Spotted lanternfly tree traps can be effective, but need careful installation

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One way to capture spotted lanternflies is to use a funnel-style trap, called a “circle trap,” which wraps around the trunks of trees. Credit: Emelie Swackhamer

For homeowners dealing with spotted lanternfly infestations, tree traps can be a cost-effective, nonchemical option.

However, there are important factors to consider when using tree traps, most notably how to avoid catching nontarget creatures such as bees, butterflies and mammals, according to a spotted lanternfly expert in Penn State's College of Agricultural Sciences.

"Tree traps are relatively easy to install, and they can be a good option for residential landscapes," said Heather Leach, extension associate in entomology. "But it's critical for homeowners to install them correctly and monitor them frequently."

Currently, the most effective trap for spotted lanternflies is a funnel-style trap, called a "circle trap," which wraps around the trunks of trees. Spotted lanternfly nymphs and adults are guided into a container at the top of the funnel as they move upward to feed on the tree.

Circle traps can be purchased commercially or can be a do-it-yourself project. A detailed guide on how to build a trap can be found on the Penn State Extension website.

Leach said another trapping method is sticky bands, which can be purchased from hardware stores or garden centers and often are sold as flypaper. A danger of using sticky bands is that they can trap nontarget animals, including beneficial insects, small mammals, birds and lizards.

"If you use a sticky band, you should check it frequently and use a wildlife barrier to prevent bycatch," Leach said. The best way to do this is to build a guard over the band using vinyl mesh netting to prevent animals from getting stuck on the sticky surface. She advises against the use of chicken wire as a barrier because small birds and pollinators can get through the larger holes.

There also is a commercially available band that uses a white fiber material to hold the inward-facing sticky side of the band away from the trunk of the tree. This creates a protected sticky surface, which reduces the potential of catching birds and other animals.

"If you capture an animal, cover any exposed sticky material with plastic wrap or tissue paper to reduce additional entanglement, remove the band from the tree as carefully as possible, and take the animal to a wildlife rehabilitation center," Leach said. A listing of centers can be found at the Pennsylvania Association of Wildlife Rehabilitators website.

While circle traps and sticky bands are common management methods, Leach has heard from several citizens who have developed their own nonchemical traps.

"These creative folks provide evidence that building traps is a good project for anyone who wants to destroy spotted lanternfly, save money by using materials they have on hand, and practice their engineering skills," Leach said.

One of those imaginative people is Adrian Smith, of Montgomery County, who after trying various methods to control spotted lanternfly on his property last year, decided to make his own tree trap using a milk jug, 2-inch masking tape, a clear plastic bag, aluminum foil and push pins.

"Not everyone can afford $500 for tree spraying or drenching from professionals," he said. "My trap is cheap and easy to build. The ones I have installed have decimated the nymph population to the point where I am seeing only five or six lanternflies a day. Another bonus is that my traps catch very few unintended insects."

Smith's trap works like this: A foil skirt stops the nymphs ascending the tree and directs them to a single hole—made from the mouth of the milk jug—through which they continue to climb. The hole leads into a sealed chamber that is covered with a single layer of thin polythene taped all around. Smith said the idea for using a foil skirt came from another trap inventor, Rachel Bergey, of Pottstown.

Despite the success of his homemade solution, Smith said preventing spotted lanternflies from ruining his property is a daily battle.

"They move in from the local trees that are untreated," he said. "I dread to imagine how bad things would have been without the traps. Our gardens and yards would have been inundated with spotted lanternflies. It is important to get the word out to citizens and encourage them to do their part."

More information: How to build a new style spotted lanternfly circle trap: extension.psu.edu/how-to-build … nternfly-circle-trap

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