

City of Oakbrook Terrace

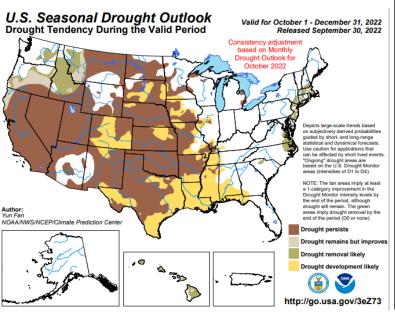
September 2022 - Status Report

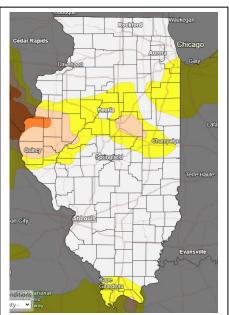
SEASON PERSPECTIVE

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 and drought conditions.

Soil Moisture Conditions Improved As Late Season West Nile Virus Human Cases Increase

Significant rainfalls in late August and early September improved the soil moisture deficit across northern Illinois. The dominant dry conditions in July and August curtailed the impact of the 2022 floodwater mosquito population. On the other hand, the Culex mosquito and WNV disease vector, develops under dry conditions and caused late season WNV transmission to humans.







As of September 28th, the Illinois Department of Public Health has reported twenty (20) human cases in six (6) counties, as shown by the following map and chart:



COUNTY	CASES
Cook	13
DuPage	3
Kane	1
Lake	1
McHenry	1
Peoria	1
Total	20

Operations Plan. Late July through September is the critical time to protect the public health from WNV. Due to the dry weather pattern, Clarke operations focused on floodwater on Culex habitats, including the completion of catch basin applications and monitoring of wastewater treatment plants, and stagnant water areas. Truck ULV adulticide applications were recommended, as warranted by surveillance data, to proactively suppress the potential of WNV transmission to the human population.



Floodwater Mosquito Brood Prediction - DuPage County Airport

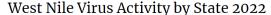
The floodwater mosquito (Aedes vexans) is the key nuisance species in the Chicagoland area. Distinct hatches of floodwater mosquito populations, or broods, are triggered by significant rainfall events. The Clarke Brood Prediction Model calculates peak annoyance periods based on rainfall and temperature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

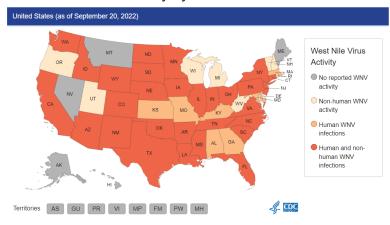
Weather Station Name	Rain Date	Rain Amount	Brood Prediction Date
DuPage Co. Airport	8/19	1.16	9/02
DuPage Co. Airport	9/11	0.89	9/25
DuPage Co. Airport	9/18	0.67	10/02
DuPage Co. Airport	9/20	0.43	10/04

MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2022 - USA. As of September 20th, four hundred twenty (420) USA human WNV cases have been reported to the CDC in thirty-six (36) states, including twenty-five (25) fatalities.



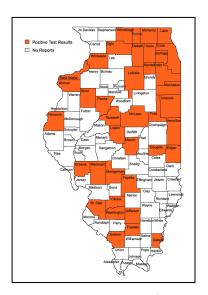


2022 - Illinois. As of September 28th, twenty (20) human WNV cases have been reported to IDPH in Cook, DuPage, Kane, Lake, McHenry and Peoria Counties. The DuPage County Health Department has reported human cases in Medinah, Oakbrook and Woodridge. The following chart compares 2022 to the same YTD periods in 2021 and 2012 (the last year of a major WNV outbreak):



West Nile Virus Activity Comparison and Summary (as of September 28, 2022)

	Number Collected in all	# WNV Positives	% WNV Positives		
	Counties				
2022 Data as of September 28					
2022 Mosquito Surveillance Samples	15,136	2,292	15.1%		
2022 Bird Surveillance Samples	154	13	8.4%		
2022 WNV Positive Counties	41				
2022 Human Cases as of September 28	20				
2021 Historical Data as of September 28 for Comparison					
2021 Mosquito Surveillance Samples	15,857	2,634	16.6%		
2021 Bird Surveillance Samples	157	27	17.2%		
2021 WNV Positive Counties	41				
2021 Total Human Cases	64				
2012 Historical Data as of September 28 for Comparison					
2012 Mosquito Surveillance Samples	19,339	5,003	25.9%		
2012 Bird Surveillance Samples	565	124	21.9%		
2012 WNV Positive Counties	50				
2012 Total Human Cases	290				



2022 - DuPage County Surveillance Data & Personal Protection Index - September 24th

2022		
DUPAGE COUNTY WEST NILE VIRUS SURVEILLANCE DATA 2022	YTD 2022	WEEK: 38 9/18-24
Mosquitoes Tested	33,784	1,235
WNV Total Tests	848	39
WNV Positive Tests	131	5
Positive Mosquito Pool Rate %	15%	13%
Reported Human Cases onset	3	0
Communities with Human WNV Cases	Medinah, Oak Brook, Woodridge	
Personal Protection Index	Risk Level >>>	3



OPERATIONS UPDATE

Services Performed - September 2022:

Service Item	Job Date(s)
ROS1999 - Natular G 5#/Acre Hand	09/02/2022
ROS1302 - Targeted Site Larval Insp Serv	09/02/2022
ROS2552 - Merus Truck ULV	09/08/2022
ROS2552 - Merus Truck ULV	09/15/2022
ROS1999 - Natular G 5#/Acre Hand	09/22/2022
ROS1302 - Targeted Site Larval Insp Serv	09/22/2022

No Upcoming Services for 2022

