

Frequently Asked Questions - Mosquitoes, Mosquito Control, and Chemicals:

Why do mosquitoes come back over the winter – don't they die from cold weather?

Mosquito species can live anywhere from two weeks to two months, but adults of certain species can survive over the winter. These are typically the first mosquitoes active in the spring. Other species overwinter as eggs and can be dormant for as many as three years.

How do you control for mosquitoes?

Larviciding: Jefferson County strives to control mosquitoes before or immediately after eggs hatch and the mosquito is in the larva stage. Larviciding chemicals are not harmful to fish, animals or other insects, and work to prevent the larvae from growing into flying adults.

Larviciding can reduce the overall pesticide usage in our integrated control program (monitoring for mosquitoes, larviciding and adulticiding). Killing mosquito larvae before they emerge as adults reduces or eliminates the need for ground or aerial application of pesticides to kill adult mosquitoes in the event of critical WNV levels.

Adulticiding: Jefferson County Mosquito Abatement District workers set traps throughout the county to trap mosquitoes and test them for the presence of the West Nile virus. When high numbers of mosquitoes are trapped in a location, or in the case West Nile virus is detected in a specific trap, crews are dispatched to the area with ground fogging trucks. The foggers disperse a fine mist of pesticides to kill flying adult mosquitoes to control populations and eliminate those carrying West Nile.

Are the chemicals you use to larvicide dangerous?

There are two methods used in larviciding, both of which are as environmentally sensitive as possible. The first essentially uses a biological pesticide, BTI (*Bacillus thuringiensis israelensis*), a bacteria, to target mosquito larva in infested bodies of water. The bacteria produce protein crystals that stunt the growth of mosquito larvae to prevent the larvae from maturing into flying adults. BTI has selective action; only mosquitoes, black flies and some midges are susceptible to the control agent. Aquatic animals and other insects are unaffected by BTI applications. The second larviciding treatment affects mosquitoes in the pupae and larvae stage. A natural wetting agent applied to the infested body of water actually changes the water's surface film tension so the young mosquitoes cannot get oxygen they need to survive and mature. These larviciding agents do not accumulate in the air, soil or water of a treatment site, nor are they harmful to non-target insects.

Will your chemicals hurt my fish?

Larvicide chemicals do not affect fish, but our adulticide chemicals do so we are careful not to spray within 100 feet of known bodies of water containing fish.

What do I do if I have a fish pond?

If you have a fish pond, you can contact us so that we can put it on our map and we won't treat within 100 feet of your pond.

Will your fogging kill my bees?

Only if the bees are out flying, but we typically fog after dusk and into the evenings after bees have already returned to the hive.

What do I do if I have bee hives?

Contact us and we can put your beehive locations in our mapping program to avoid the immediate area as a safety precaution.

Does your fogging hurt beneficial insects?

No, we use an ultra-low volume fogger that releases micron-sized droplets in the evenings. These droplets are so small that one drop can kill a mosquito, but does not have a fatal effect on larger insects like dragonflies, butterflies or moths.

Does it cost me anything at time of service?

No, we do not charge a service fee. All activities within the mosquito abatement district are covered in your property taxes if you live within the mosquito district.

Will you fog my property every night?

No, that is too often according to the insecticide label. Under normal conditions, the maximum frequency of spraying the same area is twice per week, unless West Nile virus has been confirmed within that area via our surveillance. This is to prevent the mosquitoes from building a resistance to our fogging insecticide.

What do you guys do all winter when there is no mosquito activity?

We survey sites, repair broken equipment, record new habitat, retire old habitat, public education, research and data analysis, and continue training on new abatement procedures.