



Big Rock Township

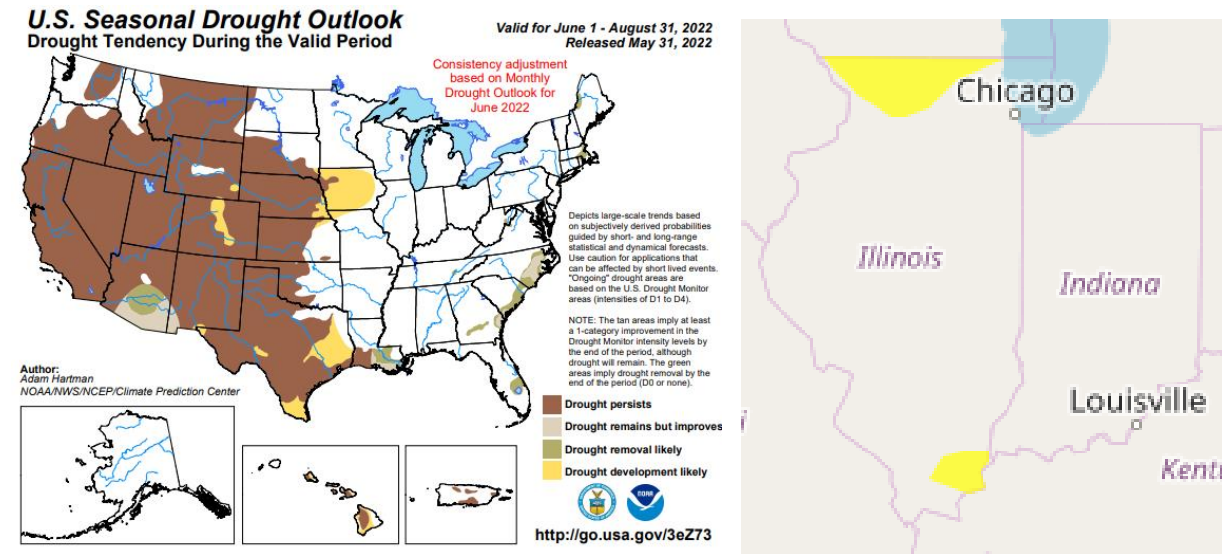
June 2022 - Status Report

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 Improvement Expected in Northern Illinois

The following United States Drought Monitor maps depict normal moisture conditions in the Chicagoland area with the exception the northern tier of Illinois counties as of May 31st:



Intensity and Impacts

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

Late May and early June rainfalls should improve the abnormally dry conditions in the northern tier of Illinois counties.



Accordingly, during the early part of the 2022 season, floodwater mosquitoes (*Aedes vexans*) are anticipated to be significant if temperatures are near or above normal. Clarke operations will focus on floodwater larval development habitats for the control of *Aedes vexans*. Truck ULV adulticide applications will be recommended as warranted by surveillance data. Because of key late May rainfalls, community-wide spraying for annoyance conditions in early June may be necessary.

Floodwater Mosquito Brood Prediction – O’Hare International 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
Yorkville	04/05/2022	0.94	04/19/2022
Yorkville	04/13/2022	0.59	04/27/2022
Yorkville	04/20/2022	0.48	05/15/2022
Yorkville	04/22/2022	0.78	05/15/2022
Yorkville	04/24/2022	0.42	05/14/2022
Yorkville	05/02/2022	0.46	05/24/2022
Yorkville	05/03/2022	0.45	05/27/2022
Yorkville	05/20/2022	0.66	06/11/2022
Yorkville	05/25/2022	0.80	06/14/2022
Yorkville	05/26/2022	0.72	06/16/2022
Yorkville	05/27/2022	0.46	06/17/2022
Yorkville	05/31/2022	0.40	06/14/2022

MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2021 – USA. Since 1999, West Nile virus (WNV) has rapidly spread across the United States causing over 55,144 human cases, including over 2,591 fatalities, during the past 22 years.



Because WNV is so widespread in bird and mosquito populations, the virus has become well established as an annual mosquito-borne disease threat. **In 2021, there were 2,695 human cases of WNV across the United States reported by the Centers for Disease Control & Prevention (CDC).** The following are the top ten states that recorded the most WNV cases in 2021 in descending order: AZ-CO-NE-CA-TX--IL-MI-NY-NJ and NM. These 10 states accounted for 86% of the 2021 human case count, but AZ accounted for 61%, or 1,645 human cases.

2021 – Illinois. In 2021, the State of Illinois Department of Public Health reported 62 human WNV cases, including 2 fatalities, compared to 39 in 2020, 28 in 2019, and 176 in 2018.

2021 – DuPage County. In 2021, DuPage County recorded 12 human WNV cases, compared to 4 in 2020, 6 in 2019, and 17 in 2018.

2022 – USA. As of June 6th, no USA human WNV cases have been reported to the CDC.

2022 – Illinois. As of June 1st, no Illinois human WNV cases have been reported to IDPH. On May 24th, IDPH announced the first report of WNV-positive mosquitoes in Roselle, IL:

*"**CHICAGO** – The Illinois Department of Public Health (IDPH) has confirmed the first mosquitoes to test positive for West Nile virus in Illinois in 2022. The DuPage County Health Department collected a positive mosquito batch on May 24, from Roselle in DuPage. No human cases of West Nile virus have been reported so far this year."*

In addition, as of June 1st, WNV positive mosquitoes were reported in Will County.

OPERATIONS UPDATE

Upcoming June 2022 Operations

Work Type	Number of Treatments
DUET Truck ULV City Wide	1