News Column
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WHEAT GERMINATION TEST

I watched Dad do a germination test on his wheat seed when I was a kid. His office was the kitchen table and I believe we still had the standard issue 1950s table at that time, the one with the marble looking Formica top with a silver edge and silver legs. If you are old enough, you know the table.

I watched my dad carefully count seeds – I think 100 of them – and lay them carefully on a moist cloth. In my memory the cloth was an old sock, but it could have been a worn out towel or wash cloth. It doesn't matter – I'm just trying to paint a picture for you.

Once the seeds were laid carefully on the damp cloth, he fold it over, then rolled it up like you would roll a sleeping bag, and placed it in the tall cupboard above the sink. Why he chose the cupboard, I don't know. Maybe it was to keep a young kid from checking it daily and ruining his science project.

If you are picturing this with me, the sink and cupboard were directly behind my spot at the kitchen table. The cupboard was so tall that a young boy could barely open the door and get things out while standing on the counter. Getting on the counter was a matter of pulling up a chair, or opening drawers and using them as stairs. I could get there if I really needed to.

Just to the left of the cupboard where Dad put his germination test was the tall cupboard where the bottle of whiskey and honey was stashed, high and away where the kids couldn't reach it. It was awful stuff, reserved only for the worst of colds, so I didn't want it anyway. Still, I

knew it was forbidden, which caused more curiosity than if it had been kept in the refrigerator.

Neither the whiskey bottle, or the fact that ours was a family of teetotalers, really matters to today's topic,...but I still find it interesting that there was a bottle of whiskey in our house.

Now, back to the germination testing topic. You can spend money on a professional lab – and that's what you would need to do if you were selling seed – but a home germination test will suffice for most folks.

I would expect most of the wheat grown around here to have good germination. However there is no reason to speculate when you can conduct your own test and know for sure.

If you want to test wheat seed for germination now rather than waiting closer to planting time you will need to chill your seed in a refrigerator for about five days to break its summer dormancy. Wheat has post-harvest dormancy – a trait that help prevent sprouting in the head during wet harvest years – so it won't germinate well immediately after harvest.

Summer dormancy varies among varieties, with some having a short dormancy and some a relatively long dormancy. By Labor Day (early September), all varieties will have lost their summer dormancy and should germinate unless the seed is defective in some way.

To conduct a test now, lay out two moistened paper towels (on top of each other) and arrange 50 seeds on the towels, leaving about an inch of border on all edges. Next, place two more moistened towels on top, then make a fold on one edge about ½ inch in to keep the seed from falling out. Finally, start rolling perpendicular to the folded edge and roll like you would a rug. Place a rubber band around the roll and place it in a plastic bag.

Paper towels should be moist, but not wet, so don't add more water to the bag. Partially seal the bag to retain moisture, leaving a small opening to allow some air in the bag. Now, place the bag in the refrigerator for five days, then remove the bag and place it upright at room

temperature for an additional five to seven days.

The final step is to unroll the paper towels and count the number of healthy seedlings. I'm sure you can figure out the math to determine the germination percent.

If you are testing carryover seed, or if you wait until after Labor Day to do your test, then you can eliminate the refrigerator time. Just roll the seed up in damp paper towels and give it five to seven days to germinate before counting.

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to gmcclure@ksu.edu.

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