

Controlling Asian Tiger Mosquitoes

The Asian tiger mosquito, *Aedes albopictus*, has a life cycle that is closely associated with human habitats, and it breeds in any type of container that is holding water, including tires, flowerpot saucers, water barrels, fallen magnolia leaves, etc. It is a daytime feeder and can be found in shady areas where it rests in shrubs near the ground. *Aedes albopictus* feeding peaks in the early morning and late afternoon; it is an opportunistic and aggressive biter with a wide host range including man, and domestic and wild animals.

The distribution of the Asian tiger mosquito is subtropical, with a temperate distribution in North America. The Asian tiger mosquito was first documented in the United States in Texas during 1985, and in the nearly 30 years since its discovery this species has spread throughout much of the East. The mosquito was most likely transported along highways and other major roadways in shipments of used tires imported from other countries for retreading. *Aedes albopictus* populations are currently established in 866 counties in 26 states. Georgia was the first state in the US to report *Ae albopictus* in every county during the 1990s; it is our number one pest species in non-coastal areas.

Aedes albopictus is known to be a competent laboratory vector of more than 30 viruses. Several of these viruses are found in Georgia, including eastern equine encephalitis (EEE) and LaCrosse encephalitis viruses (LAC). *Aedes albopictus* has been implicated in the transmission of dengue, but is not a major vector. It has also been implicated in the transmission of Chikungunya virus, and is the major vector for one variant of the disease. Fortunately, this is not the variant currently found in Haiti and the Caribbean. However, *Ae albopictus* is capable of transmitting the Chikungunya virus found in these areas. That is why people in the US who have been infected with Chikungunya virus during travel are asked to remain indoors and wear repellent if they go outdoors, to avoid giving the virus to local mosquitoes.



Aedes albopictus overwinter in the egg stage in temperate climates but are active throughout the year in tropical and subtropical habitats. Eggs are laid singly on the sides of water-holding containers such as tires, animal watering dishes, birdbaths, flowerpots and natural holes in vegetation, and can withstand desiccation up to one year. Larval emergence occurs after rainfall raises the water level in the containers. Development is temperature-dependent, but the larvae usually pupate after five to ten days and the pupal stage lasts two days; during a hot Georgia summer Asian tiger mosquitoes can go from egg to adult in a little as one week.





Peachtree Street NW, 15th Floor
Atlanta, Georgia 30303-3142
www.health.state.ga.us

Source reduction is an effective way for people in the community to manage the populations of container breeding species such as the Asian tiger. Eliminate any standing water on the property, change pet watering dishes, overflow dishes for potted plants, and bird bath water frequently. Do not allow water to accumulate in tires, flowerpots, buckets, rain barrels, gutters etc. Use personal protection to avoid mosquito bites. Lightweight long sleeve shirts and long pants and insect repellent such as DEET will reduce exposure to bites. The Asian tiger mosquito is a day biter with feeding peaks in early morning and late afternoon, so limiting outdoor activities during periods when mosquitoes are most active can also help prevent bites. Mosquitoes are not strong fliers, so using fans on porches and patios will also help reduce mosquito exposure.

Where breeding habitat is too abundant for effective source reduction, barrier sprays, applied by licensed pest control professionals, can reduce the number of Asian tiger mosquitoes in a local area. Barrier spray and source reduction used together are most effective. Contractors licensed in the State of Georgia for mosquito control can be found at <http://agr.georgia.gov/pesticide-contractors.aspx>.



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