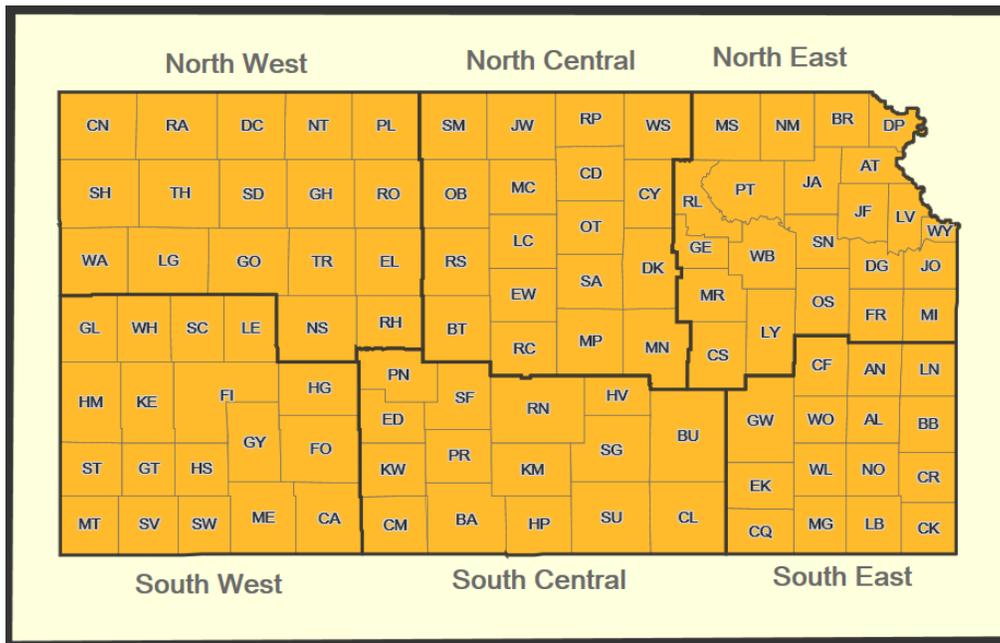


Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending May 18, 2019 (MMWR Week 19)



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:

- **Northwest:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **North Central:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **Northeast:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **Southwest:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **South Central:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **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. The three factors are as follows:

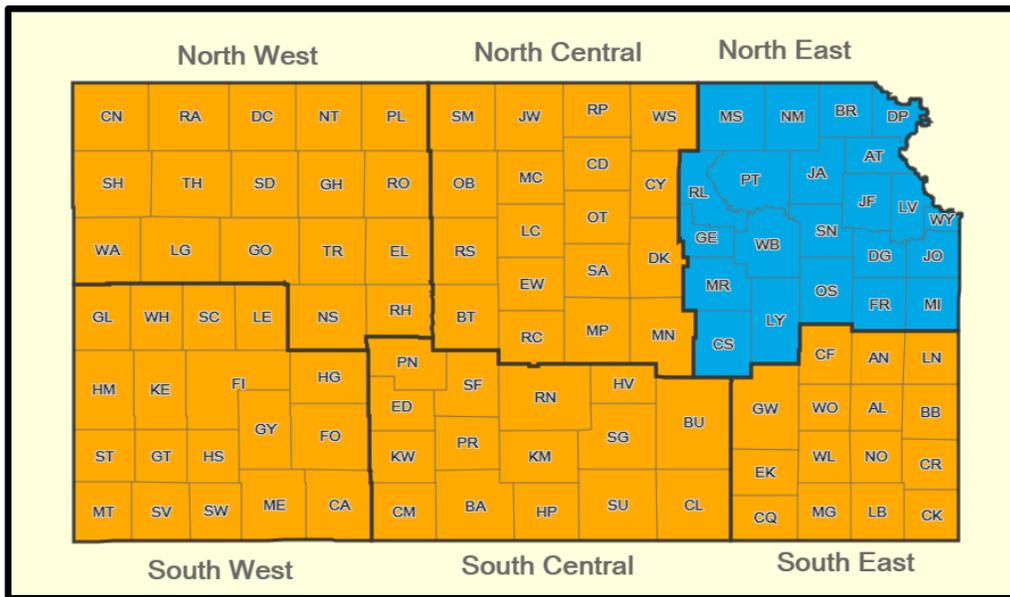
- High-risk environmental conditions include above-normal temperatures with or without above-normal rainfall. We use the average daily temperature during the prior 2 weeks as our benchmark.
- *Culex* species of mosquitoes serve as the main source of WNV transmission to people and horses. Relative abundance of *Culex* species mosquitoes compared to the same week in the previous year 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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending May 25, 2019 (MMWR Week 20)



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:

- **Northwest:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **North Central:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **Northeast:** Low risk due to decrease in *Culex* species mosquitoes trapped during this week.
- **Southwest:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **South Central:** Moderate risk due to greater than 40 *Culex* species mosquitoes trapped during this week.
- **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. The three factors are as follows:

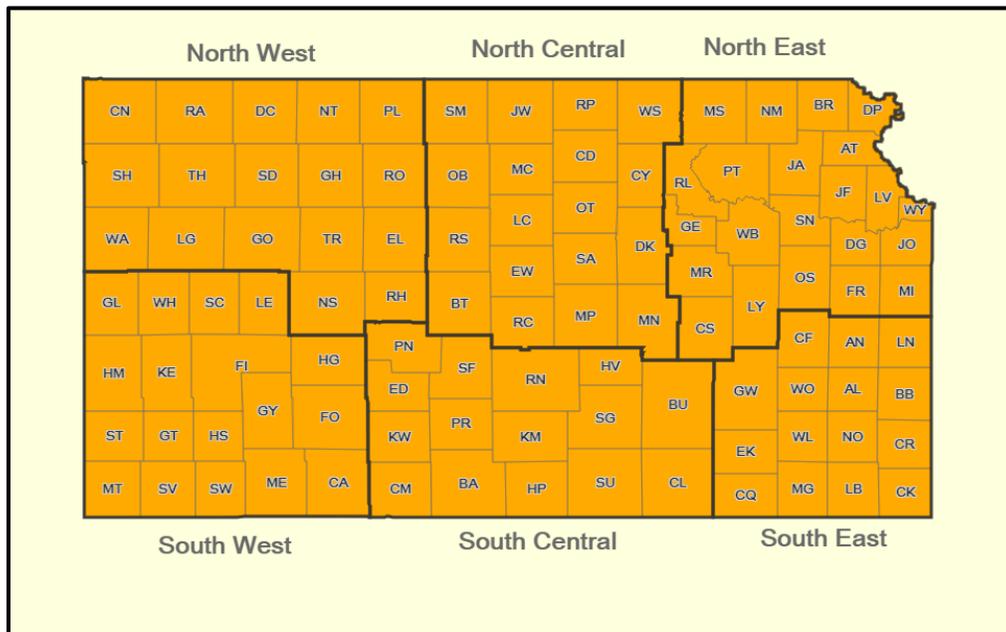
- High-risk environmental conditions include above-normal temperatures with or without above-normal rainfall. We use the average daily temperature during the prior 2 weeks as our benchmark.
- *Culex* species of mosquitoes serve as the main source of WNV transmission to people and horses. Relative abundance of *Culex* species mosquitoes compared to the same week in the previous year 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.

