

Gloucester County Public Works / Mosquito Control Division

** Municipalities are encouraged to share this information with all residents in their communities **

Mosquitoes ... What Everyone Should Know Questions & Answers

What is the life cycle of mosquitoes?

Mosquitoes have four stages of development – egg, larvae, pupae and adult. They spend their larval and pupa stages in water. Female mosquitoes of most pest species in Gloucester County deposit eggs on moist surfaces such as mud or fallen leaves. Rain re-floods surfaces and stimulates the hatching of the eggs, starting the life cycle. Other mosquito species in the county lay their eggs on the surface of permanent water and since the water is constant, there are always eggs hatching and larvae developing. Mosquitoes take approximately one week to develop from egg to flying adult. Only the female adult mosquitoes bite. After emerging from the aquatic stages, adult mosquitoes mate and females seek a blood meal to obtain nutrients necessary for egg development. Adult male mosquitoes feed on plant nectar and die shortly after mating. While various species differ, the average life expectancy for adult mosquitoes is 4-6 weeks.

How many kinds of mosquitoes are there?

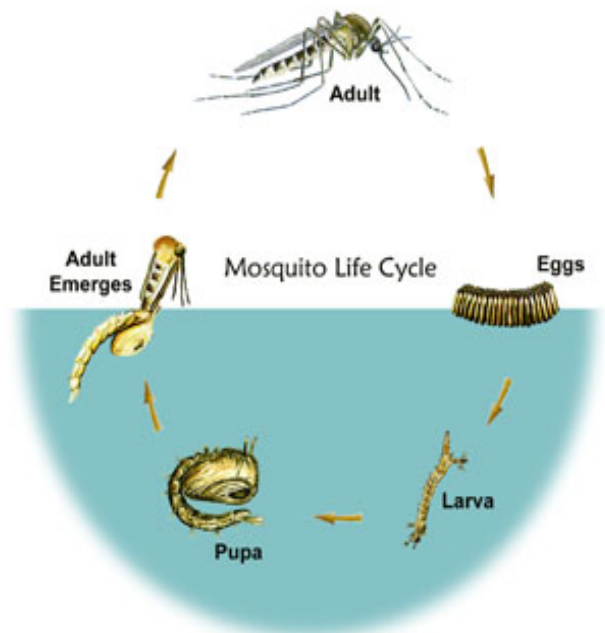
In Gloucester County, there are 35 different species documented on a total 63 species found in the state of New Jersey.

What HUMAN diseases do mosquitoes cause?

West Nile Virus, a mosquito-borne virus causing encephalitis, was first recognized in the United States, in New York City and surrounding areas in the fall of 1999. The primary vector is a mosquito commonly found around homes. La Crosse Encephalitis, although rare in the area, is a form of encephalitis occurring almost exclusively in children. While the disease is seldom fatal, it can cause convulsions and paralysis. This disease is transmitted primarily by mosquito species that breed in tires and other containers that are found around the home. Eastern Equine Encephalitis (EEE) is a severe disease with headache, stiff neck, high fever, stupor, disorientation, tremors, convulsions, and coma. This virus caused New Jersey's first record outbreak of a mosquito-borne disease in 1959, causing 32 cases with 21 deaths.

Mosquitos need water to breed and grow. Almost anything that holds water for one week or longer can produce these pests. To eliminate mosquito problems, eliminate any standing water on your property.

THE MOSQUITO LIFE CYCLE



**Gloucester County Public Works
Mosquito Control Division**

MISSION STATEMENT

Under the administration of the Public Works Department, the overall goal of the Mosquito Control Division (MCD) is to enhance the public's health and welfare by safely reducing mosquito populations to a reasonable threshold of annoyance and to maintain control of the potential for the transmission of mosquito-borne diseases.

