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By **ELLYSA HARRIS A-J Media**

Texas Tech researcher receives grant to test mosquito pesticides in Texas counties

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When city of Lubbock Vector Control crew goes out to spray for mosquitoes, Steven Presley said it's questionable how strongly the pesticide affects two species of mosquitoes known as potential carriers of Zika virus.

“You’re getting pesticide out in the air,” said Presley, director of the Biological Threat Research Laboratory of The Institute of Environmental and Human Health of Texas Tech University, but both species - *Aedes Albopictus* and the *Aedes Aegypti* - tend to live immediately around the house.

“The dosage or concentration of the pesticide, by the time it gets to them, if it gets to them, may not be high enough to kill them,” Presley said. “It may kill some of them, but those that survive, whether it’s genetic resistance or just acquired resistance from small dose exposures over time, they may be resistant. We don’t know.”

That’s what he hopes to find out with his next research project.

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Presley was recently awarded a \$200,000 grant from the Texas Department of State Health Services to measure the effectiveness of insecticides used in 48 participating Texas counties - including Lubbock County - in combating *Aedes Albopictus* and *Aedes Aegypti* mosquito populations.

Presley said there has been no recent testing of insecticide resistance on the two

species.

According to a spokesperson with the DSHS, the grant is funded by federal Zika funds from the Centers for Disease Control that fall under Epidemiology and Laboratory Capacity for Infectious Diseases.

Presley said the grant will provide funding for the project through next June.

Between now and then, Presley and his research team will send Ovitrap to each participating county and collect mosquito eggs to be bred and identified in his lab. They will then be exposed to concentrated amounts of pesticide to determine how effective it is in killing them.

Data will then be collected and dispersed to each individual county, he said.

Presley hopes information gathered through his project will provide a tool to limit any potential outbreaks of not just Zika, but other mosquito-borne diseases specifically carried by those two local species.

Presley described Zika as “scary” because of the effects on pregnant women and the fact that only 2 percent of the population infected with the disease actually show symptoms.

“On the humane side, you may have a pocket of Zika transmitted in areas and really not know it before it’s already grown into something that’s more difficult to control,” Presley said.

At a Lubbock Board of Health meeting on Friday, Robert Lopez, Vector Control coordinator, said mosquito season usually peaks around September.

Though it’s been dry, Presley said we shouldn’t expect a break this year.

“Just because there’s drought conditions doesn’t mean those two mosquitoes are going to be less likely to be a problem,” he said.

Presley expects to have some preliminary data from the project in October or November, he said.