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.

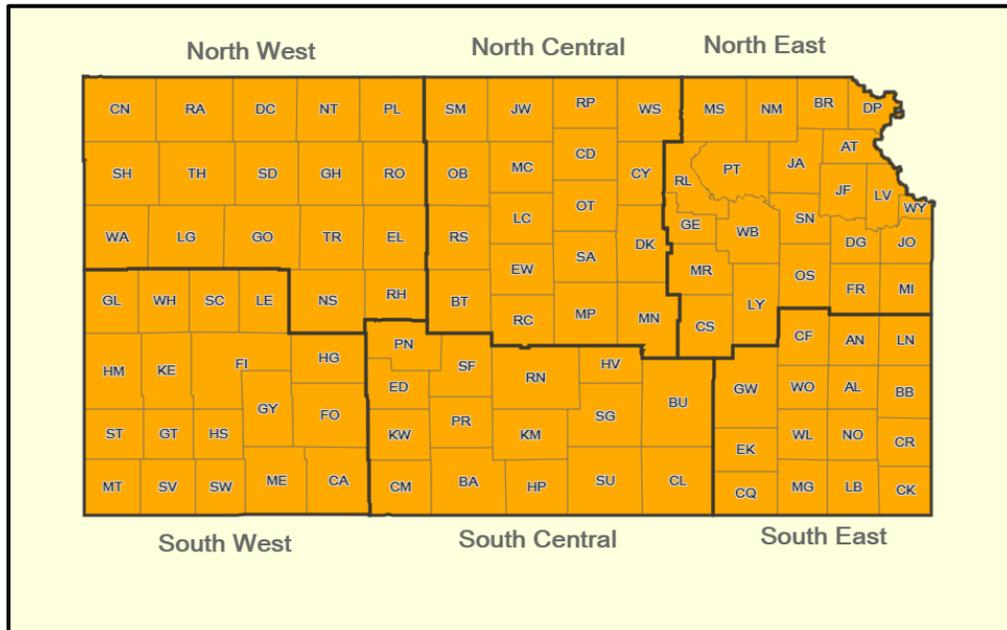
- High-risk environmental conditions include above-normal temperatures with or without above-normal rainfall. We use the average daily temperature during the prior 2 weeks as our benchmark.
- *Culex* species of mosquitoes serve as the main source of WNV transmission to people and horses. Relative abundance 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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending June 8, 2019 (MMWR Week 22)



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 means 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 due to 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 due to 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. 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 mosquitoes.
- **Southwest:** Moderate risk however due to 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 due to 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 a significant increase in the number of *Culex* species mosquitoes trapped during this week and an increase in two-week average temperature.

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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending June 15, 2019 (MMWR Week 24)



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 means 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 due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Northeast:** Moderate risk. There was an increase in the number of *Culex* species mosquitoes from the previous week. There was there was a significant decrease in the number of flood water mosquitoes.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.

Methods for Risk Assessment

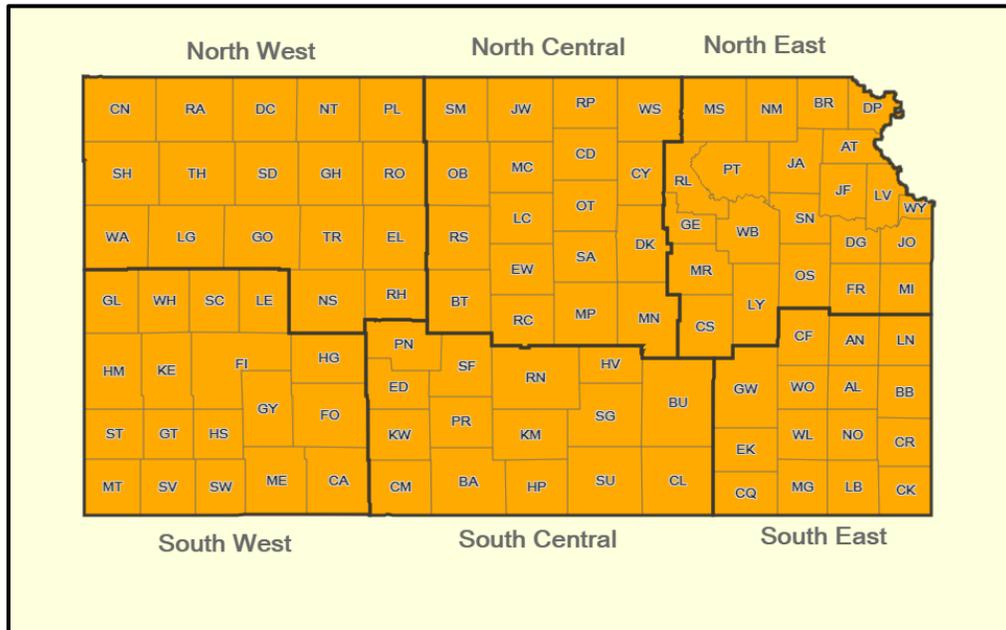
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending June 22, 2019 (MMWR Week 25)



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 means 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 due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Northeast:** Moderate risk. There was an increase in the number of *Culex* species mosquitoes from the previous week.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.