This goal is accomplished through the provision of an integrated pest management program incorporating physical, chemical and in warranted cases biological control methods based upon a sound, thorough, and accurate surveillance program. Furthermore, these methods are applied through the utilization of a countywide general maintenance or source reduction program among county waterways (such as: drainage ditches, streams, roadside ditches, and storm-water basins) utilizing handheld tools and the employment of mosquito predators (depending upon a loss or the absence of mosquito predators indigenous to mosquito breeding habitats in the county), and repeated applications of insecticides that are registered with both the USEPA and the NJDEP (which means that these insecticides are legal to use in New Jersey) to arrive at an instantaneous reduction in populations.

What ANIMAL diseases do mosquitoes cause?

Dogs and horses are targets for mosquito-borne diseases. Dog heartworm is a serious threat to your pet's life and is costly to treat once it is contacted through the bite of the mosquito. Your dog should be checked for this condition and put on preventive medication. Eastern Equine Encephalitis (EEE) is a disease that is a threat to horses and horses should be vaccinated against FEE. Horses are also susceptible to West Nile Virus. A vaccine has also been approved and your veterinarian can provide more information. West Nile Virus has also been responsible for the death of numerous birds, particularly in the wild bird population.

What does the Gloucester County Public Works, Mosquito Control Division do?

Mosquito Control services have been provided by the Gloucester County Board of Chosen Freeholders since 1960 and the County has always had a mosquito control program in place and working for years since that time. The statutory mandate of the Gloucester Public Works, Mosquito Control Division is "To perform all mosquito control services according to the best management practices designed to eliminate mosquito breeding areas or which will tend to exterminate mosquitoes county wide." A comprehensive surveillance program guides the Mosquito Control Division's activities. Emphasis is placed on the elimination of mosquito-breeding habitat and the control of mosquitoes when they are still in the aquatic stages of their development.

What control efforts are utilized by the Gloucester County Public Works, Mosquito Control Division?

The Mosquito Control Division uses an Integrated Pest Management (IPM) approach to controlling mosquitoes. IPM uses various methods of control, including the use of biological pesticides and other pesticides when warranted and according to best management practices. Utilizing an IPM strategy, control efforts focus primarily on the immature, water borne stages of the mosquito. In the immature stage, the mosquito cannot escape control measures and are more concentrated and accessible than adult mosquitoes, which disperse after emerging. The primary insecticide used to control the immature stage of the mosquito is a biological pesticide, which is a bacterial larvicide (BTI) that specifically targets various types of fly and mosquito larvae. Mosquito Fish (**Gambusia Affinnis**) and other fish species that feed on the immature mosquitoes are released in locations that will sustain fish but do not have other fish species present. The NJ Division of Fish, Game & Wildlife in Hackettstown, raises these fish as part of the State Mosquito Control Commission's bio-control program. The Gambusia are distributed to mosquito control agencies throughout the state. Also, other fish species in the Bio-Control program (such as fish species indigenous to Gloucester County). The Mosquito Control Division conducts annual source reduction projects that control mosquitoes by eliminating the standing water. Hand-held tools are utilized to perform this work. Tire collection projects are also undertaken. As a final line of defense, truck-mounted sprayers may apply a treatment for adult mosquitoes if a significant mosquito population exists. All pesticide applications comply with guidelines published by Rutgers University, Federal Government and regulations set by NJ Department of Environment Protection.

What are the winter activities of the Mosquito Control Division ?

The seasonal control operations start in February with the hatching of snowpool mosquito species and continue in October, until a killing frost. Source Reduction activities are conducted annually. Follow-up record keeping on the season's mosquito activity at all the breeding sites continues beyond the active mosquito season. The inspection routes are revised after additions I deletions of breeding sites. New sites where the breeding source was not apparent with the presence of heavy vegetation in the summer are inspected after the foliage falls for a clearer view of the area. Breeding sites that are difficult to access are kept clear with brush clearing work performed when the time permits. Leaf dams are cleared from drainage structures after the fall season. Site evaluation occurs to target sites for fish stocking or source reduction activities' potential. Equipment is maintained and readied for the next mosquito season. Educational presentations are conducted at County functions (fairs, township meetings, etc...) on mosquitoes and mosquito control.

