



\*\* This news release from K-State Research and Extension is available online at <https://ksre-learn.com/entomology-mosquito-management>

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### **Keeping mosquitoes in check**

K-State entomologist provides multiple options for reducing mosquito populations

*By Jacob Klaudt, K-State Research and Extension news service*

MANHATTAN, Kan. — Recent warming temperatures and wet weather patterns have created ideal conditions for mosquitoes, said Kansas State University entomologist Raymond Cloyd.

“There are a lot of situations (near the home) where standing water is around,” he said. “We need to be aware of mosquitoes.”

Cloyd suggests clearing out the breeding environments used by mosquitoes to help mitigate their numbers near homes.

“The way we approach mosquito management is source reduction, that is, remove all stagnant water from bird baths, old tires, wheelbarrows, or anything that holds water for an extended period of time,” he said.

Other ways to get rid of mosquito breeding grounds, according to the K-State Research and Extension publication, [Pests That Affect Human Health: Mosquitoes and West Nile Virus](#):

- Eliminate artificial water-holding containers. If that is not possible, empty buckets, cans, bottles, used tires and other containers at least once a week.
- Fill or drain tree holes, stumps and puddles.
- Irrigate gardens and lawns carefully to prevent water standing for more than a few days.
- Check for water trapped in plastic covers on boats and swimming pools.
- Make sure rain gutters are clean and do not hold water.

People can also use a wide variety of repellents to lessen the presence of female mosquitoes during the times they’re most active, according to Cloyd.

“If you're going to be out at dusk and dawn, spray your body with a repellent such as DEET, Picaridin or IR3535,” he said.

Permethrin acts as another form of female mosquito control that affects them directly, but it must be applied properly to ensure human safety.

“Permethrin is an insecticide, but you don't spray it on your skin,” Cloyd said. “You spray it just on your clothing. When you come back inside take a shower (after application).”

Mosquito management can also occur during the early phases of the insect's life cycle using a larvicide in the form of mosquito dunks or bits.

“You can put mosquito dunks and bits in water to kill mosquitos in the larval stage,” Cloyd said. They're completely harmless to pets and fish; all they kill is mosquito larva. So if you have a pond that's not agitated or a bird bath you don't want to change, you can throw in these mosquito dunks or bits. They'll eat it then they'll die.”

He added: “Dunks and bits are stomach poisons that contain the active ingredient, *Bacillus thuringiensis* (subspecies *kurstaki*, or *Btk*). *Btk* is a soil-borne bacterium that only kills mosquito larvae. It will manage mosquito larval populations for one to four weeks after application.”

More information about mosquito management is available at [local extension offices in Kansas](#).

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**FOR PRINT PUBLICATIONS:** Links used in this story  
Pests That Affect Human Health: Mosquitoes and West Nile Virus,  
[https://bookstore.ksre.ksu.edu/pubs/mosquitoes-and-west-nile-virus\\_MF2571.pdf](https://bookstore.ksre.ksu.edu/pubs/mosquitoes-and-west-nile-virus_MF2571.pdf)

K-State Research and Extension statewide offices, <https://www.ksre.k-state.edu/about/statewide-locations>

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