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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending June 29, 2019 (MMWR Week 26)



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 means 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 due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Northeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.

Methods for Risk Assessment

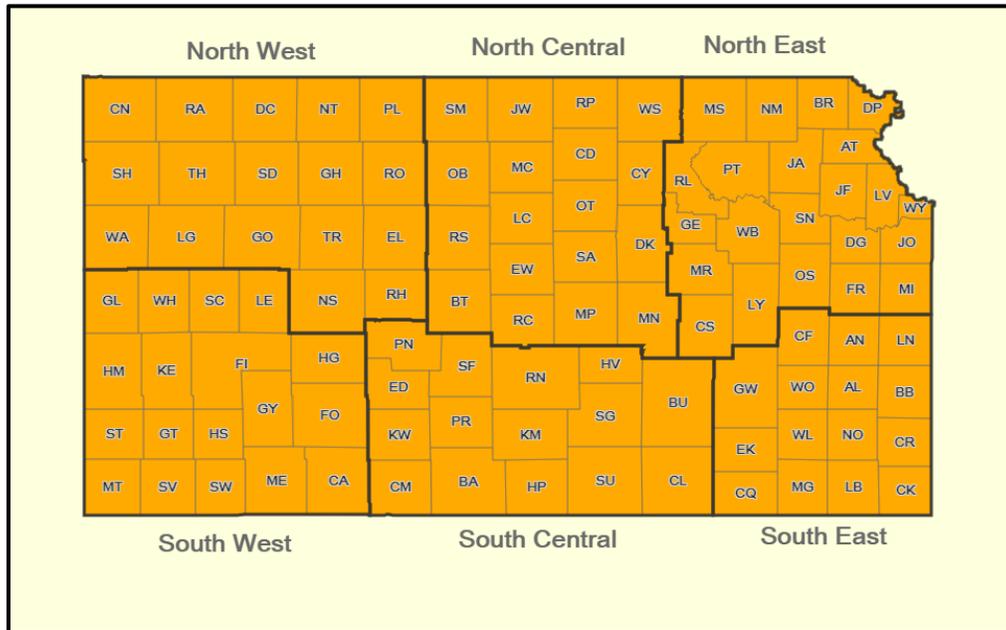
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending July 6, 2019 (MMWR Week 27)



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 means 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 due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Northeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.

Methods for Risk Assessment

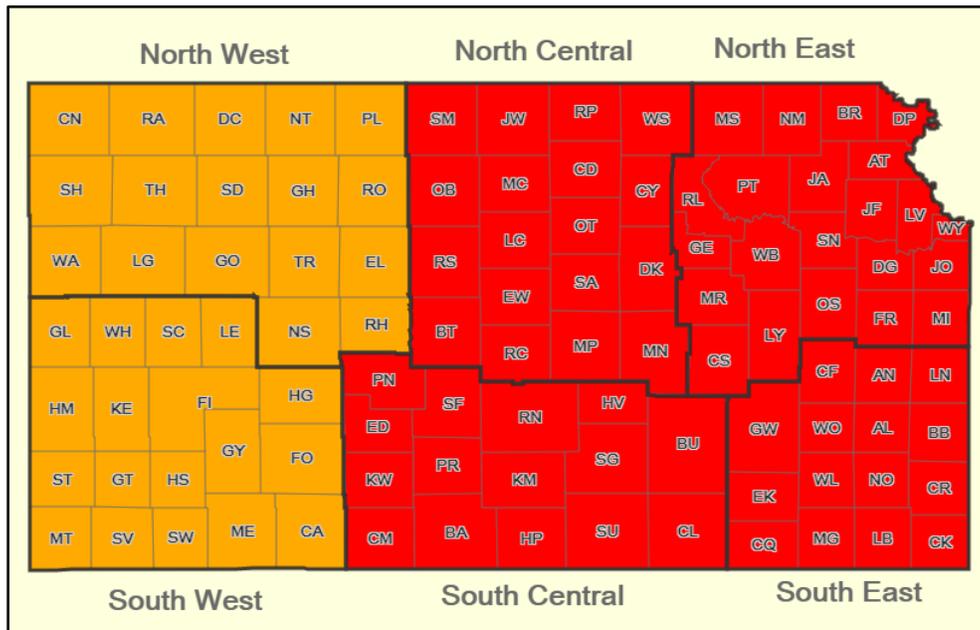
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending July 13, 2019 (MMWR Week 28)



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 means 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 due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.

Methods for Risk Assessment

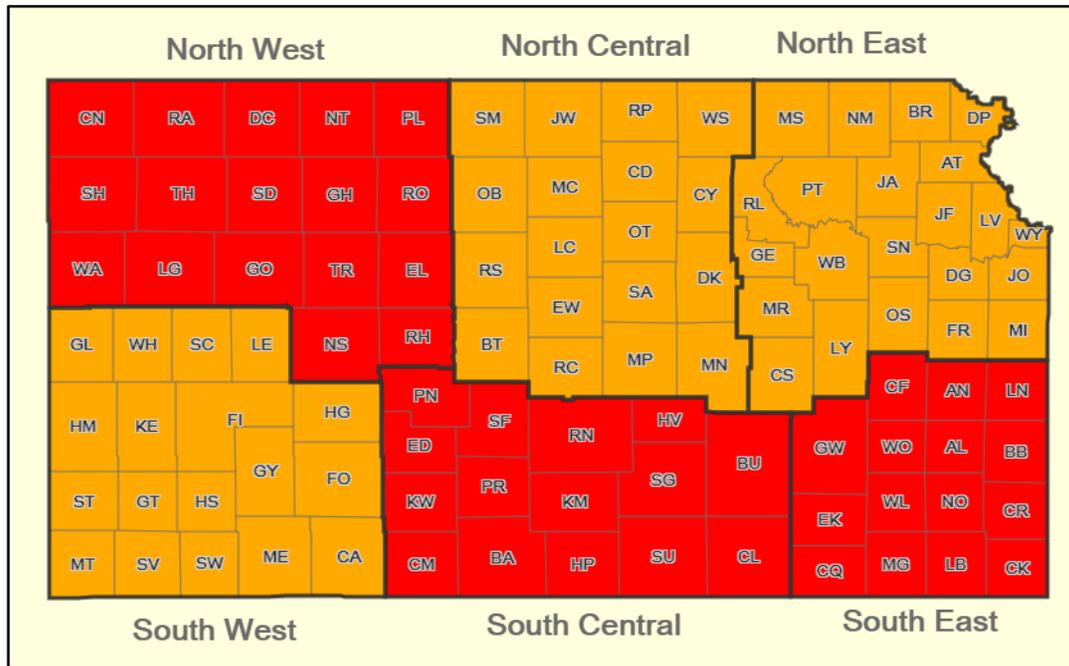
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending July 20, 2019 (MMWR Week 29)



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 means 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:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Northeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. However cooler temperatures over the previous two weeks keep the risk level at moderate.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high
- **Southeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.

