

# The West Nile Weekly

This is our final WNW for the 2017 WNV season. We will discuss the season and our findings at the 2017 South Dakota Mosquito Control Conference in Aberdeen (see <http://doh.sd.gov/diseases/infectious/wnv/>).

## What does this week look like historically?

Historically, fewer than 1% of cases are transmitted in the week beginning October 2nd, and around 99.2% of total cases for the year have been transmitted by the end of this week. While transmission is possible, it is very unlikely beyond this week.

## What to expect?

We expect that no cases will be transmitted during this week, especially with recent colder weather and heavy rain/wind events that may have destroyed adult mosquitoes.

However, older cases just now being diagnosed and reported will still show up in the data, so it may appear that transmission is still occurring. We believe that any such case was transmitted earlier.

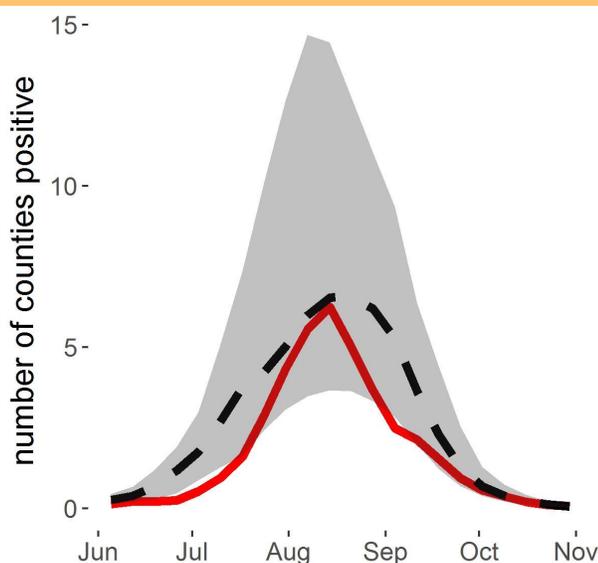
## Current recommendations?

We continue to recommend against the use of insecticides unless something changes drastically in the environment to reactivate mosquito populations. It is no longer possible to have a strong effect on *Cx. tarsalis* populations or their infection rate, which by this point is naturally declining. Resources are better saved for the beginning of the next season. Individuals should still take reasonable precautions while outdoors.

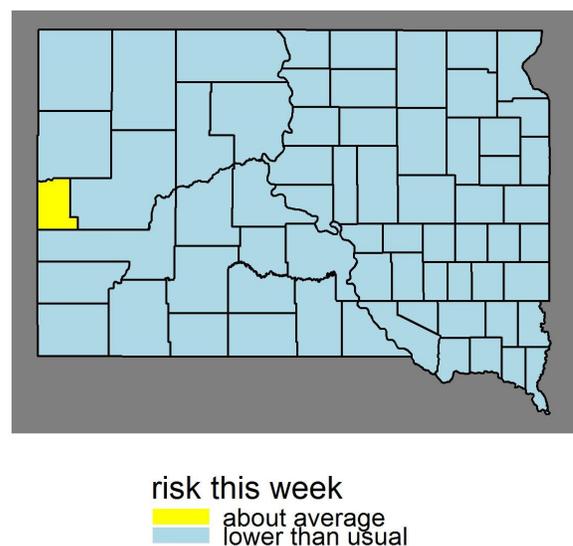
## When does the season end?

There is almost certainly some WNV still circulating in the wild, and if bird, mosquito, and an unlucky human are in the same environment, transmission is still possible. However, we believe that risk has fallen to a point where it is reasonable to say the season is *nearly* over.

Frosts have been observed in SD as early as September 26th and could occur essentially at any point now, which would put a formal end to the 2017 WNV season. Due to the unpredictability of the weather, it is difficult to say when this will happen.



**Figure 1:** Estimated risk for 2017 (red), with average risk in other years (dashed) and 50% confidence interval for historical risk (grey).



**Figure 2:** Risk for this week, compared to risk in this county, this week, in the average WNV year.