

MOSQUITOES: BEST MANAGEMENT PRACTICES



*Culex quinquefasciatus*¹



*Culex pipiens*²



*Aedes aegypti*³



*Aedes albopictus*⁴



*Anopheles quadrimaculatus*⁵

Description

- Mosquitoes belong to the insect order Diptera (flies)
- Over 170 species in the U.S. with three important genera: Culex, Anopheles, and Aedes
- Undergo complete metamorphosis: egg, larva, pupa, adult
- Require water for eggs, larval, and pupal development
- Only females take blood meals from their hosts, but both will feed on sugar from nectar
- Adults typically live for up to 14 days, but females can over-winter as adults

Mosquitoes may transmit diseases such as:

Malaria	Yellow Fever	Filariasis	Dengue Fever
Encephalitis	West Nile Virus	Chikungunya	Zika Virus

Common Characteristics:

Species	Common Name	Resting Sites	Bite Time	Diseases	Eggs	Egg Habitat
<i>Culex</i> <i>pipiens</i> <i>quinquefasciatus</i>	Northern house mosquito Southern house mosquito	Higher 15-25ft	Evening	West Nile	Rafts	Temporary Water
<i>Aedes</i> <i>aegypti</i> <i>albopictus</i>	Yellow Fever mosquito Asian Tiger mosquito	Lower vegetation	Daytime	Dengue fever Yellow fever Zika virus	Singly	Man made habitats
<i>Anopheles</i> <i>quadrimaculatus</i>	Malaria mosquito	Shaded areas	Dusk & dawn	Malaria	Singly w/floats	Clean, fresh water

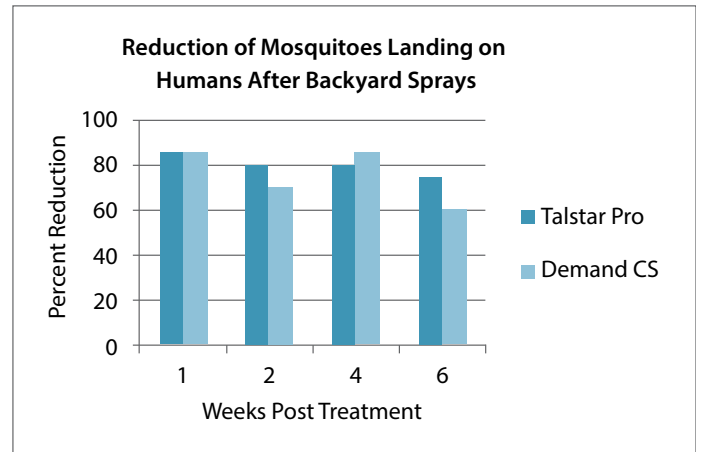
Mosquito Management

- A thorough inspection of the property is needed to identify: resting sites, breeding sites, and species present
- Inspections will also help to identify the extent of the problem and areas in need of cultural management, and mechanical alteration
- Using barrier treatments along with larvicides and source reduction will attack the infestation on many levels

Partner with your customers to develop an integrated approach to mosquito management

Scouting	Eliminate sources of standing water, the perfect breeding area for mosquitoes			
	<i>Old Tires</i>	<i>Clogged gutters</i>	<i>Empty bottles/cans</i>	<i>Anything that holds water</i>
	<i>Puddles</i>	<i>Tree holes</i>	<i>Debris in the yard</i>	<i>Faulty grade/standing water</i>
Control immature mosquitoes	Use EPA-approved mosquito larvicides such as <i>Bacillus thuringiensis israelensis</i> or insect growth regulators to treat mosquito larvae in sources of standing water			
	<i>Ponds</i>	<i>Bird baths</i>	<i>Water features</i>	<i>Flower pots</i>
Control adult mosquitoes	Use Talstar Professional to treat the perimeter of homes, and outdoor areas where people gather			
	<i>Under decks</i>	<i>In/under foliage</i>	<i>Under soffits</i>	<i>Home perimeter</i>
Barrier treatment	During mosquito season, create a barrier with treatments of Talstar Professional applied with tank sprayer, backpack sprayer, ground sprayer, or blower/mister (with a droplet diameter greater than 50 um)			
	<i>Campgrounds</i>	<i>Around homes</i>	<i>Recreation areas</i>	<i>Around commercial buildings</i>
	<i>Parks</i>	<i>Outdoor malls</i>	<i>Perimeter of yards</i>	<i>Animal confinement</i>

Apply Talstar at a rate of 1.0 fl. oz. per gallon of water per 1,000ft² to provide up to 45 days of residual control. See treatment area examples below. **ALWAYS READ AND FOLLOW LABEL DIRECTIONS.**



Source: Trout, et al. 2007. J Med Ent. 470-477

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