Methods for Risk Assessment

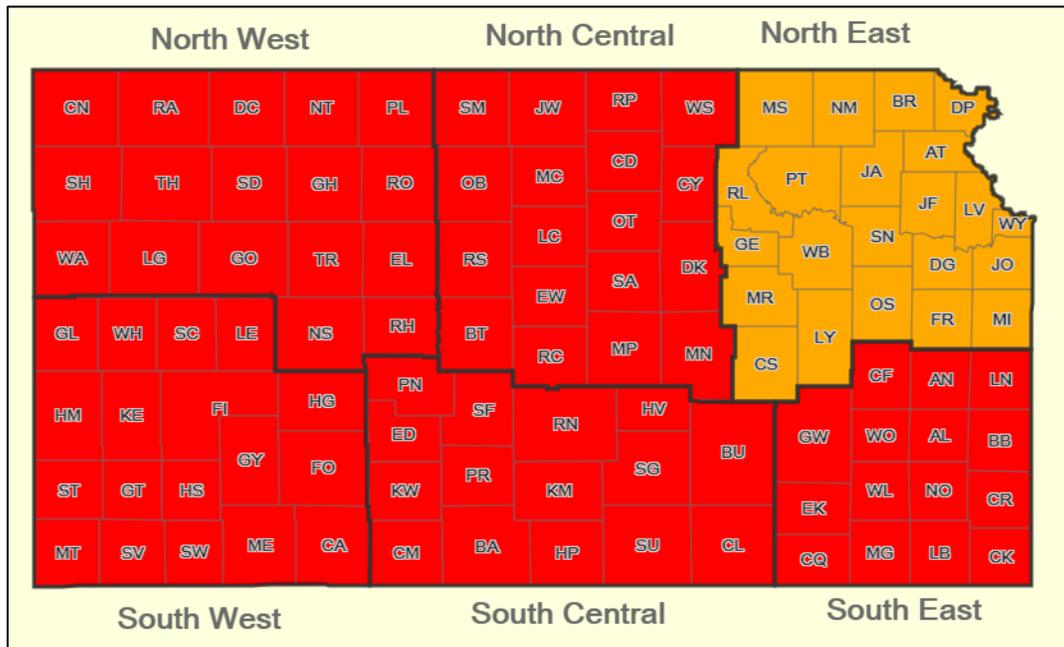
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending July 27, 2019 (MMWR Week 30)



RISK LEVEL

Minimal Low Moderate High

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:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Northeast:** Moderate risk due to unavailable *Culex* species mosquito data.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.

Methods for Risk Assessment

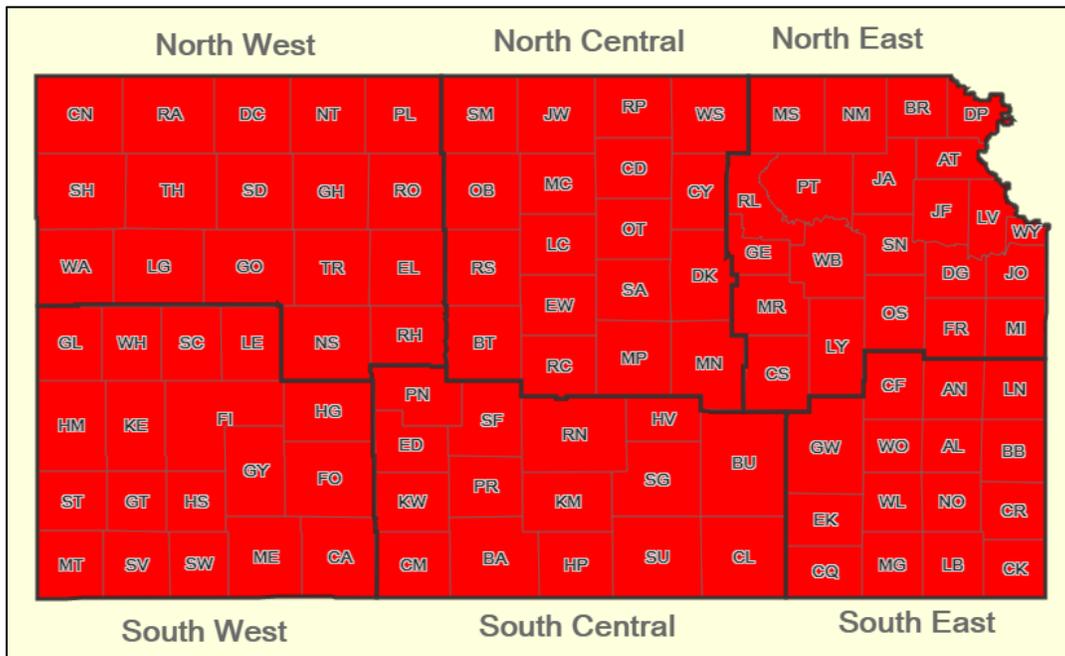
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending August 3, 2019 (MMWR Week 31)



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:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.

