



City of Oakbrook Terrace

May 2023 - 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.

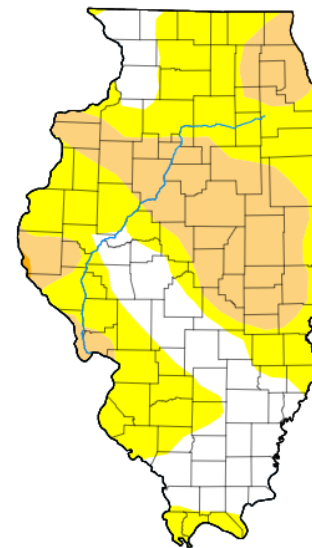
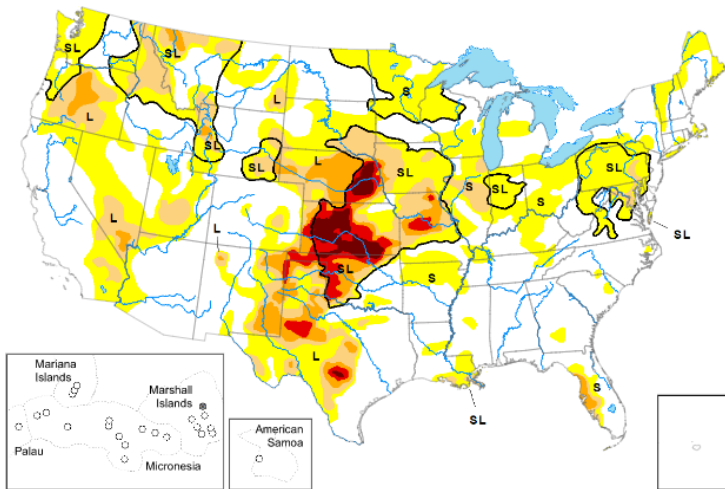
May 2023 – One of the driest on record in Northeastern Illinois in the past 153 years!

The following United States Drought Monitor maps depict that Chicagoland soil moisture conditions have worsened from “no drought” in late April to “abnormally dry” moisture conditions and areas of “moderate drought,” as of June 1st:

Illinois

Map released: June 1, 2023
Data valid: May 30, 2023

View grayscale version of the map



Intensity and Impacts

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



The following chart shows the April and May rainfall deficit at O'Hare International Airport:

| Month | Actual 2023 Rainfall | Normal Rainfall | % of Normal |
|-------|----------------------|-----------------|-------------|
| April | 2.02" | 3.75" | - 46.1% |
| May | 0.71" | 4.49" | - 84.2% |

Accordingly, during the early part of the 2023 season, floodwater mosquitoes (*Aedes vexans*) and annoyance conditions are anticipated to be at a low level, especially if the trend of dry weather persists. By contrast, 2022 was a much wetter spring with eight (8) floodwater mosquito brood hatches occurring by June 1st. The dry and stagnant water conditions could produce early development of the northern house mosquito (*Culex pipiens*). Clarke operations will focus on permanent water larval development habitats for the control of *Culex* and proceed with the first round of catch basins. Truck ULV adulticide applications will be recommended as warranted by surveillance data.

Floodwater Mosquito Brood Prediction – DuPage Co. Airport

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Floodwater mosquito population hatches, 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 | 4/04 | 0.49 | 4/18 |
| DuPage Co. Airport | 4/20 | 0.49 | 5/16 |
| DuPage Co. Airport | 5/12 | 0.74 | 6/4 |



MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2023 – USA. As of June 1st, no USA human WNV cases have been reported to the CDC.

2023 – Illinois. The Illinois Department of Public Health (IDPH) has confirmed the first three batches of mosquitoes to test positive for West Nile virus in Illinois in 2023, both in Cook County. The North Shore Mosquito Abatement District collected a positive batch of mosquitoes in Evanston on May 30 and the Northwest Mosquito Abatement District collected two positive mosquito batches on May 31 in Park Ridge. The first positive mosquito pool in 2022 was reported on May 24th in Roselle in DuPage County. No human cases of West Nile virus have been reported so far this year.

2023 – DuPage County Surveillance Data & Personal Protection Index – June 1, 2023

| 2023 | | |
|--|-------------------------------|---------------------|
| DUPAGE COUNTY WEST NILE VIRUS SURVEILLANCE DATA 2023 | YTD 2023 | WEEK: 20 5/14-20 |
| Mosquitoes Tested | 2,028 | 1,044 |
| WNV Total Tests | 58 | 30 |
| WNV Positive Tests | 0 | 0 |
| Positive Mosquito Pool Rate % | 0% | 0% |
| Reported Human Cases onset | -- | -- |
| Communities with Human WNV Cases | -- | -- |
| Personal Protection Index | Risk Level >>> | 1 |
| DuPage County Health Dept | Mosquitoes Tested | 995 |
| | WNV Total Tests | 26 |
| | WNV Positive Tests | 0 |
| | Positive Mosquito Pool Rate % | 0% |



DuPage County surveillance, testing, and analysis of Culex mosquitoes for West Nile virus has resumed for the 2023 season with the collaboration of the following agencies:

- DuPage County Information Technology Department, GIS Division
- City of Naperville
- Clarke Environmental Mosquito Management, Inc.
- Forest Preserve District of DuPage County
- Illinois Department of Public Health
- DuPage County Health Department Public Health Center and Health Promotions Staff



OPERATIONS UPDATE

Services Performed - May & Early June 2023:

| Service Item | Start Date |
|--------------------------------|-------------------|
| Natular G 5#/Acre Hand | 05/17/2023 |
| Targeted Site Larval Insp Serv | 05/17/2023 |

Upcoming June 2023 Operations

| Work Type | Number of Treatments |
|--------------------------------|-----------------------------|
| Complete Site Larval Insp Serv | 1 |
| Targeted Site Larval Insp Serv | 1 |
| Natular G30 Bike CB (WSP) | 1 |
| | |