

Wheat Disease Update – April 29, 2019
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During the last couple of weeks most of the state is getting normal amounts of precipitation. Parts of southern Colorado are still abnormally dry. Most wheat is in the jointing stage and looks healthy.

As I scouted northeastern Colorado last week I was pleased to see very little disease symptoms on wheat. There is no indication of rust in Colorado yet this season however, with cool weather conditions and adequate moisture the incidence of stripe rust and leaf rust can change rapidly. Bob Hunger (Extension Wheat Pathologist, OSU) reports both stripe rust and leaf rust activity in southwest and central Oklahoma but no reports in northwest OK, suggesting rusts are arriving later than usual but will increase with continued mild weather. Erick De Wolf describes dominantly leaf rust and some stripe rust in the lower to mid canopy in fields in south central Kansas where flag leaves are out. While not a problem in Colorado yet, stripe rust and leaf rust can still become a problem later in the season. To scout for rust that enters our area from the south later in the season, look on the upper leaves, as opposed to rust that overwinters here usually appears first in the lower canopy. Also keep an eye out for other foliar fungal diseases that can become problematic with adequate moisture such as tan spot, septoria blotch, powdery mildew or stagonospora blotch. Images can be found in the Wheat Disease Identification Guide at <https://webdoc.agsci.colostate.edu/wheat/linksfiles/MF2994.pdf>. Powdery mildew symptoms are characterized by white cottony fungal growth on the leaves with black dots mixed in as the disease progresses. Tan spot, Septoria blotch and Stagonospora blotch all form elongated tan lesions. These fungal diseases can spread very rapidly and timely application of fungicide is key to controlling them.

Visual disease symptoms are low but there are some winter wheat samples testing positive for the presence of *Wheat streak mosaic virus* (WSMV). Our extension agents have generously provided samples from across northeastern and eastern Colorado. Samples from Yuma (1), Kit Carson (1), Phillips (2), Sedgwick (1) and Adams (1) counties have tested positive for WSMV but are negative for *Triticum mosaic virus* (TriMV). Also we have relatively high levels of WSMV at ARDEC as well as wheat curl mites (WCMs) that overwintered there. These samples showed very little visual virus symptoms and looked like healthy wheat. I also tested samples from Washington County (1) and additional samples from Sedgwick County (3) that were negative for both WSMV and TriMV. Overall the wheat in northeastern Colorado looks good. Often if the wheat is healthy and gets enough moisture it can tolerate some WSMV pressure without a dramatic yield penalty.

If you think you may have disease symptoms in your wheat you can send samples to the CSU Plant Disease Diagnostic Clinic: <https://plantclinic.agsci.colostate.edu/>.