

## Nebraska's Bad Buzz: What You Need to Know About Mosquitoes and West Nile Virus

Jody Green, PhD  
Extension Educator,  
Lancaster County

### Mosquitoes: The Deadliest Animals on Earth

Mosquitoes are both a nuisance pest and a health pest. Mosquitoes are known as the deadliest animal on earth due to the ability of some mosquitoes to transmit diseases like malaria, dengue fever, yellow fever, encephalitis and West Nile virus (WNV). Mosquitoes feed on a variety of hosts and the diseases they are able to transmit is specific to the type/species of mosquito.

### Mosquitoes in Nebraska

There are 50 species of mosquitoes in Nebraska, but only half of them feed on human blood, the rest feed on other mammals, bird and reptiles. Males and females obtain nutrients from plant nectar, but female mosquitoes require blood to produce eggs.

In 2016, Zika virus was highly publicized due to the risk of birth defects and microcephaly in children born to mothers infected with Zika virus during pregnancy. All of the cases of Zika virus reported in Nebraska were attributed to travelers returning from affected areas because the particular



Female *Culex* mosquito taking a blood meal.



*Culex* mosquitoes lay eggs in rafts on the surface of standing water.

*Aedes* mosquitoes that transmit Zika are rare.

In 2018, Nebraska had the highest number of human cases of WNV in the United States and the second most number of deaths. The majority of cases

occurring in Eastern Nebraska. WNV is spread by the *Culex* species, which are common blood feeders in the Midwest. *Culex* mosquitoes rest on structures and in vegetation during the day and come out biting at dusk and continue after dark into the morning.

### WNV Mosquitoes

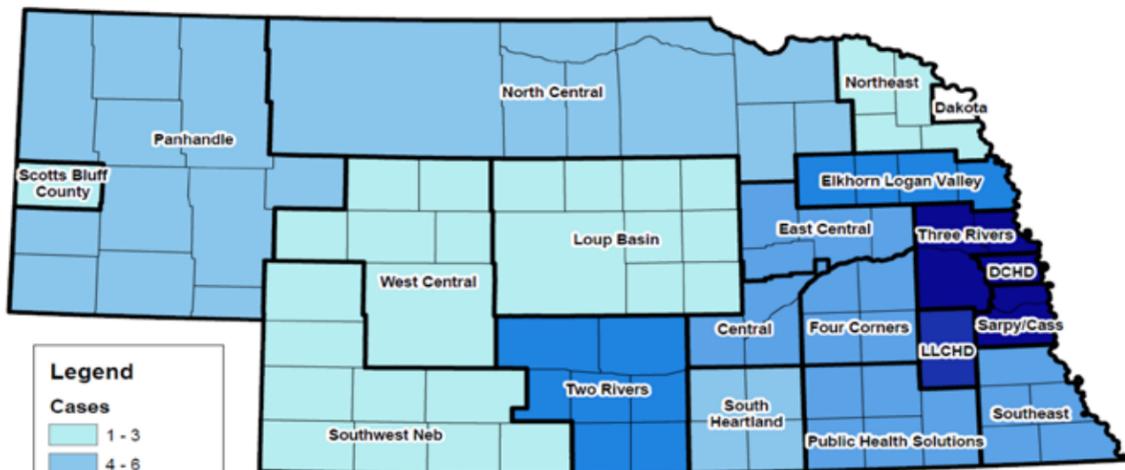
*Culex* mosquitoes lay their eggs on standing, stagnant water in irrigated fields and containers (i.e. tires, flower pots, toys, clogged gutters), and their populations and incidence of WNV are at peak levels during the fall months. Two things that lead to high incidents of WNV include:

1. **Higher-than-normal temperatures**, which speed up the mosquito life cycle, leading to a greater abundance of mosquitoes in a specific area.
2. **High rainfall**, which provides more breeding and larval habitats.

