** This news release from K-State Research and Extension is available online at https://ksre-learn.com/conservation-canines-spotted-lanternfly

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Conservation Canines: Invasive species experts train dogs to detect plant pests

Recent effort targets Spotted lanternfly, says K-State's Ricketts

By Pat Melgares, K-State Research and Extension news service

MANHATTAN, Kan. – In a quest to slow the spread of a sap-sucking plant pest that is slowly making its way across the United States, pest management officials have turned to man's best friend.

Kansas State University wildlife expert Drew Ricketts said conservationists are training dogs to smell out the Spotted lanternfly, described by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service as "a hitchhiking pest that is native to Asia."

The pest was first detected in 2014 in Pennsylvania, and is suspected to have arrived in the U.S. on goods shipped from overseas. The Spotted lanternfly is a plant hopper that feeds on a wide range of plants, including grapes, hops, stone fruits and hardwood trees.

As it feeds, the pest excretes a sticky, sugary fluid that causes sooty mold, which further damages plants. The USDA estimates that 18 states currently have some degree of infestation.

"To the west, the furthest detection of a living Spotted lanternfly is in Iowa, so eastern Kansas is definitely within an area that has a high probability of expansion," said Ricketts, noting that the Spotted lanternfly can be devastating to vineyards. "Within one growing season of the infestation starting, you could see 80% to 100% vine loss."

Attempting to slow its spread, Ricketts said wildlife management experts are using every option available, including capitalizing on dogs' keen sense of smell.

"Conservation canines are a really cool use of dogs, and it's a relatively new thing in wildlife management," Ricketts said. "So, think about a bomb detection dog; they've been trained to smell out something we want them to find. Similarly, we can train dogs to find things we need to find for wildlife research and management."

Ricketts said dogs are capable of being trained to detect Spotted lanternflies, which aids early detection and response. “As invasive species start to expand,” he said, “we are able to find them as quickly as possible and can remove them to keep a new population from starting.”

Humans may still be better at early detection in vineyards, Ricketts said, but dogs are proving to be more efficient in forested patches – in fact, “three times more effective than humans” in those areas, he said.

Once dogs identify populations of Spotted lanternflies, invasive species managers are able to begin eradication methods, which may include scraping eggs off the stems to prevent reproduction, applying insecticides, or perhaps biological controls.

Ricketts said conservation canines have been trained for other purposes, as well, such as detecting coyote scat (poop) to help in various studies, or finding nests of various bird species that may be monitored for research.

More information on wildlife management efforts in Kansas can be found online from the K-State Extension Wildlife Management program.

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K-State Extension Wildlife Management, https://www.wildlife.k-state.edu

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