






THE EASIEST GERMINATION TEST

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Winter can be boring for agriculture, right? But in fact, it is the perfect time for us to start getting ready for the next season. Whether you have bought new seeds or have old seeds saved, the question that always comes up before planting is: how to know how many seeds will germinate and how many will not? And: are my seeds too old to germinate? Did you know that some seeds can remain viable for many years? So, to save time and know almost exactly (in percentage) how many seeds are in good condition and how many are not, we will follow this method:

				
Take 10-20 seeds and spread them on a layer of damp paper towels.	Cover the seeds with another layer of damp paper towels, leaving the seeds sandwich between.	Carefully, slide the sandwich seeds in a Zip-top plastic bag (sandwich bag) to keep it from drying out.	Label the bag with seed variety and date. Then place the bag in an area that best matches the crop's germination needs.	After couple days you can check if the seeds are germinating. Remove seeds that are moldy and count them as "not viable".

1. After a week or two count the number of seeds that have germinated and register this data, for instance:

COMMON NAME	GERMINATION TIME (DAYS)

2. Use this formula:

$$\left(\frac{\text{\# of healthy seedlings}}{\text{Total \# of seeds}} \right) \times 100$$

3. This will be your germination rate in percentage (%)

For warm season crops (beans, corn, tomatoes...): 70-80°F.
For cool-season crops (cabbage, lettuce...): 55-75 °F.
Place them in the respective temperature area of your home, out of direct sunlight. If the paper towel is getting dry, just drop or spray water in the bag.

← Keep track of the germination and do the equation.

With this percentage you'll know if the seeds are good to plant and how many more you need to use in your crop. Onion and parsnip seeds will only last 1-2 years. Beans, broccoli, leeks and peas are good for 3 years, while squash, lettuce and kale seeds have an expected storage life of 5 years.

If you want to save seeds, the best way to do this is to place them in a plastic or glass container, or an envelope. Keep them dry. Adding a desiccant like powdered milk to the bottom of your container will help absorb any humidity, then place them in a cool area or refrigerator.

Scan this code for more information on germination and seed saving, visit Cornell University Library Guide on "seedsaving". URL: <https://guides.library.cornell.edu/c.php?g=31298&p=199476#12358215>

Source: Tompkins, A. (2016) *The Home Germination Test*. Cornell Cooperative Extension Schenectady County.

