

WILL MY SEEDS STILL GROW?



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Seed Viability and Germination

Over time, seeds lose the ability to grow. “Seed germination rate” refers to the ability of the seed to sprout. “Seed viability” refers to the strength and vigor of the plant after germination. Seed viability will begin to decline before seed germination rates fall; therefore, if you have a packet of seeds and very few of the seeds germinate, the seeds that do germinate are not likely to grow strong healthy plants.

HOW TO PROPERLY STORE SEEDS

Seeds need to be kept dry and cool. The most important factors in seed storage are seed moisture and storage temperature. The drier the seeds at time of storage, the longer they can be stored.

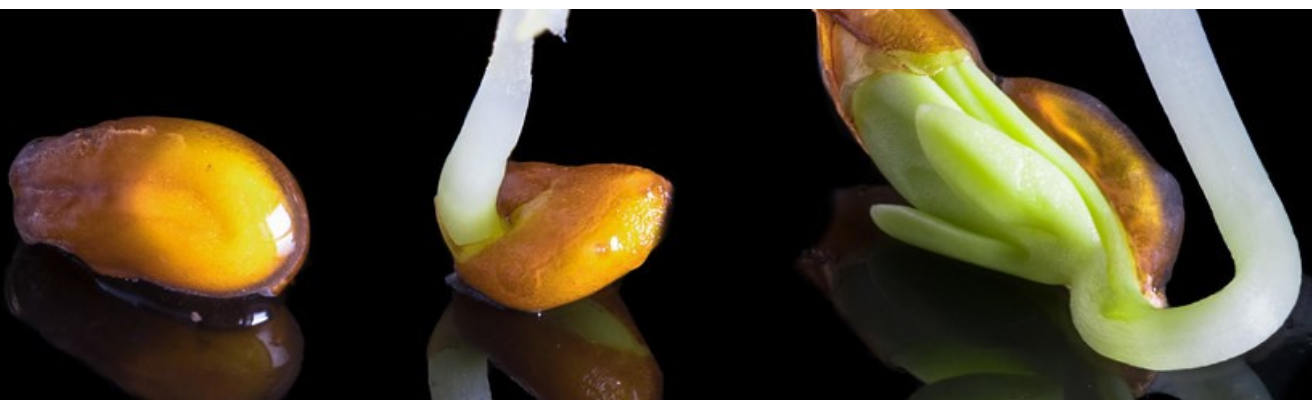
Store in low humidity and low temperature, below 45 ° F (15 °C). Storing in a sealed container, such as a jar or bag, in a refrigerator is recommended. If you do not have room in a refrigerator, just keep the seeds cool and dry. If the seeds are exposed to too much moisture and warm temperatures they will begin to sprout. Once the seed has sprouted, it needs sunlight and nutrients to continue growing. If the seeds sprout while in storage, they will not grow the next year when planted.

When removing the seeds from the refrigerator or cool storage location, allow to come to room temperature before opening.



HOW TO TEST SEED GERMINATION

1. Place 10 seeds on a damp paper towel.
2. Fold the paper towel and place it in a plastic bag or reusable container. This will prevent the paper towel from drying out.
3. Label the container with the plant name, date, and number of days expected for germination (info from seed packet).
4. Leave the container in a warm place and observe for seed germination. Sunlight is not needed.
5. After the expected number of days for germination, count the number of seeds which have begun to grow. If all 10 seeds grow, plant as normal. If seven to nine seeds grow, increase the number of seeds you plant. If six or fewer seeds germinate, it is best to buy new seeds.





APPROXIMATE SEED LIFE

Asparagus	3 years
Bean.....	3 years
Beet	4 years
Broccoli.....	3 years
Brussels sprouts	4 years
Cabbage	4 years
Carrot	3 years
Cauliflower	4 years
Celery.....	3 years
Chard, Swiss.....	4 years
Chinese cabbage	3 years
Collards	5 years
Corn, sweet.....	2 years
Cucumber	5 years
Eggplant	4 years
Endive	5 years
Fennel.....	4 years
Kale	4 years
Kohlrabi.....	3 years
Leek	2 years
Lettuce.....	6 years
Muskmelon	5 years
Mustard.....	4 years
Okra	2 years
Onion.....	1 year
Parsley.....	1 year
Parsnip	1 year
Pea	3 years
Pepper.....	2 years
Pumpkin	4 years
Radish.....	5 years
Rutabaga.....	4 years
Spinach.....	3 years
Squash.....	4 years
Tomato	4 years
Turnip	4 years
Watermelon.....	4 years

SOURCES

Colorado State University Extension. *Storing Vegetable and Flower Seeds* 7.221. J. E. Ells, L. N. Bass, and D. Whiting. Updated May 2020. <https://extension.colostate.edu/topic-areas/yard-garden/storing-vegetable-and-flower-seeds-7-221/>

Iowa State University Extension and Outreach. *Life Expectancy of Vegetable Seeds*. J. Romer. Apr 1999. <https://hortnews.extension.iastate.edu/1999/4-2-1999/veggielife.html>

Illinois Extension. *Test Seed Viability*. N. Flowers-Kimmerle. Feb 2017. <https://extension.illinois.edu/blogs/rhonda-ferrees-ilriverhort/2017-02-03-test-seed-viability>

PHOTOS

Organizing my Seed Stash: by Chiot's Run CC by NC 2.0 <https://search.creativecommons.org/photos/736e241d-59cf-4f54-9655-d8967c230eb3>

Cress seed to Swans! Explored: 12 December 2016: by aronalison CC by NC SA 2.0 <https://search.creativecommons.org/photos/839f72bf-e7b3-4071-b487-d26132389eff>

Vegetable seeds: by Oregon State University CC by SA 2.0 <https://search.creativecommons.org/photos/0c56ef95-8280-4712-88c5-7f89d86e22f2>



Illinois Extension

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

LEARN MORE
extension.illinois.edu

University of Illinois, U.S. Department of Agriculture, Local Extension Councils Cooperating. University of Illinois Extension provides equal opportunities in programs and employment. ©2021 University of Illinois Board of Trustees. For permission to reprint, revise, or otherwise use, contact extension@illinois.edu.