What can homeowners do?

- Maintain swimming pools and septic systems on cesspools.
- Homeowners can provide effective control by eliminating standing water on their property. Any container holding water is a potential mosquito-breeding source and is likely to cause problems around your home. Clogged gutters and scattered tires are of particular concern. Both tend to collect leaves then fill with water and provide very attractive sites for mosquitoes to breed. Since these containers are watertight, they dry out very slowly. Natural depressions in your yard will hold water but will often dry out in less than a week, killing the mosquitoes before they fly, whereas artificial containers will remain wet. Keep gutters clean and remove or overturn containers if possible. Items such as dog water bowls and birdbaths should be emptied and refilled at least once a week.
- Small depressions in your yard can be filled to prevent the collection of water, If larger wet areas exist on your property, bring them to the attention of the Mosquito Control Division personnel.
- Keeping adult mosquitoes out of your home is another step. Make sure windows and door screens are properly fitted and holes are patched to prevent mosquitoes from entering the house.
- A wide variety of repellants are available to provide relief from mosquitoes and other insects. Most repellants contain the same active ingredient, only the percentages vary. Sport shops generally carry the brands that contain higher percentages. the repellants are effective but caution should be used and directions followed carefully.

What do I do if there are adult mosquitoes or possible breeding areas around my home?

If mosquitoes present a problem in your area, contact the **Gloucester County Public Works, Mosquito Control Division (MCD) at 856-307-6400**. Our staff will investigate your call promptly. Each area is inspected to verify the presence of adult mosquitoes. The area of the complaint is also searched to locate the breeding source(s) to facilitate controlling the mosquitoes in their immature stages in the future. If warranted, spraying for adult mosquitoes may be carried out. Spraying is triggered by retrieving surveillance data from landing rates (counting the number of mosquitoes landing on the naked arm), and mosquito trapping devices (CDC traps, NJ Light Traps, Gravid Traps, etc.). Providing mosquito population levels are high and other surveillance data confirms the need to apply pesticides, a pesticides treatment is scheduled within 24 to 48 hours, when possible.

What pesticides are used to control mosquitoes in Gloucester County ?

The majority of mosquito pesticides used are products to control mosquito larvae in the aquatic stage. These products are designed to target mosquito larvae in aquatic habitats. There are different formulations of larvicides, granules, liquid, and briquets. The inspector selects the most efficient formulation to facilitate control and according to best management practices. In addition, larvicides are developed to target mosquito larvae only. Ultra Low Volume (ULV) dispersal is a method utilizing state-of-the-art ground application equipment to dispense liquid mosquito-control insecticides proportionately over sizable areas to control adult mosquitoes. This ULV dispersal method is referred to as adulticiding. Adulticiding is employed to control disease vectors and adult mosquitoes causing a nuisance. There are different methods of adulticiding or ground application equipment used to target increased adult mosquito populations, such as hand held, ULV truck-mounted and back-pack units.

In addition, aerial adulticiding is also a control method strategically utilized to target adult mosquitoes causing a nuisance or for vector borne-disease-outbreaks where access or terrain curtails the use of ground application equipment when vector suppression is immediately required. All pesticide applications are performed by applicators licensed by the NJDEP. All pesticides applied by the MCD are registered with the NJDEP and Federal Government, and all applications comply with the recommendation for mosquito control published by the NJ Agriculture Experiment Station, Rutgers University. For detailed pesticide information, please refer to the attached NJDEP approved pesticide product fact sheets.

Where can I find more specific information on mosquito spraying in Gloucester County and how will I be notified of the spraying?

