Tips for Mosquito Control after a Hurricane or Storm
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Mosquitoes are notorious for being able to breed in very little water, some even in less than a teaspoon! After a rain event that leaves standing water for more than a few days, you soon will find mosquito larvae wriggling close to the surface. Of the 167 different species of mosquitoes that are in the U.S., over 80 of these are found in Florida. Male mosquitoes do not bite and actually feed on nectar and plant fluids. Female mosquitoes also feed on nectar and plant fluids but they need a blood meal that contain proteins and other nutrients for egg development. Females will lay multiple batches of eggs and usually need a new blood meal for each batch; a female lives 3-6 weeks and can lay thousands of eggs in her lifetime. Eggs are laid directly on the surface of water or in areas that one day will be immersed in water and it takes approximately 12-15 days for larvae to molt and emerge as an adult mosquito. Mosquitoes are not just a nuisance, but dangerous as well given the fact that they can carry diseases such as Chikungunya, Zika, dengue, malaria, West Nile Virus, Encephalitis and others. Although mosquitoes will never be eliminated, there are things that can be done around the home to make it less hospitable. Most mosquito species only travel several hundred feet in their lifetime and so mosquitoes in the backyard are usually bred within the neighborhood. The following methods include both physical methods and control products.

Sanitation
The first step is to make sure not give the mosquitoes a place to breed and lay eggs. Take a walk around your property and think like a mosquito. Look for areas that a female mosquito would find favorable for laying eggs, such as water that is dark, shady, quiet and well-protected. Make that area as unfavorable as possible by the following steps:

- Clean debris from rain gutters. The debris allows water to collect in the gutters.
- Eliminate standing water on and around structures such as flat roofs and air conditioner units. Fix any leaky pipes or faucets and remove any source of dripping water.
- Get rid of water in potted plant dishes, garbage cans, old tires, gutters, ditches, wheelbarrows, and hollow trees.
- Change the water in birdbaths, pet bowls and wading pools every 2-3 days.
- Keep swimming pools and other water features circulating and chlorinated at all times.
- Some plants harbor small amounts of water, like bromeliads. Consider removing them and planting with an appropriate replacement.
• Clean up fallen vegetation as quickly as possible; keep lawns mowed regularly and weeds under control.
• Repair torn screens and/or use mosquito netting.

Control Products and Materials
Sometimes physical control methods may not be enough and additional methods need to be incorporated. There are products that can be used to control either larvae or adult mosquitoes. Before using any of these products, read and follow label instructions because some chemicals are harmful to aquatic wildlife.

Larvacides
• B.t.i. (Bacillus thuringiensis var. israelensis) is bacteria that controls mosquito larvae ("wrigglers") and is not a threat to humans, animals, and plants. B.t.i. is commercially available in many forms (granular, liquid, dunks and bits) and can be found at most garden centers. To be most effective, follow directions on the label of each product. Products will need to be re-applied as wrigglers reappear.
• Spinosad is a natural insecticide made by mixing two compounds produced by special soil bacterial microbes. It is toxic to a wide variety of pest insects but non-toxic to mammals.
• Mineral oil can be added to standing water because it forms a thin film on the surface of the water, which causes larvae and pupae to drown. This is a good control method for containers and plants, such as bromeliads, that collect water.
• Methoprene is an insect growth regulator and can be used in water containing fish. The product prevents larvae from becoming adults. Read the label instructions carefully before applying.

Adulticides
• Malathon, temephos, and pyrethrins are chemicals commonly used to control mosquito larvae. Before using these chemicals, read the product’s label and hazard statements concerning fish and other aquatic wildlife to determine if these chemicals are right for your situation.
• Foggers may also be used to provide temporary relief from adult mosquitoes. Use them shortly before an outside activity.
• Sprays. Treat shrubs and the lower branches of trees where mosquitoes may rest. Use sprays registered for flying insects but will not harm plants.

For more information about controlling mosquitoes, please contact your county extension service.

Resources:
Florida Resident’s Guide to Mosquito Control http://edis.ifas.ufl.edu/pdffiles/IN/IN104500.pdf
Mosquito Repellents http://edis.ifas.ufl.edu/in419
Mosquito Information Website http://mosquito.ifas.ufl.edu/Mosquito_Management.htm