

COUNTY OF MORRIS
DEPARTMENT OF PLANNING & PUBLIC WORKS
DIVISION OF MOSQUITO CONTROL

Board of Chosen Freeholders

Director

Douglas R. Cabana

Deputy Director

John Cesaro

Kathryn A. DeFillippo

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Thomas J. Mastrangelo

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P.O. Box 900

Morristown, New Jersey 07963-0900



County Administrator

John Bonanni

Director, Planning & Public Works

Deena Leary

Director

Kristian McMorland

973-285-6450

kmcmorland@co.morris.nj.us

March 1, 2017

Dear Municipal Clerk,

As per New Jersey Pesticide Control Regulations (N.J.A.C. Title 7, Chapter 30), the Morris County Division of Mosquito Control is required to supply you with this information packet yearly.

Enclosed you will find basic information about our program, philosophy, and fact sheets on our adult mosquito control products. This supplied information is meant for general distribution to your residents if you so choose. Please do not hesitate to contact us with any questions or concerns.

Thank you in advance for your cooperation.

Sincerely,

Kristian McMorland

Director

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

THE MORRIS COUNTY DIVISION OF MOSQUITO CONTROL

The Morris County Division of Mosquito Control, founded in 1928 as the Morris County Mosquito Commission, has the goal of reducing the number of nuisance and disease transmitting mosquitoes within the County. The Division employs a number of techniques to provide this service to residents with minimal impact on the environment. The program can be summarized as follows:

- 1) Water Management - The Division carries out extensive efforts to remove blockages from Morris County waterways, and to maintain drainage systems as needed. Such work is done carefully, with environmental impacts kept clearly in mind. This program helps reduce the use of insecticides needed to control mosquitoes.

- 2) Larval Control - Mosquitoes all start out in water as larvae, or “wrigglers”. In areas where water management is not feasible, larval control is necessary. Some locations are suitable for stocking with mosquitofish, which provide continuous, biological control of mosquitoes. In other areas, larvicides may be used to eliminate mosquitoes. We choose products that are specific for mosquitoes and have minimal or no effect on other organisms in the aquatic environment for this purpose, and these are applied by trained staff licensed by the NJDEP. All products are registered with both the USEPA and the NJDEP which mean they are legal to use in NJ and are reviewed and recommended by the New Jersey Agricultural Experiment Station, Cook College/Rutgers University. Locations receive treatment only when surveys show that large numbers of mosquitoes are a threat to populated regions. These products applied by hand crews, by all terrain vehicles, or by helicopter. Larval habitats are treated only when larvae are present.

- 3) Adult Control - Although this is the most visible aspect of mosquito control, we consider this to be a last resort. We try to stop mosquitoes before they are out and flying around. When adult control is needed because of a severe mosquito infestation, we generally use truck mounted sprayers that apply 1/2 – 1 ounce of material per acre. Sometimes, small hand sprayers are used to treat remote locations.

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Resmethrin Fact Sheet
("Scourge®")

What is resmethrin?

The above product contains the pesticide resmethrin, a low toxicity compound that is used in very small amounts to control adult mosquitoes. Resmethrin is not residual (does not last long) and is applied with specialized equipment in a manner that maximizes mosquito control but minimizes the impact on other organisms. The product is included in the insecticides recommended for adult mosquito control list produced by Rutgers, the State University of New Jersey.

How does resmethrin work?

Resmethrin is a synthetic version of natural pesticides produced by certain chrysanthemums. The product disrupts nerve transmissions of target organisms. In mammals, the product is broken down quickly.

Is there danger to humans from this chemical?

Resmethrin has very low toxicity for mammals. During mosquito control operations, the product is applied at ½ to 3 ounces per acre. The insecticide is mixed with an agent that makes it more effective, called a synergist (piperonyl butoxide), so that only 0.02 to 0.12 ounces of insecticide are actually applied per acre.

How is resmethrin applied?

