

**City of Portage, Wisconsin  
Frequently Asked Questions  
Regarding Mosquito Control  
April 2, 2012**

**Question:** Is it true the City is no longer going to spray for mosquitoes? Why?

**Answer:** The City is modifying its mosquito control methods to be more effective and acceptable to the public.

During the past several years, the city's policy for controlling mosquitoes has been varied and challenged. While some constituents demand rigorous spraying, others demand ceasing the practice, citing health and environmental concerns.

Over the past four summers, the City has reduced the amount of spraying-limiting the operation to civic events and responding to neighborhoods seeking relief. Spraying was performed with Anvil 2+2 which kills adult mosquitoes on contact. Because spraying can provide short term relief, the City will limit it's remaining supply to evening events in City Parks.

**Question:** Has the City sought to obtain objective expertise on effective mosquito eradication methods?

**Answer:** To obtain objective information, a public information meeting was held in June, 2011. A presentation was given by Mr. Phil Pellitteri from the UW Madison Insect Diagnostic Lab. Mr. Pellitteri's presentation included the following key findings:

- Most natural and artificial means of mosquito control, including spraying, have little long term effect on reducing the number of mosquitoes.
- Spraying is ineffective because mosquitoes are typically blown in from many miles away.
- For spraying to be effective, treatment has to be on a regional basis. This takes intergovernmental cooperation and a significant financial commitment.
- Certain products, placed in areas of stagnant water, can be effective to control mosquito larvae. Portage's refined program employs this methodology.
- Residents can help themselves by eliminating areas of standing water which are the source of mosquito propagation.
- The West Nile virus and other blood borne diseases, though carried by certain types of mosquitoes, aren't very prevalent in Wisconsin.

**Question: Should I be worried about West Nile Virus?**

**Answer:** West Nile Virus (WNV) is transmitted by mosquitoes, and by the end of 2004 it had spread over much of the country. In rare cases, the virus may cause West Nile encephalitis with severe symptoms requiring hospitalization. While WNV can affect anyone, risk increases with age. People over 50 are at higher risk to develop serious symptoms.

**Question: If the City isn't going to spray the adult mosquitoes how will the mosquitoes be effectively controlled?**

**Answer:** The City will use Natular XRT pellets, a mosquito growth regulator to control mosquitoes while they are still in the larval stage of their life cycle. These materials are applied by hand to catch basins, ponds and other areas of standing water to keep larval mosquitoes from fully developing.

Floodwater mosquitoes lay their eggs singly on the damp ground. After significant rainfall these eggs become submerged and the larvae hatch. Mosquito larvae come to the surface of the water to breathe. They go through four growth stages, then change into pupae.

Adult mosquitoes develop inside a pupal case. When they are fully developed, the pupal case splits and the adult mosquito emerges. The newly emerged adults rest on the water surface until their wings dry and they become strong enough to fly away and feed. Females then take blood, develop their eggs, and the cycle begins again.

**Question: What is the scientific basis for using Natular larvicides?**

**Answer:** Natular larvicides contain Spinosad, a naturally derived active ingredient produced in a state-of-the art fermentation facility. Spinosad has been tested on fourteen of the most common vector and nuisance mosquito species and is effective against all of them.

Spinosad is registered under the US EPA Reduced Risk program and has favorable environmental characteristics. It is not acutely toxic to terrestrial birds, wildlife, or to fish and most aquatic invertebrates. Mammals rapidly metabolize spinosad.

**Question: What can I do around my house to keep the mosquitoes down?**

**Answer:** Because the floodwater mosquito is the most troublesome, eliminating sources of standing/stagnant water is very beneficial. Remove or empty water-holding containers, trim vegetation where adult mosquitoes rest, avoid going outdoors during dusk and early morning, wear loose light colored clothing, and use repellents and insect control products.

Recently, traps which burn propane and produce carbon dioxide to attract mosquitoes have come on the market. A number of studies are under way in the US to measure their effectiveness. Permethrin is available in some over-the-counter insect control products. Hand-held foggers powered by electricity or propane which use permethrin can be purchased at home and garden stores. Always read and follow the label when using any repellent or insecticide.

**Question: What about using bats, birds, citronella plants, bug zappers, etc. to control mosquitoes?**

**Answer:** Ultraviolet (black light) electric traps, or bug zappers, are not effective in reducing mosquito annoyance. Further more, these traps kill large numbers of non-pest insects such as beetles and moths. These insects are beneficial as part of the food chain, and some are natural biological controls on other insect pests.

Studies have shown that devices using high-frequency sound waves have little or no effect on mosquitoes. Citronella plants also have not been proven to effectively repel mosquitoes.

Many people believe that erecting purple martin and bat houses will reduce mosquito populations. However, in-depth studies have shown that mosquitoes comprise less than 3% of the diet of purple martins. Likewise, bats are opportunists and will eat a variety of insects. Martins and bats will consume mosquitoes, but are not likely to significantly reduce the population.