



.....STRAIGHT FROM THE HORSES MOUTH

Duane A. Lienemann, Nebraska Extension Educator, Webster County

August 15, 2015 Edition

It is hard to believe that we are getting so close to wheat planting time. This time of year, one of the most requested documents from our office is the UNL Fall Seed Guide. We used to get a bundle of them about this time of year. However, things have changed and like so many other things with computers, smart phones, etc. the best way now to get information like that is to go on line. You can download the guide for interactive investigation of the newest wheat and other fall crop seeds by going to: <http://bit.ly/1Plx5il> or if you are more like me and like something in your hands you can download the same guide by going to <http://bit.ly/1TrObkc>. Either way you will find the information on wheat, barley and triticale.

This year we really need to pay attention to our seed, seed varieties and really study before we make our decisions. While the 2015 Fall Seed Guide as linked above is the popular venue, another good way of looking for specific information for a county or area that is closest to you and to your farming method is to go to <https://cropwatch.unl.edu/varietytest/wheat>. I also like going to the virtual wheat tour page which can be found at <https://cropwatch.unl.edu/wheat/virtual>.

With the abundance of scab infected wheat this year that has not been shipped to the elevator I have entertained questions concerning feeding the wheat, planting the wheat as a crop and also using this wheat for a cover crop or in a cover crop mix. Let's look at wheat as a feed. It is not common in our area to use wheat for livestock feed, but certain has and can be done. To get rid of infected wheat it might be a good alternative to use scabby grain as feed for livestock. However, due to the high concentration of vomitoxin in the grain, it is imperative that care be taken to measure the levels of vomitoxin and ensure they are below the maximum advisory limits before feeding. Certain livestock are very sensitive to vomitoxin and should not be fed highly scabby wheat grain. While vomitoxin itself is not very poisonous, it can be associated with vomiting (thus the name "vomitoxin"), feed refusal and decreased feed consumption in swine, which can affect animal performance. Cattle are very resistant to the effects of vomitoxin but hogs are much more sensitive. Specific feeding recommendations may be found at: <http://www.ianrpubs.unl.edu/epublic/live/ec1896/build/ec1896.pdf>.

I have also been asked about using the straw from these infected fields for feed and/or bedding. It should be noted that vomitoxin has been found in straw but it is not certain if the straw itself was contaminated or if the straw simply contained parts of contaminated wheat heads, which is logical. Straw from scabby fields can contain DON at concentrations that exceed 2 ppm. Therefore, straw from scabby fields should be tested for DON before using it for feed, hay or bedding. I doubt that treating it with ammonia will have any effect on the contaminant.

The next question is to using the scabby wheat for seed for this coming season. I certainly do not recommend that you do, as it in my opinion that you are just asking for more or compounded problems next year. Instead, find a source of non-contaminated, certified wheat and then for additional protection you may want to treat that wheat before planting. If you have no recourse and want or need to use your wheat that you feel is not highly contaminated make sure it is thoroughly cleaned and then treated with a systemic fungicide before planting. A good resource for determining which fungicide or amount to use is: <http://cropwatch.unl.edu/wheat-seed-treatments-2015> or if you prefer our neighbor to the south also has a good list at: <https://www.bookstore.ksre.ksu.edu/pubs/MF2955.pdf>. However, due to the very high levels of scab in most area fields that were not sprayed with a fungicide at flowering, most of the grain is so severely damaged that cleaning and treating it with a fungicide will not be effective and will certainly not be economically justifiable.

The last part was to instead of using this wheat as seed wheat to use it as a cover crop, or put in a cocktail mix for a cover crop. There was a good and timely article in CropWatch this week concerning this topic and basically what it said was as follows. Planting scabby wheat grain as seed for a cover crop may sound like a bargain. However, stand establishment will likely be poor because the Fusarium in the seed will infect the seedlings, reducing emergence or causing seedling blight after emergence. Some of the seed will not germinate at all due to Fusarium infection. The result will be in an uneven stand that cannot provide the full benefits of a cover crop. I think it will cost you rather than benefit you.

Another reason why scabby wheat grain should not be used as seed for a cover crop is the introduction of a high concentration of Fusarium inoculum in the field. When scabby grain comes in contact with moisture in the soil, the Fusarium spores germinate and form mycelium. Survival structures of the fungus, known as chlamydospores, form in the mycelium and remain in the soil for many years, providing inoculum that infects subsequent crops. Fusarium mycelium will infect seedlings of many field crops including corn, soybean, and wheat, causing damping off and seedling blights. It also will infect the roots and crowns of plants that survive, causing root and crown rots. As a result, yield will be significantly reduced. So once again, I suggest just staying clear of using this seed at all. It will probably be best to incinerate it or take it to a land fill. I know that all of this sounds very discouraging but I want to remind everyone that wheat is still a great crop and is invaluable in farms with livestock and for those that are in a rotational system. Don't give up on it!!

Last but not least don't forget this year's South Central Ag Lab Field Day on Wednesday, August 19 near Clay Center. See the latest UNL research on cover crops, BT corn, precision fertilizer management, and soil water monitoring. You can find information on it at: <http://cropwatch.unl.edu/south-central-ag-lab-field-day-2015>

The preceding information comes from the research and personal observations of the writer which may or may not reflect the views of UNL or Nebraska Extension. For more further information on these or other topics contact D. A. Lienemann, Nebraska Extension Educator for Webster County in Red Cloud, (402) 746-3417 or email to: dlienemann2@unl.edu or go to the website at: <http://www.webster.unl.edu/home>