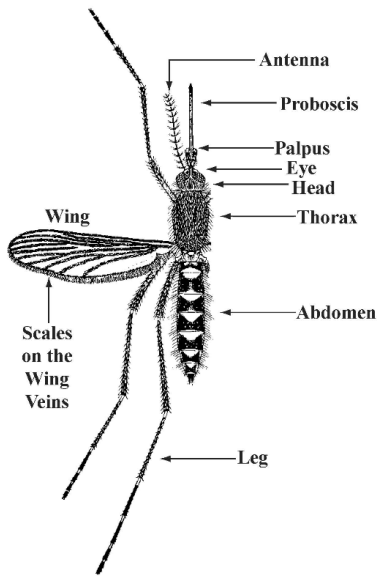




MOSQUITO CONTROL

Adult Female Mosquito



For information about daily trap counts and ground spraying, call the Mosquito Control Information line at 701-787-8144.

LARVICIDING—Larvicides are one of the most effective control measures used for reducing mosquito populations in our community. This process destroys the pests before they become flying and biting adult mosquitoes.

PROTECTION TIMES OF TESTED MOSQUITO REPELLENTS

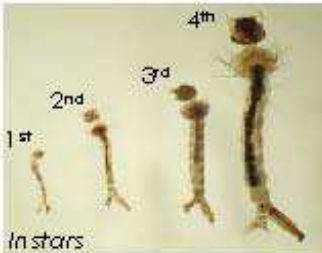
PRODUCTS	ACTIVE INGREDIENT	AVERAGE COMPLETE PROTECTION TIME
OFF! Deep Woods	23.8% DEET	5 hours
Sawyer Controlled Release	20% DEET	4 hours
OFF! Skintastic	6.65% DEET	2 hours
Repel Lemon Eucalyptus Insect Repellent	Oil of lemon eucalyptus; p-menthane 3,8-diol (PMD)	2 hours
Bite Blocker for Kids	2% Soybean Oil	1.5 hours
OFF! Skintastic for Kids	4.75% DEET	1.5 hours
Skin-So-Soft Bug Guard Plus	7.5% IR3535	23 minutes
Natrapel	10% Citronella	20 minutes
Herbal Armor	12% Citronella; 2.5% peppermint oil; 2% cedar oil; 1% lemongrass oil; 0.05% geranium oil	19 minutes
Green Ban for People	10% Citronella; 2% peppermint oil	14 minutes
Buzz Away	5% Citronella	14 minutes
Skin-So-Soft Bug Guard	0.1% Citronella	10 minutes
Skin-So-Soft Bath Oil	Active Ingredient not known	10 minutes
Skin-So-Soft Moisturizing Suncare	0.05% Citronella	3 minutes
Gone Original Wristband	9.5% DEET	0
Repello Wristband	9.5% DEET	0
Gone Plus Repelling Wristband	25% Citronella	0

Repellents

TIPS FOR PARENTS



- The American Academy of Pediatrics says products containing DEET are “the most effective” repellents available and should be used when necessary to protect against insect and tick-borne disease. The AAP says use DEET-based repellents containing up to 30% on children older than two months of age.
- Parents should apply repellent on their own hands and then smooth it on the child’s exposed skin.
- Do not apply repellents containing DEET to a child’s mouth, hands or eyes.
- Keep insect repellents out of the reach of small children and carefully follow label directions when using repellents.
- Children under age 12 should not apply these products to themselves or others.
- Do not assume that, just because insects are not biting you, they are not biting the children. You may need to reapply repellent to your youngsters as needed.
- Always check children for ticks and insect bites after time spent outdoors.
- Apply DEET-based repellents sparingly.
- If bitten by any insect or tick, treat the bite site with a topical antibiotic. If rashes or flu-like symptoms occur within the next few weeks, seek medical attention immediately.



LARVA

LARVA → PUPA → ADULT MOSQUITO

Mosquitoes must have water to survive the early stages of their life. After hatching from their egg, they’ll feed on microorganisms in the water. During growth, they’ll molt (shed their skin) four times. The stages between molts are called instars. When the fourth instar larva molts, it becomes a pupa. The pupa does not eat. During this stage it metamorphosis from pupa to adult mosquito.



PUPA

DO BUG ZAPPERS WORK?



Bug zappers kill a lot of insects, but very few of these insects are considered pests. In fact, many of the insects killed are beneficial insects that would otherwise serve as food for wildlife. Scientific studies have



shown no significant difference in mosquito populations in yards with and without traps. Mosquitoes continue to be more attracted to humans than to the devices. One study conducted in homeowners' backyards showed that of the insects killed by these devices, only 0.13% were female mosquitoes.