Could fusarium head blight or head scab be a problem in the wheat crop?

Well, we have certainly been experiencing some crazy weather around the area. From drought, to thunderstorms, tornados and high winds to hail and the hot temperatures, the wheat has really had some strikes against it. Although, the rains have been a welcome site, with that there could be some problems that could surface. Now there could be potential for fusarium head blight or more commonly known as head scab that might develop.

Scab is usually first detected soon after flowering and infected heads turn white, while the leaves and stems may remain green. Sometimes, the portion of the stem directly below the head can turn a chocolate brown color. Often, only part of the head is attacked, giving heads a white and green appearance. The outer covering for the wheat kernel or the glume can be salmon-pink color and the scabby wheat kernels are shrunken and chalky or pink in color as well.

The scab fungus infects not only wheat, but also corn, oats, barley, and sorghum along with various other grasses. On sorghum, it causes stalk rot while on corn, the disease is called ear rot and it infects through the silks. Corn appears to be the major source of the overwintering infection which can start the epidemic in the spring. If conditions are dry during flowering, infection generally will not occur. Although the fungus can be carried in the seed, it appears that crop residue is the major source of the infection.

So, the recent rains along with forecasted high relative humidity are the two most important ingredients that may initiate head scab development.

Specific fungicides can suppress the head scab infection from 35% to 50%, depending on the active ingredient in the fungicide. The key word here is “suppress”, which means reduces, NOT eliminates or controls. There are very few wheat varieties that have resistance to head scab. However, crop rotations that avoid planting wheat into corn stubble may be helpful in some years when favorable conditions are present.

Seed treatments are just not effective in preventing head blight, but they may prevent seedling blight if scabby wheat must be used as seed. Several commercial treatments may somewhat increase the germination of scabby seed. The scabby seed should be cleaned very thoroughly and germination should be tested prior to use.
At harvest, the percentage of scabby kernels can be reduced by setting the combine fans higher during harvest. This will help blow the light, scabby seeds out the back of the combine. Yield loss is related to the percent of heads which are infected and the severity of the infection. Scab often causes reduction in test weight and are counted as "damaged" in the grading process.

For further information on disease management in your wheat, contact Sandra at any Post Rock Extension District Office in Beloit, Lincoln, Mankato, Osborne or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Osborne, Mitchell 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 “Ag News Round Up” every Friday with our Ag listserv. If you would like to be included, simply email me. Also remember our website is www.postrock.ksu.edu and my twitter account is @PRDcrops.