



Lisle Township June 2016- Status Report

Season Perspective

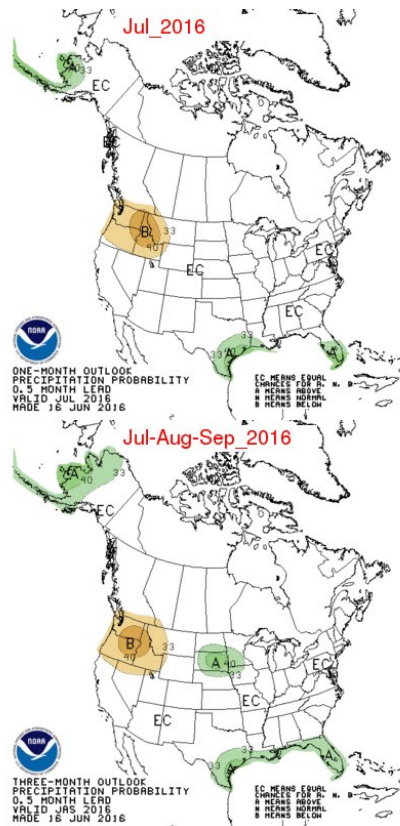
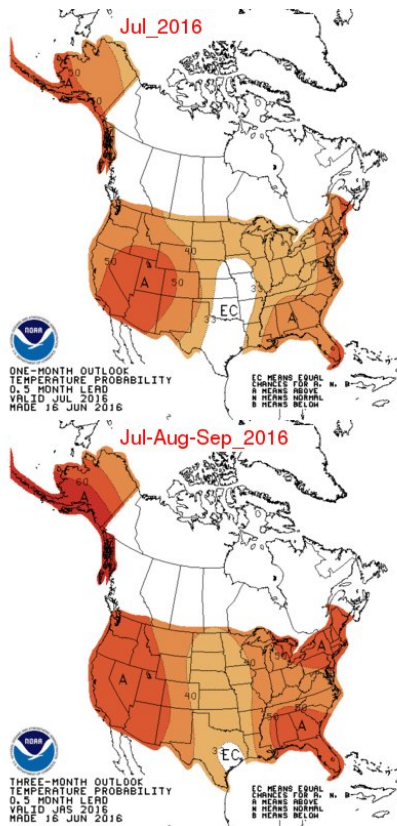
Weather conditions critically affect the seasonal mosquito population. Excessive rainfall periods trigger hatches of floodwater mosquitoes (*Aedes vexans*), the dominant annoyance species in northern Illinois that has a flight range of 15 to 20 miles. The other target species is the northern house mosquito (*Culex pipiens*), the primary vector of West Nile virus (WNV) that flourishes under stagnant water drought conditions.

The National Weather Service provided temperature and precipitation outlook maps (below) for the month of July, and period of July through August. As shown, the State of Illinois is expected to be above normal for temperatures, and normal for precipitation, setting the stage for an active mosquito season.

The excessive precipitation since early May has created saturated soil moisture conditions, ideal for floodwater mosquito development. The above normal temperature pattern will enhance the likelihood of West Nile virus amplification in the *Culex* population. Clarke service operations will intensify the focus on *Culex* and floodwater mosquito habitats, and recommend adult mosquito control applications, timed to protect the public health from excessive annoyance conditions and the risk of mosquito-borne disease.

Temperature Outlook

Precipitation Outlook





Mosquito-Borne Disease Update

West Nile Virus (WNV)

In 2015 a total of 48 states and the District of Columbia reported West Nile virus (WNV) infections in people, birds, or mosquitoes in 2015. Overall, 2,060 cases of West Nile virus disease in people were reported to CDC, including 119 fatalities. Of these, 1,360 (66%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 700 (34%) were classified as non-neuroinvasive disease.

To date in 2016, the Illinois Department of Public Health (IDPH) reported the following WNV information:

- One (1) WNV+ human case in downstate Illinois
- 11 counties WNV+ for mosquito, bird, horse or humans
- Two (2) WNV+ positive birds
- Fourteen (14) WNV+ mosquito samples.

On June 6th, IDPH reported the first human WNV case in an adolescent in west-central Illinois. According to Dr. Nirav D. Shah, IDPH: “We typically don’t start to see human cases of West Nile in Illinois until the end of July or beginning of August. This first human case is much earlier this year, reminding us that it’s more important to protect ourselves against mosquito bites now and not wait until the hotter months of summer.”

Zika Virus (ZIKV)

As of June 15, 2016, the CDC reported 756 travel-associated human cases of ZIKV in the United States, 11 of which were sexually transmitted. New York and Florida and have confirmed the most ZIKV travel-associated cases (174 and 141, respectively), The State of Illinois has reported 19. No local transmission of ZIKV from mosquitoes to humans has been reported in the continental United States.

U.S. territories (U.S. Virgin Islands, American Samoa, and Puerto Rico) have reported 1,440 ZIKV human cases.



Brood Prediction

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Distinct hatches of floodwater mosquito populations, or broods, are triggered by significant rainfall events. The Clarke Brood Prediction Model calculates peak annoyance periods based on rainfall and temperature data collected from weather stations in your area.

Weather Station Name	Rainfall Date	Rain Amount (inches)	Brood Prediction Date
Du Page Co.	05/13/2016	0.66	06/01/2016
Du Page Co.	05/25/2016	0.57	06/14/2016
Du Page Co.	05/31/2016	0.59	06/18/2016
Du Page Co.	06/04/2016	0.95	06/22/2016
Du Page Co.	06/09/2016	0.40	06/24/2016
Du Page Co.	06/14/2016	1.37	06/29/2016
Du Page Co.	06/22/2016	0.43	07/06/2016

Upcoming July Operations:

- 1 Completed Inspection
- 2 Targeted Inspections
- 2 Catch Basin Treatments
- 1 Helicopter Treatment

Recommendations

The CDC currently shows a risk category 1. Biting adult mosquitoes activity and limited or sporadic epizootic activity in birds or mosquitoes. Conduct Integrated Vector Management program to monitor and reduce vector mosquito abundance. Conduct environmental surveillance to monitor virus activity (mosquitoes, sentinel chickens, avian mortality, etc.) Initiate community outreach and public education programs focused on personal protection and residential source reduction.

Services Performed June 2016:

Service Item	Start Date
ROS1852 - Mosquitofish (G. Affinis) Stck	06/14/2016
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ROS1302 - Targeted Site Larval Insp Serv	06/17/2016
ROS2015 - Vectolex WSP Catch Basin Trtmt	06/20/2016
ROS2202 - 5% Abate Heli Prehatch	06/21/2016
ROS2802 - Anvil Truck ULV Application	06/27/2016