

Simple Germination Test

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The simple seed germination test provides you with the information to decide whether to plant the seed you have or buy new seed.

When you buy new seed to plant in the current year, the seed packet or bag of seed, will tell you the year that the seed was packed for and the germination percentage. Seed companies are required to furnish this information. Seed for sale is normally harvested the previous year and will normally have the highest germination percentage. Standard seed germination rates for vegetable crops range from 40% to 80%. However, the germination rate can be much higher. I am holding a new packet of turnip seed with a germination percentage of 96%. If the seed is not planted in the year it was packed for, it will normally lose viability or percent germination.

Seed is a living thing and usually only needs water, and room temperature to germinate. The longer the time between seed packaging and seed planting the lower the seed germination percentage will be. If the seed is stored in cool temperatures and moderate humidity, more of the seed viability will be preserved. Some seeds deteriorate faster than others. Just because the seed is a couple years old, it is not necessarily ready to throw in the trash. There is a simple germination test that you can do to test the current germination percentage.



How many of these corn seeds will germinate?

Take about 20 seeds and place them in a moist paper towel (not wet) and fold the paper towel so all that seeds are contained within the moist paper towel. Separate the seeds so they are not all bunched together, because you will want to count them in about 5 days. Then place the paper towel in a quart ziplock bag and seal the bag. Place the bag near a window where it can get some light, but not direct sunlight, where it will maintain room temperature of 70 degrees more or less. After 5 to 7 days you will gently open the paper towel to observe how many seeds have germinated and how many have not.



Wrap the seed in a moist paper towel and place it in a ziplock bag

To calculate the germination percentage divide the number of

seed germinated by the total number of seeds evaluated. In this case we have 11 corn seeds germinated out of 20 total seeds ($11/20 = .55$ or 55%). If normal germination was 80%, we need to plant about 31% more seed in order to achieve a complete stand $(80-55)/80=31$. Most of the time the seeding rate is printed on the seed packet or tag. The seeding rate includes the space between the rows and the space between the seeds in the row.



The simple germination test

If the results of a germination test shows the germination percentage much lower than normal, the seed may also lack seedling vigor. In other words the seed may germinate but be unable to push the growing point up through the soil in difficult conditions. If you have the time and garden space, you can just plant and see what comes up! If it doesn't grow, you can replant!