

Ocean County Mosquito Extermination Commission

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2018 APR - 2 A 11: 00

March 22, 2018

To: Mayors and Clerks of all Townships and Municipalities in the County of Ocean

As you are aware, the Ocean County Mosquito Commission performs mosquito control applications throughout Ocean County in response to mosquito breeding and possibly adult mosquito populations from April 1st through November 1st of each season. New Pesticide Regulations (N.J.A.C. 7:30-9.10e) requires us to supply a packet of information including **N.J.D.E.P. approved fact sheets** for each adulticide we **might** use, and a Question and Answer sheet explaining the aspects of our program to all municipalities. **Municipalities are encouraged to share this information with all residents in their community.**

Keep in mind that our primary mission is to accomplish larval mosquito control by performing Water Management, fish stocking, and applying larvicides to stagnant water breeding sites. The use of an adult mosquito insecticide would be necessitated **only** by extremely high populations or upon evidence of mosquito borne disease in your municipality. This may or, most likely, may not occur in your municipality, however this packet contains information on those products and the methods that would be available to use should the need arise later in the season.

If you have any further questions on mosquito control in your municipality, please feel free to contact this office or go onto our Website at www.oceancountymosquito.org.

Sincerely,

Michael Romanowski
Superintendent Cert.#61700A

From the Office of the Township Clerk

Mayor _____ CFO _____
Township Council _____ Tax Assessor _____
Administrator _____ Tax Collector _____
Attorney/Law _____ Rec. & Sr. Services _____
Engineer _____ Community Dev. _____
Public Safety/Police _____ Other _____
Public Works _____

4/2/18

Mike,
Pls post applicable info.
on our website. Thank
AM

Ocean County Mosquito Extermination Commission
Fact Sheet

“Zenivex™ E20” Adulticide

What is *Zenivex™ E20* adulticide and how is it used?

Zenivex™ E20 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™ E20* 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 a part of an integrated mosquito control program. As formulated in *Zenivex™ E20* 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 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 *Zenivex™ E20*?

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 safest course of action. Any possible exposure risk can be reduced by the following 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 your pets, their food, and water dishes inside during ULV application. Also bring clothing and children’s toys inside.
- Stay away from application equipment, whether in use or not.
- Whenever possible, remain indoors with windows closed and with window air conditioners 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 on your skin, immediately flush and rinse with water.

What are the symptoms of exposure to *Zenivex™ E20*?

Symptoms of over-exposure can include irritation to skin and eyes. The chance of experiencing these symptoms of over-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.

How long will *Zenivex™ E20* last in the environment?

The non-ester pyrethroid in *Zenivex™ E20* has a half-life of 1.7 days in water and 4.4 days in soil. The *Zenivex™ E20* molecule rapidly degrades in sunlight at the soil and water surface into its constituent elements Carbon, Hydrogen and Oxygen.

Mosquito control product fact sheet on:

“Scourge”

This sheet answers some basic questions about a mosquito control product that may be used in your county. The Ocean County Mosquito Commission, 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 pesticides called **“Resmethrin and Piperonyl Butoxide.”** The U.S. Environmental Protection Agency’s (EPA) current evaluation considers **Resmethrin and 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 into 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 conditioners 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 on your skin, immediately flush and rinse with water.

Mosquito control product fact sheet on:

“Atrapa” “Fyfanon” “Microflo”

This sheet answers some basic questions about mosquito control products that may be used in your county. The Ocean County Mosquito Commission, along with several other resources (listed at the end of this sheet), can provide more detailed information.

What are these insecticides and how are they used?

They are an insecticide product that is recommended for mosquito control in New Jersey by Rutgers, The State University of New Jersey. They contain 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.

Malathion 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 into the air since flying mosquitoes must directly contact the pesticide in order for it to be effective.

How can I avoid exposure to these products?

Risk to the general public from the use of **Malathion** 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 conditioners 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 on your skin, immediately flush and rinse with water.

OCEAN COUNTY MOSQUITO EXTERMINATION COMMISSION

QUESTIONS & ANSWERS

What is the life cycle of a mosquito?

Despite all the different mosquito species and various mosquito habitats in Ocean County, they all have at least one thing in common; all mosquitoes require water to complete their life cycle.

Mosquitoes have 4 different developmental stages: egg, larva, pupa and adult. Depending on the species, female mosquitoes will lay their eggs either on the water's surface, edges of emergent vegetation or damp soil depressions that will become inundated by rain and or tide.

