

News Release for Immediate Use or Next Issue
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Elevated Wheat Streak Mosaic Virus Risk for 2024 Crop

For the past several years, there has not been much positive to say about Kansas winter wheat production, especially in the central corridor of the state. Kansas' midsection has endured three consecutive years of overwinter drought, accompanied by poor subsoil moisture at establishment and adverse conditions at heading and grain filling. However, one bright spot to the parched circumstances of our state's flagship crop has been minimal disease pressure.

Compared to the past few years, 2024's winter wheat crop has shown strong potential to be a turn for the better, and recent snows and rains have aided that. However, the conditions observed throughout the state in wheat's growing season thus far bode ominous indications of potential disease stress due to wheat streak mosaic.

The wheat streak mosaic virus is vectored by the wheat curl mite, and several factors are present in wheat this year that may contribute to accelerated curl mite reproduction. North-central Kansas experienced an autumn 3 – 4 degrees Fahrenheit warmer than the climatological average, and warmer temperatures persisted up until the turn of the calendar year. The winter thus far in the region has also brought 1.5 – 2 inches of (liquid equivalent) precipitation above average, providing suitable time and conditions for curl mite populations to distribute the virus into wheat fields across the state.

Furthermore, fields in three counties (Russell, Ellis, Barton), have already had confirmed cases of wheat streak mosaic this year. The last time Kansas recorded as many cases of wheat streak mosaic this early in the year was in 2017, which was a particularly bad year for the virus. By season's end in 2017, 361 cases of wheat streak mosaic were detected in 52 counties, resulting in a statewide yield loss of 5.6%. By comparison, there were only 38 detections in 13 counties in 2023, nearly tenfold fewer than in 2017.

Of course, an analog year of data does not necessarily confirm that wheat streak mosaic is guaranteed to run rampant this year. However, it is important to keep the risks in mind as we approach winter wheat's impending emergence from dormancy. If you have questions about wheat streak mosaic or managing other diseases in your row cropping systems, please reach out to Luke Byers, River Valley Extension District Agriculture & Natural Resources Agent, at 785-632-5335, or by email at lsbyers@ksu.edu.

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