

Mosquitoes 101

Mosquitoes 101: What You Need to Know as the Summer Begins

General Information

Everyone knows about those pesky biting mosquitoes, BUT did you know that only the females bite? They need blood, which has lots of protein, to develop their eggs! All mosquitoes, male or female, feed on plant juices and nectar for energy.

There are more than sixty species of mosquitoes in Maryland! Of these, about 20-25 cause annoyance or disease problems. Some feed on mammals (like you!), some only feed on birds, some on amphibians, and a few will bite any of these.

LIFE CYCLE

Mosquitoes go through four distinct stages in their lives. Females lay

eggs, either one at a time on water or moist ground, or in rafts on the water surface. Eggs laid on water will hatch very quickly, but those laid on the ground will wait until the area floods with water to hatch.

Larvae, when they first hatch, are very small and not easily seen. They eat, grow and molt their skins (like a caterpillar) three times, until they're about 1/4 inch long and easily seen. They breathe air at the water surface and **must** have water throughout their development. If their habitat dries up, they will die.

When they've reached full size, the larvae molt into pupae, which are the equivalent of a cocoon...

except... they are very active, and swim and dive through the water. This is their transformation stage—at the end of just a day or two, they will emerge as the adult mosquitoes everyone knows. Adults then find a sugary meal for energy, mate, then females start searching for blood... and the cycle starts all over again!



An Asian tiger mosquito after finding someone to bite.

Asian Tiger Mosquitoes

...*Summer Pest Extraordinaire*

The tiger mosquito is the most problematic pest species in many urban and suburban areas.

Its habits and habitat are a bit different than our native mosquitoes:

-It bites readily during the day and will also follow you into your house or car.

-It is black with distinctive white stripes on its legs

-It won't breed in most natural areas of water, but loves any man-made container that holds water, so check your yard and get rid of or tip out anything holding water weekly (See pg. 2 for more information.)

-It won't fly very far—about the length of a football field, so it's important to talk to neighbors about checking their yards for breeding containers.

Remember these tips:

- Mosquitoes can go through their whole life cycle in less than a week during the summer.
- Check your yard for *any* standing water or you're likely to be bitten. Remember to TIP IT OR TOSS IT.
- Talk to your neighbors about tiger mosquitoes—they won't just stay in someone else's yard.

Inside this issue:

What is a landing count?	2
How to spray your yard	2
Source guide to container breeding areas	2



Martin O'Malley, Governor
 Anthony G. Brown, Lt. Governor
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What is a Landing Count, Anyway?

(we abbreviate them as 'LRC's...)

A landing count, or landing rate count, is our quickest field estimate of a local mosquito population. Our sprayer operators will perform LRCs in communities participating in our spray program, usually just before they decide whether or not to spray that area.

The technicians will stand in a count area for 2 to 5 minutes, exposing their arms to attract adult mosquitoes. They count (and try to catch) any mosquitoes that land on them during that time period.

Now doesn't that sound like a **great** summer job?

Spraying Your Yard to Reduce Mosquito

The Asian tiger mosquito is such an annoyance that many people say they can't enjoy their yards. Homeowners can reduce mosquito populations by spraying their own property. However, one should do this *only* in conjunction with eliminating water-holding areas where mosquito larvae could develop! Spraying will do no good if the source is still present.

Choosing an Insecticide

- Purchase the correct insecticide for the job from a hardware store or a professional pest control agency.
- Make sure your choice is labeled for treatment of mosquitoes.

-There are many different brands that will work but some of the active ingredients you may find listed on the label are permethrin, resmethrin, pyrethrin, etc. These are just suggestions—others labeled for mosquitoes will also work.

Applying the Insecticide:

-READ THE LABEL THOROUGHLY AND FOLLOW THE DIRECTIONS EXACTLY!

- Concentrate treatment in shady, sheltered areas like in sheds and under decks, bushes and ground cover plants where adult mosquitoes rest and treat at dusk when many mosquitoes are most active.

A Quick Source Guide for Artificial Containers Used by Mosquito Larvae

The following list is a guide to checking your yard for potential mosquito breeding containers. Use the "TIP OR TOSS" method to dispose of the standing water and/or the containers themselves.

- buckets, cans or bottles
- toys, particularly plastic ones
- unused swimming or wading pools
- unused tires without rims
- wheelbarrows kept upright
- bird baths, flower pots and saucers
- pet water bowls
- blocked roof gutters
- trash cans without lids, or the lids

- boats or canoes
- tarps over woodpiles or equipment
- plastic flexible drainpipe
- bases of free-standing basketball hoops
- tree holes or root holes

If it holds water, dump it or get rid of it!



Turn containers and equipment upside down when not in use.

Preventing Mosquito Bites and West Nile virus (WNV)

Most mosquitoes do not pose a threat to public health because they are not infected with viruses or other pathogens. Less than 1% of people bitten by a mosquito carrying WNV will become ill. People most at risk for developing symptoms of the disease are those over age 50 and those with already compromised immune systems; however, all residents should continue to take measures to protect themselves from mosquito bites. These measures include:

- Avoid unnecessary outdoor activities at dawn and dusk when mosquitoes are most active.
- Wear insect repellents, according to product labels, especially if you will be outside between the hours of dusk and dawn when mosquitoes are most active.
- Wear long sleeves and long pants to help avoid mosquito bites. Avoid mosquito infested areas.
- Install and inspect window and door screens in homes and stables and repair any holes found.
- Remove standing water from flower pots, tarps, trash receptacles, and other containers.
- Vaccinate horses, mules, donkeys and ratices according to your veterinarian's advice.
- Flush pet food and water bowls and bird baths regularly.
- Remove unnecessary water-holding containers.

Information about mosquito-borne disease and prevention: www.edcp.org/factsheets/wnv_fact.cfm