



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE
2430 Old County Road, Newark, Delaware 19702

DELAWARE MOSQUITO CONTROL SECTION

FOGGING GUIDELINES FOR URBAN & 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 (or fog) of insecticide. Due to the small size of the droplets making up the spray cloud, 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 as early as just before sunset and continuing for up to 4 hours thereafter, or in the 3 hour time period before sunrise until 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/developments located outside of incorporated city or town limits often govern themselves through a civic/homeowners association or maintenance corporation. When our Glasgow or Milford field office is first made aware of a mosquito problem in a given community, usually by contact with residents of such areas requesting fogging, our first step whenever possible or practicable is to determine (via various field measures of mosquito abundance) if fogging is indeed necessary. While we are investigating the need for fogging, the community’s governing body (if such exists) should inform the residents of the entire development (or just the section that seems to be experiencing the mosquito problem) that a request for adult mosquito spraying has been made. [If a resident would prefer not to be exposed to the treatment, then they should follow the instructions given in Answer #6 (A6) below.] For communities or developments having a governing body, an authorized representative should then send an initiating letter, email, or fax stating simply that “The residents of _____ 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 of the governing body. 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 additional fogging.

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If your development falls within a municipality's corporate limits, requests for mosquito control should be directed to the local government. 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 current, primary insecticide used by the Delaware Mosquito Control Section for fogging is sumithrin (Anvil 10/10). 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, as mandated by federal law, 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 11:00 AM to 3:00 PM Eastern Time every day except holidays. After hours, callers can leave a voice mail message; the NPIC returns these calls the following business day.
- EPA Controlling Adult Mosquitoes: www2.epa.gov/mosquitocontrol/controlling-adult-mosquitoes

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

A4. Because of the EPA's awareness of human health concerns from possible exposure to applications of mosquito control adulticides, extensive human health risk assessments have been conducted and as a result, the EPA recommends only common-sense personal-protection guidelines similar to any pesticide label. The current EPA label for Anvil 10/10 contains only general language about avoiding exposure. It has been our experience that using common sense about limiting exposure (through whatever means you feel are necessary) is the best overall precaution one can take. Depending on your specific situation, the following are some suggestions that can be undertaken to reduce exposure concerns:

- Stay out of the treated area for 20-30 minutes to minimize breathing in spray mist.
- Close windows/doors and turn off air conditioner units for 20-30 minutes after fogging is complete.
- Cover outdoor tables and play equipment before spraying, or wash them off with detergent and water after fogging.
- Bring laundry and small toys inside before fogging begins, or wash with detergent and water if exposed to Anvil 10/10 during spraying.
- Cover pet food, water dishes, and ornamental fish ponds to avoid direct exposure.
- If fogging has just occurred, minimize your contact with surfaces and wash skin that has come in contact with these surfaces.
- Pick homegrown fruits and vegetables that you expect to eat soon before spraying takes place. Rinse all produce thoroughly with water before cooking or eating.

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, be on the lookout for the Mosquito Control Section's fog truck and its yellow strobe light primarily from 30 minutes before sunset and continuing for up to 4 hours thereafter, on any evening where the wind is greater than 1 mph, but less than 10 mph, and it's not actively raining (or rain is not imminent); or less frequently, from about 3 hours before sunrise until a short time thereafter.

To learn when fogging might occur in your general area, register online for the Mosquito Control Section's newly-introduced [Spray Zone Notification System](#). This new system allows for better communication of scheduled pesticide applications by dividing the state into 216 numbered spray zones. Participants who sign up for the seasonal Notification System will receive daily alerts via text, phone, and/or email in regards to planned spray activities within their pre-selected zone(s) or statewide activities. **Please note:** Zones identified to be sprayed only indicate that spray operations are planned **within that area**, not that the entire zone(s) will be sprayed.

The [Spray Zone Map](#) can also provide information to individuals who do not want to register with the Delaware Notification System. The map will be updated daily by 4:00PM for any aerial insecticide applications or truck-mounted ground applications (fogging). Individuals who are not registered with the system can view the map to see which zones have planned applications. The Delaware Mosquito Control Section reminds users that spraying will occur within a zone but very rarely will an entire zone be sprayed.

Several radio stations also broadcast **Public Service Announcements** concerning Mosquito Control's upcoming plans for fogging. Our spray announcements are submitted to many radio stations around the state, but unfortunately we have no control over if, when, or how often these stations might choose to run these spray notices. Our **Spray Announcements** are also updated on a **toll-free phone line at 1-800-338-8181**. This phone number can be called as often as necessary to listen to recorded spray announcements.

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 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 pesticides (including 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 mosquito control products for the vast majority of the public, we recognize the possibility of these mildly adverse reactions to the products. The Mosquito Control Section attempts to accommodate these individuals as well as possible, 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 - see Answer #4 (A4). But please note that these spray avoidance measures are not recommended or even suggested by the EPA, since from a human health standpoint for the vast majority of residents such measures are unnecessary.

The Mosquito Control Section will 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 within several hundred feet of the resident/property making the request.**

Per the Delaware Mosquito Control Spray Policy, residents or inhabitants of an incorporated city or town that desire 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. [An electronic copy of this application is available on our website at <http://www.dnrec.delaware.gov/fw/mosquito/Pages/MC-No-Spray-Request.aspx>.] **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 a 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 temporarily lifted or cancelled.

For additional information on any aspect of mosquito control in Delaware:

- Visit the Mosquito Control Section's website:
<http://www.dnrec.delaware.gov/fw/mosquito/Pages/default.aspx>;
- Determine which Mosquito Control field office services your area:
<http://www.dnrec.delaware.gov/fw/mosquito/Documents/ZipCodeChart.pdf>
 - Contact the **Glasgow Mosquito Control Office** (serving New Castle and northern Kent County) at **(302) 836-2555**;
 - Contact the **Milford Mosquito Control Office** (serving southern Kent and all of Sussex County) at **(302) 422-1512**;
- Call **Mosquito Control's hotline** toll-free at **(800) 338-8181** to be connected directly to the northern or southern field office and/or hear spray announcements for either area.

Revised June 2017