In reference to community or area wide pesticide application notifications, all spraying for adult mosquitoes performed on more than three (3) acres aggregate will be published in two (2) local newspapers, (the Gloucester County Times; a display ad in the main news section - and the Courier Post; legal section). These newspaper ads will provide information regarding the pesticide application schedule in Gloucester County, contact name, and telephone number for questions. Attached is an example of a newspaper notice that the Gloucester County Public Works / Mosquito Control Division (MCD) places in local newspapers throughout the mosquito control treatment season. A citizen has the right to ask the MCD for specific information about a planned application in the County prior to the application.

Municipalities are encouraged to share this information with all residents in the community

Primer on Mosquito Control Product “Abate”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Abate and how is it used?

Abate is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Temephos**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Temephos**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of an integrated mosquito control program.

Abate is a liquid pesticide product used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Abate** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Abate?

Risk to the general public from the use of **Abate** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.
- Avoid direct contact with the granules. If there is contact with your eyes or your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Abate?

Symptoms of exposure can include headache, nausea, dizziness, excessive sweating, salivation, excessive tearing and a runny nose. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Abate last in the environment?

Temephos has a low persistence and will break down in water within a few days. In soil, it breaks down approximately 30 days.

Where can I get more information on Abate?

The following are resources for more information regarding **Abate** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

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Primer on Mosquito Control Product “Altosid”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Altosid and how is it used?

Altosid is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Methoprene**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Methoprene**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Altosid is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Altosid** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Altosid?

Risk to the general public from the use of **Altosid** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Move animals and their food and water dishes out of application areas.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Altosid?

Methoprene is not a skin irritant or a sensitizer. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (**N.JPIES**) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider

How long will Altosid last in the environment?

Methoprene has a low persistence and breaks down in water within a few days. In soil it breaks down in less than 10 days.

Where can I get more information on Altosid?

The following are resources for more information regarding **Altosid** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures —24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
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Primer on Mosquito Control Product “Aquabac XT”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Aquabac XT and how is it used?

Aquabac XT is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Bacillus Thuringiensis Isaelensis (BTI)**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **BTI**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Aquabac XT is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Aquabac XT** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Aquabac XT?

Risk to the general public from the use of **Aquabac XT** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Aquabac XT?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Aquabac XT last in the environment?

Because BTI is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Aquabac XT?

The following are resources for more information regarding **Aquabac XT** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
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For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
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Primer on Mosquito Control Product “Atrapa VCP”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Atrapa and how is it used?

Atrapa is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Malathion**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Malathion**- containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Atrapa is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are the preferred routine approaches, the spraying of adult mosquitoes is called for when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed in the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to Atrapa?

Risk to the general public from the use of **Atrapa** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditions on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried, (approximately one hour).
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Atrapa?

Symptoms of exposure can include headache, nausea, dizziness, excessive sweating, salivation, excessive tearing and a runny nose. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information and Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Atrapa last in the environment?

The Atrapa spray stays in the air for a short time until it lands on surfaces. Malathion has a low persistence and breaks down in water and soil within 25 days. Malathion breaks down faster in sunlight.

Where can I get more information on Atrapa?

The following are resources for more information regarding Atrapa and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
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Primer on Mosquito Control Product “Bonide”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Bonide and how is it used?

Bonide is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Mineral Oil**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Mineral Oil**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Bonide is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the pupae or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Bonide** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Bonide?

Risk to the general public from the use of **Bonide** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Bonide?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Bonide last in the environment?

Mineral Oil photo-degrades rapidly in water, breaking down in a few days.

Where can I get more information on Bonide?

The following are resources for more information regarding **Bonide** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
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For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
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Primer on Mosquito Control Product “BTI Briquets”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is BTI Briquets and how is it used?

BTI Briquets is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Bacillus Thuringiensis Isaelensis (BTI)**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **BTI**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

BTI Briquets is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **BTI Briquets** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to BTI Briquets?

Risk to the general public from the use of **BTI Briquets** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to BTI Briquets?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will BTI Briquets last in the environment?

