable for containing the Spotted Lanternfly. The hypothesis was that Trap One: Tulle Trap - the simplest, easiest, and cheapest to build and install – would be the most successful at controlling the species. The hypothesis was accepted and found that Trap One was the most effective (with statistical significance) at controlling the insects. Also, Trap One was the most efficient, in terms of time to create and cost to make, trap for property owners to build themselves and use. Several recommendations were made to reduce potential errors in future studies and further optimize results for property owners.

Awards Won: