# COUNTY OF MONMOUTH

## Mosquito Control Division

1901 Wayside Road, Tinton Falls, NJ 07724

Board of Chosen Freeholders
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| | DPW | X | Plans on file- Clerks Office | | |

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*Acting Superintendent*
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TO: Municipal Administrator

FROM: Monmouth County Mosquito Control Division

The Monmouth County Mosquito Control Division is distributing this packet of materials in compliance with Sections 9.10 of the New Jersey Pesticide Control Regulations (N.J.A.C. Title 7, Chapter 30) *Notification: community or area wide applications.* The purpose of this packet is to provide municipal officials with pertinent information regarding our treatment operations to control adult mosquitoes, also known as adulticiding. **Municipalities are encouraged to share this information with all residents in their communities.**

In our adulticiding operations, all pesticides used are registered by the USEPA and NJDEP and recommended for use by the New Jersey Agricultural Experiment Station for the control of adult mosquitoes.

Upon request the Monmouth County Mosquito Control Division shall provide a resident with notification at least 12 hours prior to the application, except for Quarantine and Vector Control only (i.e. to prevent or reduce incidence of mosquito-borne disease, such as West Nile Virus), when conditions necessitate pesticide applications sooner than that time. Should a resident request notification please direct them to contact our offices at 732-542-3630 to be placed on our "Adulticide Notification List."

For the most up to date information can be found on our website www.visitmonmouth.com/mosquito on the "Mosquito Control Schedule and Maps" page. Residents can also call our Mosquito Control Hotline at 732-578-1600. This phone number is for updated information on time and location of application.

Mosquito control adulticide application may be made at any point from May 1st through November 30th as is necessitated by the presence of extreme nuisance and/ or mosquito-borne disease. Applications may be made by ground or air using truck or helicopter mounted aerosol application equipment. One of the following products will be used for adulticiding applications:

| Trade Name | Active ingredient | EPA Registration # | Signal Word |
|---|---|---|---|
| Duet® Dual Action Adulticide | Prallethrin 1%, Sumithrin 5%, Piperonyl Butoxide 5% | 1021-1795-8329 | Caution |
| FLIT® 10EC Broad Spectrum Multi-Use Insecticide | Permethrin 10% | 8329-67 | Warning |
| FYFANON® ULV Mosquito Insecticide | Malathion 96.5% | 279-3539 | Caution |
| Zenivex® E4 RTU | Etofenprox 4% | 2724-807 | Caution |

Enclosed you will also find a NJDEP approved fact sheet for each of the above mentioned pesticides. In addition you find a Questions & Answers sheet about pesticides, pesticide exposure, mosquito mitigation for the homeowner, and related topics. We can also provide a variety of brochures and educational materials upon request. Municipalities are encouraged to share this information with all the residents in their community.

If you have any questions please call our office at 732-542-3630.

MONMOUTH COUNTY MOSQUITO CONTROL DIVISION

# QUESTIONS & ANSWERS - ADULT MOSQUITO TREATMENTS

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

Applications of pesticides by the Monmouth County Mosquito Control Division to control adult mosquitoes may be made at any point from May 1st through November 30th as is necessary. Below is a list of common questions and answers related to this type of pesticide application.

## How does the Monmouth County Mosquito Control Division (MCMCD) determine the need for applications of pesticides for adult mosquitoes?

The MCMCD treats for adult mosquitoes in response to extreme nuisance levels or the presence of mosquito-borne disease. This decision is based on a number of factors and relies heavily on our surveillance of mosquito populations throughout the county and our monitoring of mosquitoes for the presence of mosquito-borne diseases such as West Nile Virus and Eastern Equine Encephalitis. We are also in constant communication with state and local health officials who notify us when mosquito-borne diseases are found in humans, birds, horses, and other animals.

## How does MCMCD apply these pesticides?

Most applications of pesticides for adult mosquitoes, known as "adulticides," are made using ground equipment. Truck-mounted machines aerosolize the pesticide into droplets that are only microns in size. This is the ideal size to contact mosquitoes in flight, minimize droplets from falling to the ground, and allow the pesticides to be applied at only ounces per acre. Thus, these machines are known as Ultra Low Volume (ULV) Sprayers. These machines possess equipment that accurately meters out the pesticides and allows us to uniformly treat an area without over application.

Another type of ground application equipment for adulticides are handheld sprayers. These use the same aerosolizing mechanism as the truck mounted machines, but are small enough to be carried through an area by a technician on foot.

On rare occasions the MCMCD may determine that an area needs to be treated with adulticides by air. Aerial applications of adulticides are generally made to control an outbreak of mosquito-borne disease. Aerial application equipment may also be used when an extreme mosquito nuisance problem is spread over a large area and cannot be effectively treated by ground equipment. Aerial adulticide applications are made using helicopter mounted spray equipment. The helicopter is equipped with spray booms that disperse the adulticide using a series of nozzles to produce the appropriate droplet size.

