

Personal Column

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Crop Production Agent

White heads could start showing up in wheat fields

It won't be long and the 2020 wheat harvest will begin soon around north central Kansas! The wheat fields are starting to turn the golden yellow color! Stay tuned and I will share information on a disease that could start showing up in the wheat crop.

Be on the lookout for **Fusarium head blight**, also known as **head scab**, as producers prepare to bring in the 2020 wheat crop.

Fusarium head blight is a fungal disease that affects the developing grain and tends to be worse in weather conditions (cool, wet conditions) like we had during the month of May. So it can be very visible at this time, since some of the wheat plants are still green and the infected heads are partially or completely white or tan in color.

Although infection of the wheat head by the fungus occurs during flowering, symptoms only begin to show up in the late milk and early dough stages of kernel development. Cool, wet weather during flowering favors disease development. A fungicide application to control head scab must be made during flowering, before symptoms are present. When symptoms are visible, a fungicide will no longer be effective for control. Also, fungicide label pre-harvest intervals would restrict fungicide applications at this point in the season.

Symptoms of head scab include one or more spikelets that have become tan or bleached white in color, while the stem typically remains green. In some cases, pinkish-orange structures of the fungus are also visible on infected spikelets,

The symptoms are quickly masked when the wheat crop matures and many producers may not realize the full extent of the damage until harvest and the Fusarium damaged kernels are visible in the grain. At this stage, the diseased kernels will have a white, chalky appearance. Some kernels may also have a pink discoloration and may also contain mycotoxins that can negatively impact the health of animals and humans. This mycotoxin is also called "vomitoxin". The diseased grain is often shriveled and has a poor test weight as well.

Many times, producers don't realize they have a problem with it until they start harvesting their grain as discolored and shriveled kernels show up in their loads of grain. Unfortunately, nothing can be done to suppress the disease at this time. There are no fungicides labeled for application this close to harvest, and

such treatments would have no effect on the disease. In those fields where Fusarium head blight is present, the disease likely took hold back in May. The state's abundant moisture during that time could have contributed to its spread this year.

There are some management guidelines to help prevent or lessen the spread of head scab. Choose a variety with moderate resistance. Although all wheat varieties are sensitive to the disease, varieties with moderate levels of genetic resistance such as Everest, WB4269 and Zenda, are likely to have lower levels of disease than those with susceptible reactions to the disease. Varieties with intermediate reactions to the Fusarium head blight such as Bob Dole or SY Benefit, may also have less disease.

If you do choose to plant wheat after corn, be sure and select a variety that has resistance as the fusarium fungus overwinters on the corn residue.

The kernels damaged by Fusarium head blight are often smaller and less dense than healthy kernels making mechanical separation of the affected grain possible. So in many cases, it is possible to improve your test weight and grain quality by simply adjusting the air flow on your combine to remove the most damaged kernels during harvest.

In addition, growers with on-farm storage may be able to separate the loads of grain to avoid mixing healthy wheat with the grain from fields with unacceptable levels of the diseased grain. Taking the time to segregate grain may help preserve marketing options in the future. So it might be a good idea to study the wheat varieties you have to determine their susceptibility or resistance to Fusarium Head Blight or Head Scab to see any of your varieties may have the disease. As mentioned earlier, it is difficult to determine the fungus once the wheat has started maturing without more closely examining the kernels. At least determining its sensitivity to fusarium head blight is a place to start. KSRE has an excellent publication that provides the variety characteristics including Head scab or fusarium head blight for each of the varieties of KS.

If you have further questions on Fusarium Head Blight or Head Scab in wheat contact me 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, 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.