The eggs hatch into the aquatic life stage known as larvae. Larvae grow by feeding on organic matter in the water and go through 4 growth stages called instars. After the 4th instar, the larvae molt into pupae, beginning to prepare for adulthood.

The pupa is still an aquatic stage and is where the mosquito undergoes metamorphosis in order to become the flying adult.

Shortly after emerging, the female mosquitoes fly off in order to seek a bloodmeal. The mosquito doesn't gain nutrition from blood feeding. Instead, the proteins from the blood are used to help her eggs to develop. Once egg laying is completed, she will just seek for another bloodmeal in order to lay further batches of eggs.

What mosquitoes do we have in Ocean County?

In Ocean County, we have identified 40 different mosquito species that are found in a wide variety of habitats. These include roadside ditches, flooded woodlands, freshwater swamps, storm water basins, artificial containers and coastal salt marshes.

Salt marsh breeding species constitute by far the majority of pest problems throughout the county. Heaviest populations of these mosquitoes occur in southern Ocean County. These mosquitoes can travel over 20 miles for a bloodmeal and can be found on the western borders of the county.

What human and animal diseases do mosquitoes transmit?

It's through this blood "feeding" behavior that a mosquito can act as a vector, or transmitter, of diseases between humans and animals. Depending on the species, mosquitoes can transmit diseases like malaria, yellow fever, dog heartworm and encephalitis (such as Eastern Equine Encephalitis and West Nile Virus).

West Nile Virus (WNV) was first recognized in the New York/Metropolitan area in 1999. Fortunately, WNV activity in Ocean County has been minimal, with only 2 horse cases, several positive mosquito test pools and a low number of positive humans.

Historically, Eastern Equine Encephalitis (EEE) has been the major human health concern in Ocean County. In previous years, EEE outbreaks have caused sickness and even fatalities and can account for the development of mosquito control in Ocean County.

Animals can also be the targets of mosquito diseases. Dog Heartworm is an ever-present threat to your pet's life and is costly to treat once it has been contracted. Horses can contract EEE and it is important to have them vaccinated against this disease. Horses are susceptible to WNV and a vaccine has recently been approved. Contact your veterinarian for more information. WNV has been responsible for deaths in several species of birds, particularly in wild populations.

What does the Mosquito Commission do?

By state mandate, the Ocean County Mosquito Extermination Commission was established in 1913. Since that time, our goal has been to control mosquitoes to eliminate disease and enhance the quality of life to the people of Ocean County.

The commission's mosquito control program is a comprehensive integrated pest management program that utilizes a balance of various control techniques and a detailed surveillance program to monitor the effectiveness of those techniques. Our control techniques focus on the aquatic larval stage of the mosquito. This aquatic stage of the life cycle is more concentrated and accessible than that of the adult stage.

The larval control program utilizes pesticides to eliminate breeding by directly treating the larval mosquito habitat by use of ground trucks or helicopters. A routine system has been developed and breeding sites are continually inspected throughout the breeding season (April-October).

Our water management program utilizes a technique called Open Marsh Water Management to eliminate mosquito breeding in salt marshes (i.e. grassy tidal lands surrounding Barnegat Bay) of Ocean County. This technique controls mosquitoes by

PUBLIC NOTICE

In compliance with Section 9.10 & 9.15 of the New Jersey Pesticide Control Code (N.J.A.C. Title 7 Chapter 30), The Ocean County Mosquito Extermination Commission, P.O. Box 327, Barnegat, NJ 08005 may be applying insecticides for the control of adult mosquito populations on an area-wide basis, as needed, throughout Ocean County during the period from May 15 through November 30.

The pesticides used will be those recommended by the New Jersey Agricultural Experiment Station for the control of adult mosquitoes which include: Malathion (Fyfanon ULV, Atrapa) or Resmethrin & Piperonyl Butoxide (Scourge). Products will be applied from the ground by truck or by aircraft, all using Ultra Low Volume techniques.

Contact the National Pesticide Information Center @ 1-900-858-7378 for routine pesticide related health inquiries. Call the New Jersey Pesticide Control Program @ 1-609-984-6507 for pesticide regulation information, pesticide complaints and health referrals. In the case of any pesticide emergency, please contact the New Jersey Poison Information and Education System @ 1-800-222-1222.

Upon request, The OCMEC shall provide a resident with notification at least 12 hours prior to the application, except for Quarantine and Disease Vector Control only, when conditions necessitate pesticide applications sooner than that time.

Visit our Website @ www.oceancountymosquito.org for updated information on mosquito operations and for further information regarding OCMEC activities. Call OCMEC @ 1-609-698-8271.

Michael Romanowski
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