FREQUENTLY ASKED QUESTIONS ABOUT MERUS® FOGGING

Q. Why is it important to fog?
A. Fogging kills mosquitoes that are infected with West Nile virus in an area. Mosquitoes need a blood meal to live and when they feed can give the virus to people. Humans, horses, and other animals can get sick and possibly die from West Nile virus infection. West Nile infection does not cause symptoms in most people, but in some individuals it can cause fever, headache, body aches, and in severe cases, significant neurological damage or death. Adults older than 50 years old and individuals with certain chronic medical conditions such as diabetes, high blood pressure, cancer, and kidney disease are most at risk for serious complications

Q. What time of year does the Santa Clara County Vector Control District (District) start fogging operations?
A. The District uses insecticides to kill adult mosquitoes when West Nile virus-infected mosquitoes have been detected. This usually happens from May-September.

Q. How can I receive notification of foggings?
A. We notify through **Twitter**, **SCCvector apps (IPhone and Android)**, **Yahoo Groups**, **alertSCC**, **Nextdoor**, and on our website at **SCCvector.org** (a map of the fogging zone can be found there). Prior to the fogging operation, households in the fogging zone will receive the District's advance notification door hanger delivered directly to their doors. In addition, fogging operations are always preceded by releases to news media.

Q. How does the District apply the products during a fogging campaign?
A. The product is sprayed by a truck-mounted fogger using very small amount of pesticide in a process known as Ultra Low Volume (ULV) fogging. The mist of microscopic droplets or "fog" is airborne and is not intended to leave significant residues. Flying mosquitoes are killed by contact with the fog. Mosquito fogging is done at night when most mosquitoes are flying and traffic is minimal.

Q. What type of insecticide is used by the District for adult mosquitoes?
A. One of the materials that we currently use is Merus 2.0, an undiluted, botanical insecticide derived from chrysanthemum flowers named. This product is approved by OMRI for use in organic production.

Q. How will this insecticide affect me and my family?
A. At the rates that fogging products are applied in Santa Clara County, only 0.66 fluid ounces (~1.32 tablespoons) per acre, there should be no significant risk to you or your family. There is no need to relocate during the fogging. If you want to keep your family and pets away from fog droplets keep them inside during the fogging event, shutting doors and windows.

Q. Will this product affect pets?
A. Merus does not affect pets. At ULV application rates, Merus has a significant margin of safety for mammals, birds, fish and reptiles. In fact, the active ingredient pyrethrin is currently used in much higher doses and applied on the skin on both dogs and cats for flea and tick control. If you are concerned about direct fog exposure to your pets bring them indoors during the fogging event. Any toys, water dishes, etc. that stay outside can be washed or wiped down before the pet uses them again.

Q. What if I am pregnant?
A. At ULV application rates, there are no special precautions needed for pregnant women. However, if you wish to minimize exposure, closing windows and turning off air circulation systems will suffice. As always, if you have medical concerns, consult your physician.

Q. How do we know that fogging will not cause negative health effects?
A. Our **Science Research Page** (*https://www.sccgov.org/sites/vector/diseases/Pages/Science-research-related-to-WNV-and-fogging.aspx*) provides peer-reviewed science literature on this and other related topics. If you feel ill after a fogging; you should see your physician.

Q. How does the fogging reach my back yard?
A. Once released from the fogging unit, the microscopic droplets follow the air currents wherever they go. Some will go over the house, and some will go around.

Santa Clara County
Vector Control District

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Q. Will the ground fogging affect fruits and vegetables?
A. For fruits and vegetables, just the normal washing with water before consumption is recommended. Merus 2.0 is approved for use on organic production and quickly breaks down in sunlight.

Q. Will the ground fogging affect my lawn furniture, play equipment, toys, garden plants, swimming pool water, etc.?
A. The active ingredient, pyrethrin degrades rapidly in the environment. It should not affect car paints or other painted surfaces. However, if you are still worried about residue on your food or children's play things wash or wipe them down before use.

Q. Will this product affect bees?
A. Pyrethrin is toxic to bees when directly applied to them, however fogging is done late at night (usually starting around 11 pm) when most mosquitoes are flying, and bees are not active. Bees are considered to be inactive from one hour after sunset to two hours before sunrise. Local field tests with Merus 2.0 showed bee survival after fogging ranging from 25 to 175 feet away. If you are worried about your hives, you can provide extra protection by covering the entrances with wet burlap during the fogging operation. The claims that the problems with bee colonies are purely due to pesticide applications have not been supported. No single factor or pattern of factors has been proven to be "the cause" of the decline or of Colony Collapse Disorder, CCD. Parasites, pathogens, poor nutrition, drought, bee management practices, habitat fragmentation, and pesticides are thought to be potential factors.

Q. How Low is Ultra Low?
A. To picture how low the volume and dose of pyrethrins are during fogging operations, consider that the volume of Merus 2.0 liquid used is roughly equivalent to spreading 1⅓ tablespoons, or 7½ thimblefuls of liquid over a football field, and the amount of active ingredient (pyrethrins) applied amounts to about half a penny's weight per acre.

Q. Will the fog cause reduced visibility when I'm driving in the neighborhood?
A. No, the ULV fog is very dilute, and will not reduce visibility for driving or other activities.

Q. How long does the fogging take?
A. Fogging operations begin at 11:00 p.m. and are usually completed by 2:00 a.m. the following morning.

Q. How long does the fog stay in the area?
A. The fog does not stay in a given area. Ideally, the fog drifts through the neighborhood with air currents traveling above 1 mile per hour. As it travels down-wind, it becomes more diluted.

Q. Do District staff need access to my property?
A. No, fogging is done using truck mounted units which travel slowly down the street.

Q. I didn't hear anything last night; does that mean the fogging was cancelled?
A. No. Most of our fogging units are designed to be very quiet, so most people will probably not hear them as they pass down the street. However, if conditions like wind speed and temperature are out of range for a successful fogging event; the event will get postponed. If fogging operations are postponed, the District will notify residents on the **SCCvcd.org** website, **SCCvector app**, **Yahoo Groups**, and **Twitter**.

Q. Where can I get additional information regarding specific insecticides?
A. Questions concerning Merus 2.0 can be directed to the U.S. Environmental Protection Agency (visit **www.epa.gov** and type in "pyrethrin" or "Merus" in the search box). More information can also be found at the National Pesticide Information Center - NPIC (**http://npic.orst.edu**) or toll-free: 1-800-858-7378. A University of California toxicologist's view on the matter of WNV and pesticides can be found at http://extoxnet.orst.edu/newsletters/ucd2005/nltrSpecialEditio n05.html