Did the cold temperatures effect the wheat?

Mother nature has really been giving us some significant fluctuations in temperatures and conditions for the 2021 wheat crop. Stay tuned and I will give you some guidelines to use when evaluating your wheat.

We had some pretty low temperatures reported early Tuesday morning, April 20, along with 3-5 inches of snow around north central Kansas. The K-State Research and Extension Mesonet weather stations in NC Kansas in Jewell, Mitchell, Osborne and Republic counties recorded temperatures ranging from 26 degrees F. at one of the Republic County stations to 28 degrees F. at the other 3 locations in Jewell, Mitchell and Osborne and Counties.

So could there be any damage to the wheat? Well, there are several factors that go into this answer, but the two most important components include the growth stage of the wheat and the air temperature including the degree and the duration. All parts of the district have some wheat that is "jointed" or at the first node above the ground also called the Feekes 6 stage while other areas of NC are still in the late tillering stage due to the late planting after soybeans. The snow cover that some parts of the district received definitely helped protect and insulate the wheat, however, it didn’t last very long. The further along the wheat is, the higher risk of injury to that wheat. So at the tillering stage, wheat can handle temperatures as low as 12 degrees F. for about 2 consecutive hours while the "jointed" wheat can handle temperatures only as low as 24 degrees F. for at least 2 consecutive hours. So with this information, it appears that for the majority of the wheat, there should be minimal damage.

However, it may take a little while to fully determine if any injury has occurred. Some of the early effects of the cold temperatures could be symptoms such as leaf bronzing or burning which usually shows up fairly quickly once the temperatures warm back up following the cold snap. The full extent of the potential injury to the wheat generally cannot be determined until about 10-14 days after the cold temperatures and if it warms up again. This may be rather tricky as the weather has gone from cool to almost hot to cool again, so we will just have to see what that might bring.

K-State Research and Extension has an excellent publication, "Spring Freeze Injury to Kansas wheat", that provides illustrations and information in detail on the potential injury to the wheat. This publication can be found online at our Post Rock Extension District Website at www.postrock.ksu.edu.
Simply go to the Crops tab on the left hand side of our main page and then to the “Resources” tab on the right hand side. Watch for further updates on our wheat conditions at our Post Rock Extension District Website or emails from me. If you have questions on evaluating your wheat from the low temperatures give me a call at any of our Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne or Smith Center.

For more information on evaluating your wheat from the effects of the cold temperatures, contact me at any of our Post Rock Extension District Offices.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Sandra may be contacted at swick@ksu.edu or by calling Smith Center, 282-6823, Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at “Post Rock Extension” along with our blog site at "postrockextension.blogspot.com. Also remember our website is www.postrock.ksu.edu and my twitter account is @PRDcrops.