



# COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT

*Joseph A. Graziano Sr., Director*

April 16, 2019  
Municipal Clerks Office  
Union County Municipality  
Union County New Jersey

**BOARD OF  
CHOSEN FREEHOLDERS**

BETTE JANE KOWALSKI  
*Chair*

ALEXANDER MIRABELLA  
*Vice Chairman*

ANGEL G. ESTRADA

ANGELA R. GARRETSON

SERGIO GRANADOS

CHRISTOPHER HUDAK

KIMBERLY PALMIERI-MOUEDED

ANDREA F. STATEN

REBECCA WILLIAMS

EDWARD T. OATMAN  
*County Manager*

AMY C. WAGNER  
*Deputy County Manager*

ROBERT E. BARRY, ESQ.  
*County Counsel*

JAMES E. PELLETTIERE, RMC  
*Clerk of the Board*

JOSEPH J. POLICAY, JR. CPWM  
*Division Director*

**Dear Municipal Clerk;**

**In accordance with NJAC 7:30-09.10 (e) 1: “Notification shall be made by mailing or delivering a packet of information annually to the municipality to be sprayed. Notification shall be mailed or delivered to the municipality’s responsible official...”**

**Area wide notification is required for any application of adulticide used to control adult mosquitoes. This does not include the application of larvicides used for larval mosquito control. The application of adulticides for adult mosquito control is applied using a truck mounted ultra-low-volume misting machine. Our larval mosquito control measures include; eliminating standing water, applying larvicides in water when and where mosquito breeding is found and biological measures (stocking with mosquito fish). Visit the Union County Website @ [www.ucnj.org](http://www.ucnj.org) for more information.**

**Pesticide applications for adult mosquitoes may be necessary in your municipality, although this is impossible to predict as fluctuation in mosquito breeding and population is influenced by yearly rainfall and temperature. This packet is being sent to every municipality in Union County. Please note that receipt of this packet does not confirm that spraying will actually take place.**

**Included in this packet is a NJDEP approved question and answer sheet, the Union County Bureau of Mosquito Control Program, and the NJDEP and USEPA approved product labels for each adulticide that may be used in Union County for the control of adult mosquitoes during 2019.**

**DIVISION OF PUBLIC WORKS**

2371 South Avenue

Scotch Plains, NJ 07076

(908)789-3660

fax(908)789-3227

[www.ucnj.org](http://www.ucnj.org)

***We're Connected to You!***



# COUNTY OF UNION

DEPARTMENT OF ENGINEERING, PUBLIC WORKS & FACILITIES MANAGEMENT

*Joseph A. Graziano Sr., Director*

**BOARD OF  
CHOSEN FREEHOLDERS**

**BETTE JANE KOWALSKI**  
*Chair*

**ALEXANDER MIRABELLA**  
*Vice Chairman*

**ANGEL G. ESTRADA**

**ANGELA R. GARRETSON**

**SERGIO GRANADOS**

**CHRISTOPHER HUDAK**

**KIMBERLY PALMIERI-MOUDED**

**ANDREA F. STATEN**

**REBECCA WILLIAMS**

**EDWARD T. OATMAN**  
*County Manager*

**AMY C. WAGNER**  
*Deputy County Manager*

**ROBERT E. BARRY, ESQ.**  
*County Counsel*

**JAMES E. PELLETTIERE, RMC**  
*Clerk of the Board*

**JOSEPH J. POLICAY, JR. CPWM**  
*Division Director*

As required, there will be a “legal” (The Star - Ledger) and a “display” (Courier News) advertisement to be published in Union County newspapers from May through October. Municipalities are encouraged to share this information with all residents in their community.

Respectfully;

**Ralph Strano, CPWM**  
**Bureau Chief of Union County Mosquito Control**

RS/rs

**Cc: Ed Oatman, Union County Manager**

**Joseph A. Graziano, Sr., CPWM, Director**  
**Union County Dept. of Public Works and Facilities**

**Joseph J. Policay, Jr., CPWM, Director,**  
**Union County Division of Public Works**

**DIVISION OF PUBLIC WORKS**

## **ADULTICIDE INFORMATION**

**The adulticides that Union County will be using this year are;**

***Zenovex, Fyfanon, Fyfanon EW, and Delta-Guard.* All have been used in the past year with satisfactory results in knocking down the adult mosquito populations.**

**The labels for the adulticides are included in this packet. All of the legally required safety information is on the label. The following agencies listed below with telephone numbers are for quick reference. They can be contacted for more information.**

<b>National Pesticide Information Center</b>	<b>1-800-858-7378</b>
<b>N.J. Poison Information &amp; Education System</b>	<b>1-800-222-1222</b>
<b>NJDEP Pesticide Control Program</b>	<b>1-609-984-6507</b>
<b>USEPA Region 2 Office of Pesticides Program</b>	<b>1-732-321-6759</b>
<b>NJDEP Office of Mosquito Control Coordination</b>	<b>1-609-292-3649</b>
<b>Union County Bureau of Mosquito Control</b>	<b>1-908-654-9834</b>
<b>Rutgers University, Department of Entomology</b>	<b>1-732-932-9437</b>