Methods for Risk Assessment

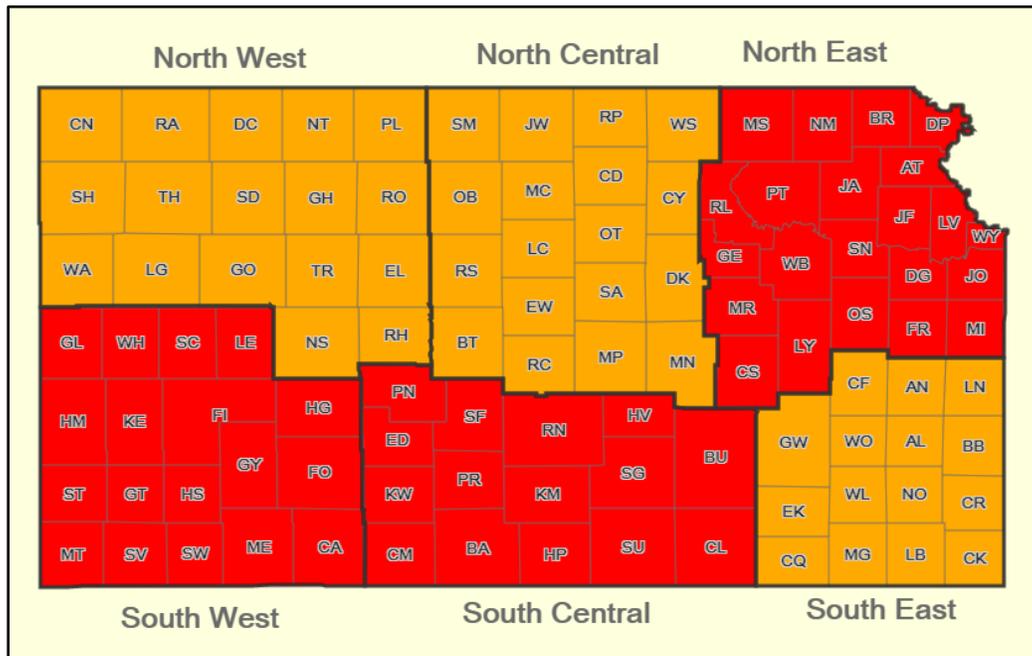
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending August 10, 2019 (MMWR Week 32)



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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Lower temperatures over the previous two weeks has decreased the risk level to moderate.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Lower temperatures over the previous two weeks has decreased the risk level to moderate.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southeast:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Lower temperatures over the previous two weeks has decreased the risk level to moderate.

Methods for Risk Assessment

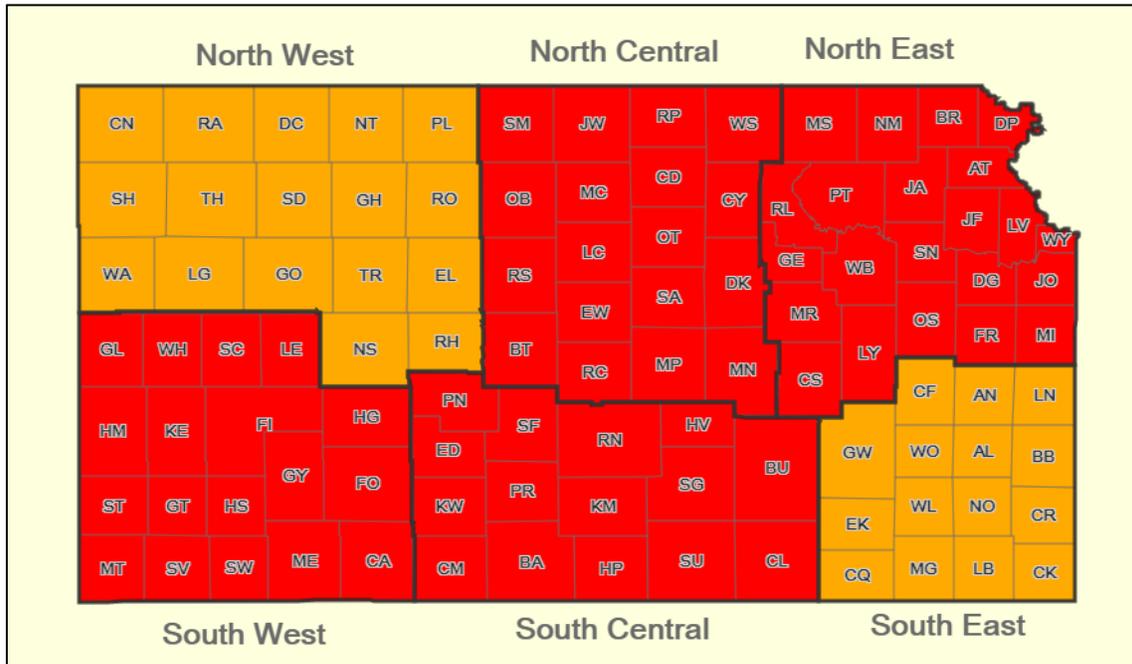
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending August 17, 2019 (MMWR Week 33)



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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Lower temperatures over the previous two weeks has decreased the risk level to moderate.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Warmer temperatures over the previous two weeks has decreased the risk level to moderate.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases. Warmer temperatures over the previous two weeks has increased the risk level to high.
- **Southeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week. Higher temperatures over the previous two weeks has increased the risk level to moderate.

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.

Highlights this week:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week. Lower temperatures over the previous two weeks has decreased the risk level to moderate.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week. Higher temperatures over the previous two weeks has kept the risk level to moderate.

