

To: Local News
From: Keith VanSike
Agronomy & Natural Resources Agent
Twin Creeks District

The 2021 wheat crop had a conducive environment for the development of Fusarium head blight (head scab) in many areas. This disease can reduce germination dramatically in some cases, as well as makes reading and understanding a germination test much more difficult. Having your seed professionally tested for germination is always a good practice, but in this instance, it is highly recommended.

To have an official germination test on the seed, send a two-pound sample to:

Kansas Crop Improvement Association
2000 Kimball Ave.
Manhattan, KS 66502

A germination test will cost \$19.00 and a sample submittal form can be printed off from the KCIA website:
www.kscrop.org/seed-lab.html

Home testing

If producers want to test their seed for germination at home, it needs to be done correctly to be of value. The following detailed procedure is taken from K-State Extension publication.

- Place two moistened paper towels (on top of each other) on a flat surface. The towels should not be saturated.
- Arrange fifty (50) seeds on the towels leaving approximately an inch border around the edges.
- Place two more moistened towels over the seeds.
- Make a ½ to ¾ inch fold at the bottom of the four paper towels. This will keep the seed from falling out.
- Loosely roll the paper towels toward the other side (like rolling up a rug) and place a rubber band around the roll(s).

Place the roll in a plastic bag. Seal, but not completely, so as to keep moisture in but still allow some air into the bag.

For newly harvested seed:

- Place the bag upright in the refrigerator for 5 days and then remove and place upright at room temperature for an additional 5 to 7 days.
- Remove the sample from the bag and unroll the towels.
- Count and record the number of healthy seedlings (adequate root and shoot development and NOT overtaken by disease.)

For carryover seed, or after September 1:

- Place the bag upright at room temperature for 5 to 7 days.
- Remove the sample from the bag and unroll the towels.
- Count and record the number of healthy seedlings (adequate root and shoot development and NOT overtaken by disease).

To calculate the germination percentage: divide the number of healthy seedlings by the number of seed tested and multiply by 100.

This may be repeated more times for each sample in order to obtain more accurate results.

Bale Management

Harvesting forages for future use during the winter feeding period or during periods of drought represents a significant cost outlay for cattle operations. Previous research conducted at KSU suggests that large round bales composed of wheat or sudan hay can incur feed waste of up to 25% of a bale's weight when unrolled. Much of this loss can be attributed to factors associated with delayed harvest (reduced forage quality) and/or improper storage techniques prior to feeding.

It's important to recognize that a 6-foot diameter large round bale, more than 1/3 the weight of a bale can be found in the outer 6 inches and 50% of the volume is in the outer 12 inches. Weathering losses in round bales stored outside unprotected are commonly found to occur up to 4 inches although hay type also influences the degree of loss due to weather exposure. For example, "stemmy" hays such as alfalfa, sudan, and mature small grains have a greater loss than grass hay.

Store bales end-to-end to reduce storage loss. Tightly stacking bales end to end better utilizes the storage area and protects the ends of bales from weathering. If bales are not stacked tightly against each other, rain will penetrate the ends and increase damage. Be mindful of positioning the hay bales on a well-drained site. A gently sloping site with a southern or southeastern exposure is ideal to maximize solar drying and encourage drainage away from the bales. To further reduce wastage on the bottom of the bales, some producers have elevated their bales using old tires, shipping pallets or stored on a base layer of 3 to 4 inches of crushed rock. When more than one row of bales is needed, be mindful to space adjacent rows at least 3 feet apart. This simple action will increase air flow and allow the sun to reach the back row.

Avoid stacking large round bales. Many producers will stack their large round bales in a pyramid formation with the thought of maximizing their utilization of space. However, this strategy will usually increase dry matter losses in the stack as a result of the trapped moisture and reduced air movement.

DO NOT cover bales. Aside from adding cost, covering bales will potentially trap moisture the same as wrapping them in plastic. If high moisture hay (over 18 percent) is sealed under plastic, quality losses may result from excessive heating and mold development.