

August 21, 2015

## A MUST YEAR TO TREAT WHEAT SEED

This year was one for the books with wheat. There were some real challenges with fusarium head scab to say the least, brought on by too much precipitation and humidity during heading. I have been asked multiple times what risk this carries to the next crop when saving back wheat seed. The answer is none for next year but high risk for this fall's seeding. Scab infected wheat can decrease germination and cause seedling blight in the fall. We can greatly reduce this risk with treated seed.

Fungicide seed treatments help reduce losses caused by seed-transmitted and soil borne fungal diseases of wheat. Some seed treatment products contain a fungicide and an insecticide and offer additional protection against fall insects such as aphids.

The risk of back to back scab outbreaks is low. Scab risk for 2016 harvest is like any year due to fungus spores in the air, wet weather at head emergence/bloom stage and susceptible host, the so called disease triangle. When all three occur just right there is a disease outbreak. Looking back, we typically have 2 out of 10 years reality with fusarium head scab outbreaks, an airborne fungus.

A grower south of Friend, with non-cleaned wheat seed, recently sent a sample to the seed lab on UNL East Campus for germination testing. There were a lot of light test weight, scabby kernels. One variety tested 36% germination and another 72% germination. Certainly both unacceptable.

Certified seeds producers and seed outlets they work with (and we have several good ones in Saline, Gage and Jefferson Counties) offer winter wheat for sale that is 85% germination or better by law. These businesses have ways to clean wheat and have access to equipment that most farmers do not have. This is a good year to purchase certified wheat seed. If not, at least send off for a professional germination test for \$17.00.

The Nebraska Crop Improvement Association (NCIA) tests seed for germination. For \$24.00 they will test it treated and untreated so you know what you have. It's advisable to do this after you have run your seed through a cleaner. The lab recently indicated to me a positive bump in germination by as much as 30% when using seed treatment. For a seed germination test application form go to: <http://www.necrop.org/FORMS/ServiceTestapp09.pdf> and under comments write treated and untreated winter wheat germination test. You can mail a partial bag of wheat in a quart zip lock bag, deliver in person to the Plant Science building on East Campus or use their drop off box, northwest side of the building. For more information give me a call at 402-821-2151.

It is best to buy certified treated seed or use a commercial seed conditioner to clean and treat seed. Seed treated on-farm should be cleaned before treatment. Thorough fungicide coverage maximizes effectiveness of the seed treatment and are superior to seed box treatments. Use a fungicide that has systemic action. For a total list of seed fungicide treatments for control of seed transmitted and soil borne diseases of wheat, go to [cropwatch.unl.edu/wheat-seed-treatments-2015](http://cropwatch.unl.edu/wheat-seed-treatments-2015) click on Table 1 at the bottom of the article.



Last year we had some wheat that didn't overwinter very well, including the UNL plot where the drill was not set deep enough, due to not enough weight. This management issue led to a poorer stand. After fixing this issue, with fungicide treated wheat seed, you greatly reduce the risk of soil borne fungal diseases of wheat including common root rot, Pythium root rot, Rhizoctonia root rot, and Fusarium root, crown, and root rots. Furthermore you greatly reduce the risk of seed-transmitted fungal diseases including common bunt (also known as stinking smut that renders your crop unmarketable), loose smut, flag smut, black point, ergot and diseases caused by Fusarium. Wheat seed can also harbor extra spores of tan spot and Septoria leaf and glume blotch.

Do you get the picture? That's why UNL Extension recommends to treat all wheat seed for no more than it costs. Too bad a systemic fungicide seed treatment can't protect you from foliar wheat diseases the following year, but with today's technology, that is asking too much.

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