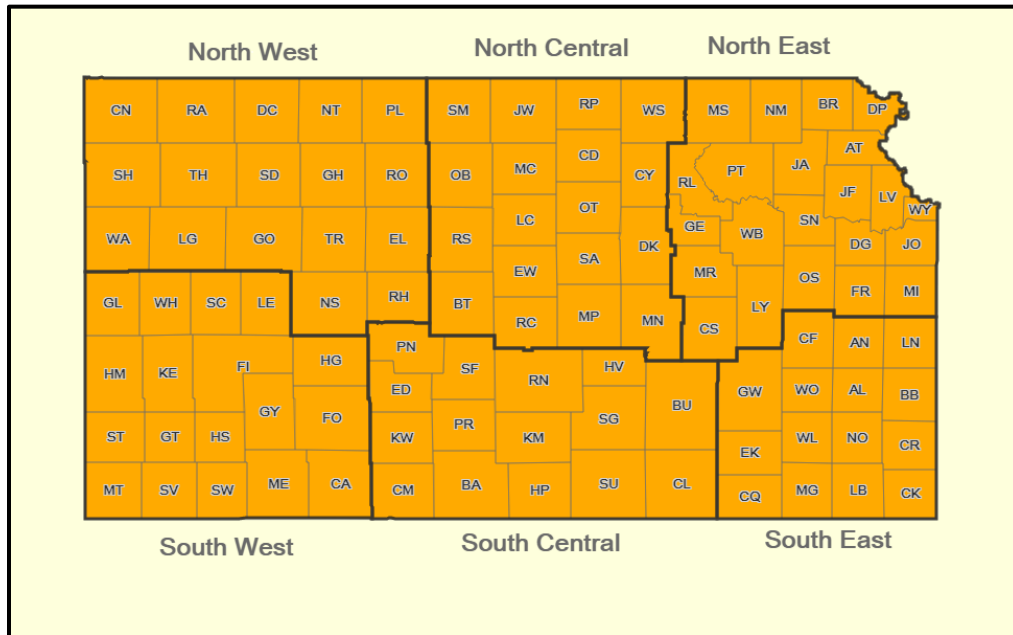


Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending June 1, 2019 (MMWR Week 21)



RISK LEVEL



| Key to West Nile virus Risk Levels in Kansas - 2018 | | |
|---|---|--|
| Risk | What it Means | What You Can Do |
| Minimal | Mosquito surveillance is conducted mid-May – mid-October however infection with WNV is unlikely. This does not mean the risk is zero. | To Prepare: Know your risk – check regularly at http://www.kdheks.gov/epi/arboviral_disease.htm Mosquito-Proof Your Home: <ul style="list-style-type: none"> Keep screens on windows and doors in good repair. Use air conditioning if you have it. DRAIN - Reduce number of mosquitoes around your home by emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths on a regular basis. |
| Low | The mosquitoes that carry WNV is present in small numbers. There is a low probability of being bitten by an infected mosquito. | To Prevent: <ul style="list-style-type: none"> Wear mosquito repellent between dusk to dawn Wear long sleeves and long pants from dusk to dawn Use mosquito netting on baby carriages and playpens |
| Moderate | There is a moderate probability of being bitten by a WNV mosquito. | To Prevent: add to previous level <ul style="list-style-type: none"> Wear mosquito repellent Wear long sleeves and long pants when weather permits Use mosquito netting on baby carriages and playpens Dump standing water twice weekly |
| High | This week has been identified as 'high risk' of being bitten by a WNV mosquito based on: high number of WNV mosquitoes identified and high number of historical human cases of WNV. | To Prevent: add to previous level <ul style="list-style-type: none"> People over 50 or those who are immune compromised may consider adjusting outdoor activity to avoid peak mosquito hours (from dusk to dawn). |

Highlights this week:

Floods throughout the state will cause an increase in the mosquito populations over the next several weeks. An increase in temperatures mean it will take less time for mosquitoes to mature from eggs to biting adults. We expect an increase in risk of West Nile virus transmission over the next several weeks. Mosquito surveillance is critical to determine the types of mosquitoes; those are nuisance mosquitoes that bite people versus those mosquitoes that can spread diseases such as West Nile virus. If water cannot be drained larvicide can be used to control mosquito populations and is readily available at home improvement and farm supply stores. For more information on mosquito control: <https://www.epa.gov/mosquitocontrol>

- **Northwest:** Moderate risk however all traps had a significant increase in the number of *Culex* species mosquitoes trapped this week. We also had an increase in flood water mosquitoes.
- **North Central:** Moderate risk however all traps had a significant increase in the number of *Culex* species mosquitoes trapped this week. We also had an increase in flood water mosquitoes.
- **Northeast:** Moderate risk. There was a decrease in the number of *Culex* species mosquitoes from the previous week and no traps had ≥ 40 *Culex* species mosquitoes. However, *Culex* species were above the baseline from the previous two years. There was there was a significant increase in the number of flood water species of mosquitoes.
- **Southwest:** Moderate risk however all traps had a significant increase in the number of *Culex* species mosquitoes trapped this week. We also had an increase in flood water mosquitoes.
- **South Central:** Moderate risk however all traps had a significant increase in the number of *Culex* species mosquitoes trapped this week. We also had an increase in flood water mosquitoes.
- **Southeast:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.

Methods for Risk Assessment

We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each week.

- High-risk environmental conditions include above-normal temperatures with or without above-normal rainfall. We use the average daily temperature during the prior 2 weeks as our benchmark.
- *Culex* species of mosquitoes serve as the main source of WNV transmission to people and horses. Relative abundance of *Culex* species mosquitoes compared to the same week in the previous year and the number of *Culex* species mosquitoes are evaluated each week. Greater than 40 *Culex* species mosquitoes collected in a week increases this factor to its maximum value.
- Number of human cases of WNV each week based on the average number of cases in the previous five years.

For WNV human case counts updated weekly, visit http://www.kdheks.gov/epi/case_reports_by_county.htm.

For more information on arboviral disease surveillance in Kansas, visit our website at; http://www.kdheks.gov/epi/arboviral_disease.htm or contact the Kansas Department of Health and Environment's Infectious Disease Epidemiology and Response section at 1-877-427-7317 or e-mail at kdhe.epihotline@ks.gov.