# **UNION COUNTY BUREAU OF MOSQUITO CONTROL**

## **Fact Sheet**

### **What is the life cycle of mosquitoes?**

**Mosquitoes have four stages of development; egg, larva, pupa and adult. They spend their larva and pupa stages in water. Female mosquitoes of most species deposit eggs on water or moist surfaces such as mud or fallen leaves. Rain re-floods these surfaces and stimulates the hatching of the eggs, starting the life cycle. Mosquito eggs that are laid on permanent water always hatch and develop larva. Depending on temperature, (warmer/faster-cooler/slower) it takes approximately one week to develop from egg to adult. Only female adult mosquitoes bite in order to obtain a blood meal. 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.**

### **How many kinds of mosquitoes are there?**

**More than twenty species are currently identified here in Union County, with sixty three found in New Jersey. Fortunately, not all feed on humans.**

### **What human diseases do mosquitoes transmit?**

**West Nile Virus (WNV), St. Louis (SLE) and Eastern Equine Encephalitis (EEE) are diseases that can be transmitted by mosquitoes found in New Jersey. The primary transmitter of WNV and SLE are mosquitoes commonly found around homes. They are mosquitoes that will readily breed in old tires or any containers left outside and in dumps that hold water. Both of these diseases are more dangerous to the very young and old or to individuals with compromised immune systems. EEE is a more dangerous disease and is transmitted by mosquitoes that breed in permanent swamps and salt water marshes. Other diseases that are in the news: Dengue, Chikungunya, Zika. To date, only**

pesticides and education. Our control efforts focus primarily on the immature, water-born stages of the mosquito. The immature stages (larva/pupa) are more concentrated and accessible than adult mosquitoes and cannot escape control measures. Biocides containing *Bacillus thuringiensis israelensis* (BTI) dispersed in the water are used primarily to kill the larva, while surfactants (bio-degradable oils) applied on the water are used to suffocate pupa. Fathead minnows, killie fish, sunfish and *Gambusia* from the N.J. Division of Fish and Wildlife are stocked in ponds that are approved by the N.J. Department of Environmental Protection as part of a bio-control program. These fish eat mosquito larva. Our water management program identifies areas of stagnant water and eliminates them where possible following the NJDEP Best Management Practices manual. Mechanical and hand tools are used to accomplish this work which also includes the clearing of snags and silting from drainage ditches in order to eliminate standing pools of water. The Bureau deploys nearly thirty New Jersey Light Traps in order to monitor adult mosquito populations throughout the county. When those semi-permanent traps, which are collected two times a week from May to October, show significant numbers and when we receive complaints from neighborhoods, we spray a pesticide known as an adulticide. Adulticiding, which is mostly accomplished utilizing a truck mounted misting machine, is also done when we discover vector disease. All pesticides are registered with the U.S. Environmental Protection Agency and the N.J.D.E.P. Adulticiding is performed during the time of day when mosquitoes are most active, as the mosquitoes have to be on the wing and come into contact with the pesticide in order to be effective. The hours are usually between dusk and midnight, depending on the time of season which runs from June through September. At this time, all of the adulticiding is performed on the ground.

**Where can I get additional information regarding adulticiding?**

Adulticiding, or spraying, is advertised in legal ads in the Star Ledger and the Courier News. Residents can request individual notification of applications. Contact the Mosquito Control Bureau

population counts and species, along with vector disease and locations, are recorded in order to inform the other agencies in New Jersey and for our next season alerts.

An IPM program includes the work needed to be performed in water management. Areas that were identified during the past season are worked on to improve water flow and cleaning of debris. Some areas require methods needing heavy equipment where our operators need to re-grade. Other areas need to be de-snagged and others still need to have vegetation cut back or removed to provide access for inspectors to treat known breeding sites that can't be eliminated. Equipment needs to be maintained or repaired for use in this work. We also repair any of the NJ Light Traps and get them ready to be re-deployed in the locations throughout Union County in May. All training and NJDEP recertification for all pesticide applicators takes place during the off season as well. All employees of Union County Mosquito Control, with the exception of our office clerk, are licensed by the New Jersey Department of Environmental Protection in pesticide application and are certified in the 8B category.

The Bureau of Mosquito Control begins Public Outreach at this time. Our education program is designed to be informative and enlightening as to the work we do here and the entomology of mosquitoes.

Additionally, the Inspectors are all Commercial Driver Licensed and are responsible for plowing a portion of Union County's roadways. Those same roads are our responsibility during leaf collection in the fall where some of our staff also hold the title of heavy equipment operator.