Because **BTI** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on BTI Briquets?

The following are resources for more information regarding **BTI Briquets** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
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Primer on Mosquito Control Product “Fyfanon”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Fyfanon and how is it used?

Fyfanon is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Malathion**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Malathion**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Fyfanon is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are the preferred routine approaches, the spraying of adult mosquitoes is called for when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed in the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to Fyfanon?

Risk to the general public from the use of **Fyfanon** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Move animals and theft food and water dishes out of application areas.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditions on non-vent (closed to the outside air) and window fans tuned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried, (approximately one hour).
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Fyfanon?

Symptoms of exposure can include headache, nausea, dizziness, excessive sweating, salivation, excessive tearing and a runny nose. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Fyfanon last in the environment?

The Fyfanon spray stays in the air for a short time until it lands on surfaces. Malathion has a low persistence and breaks down in water and soil within 1 to 25 days. Malathion breaks down faster in sunlight.

Where can I get more information on Fyfanon?

The following are resources for more information regarding Fyfanon and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures —24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

Municipalities are encouraged to share this information with all residents in their community

Primer on Mosquito Control Product “Golden Bear”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Parks & Recreation, Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Golden Bear and how is it used?

Golden Bear is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Mineral Oil**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Mineral Oil**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Golden Bear is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the pupae or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Golden Bear** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Golden Bear?

Risk to the general public from the use of **Golden Bear** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Golden Bear?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NSPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Golden Bear last in the environment?

Mineral Oil photo-degrades rapidly in water, breaking down in a few days.

Where can I get more information on Golden Bear?

The following are resources for more information regarding **Golden Bear** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

Municipalities are encouraged to share this information with all residents in their community

Primer on Mosquito Control Product “Scourge”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Scourge and how is it used?

Scourge is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Resmethrin & Piperonyl Butoxide**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Resmethrin & Piperonyl Butoxide**-containing products to be slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Scourge is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are the preferred routine approaches, the spraying of adult mosquitoes is called for when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed in the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to Scourge?

Risk to the general public from the use of **Scourge** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Pay attention to notices about spraying found through newspapers, websites, automated telephone messages or distributed by municipal, county or state agencies.
- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Move animals and their food and water dishes out of application areas.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditions on non-vent (closed to the outside air) and window fans turned off during spraying.
- Avoid direct contact with surfaces that are still wet from pesticide spraying. Do not allow children to play in areas that have been sprayed until they have completely dried, (approximately one hour).
- If you must remain outdoors, avoid eye and skin contact with the spray. If you get spray in your eyes or your skin, immediately flush and rinse with water.

What are the symptoms of exposure to Scourge?

Irritation or sensitization sometimes occurs after exposure, causing an asthmatic condition or skin rash. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at 1-800-222-1222. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Scourge last in the environment?

The Scourge spray stays in the air for a short time until it lands on surfaces. **Resmethrin** has a low persistence and last no longer than 25 days in water and soil. **Resmethrin** breaks down faster in sunlight.

Where can I get more information on Scourge?

The following are resources for more information regarding Scourge and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm:
National Pesticide Information Center **800-858-7378**

For pesticide health information & possible exposures — 24 hours:
New Jersey Poison Information & Education System **800-222-1222**

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program **609-984-6666**

For Federal pesticide regulation:
USEPA Region 2 Office of Pesticide Programs **732-321-6759**

For pesticide health information: (Right to Know)
The Gloucester County Department of Health **856-262-4200**

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Commission **609-292-3649**

For state-wide mosquito control recommendations:
Rutgers University, Department of Entomology **732-932-9437**

For local mosquito control information:
Gloucester County Public Works / Mosquito Control Division **856-307-6400**

**Municipalities are encouraged to share this
information with au residents in their community**

Primer on Mosquito Control Product “Vectobac”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Vectobac and how is it used?