Methods for Risk Assessment

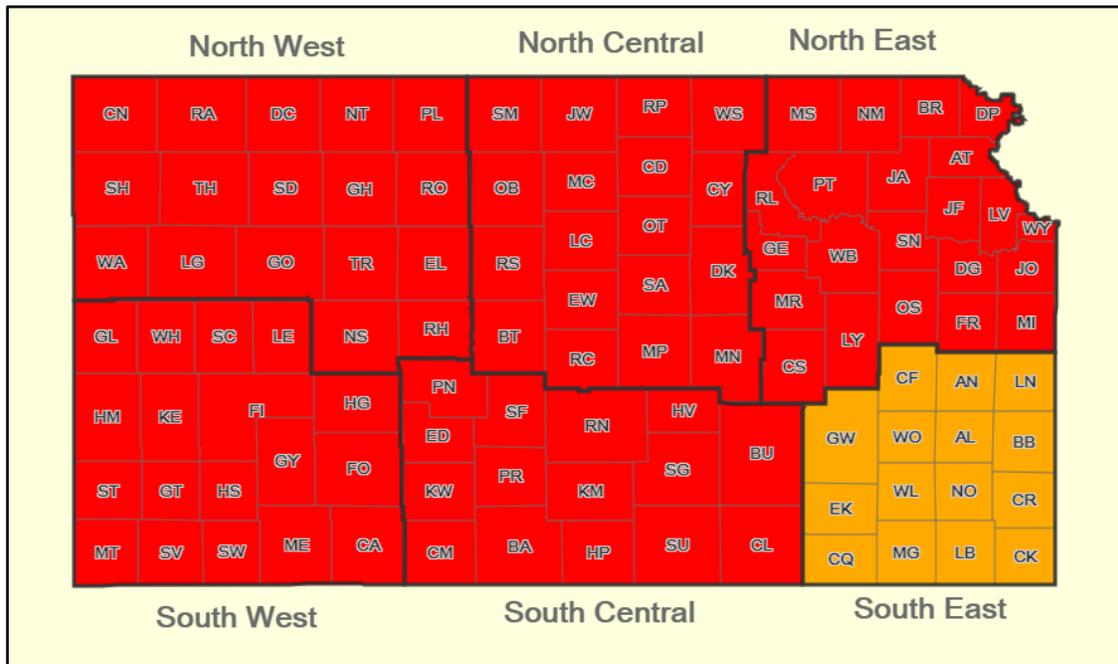
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending August 30, 2019 (MMWR Week 35)



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:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week. Higher temperatures over the previous two weeks has kept the risk level to moderate.

Methods for Risk Assessment

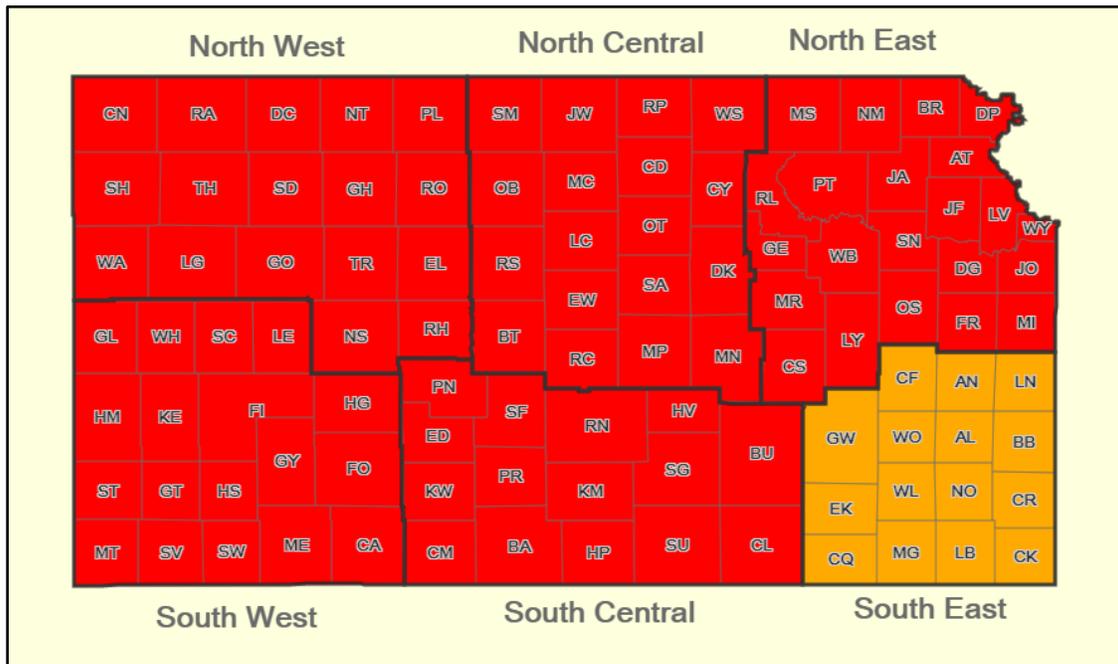
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending September 7, 2019 (MMWR Week 36)



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:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Northeast:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week. Higher temperatures over the previous two weeks has kept the risk level to moderate.

Methods for Risk Assessment

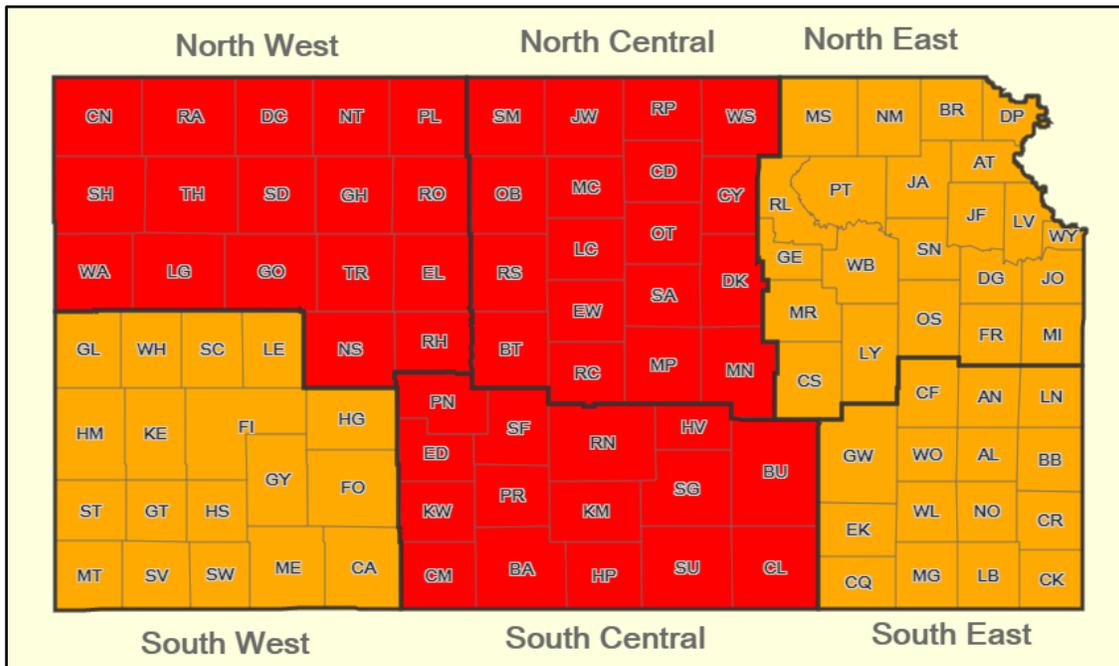
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending September 14, 2019 (MMWR Week 37)



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:

- **Northwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **North Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Northeast:** Moderate risk due to an increase in the number of *Culex* species mosquitoes trapped this week.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southeast:** Moderate risk due to an increase in the number of *Culex* species mosquitoes trapped this week.

