

# 2017 Asian Tiger Mosquito Control

A coordinated effort of the Town of University Park (UP) and  
UP Community Mosquito Control (UPCMC)

Neighbors working together to eliminate a nuisance and potential health risk.



## Asian Tiger Mosquitos

These annoying, day-biting, invasive mosquitos develop exclusively in our yards. How do we control them?

Insecticide applications can be ineffective or unwanted since backyards are difficult to reach and insecticides pose a danger to bees. Most significantly, the mosquitoes are becoming resistant to the insecticides.

## The 2017 Control Plan

Achieve a goal of 80% of residents per ward who will:

1. REMOVE all the larval habitat (breeding sites) of the Asian Tiger mosquito in the yard and get a yard survey completed.
2. REPLACE the removed larval habitat with a Gravid Aedes Trap (GAT) as an alternative site where female mosquito will deposit eggs, be trapped, and die (two traps per yard: one in the front the other in the back).

### HOW TO GET TRAPS

For a limited time, the traps will be available for distribution at a location in the town.\*

\$15 per trap – limit of 2 per UP address

To make a donation and place your order at Citizen Action through Science, Rutgers, go to <http://vectorbio.rutgers.edu/CiAcTS.htm>

### The Gravid Aedes Trap – Easy to Setup/Maintain

How it Works:

1. Water in black bucket attracts female mosquito needing to lay eggs.
2. Mosquito enters black funnel at top.
3. Transparent dome sits above the water. The dome is lined with canola oil and has netting across the bottom. The mosquito is trapped and cannot escape.



Lethal Ovitrap have been shown to work but need to be deployed in at least 80% of yards in each community.

Can we count on you to purchase and deploy one or two traps in your yard?

\* Through the UPCMCM and Town collaboration with Dr. Dina Fonseca of Rutgers University, and the interest of the manufacturer (Biogents) in our community-based effort, residents will be able to order the traps for a limited time for a small donation. The traps will be delivered to a location in University Park and will be distributed by UPCMCM to residents who have donated to "Citizen Action Through Science", Center for Vector Biology at Rutgers. The funding will be used to support the work of the scientists and will allow for them to measure effects of this two-step plan to control the Asian Tiger mosquito in University Park. They will make comparisons with nearby communities.

To schedule a yard survey or volunteer, email [mosquito@upmd.org](mailto:mosquito@upmd.org)

To contact UP Community Mosquito Control, email [mosquito.control.up@gmail.com](mailto:mosquito.control.up@gmail.com)

For more information go to: <https://sites.google.com/site/mosquitocontrolup/gravid-aedes-trap>

## Take Back Our Yards: More about 2017 Mosquito Control

As scientific research accrues, knowledge about the behavior of the Asian Tiger mosquito, scientific name: *Aedes albopictus*, as well as the tropical yellow fever mosquito, *Aedes aegypti*, inform efforts to control their populations. Researchers have identified the primary types of sites where urban *Aedes* deposit their eggs and the immature develop (larval habitats or breeding sites). As it turns out some of the most common larval habitats in our town's yards are corrugated extension pipes coming off downspouts, rain-barrels and landscape features such as ponds without fish, containers, bird baths, toys and sports equipment, even folds on tarps – anything that will hold water, even a small amount, for at least seven days. Research has shown that once these larval habitats are no longer available, (containers are emptied or treated with mosquito dunks, corrugated pipe ends are covered with mosquito netting or pantyhose held in place with a rubber band, etc.), using a trap that mimics a good oviposition site (larval habitat), such as the Gravid *Aedes* Trap (GAT) can result in very reduced populations (as low as 90% control).

*Aedes* mosquitoes survive the winter (or harsh times, such as a drought) as resistant eggs. In the Northeastern US eggs commonly hatch in early May or a bit earlier depending on spring temperatures. The mosquito populations grow exponentially throughout the season as females hatch, mate, get a blood meal and lay eggs. Killing female mosquitoes as they attempt to lay their eggs significantly reduces mosquito populations over the entire season with the results most obvious in late August, when urban *Aedes*' populations reach their peak in our area.

Recent research by the Centers for Disease Control (CDC) in Puerto Rico has shown that cleaning up yards and deploying traps that kill ovipositing female mosquitoes in 80% of the residences in a community will significantly reduce populations of urban *Aedes* and lower the risk of viruses such as dengue, chikungunya and Zika. However, this approach has not been proven for the Asian tiger mosquito and has never been attempted by the residents themselves.

Our town has a unique opportunity this 2017 mosquito season to add to the scientific research/knowledge by participating in a "Citizen Action through Science" initiative at Rutgers University. This initiative is spearheaded by the UP Community Mosquito Control, a community volunteer group, and has the support of the Town of University Park mosquito control program including our mosquito intern, Amy Milne. The scientific advisor is Dr. Dina Fonseca, the Director of the Center for Vector Biology, Rutgers University.

Please order your traps now (information on other side of this flyer). Remove larval habitats from your yard and replace with a Gravid *Aedes* Trap.

Questions? Send an email to [up.mosquito.control@gmail.com](mailto:up.mosquito.control@gmail.com)