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Drain and Cover Gardening to control mosquitoes

Text and photo by Kenneth Setzer

Mosquitoes are again proving to be much more than a nuisance. So what can we do other than seal ourselves indoors?

There are more than 80 species of mosquito in Florida; about a dozen are considered disease vectors. Some mosquitoes are known to breed in as little as a capful of water, so, naturally, start by planning an attack on its breeding grounds by finding and eliminating standing water in your yard and garden.

Obvious breeding places include birdbaths, empty plant pots and saucers, garden ornaments, out-of-use fountains, garden ponds or pots containing aquatic plants. Take a close look around your yard; you'd be surprised what you may have left outside that will hold water. Drain or cover all containers, and remember to keep garbage bin lids closed also.

Other garden areas to watch are cavities formed by plants, called phytotelmata (singular: phytotelma) by ecologists and naturalists. The kinds we should consider are the tanks in the center of many bromeliads, *Heliconia* flowers, holes in trees and hollows created by large tree roots. There's no need to remove bromeliads or similar plants, though. The *Aedes aegypti* eggs can take two to seven days to develop, depending on temperature. So disrupt the cycle by flushing out bromeliad tanks, or any other plant cavity, at least weekly with a powerful shot from your water hose. Eggs can survive desiccation and, unfortunately, when the temperature drops, *Aedes* larvae can survive for months with sufficient water, so keep hosing out those plants even during cooler months. If this is not practical, treat them with Bti granules or mosquito "dunks."

My own garden pond has continually circulating water and lots of plants. The plants help to somewhat deprive mosquito larvae of surface area, but the flowing water must be what really makes the difference, as I have never seen mosquitoes associated with the pond. Stocking a few mosquitofish (*Gambusia affinis*), which can eat large numbers of mosquito larvae, couldn't hurt, either.

It's important to eradicate eggs and larvae and not just adults, and there are various larvicides available if you need control on a very large scale. Fairchild is using VectoBac WDG, which uses *Bacillus thuringiensis*, a common soil bacterium, as a biocontrol. It is designed specifically for use against mosquito and black fly larvae.

As for yourself, if you plan to be outdoors for any length of time, especially gardening or landscaping, you should cover up. The less skin exposed, the better. I know it is uncomfortable, but there are lots of options for outdoor, warm weather clothing designed to keep you as comfortable as possible. Wear garden gloves and shoes that cover the ankle. Finally, treat exposed skin with a repellent containing DEET, picaridin, oil of lemon eucalyptus or IR3535—all are considered safe and effective by the Environmental Protection Agency.

Zika spreaders are aggressive daytime feeders but can also sting at night, so beware. If you need to be out much, don't wear perfume or cologne; they can cause some people to be more attractive to mosquitoes. For reliable information on the Zika virus, visit www.cdc.gov. 