

News Article

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Date: September 28, 2020

Please use by: October 8, 2020

Dealing with Mosquitoes May Be a Matter of Health

Recent cases of mosquito-borne viral infections in northern Indiana is evidence that homeowners should be vigilant, because it may be a matter of health for you, your horses, or your pets.

Purdue University experts Timothy Gibb, Gary Bennett and Catherine Hill recently updated a Purdue Extension publication entitled, "Mosquitoes in and Around the Home."

"Mosquito-borne viruses that have been of concern in Indiana include those that are responsible for causing such diseases as St. Louis encephalitis, La Crosse fever, Eastern equine encephalitis, Western equine encephalitis, and West Nile virus," the experts said. "Wild birds serve as the reservoir." Mosquitoes feed on birds, infected birds pass the virus to other birds, mosquitoes continue to feed on birds, and then they transmit the virus to a non-bird hosts, like people or horses.

"Mosquitoes always develop in water, but the type of breeding place varies with the species of mosquito," they said. More than 50 species of mosquitoes are present in Indiana. Breeding sites may include flood waters, woodland pools, slow-moving streams, ditches, marshes, and the edges of lakes. Some species prefer container-like structures, like tree cavities, rain barrels, fish ponds, bird baths, old tires, tin cans, clogged gutters, or catch basins.

"After taking a blood meal, each female mosquito lays up to 400 eggs on the surface of water or where water is likely to accumulate," they said. "Eggs may hatch in less than 3 days." Larvae, called "wigglers" mature in 7-10 days before changing into pupae, called "tumblers." Then, in 2-3 days, adult mosquitoes emerge.

"The most effective control of mosquitoes around the home is to prevent them from breeding," they said. "This can be done by eliminating or altering existing breeding sites." Many of our Indiana mosquitoes of concern are container breeders, so to eliminate breeding sites means to inspect and eliminate items around the home that collect and hold water.

Controlling adults outside is a bit trickier. Adult mosquitoes like to rest in vegetation, so eliminate weeds and tall grass near the home. To prevent indoor incursion, make sure your screens are tight and tear-free.

For personal protection, the experts recommend long-sleeved shirts and long pants with light colors. "Mosquitoes are often most active at dawn and dusk," they said. "If possible stay indoors or in a tightly screened area to avoid bites at these times."

“Repellents are very useful in protecting against mosquito bites and are available under various trade names,” they said. “Those that contain the active ingredient diethyl toluamide (DEET) are the most effective.” Only use repellents that are registered by U.S. Environmental Protection Agency (EPA).

In lawns and outdoor settings, the experts said citronella candles may be of limited effectiveness because of variable outdoor wind movement. “A granular repellent containing naphthalene compounds, Mosquito Beater, can be applied on lawns and other mosquito-infested areas,” they said. “It effectively keeps mosquitoes repelled for several hours.”

Mosquitoes can also bite pets and other animals. “Mosquitoes may transmit West Nile virus to dogs, cats, horses or heartworms to dogs,” they said. “During times of high mosquito activity, keep pets inside the house or barn, a screened-in kennel or porch area.” They suggest avoiding walking pets during prime mosquito “feeding time.” For additional suggestions, check with your veterinarian.

To track cases of 2020 Arboviral Encephalitides (tick or mosquito-borne viruses that cause inflammation of the brain) in Indiana, access the Indiana State Department of Health website <https://gis.in.gov/apps/ISDH/Arbo/>.