



Frankfort Township May 2017 - 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.

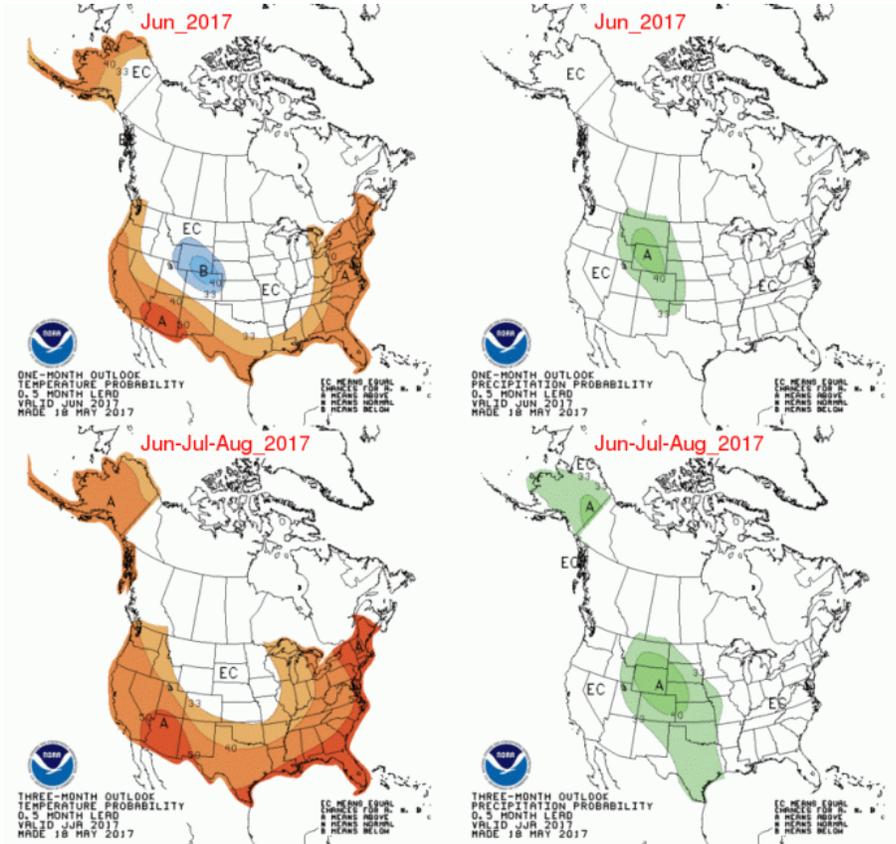
April 2017 has set the stage for a very active floodwater mosquito (*Aedes vexans*) season. According to the National Weather Service, April 2017 in Chicago ranks as the 7th warmest and 9th wettest on record. Chicago.

Since mid-April at O'Hare International Airport, a series of five (5) major rainfalls, totaling 5.33 inches, have triggered floodwater mosquito brood hatches. Other areas, such as, the DuPage County Airport have received over 7.5 inches of rain during the same period. If temperatures in early June rebound to normal, excessive mosquito annoyance conditions can be anticipated.

As a result Clarke operations will focus on floodwater mosquito larval development habitats for the control of these early season hatches. Truck ULV adulticide applications could be recommended, as warranted by surveillance data, to suppress the adult mosquito population in early June.

In addition, the National Weather Service temperature and precipitation maps provide the following outlooks for the United States, with a focus on Illinois:

- **Illinois - June 2017:** near normal temperatures and precipitation
- **Illinois – June – July - August 2017:** above normal temperatures and near normal precipitation



MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

In 2016, a total of 47 states and the District of Columbia have reported West Nile virus infections in people, birds, or mosquitoes in 2016. Overall, 2,038 cases of West Nile virus disease in people have been reported to CDC. Of these, 1,140 (56%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 898 (44%) were classified as non-neuroinvasive disease.

On May 30th, 2017, the Illinois Department of Public Health (IDPH) reported the first mosquitoes to test positive for West Nile virus in Illinois. Madison County Health Department staff collected mosquitoes testing positive on May 22-23, 2017 in Godfrey.

“The weather is warming up and we’re starting to see West Nile virus,” said IDPH Director Nirav D. Shah, M.D. “Although we see West Nile virus in Illinois every year, it’s still important to take precautions to protect yourself by wearing insect repellent and getting rid of standing water around your home.”



Zika virus (ZIKV)

As of May 3, 2017, the CDC has reported 5,274 human cases of ZIKV in the United States with the following breakdown:

- 4,973 travel associated cases
- 224 cases acquired locally in the USA by infected mosquitoes
- 77 cases acquired by other routes, including sexual transmission.

U.S. territories (U.S. Virgin Islands, American Samoa, and Puerto Rico) have reported 36,514 ZIKV human cases with the following breakdown:

- 143 from travelers returning from infected countries
- 36,431 cases acquired through presumed local mosquito-borne transmission

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	Brood Prediction Date
Will Co.	04/10/2017	0.51	05/08/2017
Will Co.	04/15/2017	0.42	04/29/2017
Will Co.	04/26/2017	0.46	05/20/2017
Will Co.	04/29/2017	2.59	05/20/2017
Will Co.	04/30/2017	0.98	05/20/2017
Will Co.	05/08/2017	0.90	06/01/2017
Will Co.	05/10/2017	0.87	06/01/2017
Will Co.	05/17/2017	0.51	05/31/2017
Will Co.	05/20/2017	0.61	06/03/2017
Will Co.	05/23/2017	0.48	06/06/2017

Upcoming June Operations

1 Catch Basin Treatment