

At Home Germination Testing for Wheat Seed

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 (and slightly modified) from K-State Extension publication AF-82, "Seed Germination Test Methods."

- Place two moistened paper towels (on top of each other) on a flat surface. The towels should not have free water in them.
- 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.
- Starting on one side, 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.

Example: $\frac{42 \text{ healthy seedlings}}{50 \text{ seed tested}} \times 100 = 84\% \text{ germination}$

This may be repeated more times for each sample in order to obtain more accurate results, testing up to 400 seed.

The goal is to have at least 85 percent germination for wheat seed.

K-State Extension Agronomy eUpdate

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