

Mosquitoes

Identification

Over 150 species of mosquitoes have been identified in the U.S. The 4 most significant genera and selected pest species are *Culex* (northern house mosquito, southern house mosquito), *Anopheles* (common malaria mosquito) *Ochlerotatus* (eastern salt-marsh mosquito) and *Aedes* (yellow fever mosquito, Asian tiger mosquito). These represent most of the commonly encountered blood feeding and disease vectoring mosquitoes in the U.S.

Distribution

Mosquitoes can be found throughout all areas of the U.S. Each of the many species of mosquitoes has its own particular niche for breeding and survival. For instance, in some species their eggs are required to freeze over the winter to maintain viability, other species require long dry periods for survival. Some species thrive only in salt marshes, while others have adapted well to laying eggs in tree holes, temporary pools of standing water or even small containers found in homeowners' yards. Due to this wide diversity of habitat preference, each region has species of mosquitoes that thrive in the local environment.

Behavior

There is some variation from species to species on details of development cycles, but in general, mosquitoes lay eggs in or around water, where they develop into larvae. The larvae are aquatic and will molt four times, pupate and finally emerge as adults. The adult stage is the only stage associated with biting humans.

Some mosquitoes are strong fliers, such as salt marsh mosquitoes that are capable of traveling miles from their breeding area for a meal. Others stay close to their breeding area to feed. Also, some mosquitoes feed more actively in the day, while others are more active at night.

When not feeding, adult mosquitoes rest in protected places, usually dark, damp areas with little air movement which provides them cover from the elements.

Male mosquitoes do not feed on blood. Instead, they feed upon plant nectar. Females of most species, but not all, must take a blood meal in order to obtain the protein needed for egg development. Female mosquitoes are quickly attracted to humans and other warm-blooded animals through their ability to perceive movement, sense thermal cues and detect chemicals expressed through respiration.

Health Risks And Its Impact On Mosquitoes

Mosquitoes have been implicated in vectoring many diseases to humans. Malaria, encephalitis and West Nile virus are among the more serious. Yellow Fever and Dengue Fever are two other very serious problems worldwide. Aside from the serious health risks, mosquitoes' presence is annoying to humans who spend time outdoors, their bites produce itchy welts and the enjoyment of many outdoor areas is curtailed.



Pest Management Images



Susan Ellis, www.insectimages.com



Pest Management Images

Culex (top), Aedes (middle) and Ochlerotatus (bottom) are among the most significant genera of mosquitoes.



Adult mosquitoes rest in protected places, usually dark, damp areas with little air movement.

Use the SmartCap™ Advantage Against Mosquitoes

- Long residual – Studies have shown Cy-Kick CS to provide residual control of mosquitoes beyond 90 days.
- Low phytotoxicity – Thorough mosquito treatment involves treatment to a variety of heavily foliated areas on the property. Cy-Kick CS is well suited for these applications due to its low phytotoxicity.

Cy-Kick CS Control Tips

- Thorough residual surface application to the building perimeter focusing on foundations, gaps beneath siding, overhanging ledges, underside of decks, other damp protected areas, debris piles.
- Treatment should be made to foundation plantings, dense garden beds, bushes and other heavily foliated areas on the property.

Tip: When treating foliage, remember that leaves have two sides and mosquitoes generally rest on the backside of leaves. Using a cone spray nozzle, with high pressure/low volume, helps to distribute microcapsules onto both sides of the leaves and helps deliver product deep into the more protected areas beneath the canopy where many mosquitoes rest.

Recommended Dilution Rates

Outdoors, apply 0.5 to 1.0 oz per 1,000 square feet OR:

Oz of Cy-Kick CS	Per Gallon of Water	% Dilution
1.2-2.4 oz	15 gallons	0.0038-0.0075%
2-4 oz	25 gallons	0.0038-0.0075%
4-8 oz	50 gallons	0.0038-0.0075%
8-16 oz	100 gallons	0.0038-0.0075%

(See label for complete use directions.)



Treatment should be made to heavily foliated areas as well as foundation plantings where sunlight and wind is blocked, holding in moisture.

Other Product Control Tips

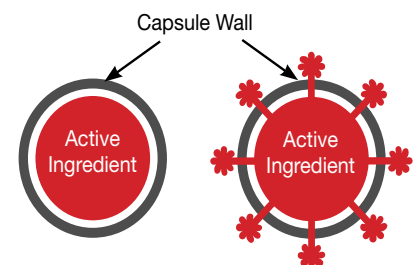
- MicroCare® 3% CS Controlled Release Pyrethrum – A good alternate product choice for special events or situations where long-term control is not required. It kills and repels for several days as opposed to Cy-Kick CS which lasts much longer. Apply as a wet spray to shrubbery, vegetation and other areas where mosquitoes rest.
- ULD® HydroPy-300® Pyrethrin Concentrate – Very useful for quick kill of adults in areas where a residual is not desired. Great for controlling mosquitoes in open areas near homes or outdoor events just prior to when control is needed most as a booster to residual control programs.

General Recommendations

- Educate customer about the nature of mosquito control
- Establish realistic expectations for control
- Inspect for larval development sites and resting sites on property
- Make clear recommendations or assist customer to eliminate larval development sites as appropriate with birdbaths, old tires, planters, clogged gutters etc.

Smartcap Technology

SmartCap Technology from BASF offers the best in microencapsulation formulation science to provide you with the enhanced residual control and durability on porous surfaces, virtually eliminating costly callbacks.



The capsule wall protects the a.i. from surface conditions and the environment. The a.i. diffuses quickly out of the capsule when in contact with an insect's exoskeleton.

Always read and follow label directions.

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