

West Nile Virus Larvicide Questions and Answers

What is larviciding?

Larviciding is the use of pesticides to control specific species of insects such as mosquitoes. Larvicides kill the larvae before it becomes an adult mosquito. Controlling mosquitoes when they are in the water is an effective approach because the mosquito is somewhat isolated and known breeding sites can be recorded and routinely monitored. For many districts, this is the bulk of their operations.

Why is larvicide being used?

Larvicide is used in areas where monitoring information shows that mosquito larvae are present. Larvicide is only applied when other measures for the reduction and control of breeding sites do not work to minimize the risk of West Nile virus. For Kittitas County we chose to larvicide a specific area because a positive equine was recorded last year in Upper County.

What products are being used?

There are a number of different products available for abatement practices. Often times, one product will be better suited for a particular situation than another product. The larvicide that has been selected for mosquito control in Kittitas County is Bti (*Bacillus thuringiensis israelensis*).

Bacillus thuringiensis israelensis, known as Bti, is a bacterium. Bti contains protein crystals that rupture digestive cells in mosquito larvae when ingested and larvae

become sluggish and die within 24 hours is applied to standing water in a granular form. This agent is used to control mosquito larvae in temporary standing water. Standing water is water that remains in an area for more than one week (seven days or more) and is not flowing or subject to wind or wave action. Standing water can collect on the ground, a roof, pool covers, and in containers such as tires and eaves.

Are there any risks to using this product (Bti)?

Bacillus thuringiensis israelensis (Bti) has no short or long term health effects on humans or on wildlife, including aquatic organisms. Bti is only used on temporary standing water (ditches, etc.) and on temporary or permanent no-flowing water sites. It represents a very low risk to other non-target insect species.

How is the West Nile virus program carried out?

The Kittitas County Health Department's West Nile virus program is focusing on three areas this year:

- Public education
- Monitoring and surveillance
- Larviciding

If standing water can be removed to eliminate the potential mosquito breeding site, this is done. In this case, larviciding is not necessary. If the standing water cannot be removed (as in catch basins, ditches,





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ponds, etc.), these areas are monitored for the presence of mosquito larvae. Larvicide is applied only when mosquito larvae are found. The larvicide that would like to be used in Kittitas County is in granular form. Larvicide is not sprayed into the air or onto surrounding land.

How do you investigate possible breeding sites? How do you know if there are mosquitoes breeding in this site?

The definition used for standing water is water that persists for seven days or more. If the site meets the definition for standing water the site will be investigated. The investigation includes dipping of the water to determine if mosquito larvae are present.

What larvicide can I use on my property?

There is a larvicide product containing Bti that received federal approval in 2003 and is available at local stores. This larvicide product can only be used for the treatment of standing water sites on your own property.

The product is available at many hardware stores. **Please Note** - The manufacturer's

instructions for use must be strictly followed at all times. This larvicide cannot be applied to catch basins or other waters that can drain off your property.

Are there any other ways to control mosquitoes that don't include the use of pesticides?

There are several ways to control mosquitoes other than by the use of pesticides. You can remove all potential places where mosquitoes might breed. This includes items around the yard such as old tires and containers where water might collect. Also, fill in low areas and ditches that can collect water. Elimination of mosquito breeding sites is an effective measure of control although it may not be feasible in all cases.

Will I be kept informed?

The Kittitas County Health Department uses a variety of methods to keep the public informed about West Nile virus. Methods include periodic media releases, the Health Department's website, and the distribution of information at locations throughout the county.

For more information, please contact

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