Vectobac is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Bacifius Thuringiensis Isaelensis (BTI)**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **BTI**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Vectobac is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Vectobac** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Vectobac?

Risk to the general public from the use of **Vectobac** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Vectobac?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Vectobac last in the environment?

Because **BTI** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Vectobac?

The following are resources for more information regarding **Vectobac** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures —24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

**Municipalities are encouraged to share this
information with all residents in their community**

Primer on Mosquito Control Product “Vectobac CG”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Vectobac CG and how is it used?

Vectobac CG is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Bacillus Thuringiensis Isaelensis (BTI)**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **BTI**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Vectobac CG is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Vectobac CG** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Vectobac CG?

Risk to the general public from the use of **Vectobac CG** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Vectobac CG?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Vectobac CG last in the environment?

Because **BTI** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Vectobac CG?

The following are resources for more information regarding **Vectobac CG** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-262-4200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

Municipalities are encouraged to share this information with all residents in their community

Primer on Mosquito Control Product “Vectobac 12 AS”

This sheet answers some basic questions about a mosquito control product in use in Gloucester County. The Gloucester County Public Works / Mosquito Control Division, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is Vectobac 12 AS and how is it used?

Vectobac 12 AS is an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. It contains the pesticide called “**Bacillus Thuringiensis Isaelensis (BTI)**”. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **BTI**-containing products to be very slightly toxic with minimal potential risk to people when used properly as part of a complete mosquito control program.

Vectobac 12 AS is used to prevent mosquitoes from hatching in lakes, ponds and other bodies of water. It acts on the larval or immature stage of the mosquito in water immediately before the flying mosquito emerges. **Vectobac 12 AS** is part of a mosquito management approach using habitat management and other measures to control immature mosquitoes in order to lessen the need to spray for adult mosquitoes.

How can I avoid exposure to Vectobac 12 AS?

Risk to the general public from the use of **Vectobac 12 AS** is minimal. Avoiding exposure is always the safest course of action, particularly for populations that may be at higher risk such as pregnant women, children, the elderly and those with chronic illnesses. Any possible exposure risk can be reduced by following some common sense actions:

- Plan your activities to limit time spent outside during times of possible pesticide treatments.
- Move children’s toys out of application areas.
- Stay away from application equipment, whether in use or not.
- Avoid direct contact with any bodies of water that have been treated.

What are the symptoms of exposure to Vectobac 12 AS?

Direct contact with eyes or skin may cause mild irritation or discomfort. The chance of experiencing these symptoms of exposure with proper use is low. You should contact your physician, other medical providers or the New Jersey Poison Information & Education System (NJPIES) at **1-800-222-1222**. If you experience these symptoms following a pesticide spraying, bring this sheet with you if you visit a physician or other medical provider.

How long will Vectobac 12 AS last in the environment?

Because **BTI** is a biological agent, it tends to break down quickly in the environment. Its breakdown in water or soil usually occurs within hours of use.

Where can I get more information on Vectobac 12 AS?

The following are resources for more information regarding **Vectobac 12 AS** and mosquito control in your area (unless otherwise noted, available during normal business hours):

For overall pesticide-specific information — 9:30am to 7:30pm: National Pesticide Information Center	800-858-7378
For pesticide health information & possible exposures — 24 hours: New Jersey Poison Information & Education System	800-222-1222
For New Jersey pesticide regulation & misuse complaints: NJDEP Pesticide Control Program	609-984-6666
For Federal pesticide regulation: USEPA Region 2 Office of Pesticide Programs	732-321-6759
For pesticide health information: (Right to Know) The Gloucester County Department of Health	856-2624200
For state-wide mosquito control information: NJDEP Office of Mosquito Control Commission	609-292-3649
For state-wide mosquito control recommendations: Rutgers University, Department of Entomology	732-932-9437
For local mosquito control information: Gloucester County Public Works / Mosquito Control Division	856-307-6400

**Municipalities are encouraged to share this
information with all residents in their community**

