

June 6, 2022

COLORADO WHEAT DISEASE NEWSLETTER

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DISEASE OBSERVATIONS

Reports of mosaic virus symptoms have increased this past week, with moderate levels reported in symptomatic fields. All of the samples we have tested so far this year have been positive for both *Wheat streak mosaic virus* (WSMV) and *Triticum mosaic virus* (TriMV) (**Figure 1**). In WSMV-resistant varieties, WSMV levels have been low, so the symptoms observed in these varieties are very likely caused primarily by TriMV. However, in susceptible varieties, both WSMV and TriMV levels have been very high. This suggests that the WSMV resistance is still working in WSMV-resistant PlainsGold® varieties, but we will continue to monitor for resistance-breaking. The drought has contributed to the severe virus disease symptoms this year.



Figure 1. Mosaic virus symptoms in southwest Nebraska (photo: Tyler Benninghoven).

I will attend Wheat Field Days on Monday and Tuesday next week (6/12 and 6/13, Roggen, Julesburg, Yuma, and Akron). If you would like disease diagnostic assistance, please send me an email (Robyn.Roberts@colostate.edu). I am happy to look at samples at the Field Days and can give you instructions on the best way to sample.

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DISEASE WATCH AND MANAGEMENT

Stripe Rust

There are still no reports of stripe rust in Colorado, and I expect stripe rust pressure to remain low. However, keep an eye out for disease and please let me know if you think you see stripe rust.

Viruses

Watch for mosaic viruses, especially in stressed fields. Feel free to send me photos if you think your field is showing virus symptoms.

Growers are strongly encouraged to regularly scout wheat fields for diseases. Particularly, scout for stripe rust and viruses in the coming weeks.

The **Colorado Wheat Entomology Newsletter**, written by Dr. Punya Nachappa and Darren Cockrell, covers insect/mite pests and management tips. The newsletters are published bi-weekly during the growing season and are available here: <https://coloradowheat.org/category/news-events/wheat-pest-and-disease-update/>

Do you have a disease that you would like diagnosed? Contact the **Plant Diagnostic Clinic** for sample submission: <https://plantclinic.agsci.colostate.edu/> or plantlab@colostate.edu.

Additional resources

1. Information about the 'green bridge' and risks for viral diseases due to volunteer wheat: https://eupdate.agronomy.ksu.edu/article_new/spring-emerged-volunteer-wheat-should-producers-worry-about-wheat-streak-mosaic-virus-and-the-green-bridge-436-4
2. The North Central Regional Committee on Management of Small Grain Diseases (NCERA-184) Fungicide Efficacy for Control of Wheat Diseases Table: <https://crop-protection-network.s3.amazonaws.com/publications/fungicide-efficacy-for-control-of-wheat-diseases-filename-2021-04-21-154024.pdf>
3. Wheat variety database with stripe rust resistance ratings from field trials: <https://wheat.agsci.colostate.edu/database/>
4. 'Making Better Decisions' 2021 Colorado Wheat Field Days publication: https://webdoc.agsci.colostate.edu/csucrops/reports/winterwheat/wheatreport_2021_WFD.pdf
5. Colorado State University Integrated Pest Management website: <https://agsci.colostate.edu/agbio/ipm/>

CONTRIBUTORS

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