



Village of Hainesville September 2017 – Status Report

Season Perspective

Introduction: 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.

Current Status: Northern Illinois experienced the 23rd warmest September on record with temperatures averaging 17 degrees above normal. The heatwave extended the mosquito season into the last week of the month. The floodwater mosquito population was a non-factor; however, the hot conditions were conducive to *Culex* development and a surge of WNV activity. Late summer is primetime for WNV transmission as indicated by several human cases being diagnosed in the Chicagoland area, including the first fatality in Kankakee County.

Late season operations focused on *Culex* larval development, and truck ULV adulticide applications were recommended to suppress the adult mosquito population. Summer-like temperatures in the 90s continued until September 28th when a sharp cool-down changed the weather pattern, curtailing mosquito activity. The season will cease after the first major frost that typically occurs by October 9th in northern Illinois.

MOSQUITO-BORNE DISEASE UPDATE

USA - West Nile Virus (WNV)

2017 Centers for Disease Control & Prevention (CDC) WNV Summary. As of September 19, 2017, a total of 47 states and the District of Columbia have reported West Nile virus infections in people, birds, or mosquitoes in 2017. Overall, 875 cases of West Nile virus disease in people have been reported to CDC. Of these, 537 (61%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 338 (39%) were classified as non-neuroinvasive disease.

To date, the following eight (8) states account for 77% of the WNV human cases: AZ (47), CA (143), GA (26), IL (37), LA (32), MI (26), MN (22), MS (52), NE (36), NV (43), ND (56), SD (55), TX (74) and UT (28).



Illinois – WNV Update

- Thirty-nine (39) WNV human cases have been reported in the following counties:

County	Birds	Mosquito Batches	Humans
COOK	7	1165	11
DEKALB	1	4	0
DUPAGE	0	187	4
KANE	1	37	2
LAKE	1	84	6
LASALLE	0	1	0
MCHENRY	0	20	4
STEPHENSON	2	5	0
WILL	0	77	1
WINNEBAGO	2	6	2
TOTAL	23	1929	39



Zika virus (ZIKV)

The CDC reports the following ZIKV human case summaries for 2016 compared to year-to-date in 2017, as of September 28, 2017:

ZIKV CASE TYPE	UNITED STATES		US TERRITORIES		NOTES
	2016	2017 - YTD	2016	2017 - YTD	
Travelers returning from affected areas	4,830	264	142	0	2016 breakdown: 49 states & DC; IL - 103
Acquired through presumed <u>local</u> mosquito-borne disease transmission	224	1	35,937	556	2016 breakdown: FL-218, TX-6. PR-34,963
Acquired through other routes (e.g. sexual, laboratory or blood-borne transmission)	48	3	0	0	
HUMAN CASE TOTALS	5,102	203	36,079	554	

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.

No Brood Predictions to report

Upcoming September Operations

Operations have been completed for the 2017 season.

Services Performed 2017:

Service Item	Start Date
ROS2712 - Biomist ATV/ULV Appl. Nights	09/13/2017
ROS1302 - Targeted Site Larval Insp Serv	09/18/2017