Methods for Risk Assessment

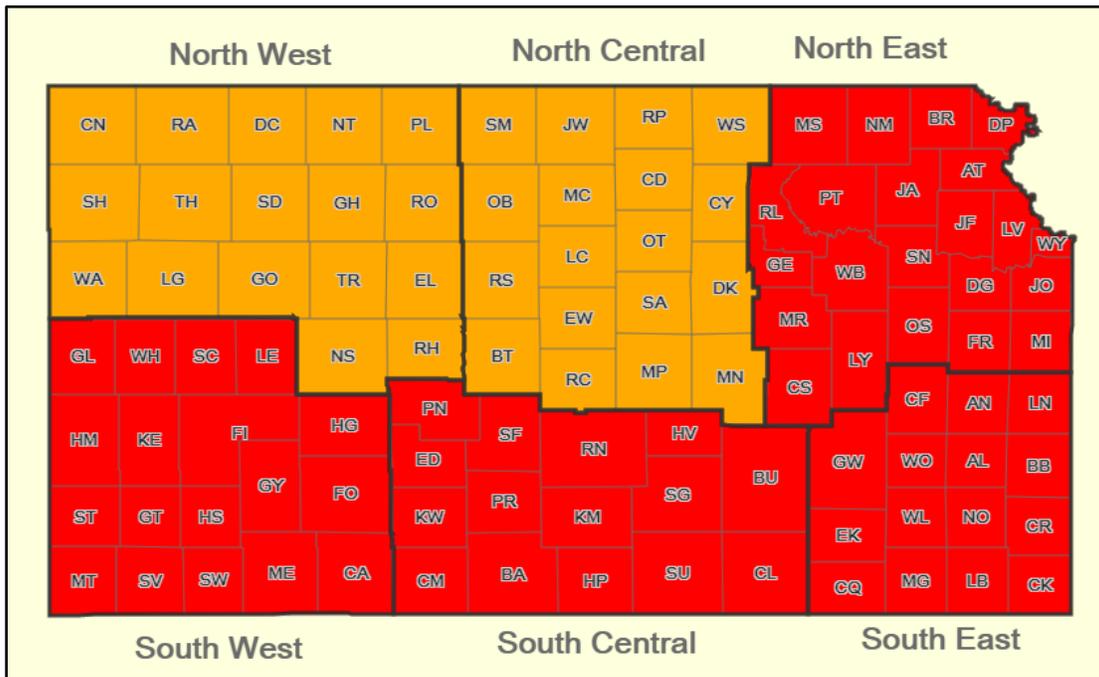
We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each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

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending September 21, 2019 (MMWR Week 38)



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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Northeast:** High risk due to an increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **South Central:** High risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southeast:** High risk due to an increase in the number of *Culex* species mosquitoes trapped 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.

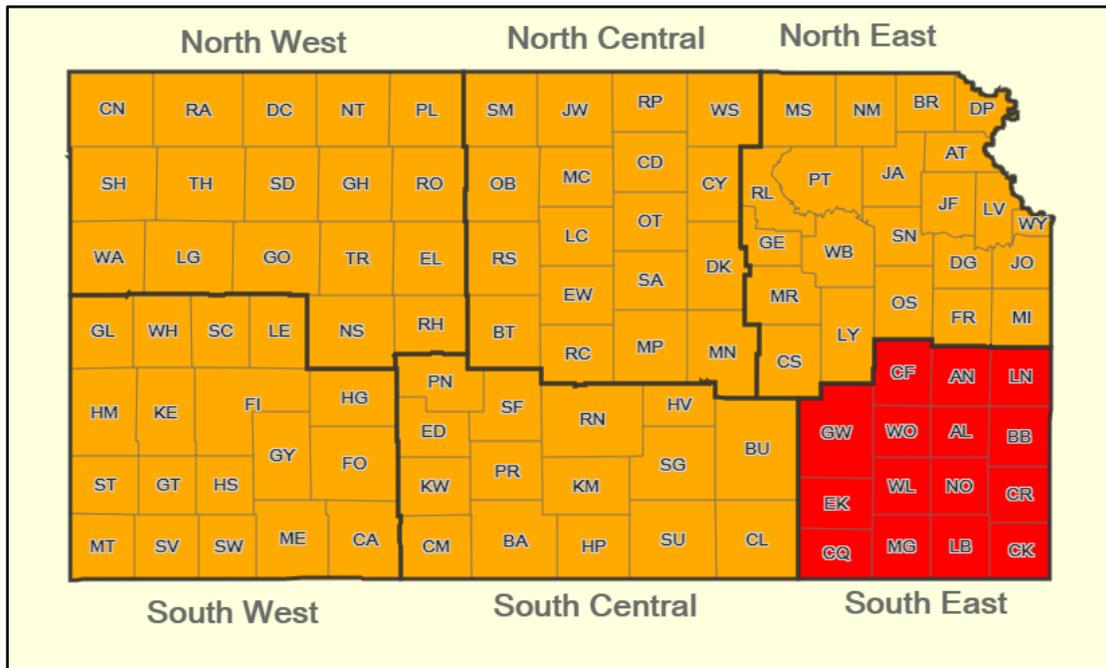
For WNV human case counts updated weekly, visit http://www.kdheks.gov/epi/case_reports_by_county.htm.

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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending September 28, 2019 (MMWR Week 39)



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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Northeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Southeast:** High risk due to an increase in the number of *Culex* species mosquitoes trapped 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.