see WEST NILE VIRUS on p. 4

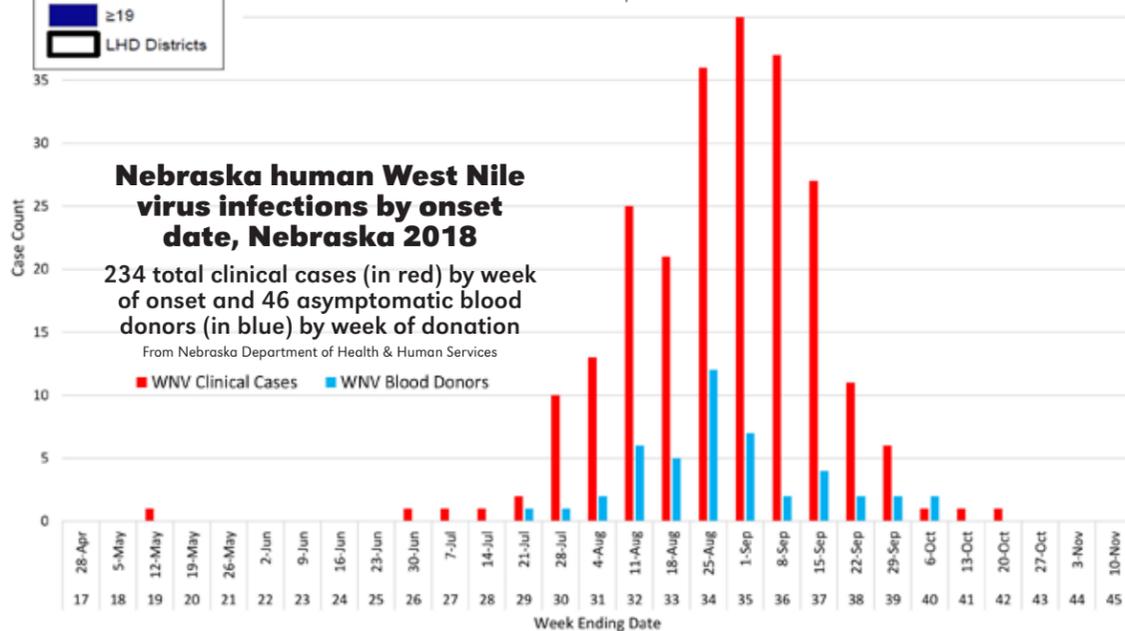
### Fast Facts

- West Nile virus is spread from mosquito bites that feed on infected birds.
- It is NOT spread through touching infected people or birds, but can be spread through blood transfusion, organ donation or mother to baby.
- Symptoms can vary from having no symptoms at all, to flu-like symptoms and fever, to severe neurological damage to serious fatal illness.
- There are no vaccines or medication to treat people infected with West Nile virus, so education and prevention is important.



**Nebraska human clinical West Nile virus cases by local health jurisdiction, 2018**  
235 total clinical cases in Nebraska

From Nebraska Department of Health & Human Services



### Nebraska human West Nile virus infections by onset date, Nebraska 2018

234 total clinical cases (in red) by week of onset and 46 asymptomatic blood donors (in blue) by week of donation

From Nebraska Department of Health & Human Services

■ WNV Clinical Cases ■ WNV Blood Donors

## EXTENSION RESOURCES

[flood.unl.edu](http://flood.unl.edu)

email [floodresponse@unl.edu](mailto:floodresponse@unl.edu)



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Agriculture

## CONNECT WITH US

Nebraska Extension in Lancaster County  
444 Cherrycreek Road, Suite A  
Lincoln, NE 68528  
402-441-7180  
<http://lancaster.unl.edu>



## IN THIS ISSUE

Food & Health . . . . 2  
Farm & Acreage . . . 3  
Early Childhood . . . 3  
Pests & Wildlife . . . 4  
Horticulture . . . . . 5  
4-H & Youth . . . . . 6-7