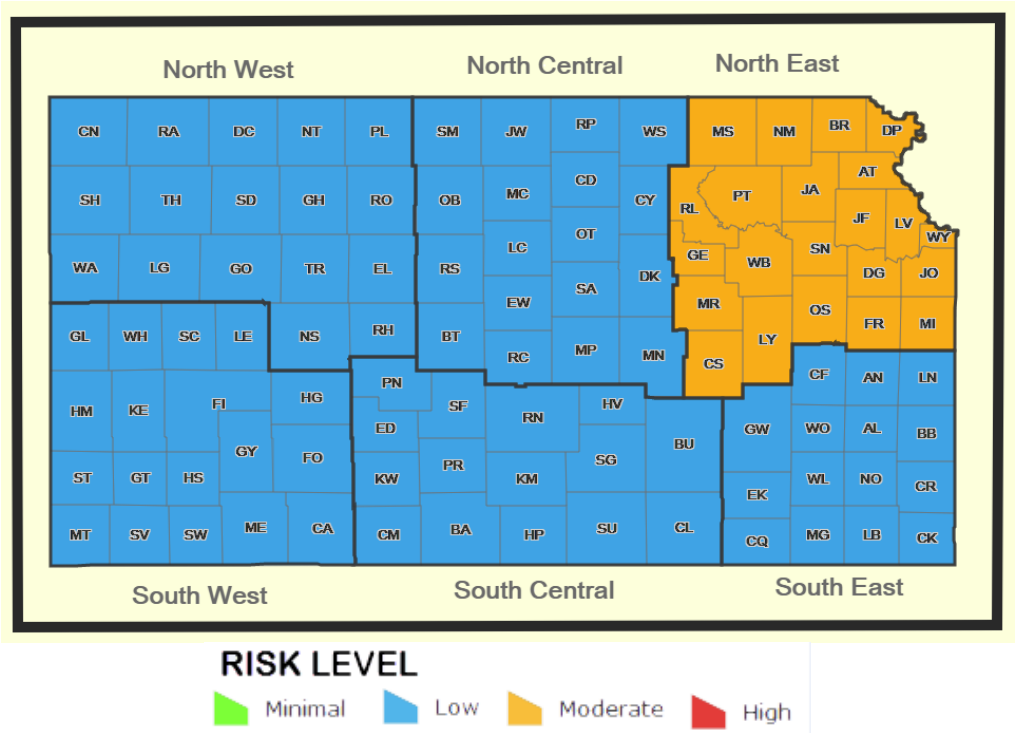
Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending October 6, 2018 (MMWR Week 40)



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: • 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:** • 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** • 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** • People over 50 or those who are immune compromised may consider adjusting outdoor activity to avoid peak mosquito hours (from dusk to dawn).

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Highlights this week:

- **Northwest:** Low risk due to decrease in two week average temperature and lower *Culex* species mosquito abundance than the same week in 2017
- **North Central:** Low risk due to decrease in two week average temperature and lower *Culex* species mosquito abundance than the same week in 2017
- **Northeast:** Moderate risk due to same value in two week average temperature and *Culex* species mosquito abundance remaining higher than the same week in 2017
- **Southwest:** Low risk due to decrease in two week average temperature and lower *Culex* species mosquito abundance than the same week in 2017
- **South Central**: Low risk due to decrease in two week average temperature and lower *Culex* species mosquito abundance than the same week in 2017
- **Southeast**: Low risk due to decrease in average temperature and *Culex* species mosquito abundance remaining lower than the same week in 2017

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. The three factors are as follows:

- 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 are compared.
- 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.

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