Vegetable Seed Germination Test

We use a very simple method to determine the viability of our older vegetable seeds. We simply take our seeds, place them between sheets of moist paper towel, place the damp paper towel into a plastic sandwich bag and place the sandwich bag in a warm location. After about 5 to 10 days, we count the number of seeds that have sprouted, and use that as our guide to calculate the germination rate.

**Step 1: Read the seed package information**

Read the vegetable seed package to determine the days to germination, and whether to germinate the seeds in a dark or a light spot. If the package suggests a planting depth, then the seeds will usually do best in a warm dark spot. If the package states that the seeds need light to germinate, make sure to place them in a warm spot that receives indirect light.

**Step 2: Gather your testing supplies**

Next you need to gather your supplies. For the seed test you’ll need the following:

- 10 seeds for testing
- Paper towels
- Plastic sandwich bag
- Ball Point Pen

Once you have all your supplies, you are ready to start the seed test.

**Step 3: Setting up the seed for testing**

Tear off a sheet of paper towel and fold it into a square. Write the name of the seed to be tested and the expected germination date on the paper towel. Dampen the paper towel. The paper towel should be just damp, but not dripping. Be careful not to over wet the paper towel as this will cause the seeds to rot. Open the towel and place 10 seeds on it. Fold the paper towel into quarters, ensuring that the seeds are well covered by the paper towel. Place the paper towel with the seeds into a sandwich bag and seal the bag. Place the bag in a warm (60 to 70 degree), but not hot area.

**Step 4: Checking the seed for germination**

Check on the seeds every one or two days. If the paper towel starts drying out, add a few drops of water to the towel. After about 5 to 10 days the first seeds will start developing little white roots.

Pepper seeds showing roots after about 5 days

Once you’ve reached the germination date, open the paper towel and count the number of seeds that have developed roots. Divide the number of germinated seeds, by the number of seeds you started with, and then multiply the answer by 100 to calculate your germination rate.

**Example: Pepper Seed Germination Test**

6 germinated seeds divided by 10 test seeds = .6 multiplied by 100 = 60%. Therefore the germination test gives me a result of 60% germination. That means that just over half of my seeds can be expected to germinate.

**Conclusion**

At 60% it’s still worthwhile planting the seeds. Since only about ½ the seeds will germinate, you’d just use twice as many seeds when you actually plant in the garden. If the germination rate goes below 30%, you’ll have to triple the number of seeds you actually plant, as only 1 in every 3 seeds will germinate. Doing a seed test before you actually plant the seeds ensures that you use enough seeds to get a decent crop of fresh vegetables for your garden.