

## West Nile Virus

### Mosquito Management and Control

Mosquitoes are pesky little insects that make sitting outside or enjoying outdoor activities during the spring and summer months almost unbearable! In most cases, bites don't result in major health consequences, but with the large number of reported illnesses and deaths linked to the mosquito-borne West Nile Virus, we must take mosquitoes very seriously this year.

Dallas County has declared a State of Emergency due to this outbreak. They've had 10 deaths and approximately 200 illnesses linked to the West Nile Virus. This makes up 25% of all reported cases in the United States as of August 14, according to the Centers for Disease Control. The following article by Steve Byrns, Communications Specialist with the Texas AgriLife Extension Service and Dr. Mike Merchant Professor and Extension Urban Entomologist provide excellent information on the steps to take to protect yourself against this disease.

Mosquitoes and mosquito-borne disease are a major problem in the Dallas Fort Worth metroplex this summer," said Dr. Mike Merchant, AgriLife Extension Urban Entomologist at Dallas. Merchant advises Texans to be aggressive in dealing with the blood-sucking critters. As a first line of defense when going outdoors, especially at dusk or early morning, everyone should use insect repellent, preferably one containing DEET, IR-3535, picaridin or lemon oil of eucalyptus, as recommended by the Centers for Disease Control.

But that's not all. There are some practical steps everyone can take to further reduce mosquito risk around the home, he said.

"The first step is to make sure mosquitoes aren't breeding on your own property," he said. "It only takes a little water standing for a week or so to breed mosquitoes. And even without rain, stagnant water can come from shrinking ponds or creeks, irrigation water, or even washing the car.

"Some of the most common places to find standing water this time of year are in water catch basins, storm drains, flower pot dishes, untended water features and neglected swimming pools. After a summer shower, make sure you don't have small containers, wheelbarrows, or even children's toys holding water."

Merchant said standing water in catchment basins, ditches and other hard-to-drain sites can be treated with an insect growth regulator containing methoprene or the bacterial insecticide Bti. These insecticides are safe for the environment and come in dissolvable doughnut, briquettes or granular form.

"We usually don't worry much about fish ponds, streams or creeks, because fish usually take care of the problem there," he said. Once possible breeding sites are eliminated, Merchant said there are several options for eliminating mosquitoes that still find their way into the yard.

“Knowing how mosquitoes behave and using the right products can make your home safer, inside and out,” he said.

He said mosquitoes spend most of their time during the day in shady resting sites around the backyard. So treating sites like tall grass, shrubs and trees, as well as shaded eaves, walls and especially doorways of the house can provide significant mosquito suppression.

“When you treat shaded doorways you can eliminate those mosquitoes that often get swept into the house when people come and go. These are some of the worst offenders because people don’t generally wear repellents indoors,” Merchant said.

Pump-up and hose-end sprayers and aerosol cans for backyard use can also be used to treat trees, shrubs and ground cover where mosquitoes rest during the heat of the day. Merchant said to look for products that promise multi-week control. Insecticides containing lambda-cyhalothrin, deltamethrin and cyfluthrin are good choices when the goal is long-term mosquito control.

“I’m not usually a fan of using broadcast pesticide applications in the backyard, but mosquitoes are serious business, especially this year,” he said.

If you don’t like the idea of treating yourself, and mosquitoes are a problem, another option is to hire a pest management company. Professionals have the tools and knowledge to apply insecticides properly and to successfully control mosquitoes.

If you choose to do it yourself, Merchant advises reading and following the pesticide label directions carefully. “If you wear the recommended gear, and apply when and where the label says, you can do your own mosquito control safely. All landscape sprays should be applied in the evening or early morning before bees and butterflies are active. Don’t spray insecticides on windy days or when rain is expected.

For more information on mosquitoes and their control see: <http://mosquitosafari.tamu.edu> . To learn more about pyrethroid pesticides used in mosquito control see: <http://citybugs.tamu.edu/2012/02/20/using-pyrethroids-safely/> . You may also contact the Texas AgriLife Extension Service office at 903-473-4580.