Resmethrin is put out using Ultra Low Volume (ULV) equipment that produces droplets that are about 5 – 25 microns in size. There are 24,000 microns in an inch. In Morris County, we have found that the application rate of 1 ounce per acre is adequate for mosquito control. Resmethrin is broken down very rapidly after application, and must contact flying mosquitoes directly to kill them.

Is resmethrin harmful to other insects?

For New Jersey pesticide regulation & misuse complaints:
NJDEP Pesticide Control Program: 609-984-6568

Resmethrin/3

Where can I get more information about local mosquito control?

The Morris County Division of Mosquito Control: 973-285-6450 or www.morrismosquito.org

For state-wide mosquito control information:

NJDEP Office of Mosquito Control Coordination: 609-292-3649

For Federal insecticide regulation:

USEPA Region 2 Office of Pesticide Programs: 732-321-6768

Spraying for adult mosquitoes is a last resort. Most mosquito control work goes on “behind the scenes”, using water management, fish, and products to control immature mosquitoes in the water where they begin their life cycle. Controlling adult mosquitoes is more difficult because they are spread out and moving.

If you have questions about resmethrin or any other mosquito control related products or practices, please feel free to call the Morris County Division of Mosquito Control at (973) 285-6450, or visit our web site at www.morrismosquito.org

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Malathion Fact Sheet
("Atrapa[®]" "Fyfanon[®]" "Microflo[®]")

What is malathion?

The above products all contain the pesticide malathion, a slightly toxic compound that is used in very small amounts to control adult mosquitoes. Malathion is not residual (does not last long) and is applied with specialized equipment in a manner that maximizes mosquito control but minimizes the impact on other organisms. The product is included in the insecticides recommended for adult mosquito control list produced by Rutgers, the State University of New Jersey.

How does malathion work?

Malathion disrupts the nervous system of target organisms. In mammals, the product is broken down quickly, while in insects it is broken down into other products that are fatal to them.

Is there danger to humans from this chemical?

Malathion is an organophosphate insecticide with very low toxicity for mammals. During mosquito control operations, the product is applied at ½ to 1 ounce per acre.

How is malathion applied?

Malathion is put out using Ultra Low Volume (ULV) equipment that produces droplets that are about 5 – 25 microns in size. There are 24,000 microns in an inch. In Morris County, we have found that the lowest application rate, ½ ounce per acre, is adequate for mosquito control. Malathion is broken down rapidly after application, and must contact flying mosquitoes directly to kill them.

Is malathion harmful to other insects?

Other insects may be harmed by malathion, so care must be taken to avoid beneficial insects, such as honeybees.

NJDEP Pesticide Control Program: 609-984-6507

For Federal insecticide regulation:

USEPA Region 2 Office of Pesticide Programs: 732-321-6768

Malathion/3

Where can I get more information about local mosquito control?

The Morris County Division of Mosquito Control: 973-285-6450 or www.morrismosquito.org

For state-wide mosquito control information:

NJDEP Office of Mosquito Control Coordination: 609-292-3649

Spraying for adult mosquitoes is a last resort. Most mosquito control work goes on “behind the scenes”, using water management, fish, and products to control immature mosquitoes in the water where they begin their life cycle. Controlling adult mosquitoes is more difficult because they are spread out and moving.

If you have questions about malathion or any other mosquito control related products or practices, please feel free to call the Morris County Division of Mosquito Control at (973) 285-6450, or visit our web site at www.morrismosquito.org

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“Duet Dual-Action® Adulicide” ®

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

What is *Duet Dual-Action®* adulicide and how is it used?

Duet Dual-Action® contains two pesticides called *Prallethrin and Sumithrin*, and a synergistic compound called *piperonyl butoxide* which increases the effectiveness of the pesticides. Prallethrin and Sumithrin are members of a category of pesticides called *pyrethroids*, which in turn are synthetic versions of pesticides produced by plants called *pyrethrins*. Pyrethroid/piperonyl butoxide mixtures have been recommended for Ultra-Low-Volume (ULV) mosquito control in New Jersey by Rutgers, The State University of New Jersey. The U.S. Environmental Protection Agency’s (EPA) current evaluation considers pyrethroid-containing products to be slightly toxic with minimal potential risk to people when used properly as part of an integrated mosquito control program.

