



FRANKLIN COUNTY GOVERNMENT

CONTACT:

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Mosquito Surveillance & Control Frequently Asked Questions

Who gives you the authority to conduct these applications?

Pennsylvania Department of Environmental Protection provides grant funding to county government to deploy the strategies outlined in the "The Pennsylvania West Nile Virus and other Arboviral Diseases: Surveillance, Prevention and Control Plan". Franklin County has entered into a grant agreement with PADEP to meet the strategies outlined in the Pennsylvania Arboviral Control Plan.

When do you perform a truck-mounted event?

In Pennsylvania, active mosquito surveillance guides our control efforts per our Integrated Mosquito Management protocol. Before the decision is made to conduct adult mosquito control, efforts are first made to reduce the populations through breeding habitat source reduction and larval control. Other factors are also considered including the local habitat, characteristics of the mosquito species, population size, the status of mosquito-borne diseases in the area, and the proximity and risk to nearby human populations. Based on these, adult mosquito control is sometimes necessary to reduce the risk of disease transmission to people.

Who conducts the adult control?

All larval and adult mosquito control is performed by licensed professionals in the Franklin County Mosquito-borne disease control program.

What are you applying?

The products used are approved by the U.S. Environmental Protection Agency (EPA) and are applied according to their respective labels. The EPA continuously tests and monitors ingredients in such products to ensure the integrity of the environment remains intact. The

active ingredient in our adult control products is a variation of a pyrethroid- a synthetic pesticide derived from properties of the chrysanthemum flower. This active ingredient is also often found in household pest sprays, agricultural products, lice treatments, topicals on dogs for fleas and ticks, and even clothing treatments used to kill and repel ticks. Pyrethroids have been used since the 1970s.

I am not getting bitten, why are you performing adult control?

Through our intensive mosquito surveillance, the areas targeted for adult mosquito control have been identified as areas of high risk of mosquito disease transmission. Mosquito “problems” are not all created equal. While you may not notice mosquito activity or bites, others in your proximity may. Furthermore, it only takes one bite from an infected mosquito to become sick.

I have not heard of any humans testing positive for West Nile Virus. Why are you saying West Nile Virus have been found?

When we announce that adult control is being performed because West Nile Virus or other mosquito-borne diseases has been found in the local mosquito population, that means mosquitoes we are trapping have tested positive for West Nile Virus, not humans. Our job is to then decrease the adult mosquito population so that it lowers the risk of virus being transmitted to humans through a mosquito bite.

Furthermore, whether you ever encounter the virus or hear of people contracting it or not, West Nile Virus is very real in our area. It can be present without symptoms, or it could be displayed with severe symptoms and even cause death.

Why are you spraying now? I checked the DEP website and there are not that many West Nile-positive samples around here.

There is a small lag between when the local counties receive mosquito trap data and when it is made public on the DEP website. Local programs receive data daily to make decisions on the best course of action to control mosquito populations capable of disease transmission. DEP updates this data weekly on its public website, <https://www.pa.gov/agencies/dep/programs-and-services/bureau-of-labs/vector-management/mosquitoes>. A county may announce plans for an adult control event before the DEP website can be updated.

What do adult control products do to humans, pets, and other animals?

When applied according to pesticide label requirements, adult mosquito control is not harmful to people or pets. Mosquitoes are tiny targets compared to other organisms of concern and therefore, a little product goes a long way. For example, most products are applied at a rate of

1oz per acre. That's roughly the equivalent to distributing 2 tablespoons of product evenly over an entire football field.

Does adult mosquito control kill bees or other pollinators?

The adult mosquito control products used in Pennsylvania are engineered to target mosquitoes. Most treatments occur in the evening, around dusk, after bees have returned to their hives for the night. The droplets deployed in such applications are microscopic and designed to break down after 20 minutes, leaving no residual. As an extra precaution, no application is performed within 500 feet of a PA Department of Agriculture documented apiary.

What precautions can homeowners take when a truck-mounted application is planned in their area?

While our products are designed to leave no residual and are considered safe for people and pets, homeowners can take extra precautions by closing their windows and doors and remaining inside. As a courtesy, we are in the practice of turning off the equipment whenever people are seen outside. However, because of this courtesy, applications will be less effective if we have to constantly turn our equipment off.

I don't want my property to be on the truck route. What can I do?

Residents who are registered as hypersensitive with the Pennsylvania Department of Agriculture are notified of applications conducted in close proximity of their homes. Furthermore, product is not applied within 500 feet of a hypersensitive's property.

Have you considered a natural approach, like bats, to help control mosquitoes?

Bats are generalists in targeting insects. However, even if bats fed exclusively on mosquitoes, a single female mosquito can lay 100-200 eggs every three days – way more than any bat could consume in that same timeframe. There will always be higher numbers of mosquitoes reproducing in the environment than bats can eat.

Can I plant flowers that will repel mosquitoes?

Plants such as chrysanthemums, lemongrass, etc. are advertised as being mosquito repellents. While there is some merit to these claims since essential oils are derived from these plants to repel mosquitoes, the plants themselves do very little. Your best course of action to repel mosquitoes is to apply repellent and remove and standing water on your property.

1. Inspect your own property, including every nook and cranny, and look for artificial containers, clogged gutters, corrugated pipes off downspouts, old buckets, swimming

pools, flowerpots, old tires, etc. Make sure to dump any standing water and store or position containers in a way that they will not collect rainwater.

2. Encourage your neighbors to also conduct an inspection of their properties for possible standing water hazards. Mosquitoes do not travel far from their breeding ground, so any mosquitoes you see are coming from your property or your neighbor's property.

3. If you are unable to treat your standing water problem, spray any non-flowering vegetation (ivy, trees, and shrubs) around your property with a barrier spray that can be hooked to your hose to kill adult mosquitoes. You will have to do this about once a week or once every two weeks. Be sure to follow all label instructions. If you are unable to treat your property yourself, consider hiring a private pest control company.

Can I put out a “mosquito bucket of doom?”

The best way to reduce mosquito populations is to eliminate their habitat altogether. Providing habitat, regardless of how well it is maintained, will attract mosquitoes to your property that may have never otherwise been there.

Can't you just release sterile mosquitoes to control their populations?

The Franklin County Mosquito-borne Disease Control Program operates through a grant executed by the Pennsylvania Department of Environmental Protection. The research and data associated with this practice has not proven feasible as of now given the economic constraints or its long term and widespread efficacy across the state of Pennsylvania.