

MOSQUITO CONTROL OPTION #3 – NO FOGGING (sewer dunks & resident education – yes)

- Fogging is the least effective method of mosquito control:
 - “According to the U.S. Centers for Disease Control and Prevention, and the American Mosquito Control Association, the airborne spraying of pesticides, commonly called mosquito ‘fogging’, to kill adult mosquitoes is the **least effective method** to control mosquito populations.”ⁱ
 - Per Harris County Public Health Mosquito Control: the #1 step they take is to control the birth of mosquitos by employing larvicide in sewer drains or other standing water sources. The County will only fog when a trapped mosquito tests positive; County will spray for 3 days and stop.
 - “WHO (World Health Organization) stresses that the elimination of mosquito breeding sites is the most effective intervention for protecting populations. **Fogging, which is recommended for emergency situations only**, is most effective when conducted in the hours around dawn and dusk, when mosquito activity is most intense.”ⁱⁱ
 - Per Rodney with ABC Pest Control, in 2009 SSCA did not spray and only did dunks only and there was not a mosquito problem – there was a major impact with only dunks. The following year fogging instead of dunks was implemented and mosquitos became an issue again; reason for resuming fogging unknown.
 - “Nearly all published studies of ULV efficacy are bio-assays based on the mortality of caged mosquitoes. In our study we preferred to monitor the direct impact of treatments on the wild mosquito populations.... Susceptibility to the insecticide was high but there was no discernable change in the oviposition rate or the catch of adult female mosquitoes, nor was there any change in the parous rate.”ⁱⁱⁱ
 - “the reactive space spraying of insecticides during emergencies, a measure with high visibility and political appeal but low impact unless integrated with other control strategies.”^{iv}
 - The EPA lists adulticide has the 4th of 4 steps to control mosquitos.^v
 - Mosquitos become resistant to the insecticides – pyrethroids. The same insecticides have been used since 1977.^{vi}
- People can be sensitive to the chemicals:
 - “People who may be particularly sensitive to chemicals could possibly experience short-term effects, such as eye, skin, nose or throat irritation or breathing problems. Some pesticide residues may be present on outdoor surfaces after spraying.... All people, especially children and pregnant women should avoid exposure when practical.
 - If possible, remain inside or avoid the area whenever spraying takes place and for about 30 minutes after spraying. That time period will greatly reduce the likelihood of your breathing pesticide in air.
 - Close windows and doors, and turn off window air-conditioning units or close their vents to circulate indoor air before spraying begins. Windows and air-conditioner vents can be re-opened about 30 minutes after spraying. Managers of buildings with ventilation systems should shut off intake during spraying.”^{vii}
- Long term affects:
 - “They are an important link in the food chain. Many animals depend on them as a source of food. During their aquatic stage, mosquito larvae provide food for the other aquatic insects such as, dragonfly nymphs and beetles, fish, frogs and other water-dwelling animals.”^{viii}
 - Chemicals kill or negatively affect what it touches. “Pyrethroids are toxic to fish and to bees.”^{ix}
 - “Pyrethroids, like all toxins, are indiscriminate: they affect all the organisms who come into contact with them in the air, on plants, on the ground, in the soil, and in the water”^x
- There are better alternatives for mosquito control:
 - Implement commercial-grade sewer dunks in all storm drains
 - Fogging by SSCA only affects the street and ⅓ – ½ of the front yard leaving the remaining property & public areas untreated for mosquitos. For a holistic approach, all Homeowners are encouraged to be proactive:
 - Refer to “steps homeowner’s can take” education guide published by the SSCA Mosquito Committee
 - <http://publichealth.harriscountytexas.gov/Portals/27/Documents/Resources/Mosquito/FighttheBiteJuly2012.pdf?ver=2016-06-17-103620-953>
 - “Botanicals can also be used as reducing and capping agents for the rapid synthesis of mosquitocidal nanoformulations, and can even be employed to prepare cheap repellents with low human toxicity”^{xi}

ⁱ <http://midwestpesticideaction.org/forgo-the-fog-alternatives-to-mosquito-fogging/>

ⁱⁱ <http://www.who.int/emergencies/zika-virus/articles/mosquito-control/en/>

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- iii <https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-016-1881-y>
- iv <http://www.who.int/emergencies/zika-virus/articles/mosquito-control/en/>
- v <https://www.epa.gov/mosquitocontrol/success-mosquito-control-integrated-approach>
- vi <https://www.sciencemag.org/news/2016/10/after-40-years-most-important-weapon-against-mosquitoes-may-be-failing>
- vii <http://www.health.ri.gov/disease/carriers/mosquitoes/about/spraying/>
- viii <http://www.cityofchesapeake.net/Page2972.aspx>
- ix <https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrin-synthetic-pyrethroids-mosquito-control>
- x <http://www.anapsid.org/pyrethroids.html>
- xi <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5198200/>