## What if I have more/ specific questions?

More information about our treatments for mosquitoes, including any specific plans for adulticide treatments can be found at www.visitmonmouth.com/mosquito or you can contact our office at 732-542-3630 or email us at mosquitoes@co.monmouth.nj.us. For general pesticide specific questions you can also contact the National Pesticide Information Center at 1-800-858-7378.

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

## *"Duet Dual-Action® Adulticide"*

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

### What is *Duet Dual-Action®* adulticide 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®* adulticide more effective against hard-to-control species like *Aedes albopictus* which typically rest during the evening hours when adulticiding usually takes place.

## How long will *Duet Dual-Action*® last in the environment?

Pyrethroids have a soil half-life of 12 days. They have an extremely low pesticide movement rating because they bind tightly to the soil. Pyrethroids are unstable in light and air. They rapidly degrade in sunlight at the soil surface and in water. Piperonyl butoxide has a soil half-life of approximately 4 days.

## Where can I get more information on this adulticide?

The following are resources for more information regarding *Duet Dual-Action*® 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 pesticide regulation & misuse complaints:
**NJDEP Pesticide Control Program** **609-984-6507**

For pesticide regulation:
**USEPA Region 2 Office of Pesticide Programs** **877-251-4575**

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

For mosquito control recommendations:
**Rutgers University, Department of Entomology** **848-932-9774**

For local mosquito control information:
**Monmouth County Mosquito Control Division** **732-542-3630**

For health related pesticide information:
**The Monmouth County Health Department** **732-431-7456**

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

## *"FYFANON® ULV MOSQUITO INSECTICIDE"*

This sheet answers some basic questions about a mosquito control product in use in your county. The Monmouth County 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. Fyfanon® contains the pesticides called ***"Malathion."*** The U.S. Environmental Protection Agency's (EPA) current evaluation considers Malathion containing products to be slightly toxic. Malathion when applied according to the label, can be used for public health mosquito control without posing unreasonable risks to the general population.

**Fyfanon®** is used for the control of adult mosquitoes. While habitat management and measures to control immature mosquitoes in water are preferred, 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. As reported on EPA pesticide fact sheets, ULV applications involve small quantities of active ingredient in relation to the size of the treated area which minimizes exposure and risks to people and the environment.

### How can I reduce my exposure to Fyfanon®?

While risk to the general public from the use of **Fyfanon®** may be minimal, avoiding exposure is always the safest course of action. Any possible exposure risk can be reduced by following some common sense actions:

## 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 pesticide regulation & misuse complaints:
**NJDEP Pesticide Control Program** **609-984-6507**

For pesticide regulation:
**USEPA Region 2 Office of Pesticide Programs** **877-251-4575**

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

For mosquito control recommendations:
**Rutgers University, Department of Entomology** **848-932-9774**

For local mosquito control information:
**Monmouth County Mosquito Control Division** **732-542-3630**

For health related pesticide information:
**The Monmouth County Health Department** **732-431-7456**

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

## *"FLIT® 10EC Broad Spectrum Multi-Use Insecticide"*

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

### What is *FLIT® 10EC* adulticide and how is it used?

*FLIT® 10EC* contains a pesticide called ***Permethrin***. Permethrin is a member of a category of pesticides called *pyrethroids*, which in turn are synthetic versions of pesticides called pyrethrins that are found naturally in some chrysanthemum flowers. Pyrethroids 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.

### How can I reduce my exposure to *FLIT® 10EC*?

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:

## Where can I get more information on this adulticide?

The following are resources for more information regarding *FLIT® 10EC* 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 pesticide regulation & misuse complaints:
**NJDEP Pesticide Control Program** **609-984-6507**

For pesticide regulation:
**USEPA Region 2 Office of Pesticide Programs** **877-251-4575**

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

For mosquito control recommendations:
**Rutgers University, Department of Entomology** **848-932-9774**

For local mosquito control information:
**Monmouth County Mosquito Control Division** **732-542-3630**

For health related pesticide information:
**The Monmouth County Health Department** **732-431-7456**

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

## *"Zenivex® Adulticide"*

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

### What is *Zenivex®* adulticide and how is it used?

*Zenivex®* 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®* 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 pesticide. 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®* 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 *Zenivex®*?

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

## Where can I get more information on this adulticide?

The following are resources for more information regarding *Zenivex*® 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 pesticide regulation & misuse complaints:
**NJDEP Pesticide Control Program** **609-984-6507**

For pesticide regulation:
**USEPA Region 2 Office of Pesticide Programs** **877-251-4575**

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

For mosquito control recommendations:
**Rutgers University, Department of Entomology** **848-932-9774**

For local mosquito control information:
**Monmouth County Mosquito Control Division** **732-542-3630**

For health related pesticide information:
**The Monmouth County Health Department** **732-431-7456**