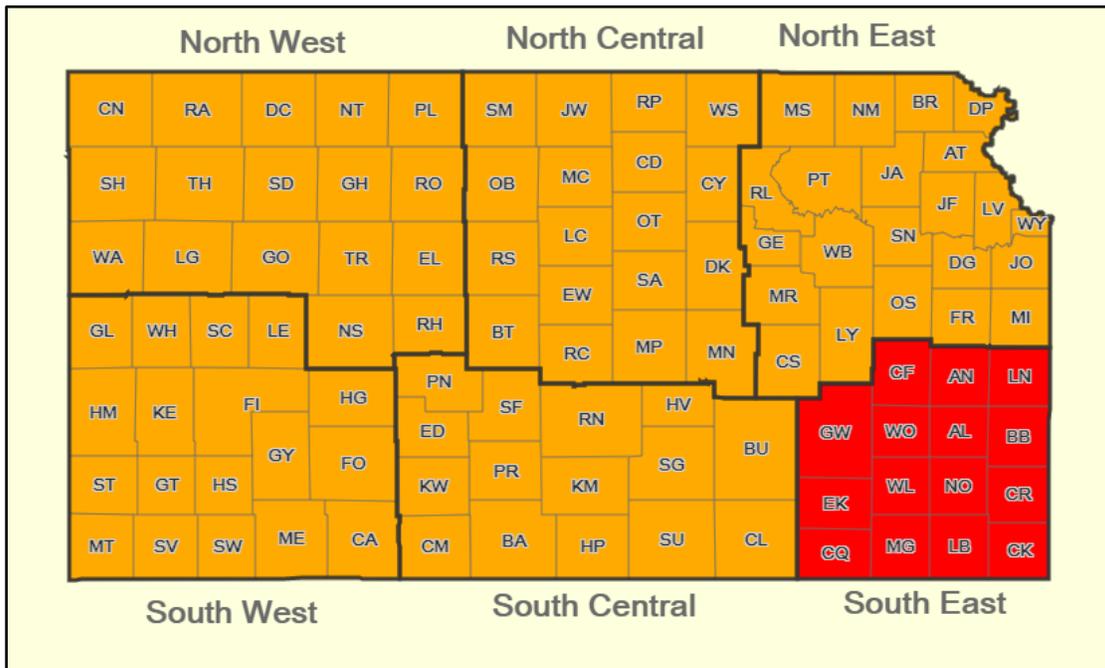
For WNV human case counts updated weekly, visit http://www.kdheks.gov/epi/case_reports_by_county.htm.

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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending October 5, 2019 (MMWR Week 40)



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.	<p>To Prepare:</p> <p>Know your risk – check regularly at http://www.kdheks.gov/epi/arboviral_disease.htm</p> <p>Mosquito-Proof Your Home:</p> <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.	<p>To Prevent:</p> <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.	<p>To Prevent: add to previous level</p> <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.	<p>To Prevent: add to previous level</p> <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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Northeast:** Moderate risk due to a decrease in the number of *Culex* species mosquitoes trapped this week and increase in historical human cases.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Southeast:** High risk due to an increase in the number of *Culex* species mosquitoes trapped 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.

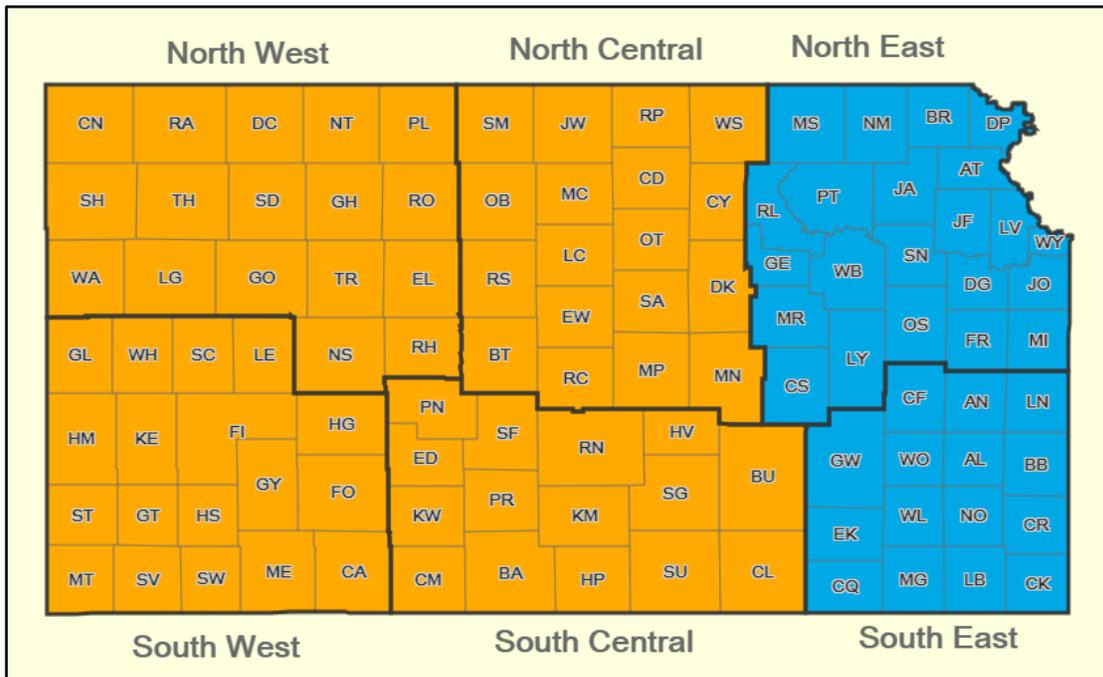
For WNV human case counts updated weekly, visit http://www.kdheks.gov/epi/case_reports_by_county.htm.

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.

Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending October 12, 2019 (MMWR Week 41)



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:

- **Northwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **North Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Northeast:** Low risk due to a decrease in the number of *Culex* species mosquitoes trapped this week and decrease in two-week average temperatures.
- **Southwest:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week.
- **South Central:** Moderate risk due to a significant increase in the number of *Culex* species mosquitoes trapped this week and decrease in historical human cases.
- **Southeast:** Low risk due to a decrease in the number of *Culex* species mosquitoes trapped this week and decrease in two-week average temperatures.

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.