

## Enjoy the outdoors; avoid hosting mosquitoes



Photos: Vectorbase.org ▲ CDC.gov ▶

Aquatic larvae of the Aedes aegypti mosquito (below) pupate and become adults within a week.



The Centers for Disease Control (<u>CDC</u>) has our attention about mosquitoes through news of the Zika virus outbreak. It is important for us to reduce mosquito breeding sites, and to take precautions while working or playing outdoors to prevent unpleasant bites and illness. Several mosquito species can transmit diseases to humans (e.g., West Nile and Chikungunya viruses, and Eastern Equine and LaCrosse Encephalitis) and can transmit heartworms to dogs.

Nearly <u>60 species</u> of mosquitoes live in Georgia, and their habits and characteristics vary. Both males and females drink nectar and plant juices, and are plant pollinators. Only females supplement their diet with blood, needed for egg production.

Some species breed in permanent ponds or wetlands; other species breed in temporary waters that collect in objects around our homes or in flooded areas.

Mosquitoes can breed in just one teaspoon of water, so **drain** or **treat** standing water in and around your home for comfort and health while enjoying your yard. The CDC also recommends that while you are outdoors, you wear protective clothing and use EPA- registered insect repellants **according to directions**.

# **10 Top Tips** to keep your yard mosquito-free!

- 1. Empty & throw away or recycle old bottles, cans and plastic containers.
- 2. Clean gutters to allow proper drainage.
- 3. Turn buckets, baby pools, and boats upside down when not in use. Check rims and indentations weekly.
- 4. Change water in birdbaths, ornamental ponds and fountains at least once a week. Aeration also helps.
- 5. Tightly cover rain barrels and open ends of drainage pipes with fine meshed screen.
- 6. Wash and take old tires to a tire dropoff location for recycling.
- 7. Fill tree holes or place Bti inside where water collects.
- 8. Empty water from outside containers such as flowerpots, vases, dishes.
- 9. Repair leaky water faucets, hoses and air conditioners to avoid stagnant puddles.
- 10. Clean excess vegetation from ponds and stock them with fish.



### Non-toxic, inexpensive BTi is your best friend!

*Bacillus thuringiensis israelensis* (Bti) is a biological mosquito larvicide that targets mosquito and black fly larvae without harming humans, pets, amphibians, dragonflies, fish or birds. Found commercially in rings (dunks) or bits, you can safely treat unused swimming pools, wet areas, rain barrels, tree holes, or storm drain inlets. A full ring treats up to 100 sq. ft. and slowly releases for 30 days. "Bits" work immediately but for only a week or two. Bti products are available at home and garden stores or online. Use according to directions. More information can be found at <a href="http://www.domyownpestcontrol.com/bti-mosquito-dunks-p-323.html">http://www.domyownpestcontrol.com/bti-mosquito-dunks-p-323.html</a>

# Department of Public Works City of Brookhaven

### Stormwater Control Measures, BMPs & Mosquitoes



Keep grass clippings and yard waste out of streets and storm drains to reduce mosquito habitat.



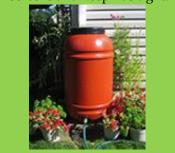
You can learn more about BTi by visiting <u>http://www.mosquitorevi</u> <u>ews.com/bacillus-</u> thuringiensis-bti.html.



You can apply BTi in yard inlets or hang dunks from grates. Remove debris first if you can. Repeat after rain.

### **Rain Barrel Maintenance**

Raise barrel on concrete blocks or sturdy foundation. Secure well to prevent tipping. Drain overflow at least 5' from the house. Replace torn screens and keep lids tight.





Mosquitoes will not breed in moving water or in areas that hold water less than a week.

#### Does Your HOA or property have Stormwater Control Measures (SCMs)?

SCMs (grassy swales, ponds, bioretention, etc.) are designed to avoid mosquito problems by draining within 3-5 days, or if in permanently wet conditions, through ecological balance with fish and other aquatic organisms that eat mosquito larvae.

Maintenance is required to keep SCMs functioning well and mosquitofree. Routine inspections are required several times per year and after each storm with more than one inch of rain. Guidance is available in the Georgia Stormwater Management Manual at

http://www.atlantaregional.com/envi ronment/georgia-stormwater-manual

BLOOD FEEDING FEMALE BLOOD FEEDING EGGS ADULT EMERGING FUPA

www.cdc.gov

- Females of Aedes mosquitoes lay eggs above the waterline on containers holding water. Eggs are sticky and can survive without water for 8 months.
- Once submerged, eggs hatch into larvae. The larval stage lasts about 5 days. Larvae eat microorganisms in the water, molt three times before becoming pupae.
- Pupae develop in 2-3 days.
- Adults emerge from the pupae. They will stay within a small territory, but those from your yard **WILL** bother neighbors!

The City of Brookhaven Stormwater Management Crew monitors public land for mosquito outbreaks. They also sweep the streets regularly and maintain storm drains in public right-of-ways on a routine basis to remove debris where mosquitoes may lay eggs.

<u>Please report mosquito problems</u> <u>coming from street storm drains or</u> <u>public land by emailing</u> <u>stormwater@brookhavenga.gov.</u>



City of Brookhaven Stormwater Division 4362 Peachtree Road Brookhaven, Georgia 30319

### Mosquito Life Cycle (Aedes spp.)