

Navigating Mosquitoes in the Garden

*By: Dr. Denise DeBusk, Environmental & Community Horticulture Agent
(Article published in Gainesville Sun on June 11, 2016)*

If you spend a lot of time in the garden, then you often encounter mosquitoes. Oftentimes, I forget to wear mosquito repellent since my original plan is to be out only 15 minutes. As the minutes pass and I get into a groove, the only thing that gets me back inside is the itching from mosquito bites. With the threat of mosquito-borne diseases looming, extra effort must be taken to minimize mosquito breeding sources and resting areas, and protect yourself.

There are 80 different species of mosquitoes known to occur in Florida, although not all of them bite humans or transmit pathogens that cause disease.

Mosquito species, *Aedes aegypti* and *Aedes albopictus*, are known to spread diseases such as chikungunya, dengue fever and Zika virus. The larvae live in water-holding objects found around the home like flower vases, tires, toys, barrels, bromeliads, and any container or object that has water in it. These tend to bite primarily during the daytime, but they can also bite at night.

Culex nigripalpus is a brown mosquito that is known to transmit West Nile virus, St. Louis encephalitis, and dog heartworm. The larvae live in ditches, containers, grassy pools, or other stagnant vegetative areas. These mosquitoes bite in the evening through the early morning.

With the rain, there tends to be a lot of stagnant water that is perfect for breeding mosquitoes. With warm temperatures, it can take mosquitoes only a week to go from egg to adult. It is easy to see larvae and pupae in the water by simply tapping the container or water and looking for movement.

When mosquitoes are not feeding or mating, they rest in dark, moist, protected areas, including in your garden vegetation, but also wet bags, dark corners in barns or porches, and around wet items like mops. These resting areas, including vegetation, can be sprayed with a residual pesticide labeled for that use.

You can reduce the amount of mosquitoes around your home in many ways. First, you can remove water breeding sources. Dump water that is in containers. It is best to keep containers like trash cans turned over if you are not using them. If you have a rain barrel, make sure that a screen is properly positioned over the holes. Flush out containers such as bird baths and bromeliad plants every three to four days during the summer. Clean out the roof gutters to remove leaves that may clog the drain and retain the water.

For standing water in your yard, make a rain garden there or add the bacteria, *Bacillus thuringiensis israelensis* (or Bti). It will not harm other animals and comes in the form of granules, bits or dunks.

For water gardens or ornamental ponds, stock them with fish that eat mosquitoes such as mosquitofish, mudminnows, killifish, and many others. Many can be transported from ditches and canals. This would be a fun activity for the kids.

If you are outside admiring your garden, point a fan on high in your direction since mosquitoes are not strong fliers. Items that are not effective include mosquito plants, bug zappers, and the consumption of garlic, vitamin B, and bananas. Other items that are not effective include repellent bracelets and wristbands, ultrasonic devices and cellphone apps, and dragonfly mimics.

During this time of year, it is recommended to use insect repellents even for short trips to the garden. Based on University of Florida research, the most effective repellents include the active ingredients DEET, picaridin, oil of lemon eucalyptus or PMD, or IR3535. Bite Blocker for Kids which contains soybean oil was also found to be effective up to 1.5 hours. Many other repellents were found to be effective under 25 minutes or not at all.

For more information about mosquitoes and their control, check out the “Florida Resident's Guide to Mosquito Control” at <http://edis.ifas.ufl.edu/in1045>. We also have them as free booklets at the extension office, 2800 NE 39th Ave., Gainesville.