



What you should know about truck-mounted larval control

Larval surveillance and control is a critical component of any effective Integrated Vector Management (IVM) program. When mosquitoes are eliminated prior to becoming adults, they cannot pose a nuisance or disease problem. Larval mosquito surveillance and control are the largest and most extensive aspect of the Coachella Valley Mosquito and Vector Control District mosquito control program.

1. What is the District hoping to achieve by carrying out this operation?

The goal is two-fold. The District wants to reduce the number of invasive mosquitoes that are capable of transmitting serious viruses, including chikungunya, dengue, and Zika, as well as diminishing the quality of life of residents due to incessant daytime biting. Currently these viruses are not transmitted locally and we want to keep it that way. Local transmission of these viruses can begin if a person returns to the Coachella Valley after traveling to an area where there is active transmission of these viruses. If that person is then bitten by one of these mosquitoes, that mosquito can infect local residents. We also want to reduce the population of native mosquitoes, which are capable of transmitting serious viruses we see annually in the Valley, such as West Nile and St. Louis encephalitis. While most people will not develop symptoms if infected, roughly 2 out of 10 people will experience flu-like symptoms and in the most serious cases convulsions, paralysis, and in rare cases death.

2. Why is the District carrying out larval control treatments in my area?

Continued detection of the invasive mosquito in an area increases the risk of local transmission of an invasive mosquito-borne disease. The ultimate goal is to protect the community from mosquito-borne diseases. Larval control is an important tool for mosquito control. It helps reduce mosquito populations in areas with high mosquito counts. Larger area applications are often carried out by truck or helicopter. During treatments, the product is applied to areas of standing water where mosquitoes breed. Vector Control Program staff are present before, during, and immediately following the treatment to monitor the application and answer questions.

3. What product is used?

The product, VectoBac® WDG, is environmentally friendly, approved for application on organic crops, and registered with the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation. The active ingredient in this product is *Bacillus thuringiensis israelensis* (Bti), a microbe found naturally in soil.

- Organic Materials Review Institute - <http://www.omri.org/omri-lists>
- EPA - <https://www.epa.gov/mosquitocontrol/controlling-mosquitoes-larval-stage>
- CDPH - <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/MosquitoControlandPesticides.pdf>
- Product Manufacturer - <https://valentbiosciences.com/publichealth/products/vectobac>
- National Pesticide Information Center - <http://npic.orst.edu/factsheets/BTgen.pdf>

Coachella Valley Mosquito and Vector Control District

43-420 Trader Place • Indio, CA 92201 • (760) 342-8287 • CVmosquito@cvmvcd.org • www.cvmvcd.org



4. How does the product work?

Bti makes proteins that are toxic to immature mosquitoes (larvae) found in standing water, preventing them from developing into flying adult mosquitoes. This lessens the need to spray for adult mosquitoes.

5. How safe is this product for me, my family, and my pets?

Risk to the general public from the use of Bti is minimal. It has no effect on people, pets, plants, or wildlife at the amounts used for mosquito control. In fact, little to no direct toxicity to non-target insects has been observed with this product.

6. How can we limit our exposure to the product?

Residents may choose to stay indoors during and for 30 minutes following the application as a best practice to reduce exposure.

7. How long will Bti last in the environment?

Because Bti is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs quickly after application.

8. Will this be a one-time thing?

The next steps will be to evaluate the impact of the application prior to finalizing any expanded operations in areas where we continue to find mosquitoes. The District will continue to carry out larval and adult control by air and by truck in an effort to reduce the risk of virus transmission.

9. Is there anything the community can do to help control these mosquitoes?

This is a community problem. The District is urging residents to do their part to eliminate stagnant water around the home. Working together will increase our chances of ridding the mosquito from our community. Removing mosquito breeding sources is the best long term solution to reduce mosquito breeding on your property and the risk of disease transmission in your neighborhood.

- Dump and drain standing water around your property weekly.
- Regularly scrub clean containers (*Aedes aegypti* can lay eggs in as little as a teaspoon of water and eggs can survive dry conditions for months).
- Check gutters and drains for water.
- Call the District to report mosquito activity.