



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE

DELAWARE MOSQUITO CONTROL SECTION

FOGGING GUIDELINES FOR URBAN AND SUBURBAN COMMUNITIES

Questions & Answers

Q1. How does the Mosquito Control Section “spray” to control adult mosquitoes in your community?

A1. “Fogging” is the term generally used to describe community based, ultra low volume, insecticide applications for the purpose of controlling adult mosquitoes. This is most commonly done using a machine mounted in the back of a pick-up truck which puts out a very fine spray (“fog”) of insecticide. This fog is designed to remain in the air for an extended period of time, therefore increasing its ability to come in contact with the greatest number of mosquitoes. This procedure is usually performed in the evening hours beginning at sunset and continuing for up to 4 hours thereafter, or in the 3 hour time period before sunrise up to about an hour after, to coincide with peak activity for most mosquito species, as well as the most stable atmospheric conditions. The Mosquito Control Section’s fog trucks always (unless there is a mechanical malfunction) drive through developments first with a flashing strobe light indicating the intent to begin spraying. This strobe light is also operated while actively fogging.

Q2. What steps do we need to take to have our community fogged?

A2. Communities or developments located outside of incorporated city or town limits often govern themselves through a civic or homeowners association or maintenance corporation. When one of our field offices (either in Glasgow or Milford) is first made aware in some manner of a mosquito problem in a given community or development, along with the residents of such areas then requesting some fogging, our first step whenever possible or practicable is to determine (via various field measures of mosquito abundance or annoyance) if fogging is indeed necessary. While we might be investigating in the field the need for fogging, the community’s governing body (if such exists) should (if possible) inform the residents of the entire community or development (or just the section that seems to be experiencing the mosquito problem) that a request for mosquito spraying has been made. If some residents would prefer not to be exposed to the treatment, then they should read and follow the instructions given in Answer #6 (A6) below. For communities or developments having a governing body, an authorized representative of this body should then send or provide us with an initiating letter or fax stating simply that “The residents of

Delaware’s good nature depends on you!

_____ have been notified by our community's governing body about the following -- we are requesting the Mosquito Control Section to fog the development (or just certain streets) on an as needed basis." This initiating letter should be signed by an official representative authorized by the governing body to speak on behalf of the residents. Once the initial fogging treatment has occurred, a representative of the governing body will need to call Mosquito Control on an as needed basis to request each additional fogging. For communities or developments without a governing body request or help guide fogging treatments, the Mosquito Control Section will then try the best we can in terms of mosquito problems and their treatment to determine what's best for the community as a whole, and then act accordingly.

If your development falls within a municipality's corporate limits, requests for mosquito control should be directed to the local government, which if approved a city or town official will then make the request for spraying on behalf of the community.

Q3. What chemical is used for fogging and is it safe?

A3. The primary insecticide used by the Delaware Mosquito Control Section for fogging is permethrin (Permanone 31-66 or BioMist 31-66). It is classified as a synthetic pyrethroid insecticide and is registered by the U.S. Environmental Protection Agency (EPA) for mosquito control. All insecticides used in the U.S. must be registered and approved for such use by the EPA following the performance or review of many scientific studies. The EPA realizes that people and pets could be exposed to this product during normal mosquito spraying activities, and the agency takes that fact into consideration when determining the product's risk profile, allowable uses, and application procedures, routinely allowing for wide margins of safety. The EPA has determined that, when used according to label directions, which by federal law must be done, mosquito control insecticides do not pose any unreasonable risks to human health, pets, wildlife or the environment. For more information about the possible health effects of pesticides used in mosquito control, or for other pesticides, contact the National Pesticide Information Center:

- Toll-free hotline: **1-800-858-7378**. Standard hours are 9:30 AM to 7:30 PM Eastern Time every day except holidays. After hours, callers can leave a voice mail message; the NPIC returns these calls on the next business day.
- EPA Pesticide Facts website: www.epa.gov/pesticides/health/mosquitoes/pyrethroids4mosquitoes.htm

Q4. What precautions do we need to take before, during, and after the fogging treatment?

A4. It has been our experience that simply limiting exposure (through whatever means you feel are necessary) is the best overall precaution one can take. However, even here as a result of the EPA's rigorous product screening process and the agency's determination of best application procedures, the EPA does not feel that any extra avoidance measures are really necessary. Many "veteran" fogging recipients feel that staying out of the treated area for 20-30 minutes is adequate (less if there is any breeze that would cause the product to dissipate more quickly). Because of the EPA's "comfort level" in regard to any human health concerns from exposure to operational applications of mosquito control adulticides, there are no specific guidelines on the product label instructing people or pets to avoid or not come in contact with the product's operational use in its final applied form (only common sense personal protection guidelines similar to any pesticide label).

Q5. How can I be notified when my community is scheduled to receive fogging?

A5. Many complicated factors are involved with planning, preparing, and performing our spray operations, such as fluctuating wind or weather conditions (temperatures, rainfall), or varying intensities of adult mosquitoes needing rapid response. Therefore, once a request is made by a governing body, if you are really concerned or interested for whatever reason in the exact time when treatment will be performed on your property, then you need to be on the lookout for the Mosquito Control truck and its flashing yellow light primarily from about 30 minutes before sunset and continuing for up to 4 hours thereafter, on any evening where the wind is less than 10 mph and it's not actively raining (or rain is not imminent), or less frequently from about 3 hours before sunrise and until a short time thereafter. In order to learn when fogging might occur in your general area, you can receive our daily **Spray Announcements** automatically via e-mail by subscribing to our listserver notification system at www.fw.delaware.gov/Services/Pages/MosquitoSection.aspx. You can also have direct access to Mosquito Control's daily on-line spray announcements at www.fw.delaware.gov/Services/Pages/MosquitoSection.aspx.

