



FAQ 5. Are mosquito control insecticides safe? Should I be concerned if I'm exposed to spraying?

The Mosquito Control Section **only uses insecticides that are registered by the U.S. Environmental Protection Agency (EPA) for mosquito control purposes.** The EPA has determined through an inclusive and exhaustive science-based testing and review process that when these modern insecticides are applied in accordance with all EPA-approved product label instructions, which by federal law must be followed, their application **“poses no unreasonable risks to human health, wildlife or the environment.”** In part, the types of testing include exposures and reactions of birds and mammals to ingested, inhaled or dermal contacts with a pesticide; as well as examining acutely toxic and sub-lethal chronic effects of pesticide exposures to fishes, reptiles and amphibians, and terrestrial and aquatic invertebrates.

The hazardous warning statements and other safety precautions that appear on **pesticide product labels** are often a source of concern to folks who do not understand their context or applicability, and as such sometimes present public relations problems for our program. It must be kept in mind that the EPA-approved warning or precautionary language on product labels is targeted primarily toward avoiding having a human or other type of organism have direct exposure (through ingestion, inhalation or dermal contact) to full-strength, undiluted products, as well as what to do if such exposure has occurred. The product label language is designed for spray applicators themselves, who might routinely or accidentally have such exposures. It must be understood that the final application of insecticides during our routine spray operations is always done via a mode of delivery approved by the EPA, with applications made at concentrations that are either very diluted or at Ultra-Low Volume (ULV) rates, and which are not done frequently for any given site. These application conditions have allowed the EPA to scientifically conclude that when all product label language and instructions are followed as federal law requires, use of our mosquito control insecticides **“poses no unreasonable risks to human health, wildlife or the environment.”**

As part of the Delaware Department of Natural Resource and Environmental Control (DNREC) within the Division of Fish and Wildlife, the Mosquito Control Section is very concerned that **there are no unacceptable non-target impacts** (to humans or fish and wildlife) whenever we conduct our spray operations. It is fairly safe to say that the benefits of **judiciously** using modern-day pesticides to help meet important societal needs (e.g. mosquito control, rodent control, disease prevention, crop production, food storage,

timber production, structural building protection, landscaping needs, etc.) far outweigh any known risks **for EPA-registered products**. The EPA's product registration or re-registration process over the past 35 years has taken almost all previously-used "bad actor" pesticides off the market, and has not knowingly let any new "bad actor" products into the market.

Almost all remaining potential problems for human health or non-target organism impacts caused by mosquito control spraying primarily arise from human mistakes or application errors that might be made in the rate of application (e.g. spray equipment calibration errors), the timing or place of application (e.g. accidentally repetitively swathing the same area), or with other operational aspects of performing spraying (e.g. spraying when too windy or not windy enough). All of these potential errors can be avoided when product label instructions are scrupulously followed, and applications are made by dedicated, trained professionals. Mosquito Control Section staff and our contractual spray applicators are all knowledgeable professionals **certified by the Delaware Department of Agriculture** for using insecticides in proper and safe manner.

If you are exposed to spraying, you probably will not notice any effects from the spraying. However, if you are **hyper- or chemo-sensitive** to the insecticide products that we use, particularly for our adulticides for which people are much more likely to be exposed in contrast to our larvicides, you should try to avoid exposure to spraying. Hyper- or chemo-sensitive individuals might experience allergic-like reactions to our spraying, perhaps consisting of irritated eyes or throat, sneezing, coughing or other mild symptoms. In the event that you are experiencing adverse health effects following insecticide application, you should consult your personal physician or seek other medical care. You will also find information in FAQs 6 and 7 that should help you avoid exposures to our spraying.

More information about the insecticides we use and their safety can be found on the **Mosquito Control Section's** website at <http://www.fw.delaware.gov/fw/mosquito>. The phone number to contact the **Section's administrative headquarters** in Dover is **302-739-9917**. If you want information about the State of Delaware's pesticide oversight/regulatory program, you should contact the **Department of Agriculture's Pesticide Management Section** in Dover at **302-698-4500**. If you want more information about any possible human health impacts of exposure to our insecticide products, you can call the **Division of Public Health, Environmental Health Evaluation Branch** in Dover at **302-744-4546**. Information about the **U.S. Environmental Protection Agency's (EPA)** positions on mosquito control insecticides can be found on the EPA website at <http://www.epa.gov/mosquitocontrol/>. The Mosquito Control Section is also a participating affiliate of the **American Mosquito Control Association (AMCA)**, in turn participates in the EPA's **Pesticide Environmental Stewardship Program (PESP)**, which encourages safe use and good stewardship of our insecticide tools. More information about the AMCA and the PESP is available on the AMCA's website at <http://www.mosquito.org>. Information about non-target impacts of pesticides can also be found at the **EXTOXNET** website (a consortium of academic research institutions) at <http://extoxnet.orst.edu/>.