This pyrethroid-containing product is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, 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 into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective. The combination of the two pesticides has been shown to produce what the manufacturer calls ‘benign agitation’. In other words mosquitoes are agitated from a resting state to a non-biting flying state where they are more vulnerable to pesticide exposure. This makes *Duet Dual-Action®* adulicide more effective against hard-to-control species like *Aedes albopictus* which typically rest during the evening hours when aduliciding usually takes place.

How can I reduce my exposure to *Duet Dual-Action®*?

Because of the very small amounts of active ingredients released per acre, the risk to the general public from the use of pyrethroid-containing products is minimal. Avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

NJDEP Pesticide Control Program
<http://www.state.nj.us/dep/enforcement/pcp/>

609-984-6507

For Federal pesticide regulations:
USEPA Region 2 Office of Pesticide Programs
<http://www.epa.gov/ebtpages/pesticides.html>

732-321-6759

For state-wide mosquito control information:
NJDEP Office of Mosquito Control Coordination
<http://www.state.nj.us/dep/mosquito>

609-292-3649

For local mosquito control information:
Morris County Division of Mosquito Control
<http://morrismosquito.org>

973-285-6450

For mosquito control recommendations:
Rutgers University, Department of Entomology
<http://www-rci.rutgers.edu/~insects>

732-932-9437

Spraying for adult mosquitoes is a last resort. Most mosquito control work goes on “behind the scenes”, using water management, fish, and products to control immature mosquitoes in the water where they begin their life cycle. Controlling adult mosquitoes is more difficult because they are spread out and moving.

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Etofenprox Adulticide Fact Sheet
"Zenivex"

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

This Fact Sheet answers some basic questions about mosquito control products in use in your County. The Morris County Division of Mosquito Control, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What is *Etofenprox* and how is it used?

*Zenivex*TM contains a pesticide called Etofenprox, a member of the category of pesticides called *non-ester pyrethroids*, which are synthetic versions of pesticides produced by plants called pyrethrins. Traditional pyrethroid/piperonyl butoxide mixtures are recommended for Ultra-Low-Volume (ULV) mosquito control in New Jersey by Rutgers, The State University of New Jersey. *Zenivex*TM is a non-ester pyrethroid, and therefore does not require a synergist such as piperonyl butoxide. The U.S. Environmental Protection Agency (EPA) has classified Etofenprox as a reduced risk molecule. It poses a low risk to human health and the environment when used properly as part of an integrated mosquito control program. As formulated in *Zenivex*TM adulticide, Etofenprox is considered a non-carcinogen, non-teratogen and non-mutagen.

This non-ester pyrethroid-containing product is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred and most used, the spraying of adult mosquitoes is necessary when biting populations reach critical levels or when a disease organism is present in adult mosquitoes. A very fine mist is sprayed into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I reduce my exposure to Etofenprox?

Because of the very small amounts of active ingredients released per acre, the risk to the general public from the use of non-ester pyrethroid-containing products is minimal. Avoiding exposure is always the

For statewide mosquito control information:
NJDEP Office of Mosquito Control Coordination **609-292-3649**

For local mosquito control information:
Morris County Division of Mosquito Control **973-285-6450**

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

Spraying for adult mosquitoes is a last resort. Most mosquito control work goes on “behind the scenes”, using water management, fish, and products to control immature mosquitoes in the water where they begin their life cycle. Controlling adult mosquitoes is more difficult because they are spread out and moving.

If you have questions about Zenivex or any other mosquito control related products or practices, please feel free to call the Morris County Division of Mosquito Control at (973) 285-6450, or visit our web site at www.morrismosquito.org