If you do not have access to a computer or the Internet, several radio stations also broadcast **Public Service Announcements** concerning Mosquito Control's upcoming plans for spraying. We submit our spray announcements to many radio stations around the state on a daily basis, but unfortunately we have no control over if, when, or how often these stations might choose to run our spray notices. Our **Spray Announcements** are also updated daily on a **toll-free phone line** at **1-800-338-8181**. This phone number can be called as often as you like to listen to taped announcements of our spray notices.

If you live within an incorporated city or town, we routinely notify designated local municipal officials in advance of almost all spray operations occurring within city or town limits, per the Mosquito Control Section's Spray Policy. Officials of the municipality can then provide further notice to their constituents at their discretion or initiative. Check with your city or town officers concerning such notifications.

Q6. What steps can I take if I do not want to be exposed to mosquito control spraying?

A6. No matter what the scientific evidence indicates about the safety of modern mosquito control insecticides, there may be individuals who will still want to avoid any exposure to these products. Such desire to stay away from these insecticides is by no means completely unfounded. From a medical standpoint, there is a very small segment of the population who are **hyper-sensitive or chemo-sensitive** to some of the insecticides used for controlling adult mosquitoes. Exposure to these insecticides may result in an allergic reaction that could include eye or throat irritation, sneezing, coughing, or other symptoms for these individuals. Despite what the EPA has determined regarding the overall safety of our mosquito control products for the vast majority of the public, we recognize the possibility of these mildly adverse reactions to the products we use. The Mosquito Control Section attempts to accommodate these individuals the best we can, while still delivering quality-of-life and mosquito-borne disease prevention services for the majority of Delaware's residents.

Individuals who are concerned about exposure to insecticides applied by the Mosquito Control Section can take some simple precautions to avoid direct contact with the product. These precautions include temporarily leaving the area prior to insecticide application, or remaining inside with closed windows and doors, as well as turning off air conditioning units, during and immediately after the spraying. But please note that these spray avoidance measures are nothing that the EPA recommends or even suggests that people do, since from a human health standpoint for a vast majority of folks such measures are not necessary.

The Mosquito Control Section will also consider special requests for designating a **No-Spray Zone**, where insecticides for controlling adult mosquitoes are not applied to a specific location. Several factors are taken into consideration before granting a No-Spray Zone request: a resident's **stated purpose** for making the request, if the request can be reasonably accommodated by our equipment and within our application operations, and if the request might unreasonably deny the community of its desired mosquito control services. In regards to the last factor, **granting a No-Spray Zone request will result in no adult mosquito control for the neighbors or other properties within several hundred feet of the resident (property) making the request.**

According to the Delaware Mosquito Control Spray Policy, residents or inhabitants of an incorporated city or town desiring that a No-Spray Zone be established around their property should first contact an appropriate municipal official. Requests for a No-Spray Zone within an incorporated city or town **must be made by an official of the municipality.** Once in concurrence with the resident's request, the municipality will need to provide all information required for the Mosquito Control Section to make its decision. Conversely, in unincorporated areas, residents may request a No-Spray Zone by directly contacting a Mosquito Control office. In all unincorporated areas, **only the actual property owner** can make a No-Spray Zone request (i.e. not a renter, tenant, vacationer, visitor, etc.).

The No-Spray Zone request, whether coming from a municipal official for a resident or inhabitant of an incorporated city or town, or from a property owner in unincorporated areas, must include all of the following information:

- 1) Name of property owner, address, and phone number.
- 2) Purpose of such a request.
- 3) A map and description of the property.
- 4) Names, addresses, and telephone numbers of adjacent property owners.
- 5) Whether the request relates to aerial spraying, ground fogging, or both.

Due to possible changes in property ownership, it is necessary to complete and submit a No-Spray Zone application each year that such consideration is desired. **There will be no automatic carryover of a previous year's designation as a No-Spray Zone.** It is the responsibility of the municipality or individual desiring a No-Spray Zone to provide such notice to the Mosquito Control Section by no later than March 1st for each year such consideration is desired.

Based upon the information contained in the application, the Mosquito Control Section will make a decision concerning approval within a few weeks of receiving the completed request. In almost all situations, particularly when a **medical case of hyper-sensitivity or chemo-sensitivity** is involved, the Section will try its utmost to accommodate the No-Spray Zone request. The Section must weigh the good that granting such a request will do for the applicant versus what might be lost in the way of quality-of-life factors, or even a possible public health threat to others due to not being able to treat adjacent properties. Finally, in the event of a **declared human health emergency** caused by the outbreak of a mosquito-borne disease, the Section **reserves the right to cancel any No-Spray Zone status** that it might have granted, and to proceed with undertaking whatever spraying might be necessary to protect the general public's health during such an outbreak. However, the Section will attempt to provide advance notice of such cancellation to those people who might then have their No-Spray Zone status cancelled or temporarily lifted.

Additional information on requesting a No-Spray Zone, or about any other aspect of mosquito control spraying, can be obtained by contacting the **Glasgow Mosquito Control Office** (serving New Castle County and Kent County north of Route 300 & Route 42) at **(302) 836-2555**; or by contacting the **Milford Mosquito Control Office** (serving the remainder of Kent County and all of Sussex County) at **(302) 422-1512**. An electronic copy of the No-Spray Zone application is available on the Section's website at www.fw.delaware.gov/Services/Pages/MosquitoSection.aspx.

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