

Why Did My Seeds Fail?

First week, nothing showing. Two weeks and there still is just brown soil. Three weeks later, germination did not happen and the soil is beginning to smell and change color. Why did my seeds fail?

Seed germination is the salvation for gardeners following a long winter. Cabin fever is a problem for many, many gardeners. After being locked indoors all winter, seed starting gives us all a jump on spring and spring planting. But, just as with any part of Mother Nature's plan there are rules to follow, all with good reason.

Any task has basic techniques for successful completion. Here are the basics for seed starting. Chosen seeds should create plants that thrive in your area. Always start with clean materials; soil from your garden may contain bacteria, molds, and fungus that will affect your young seedlings. Pots should be washed in a 10% bleach and water solution. Seeds have a shelf life, especially if they are not saved in a cool place. So, the starting point is good soil, good seeds, and clean containers.

There is a general rule of thumb for planting seeds – plant no deeper than three times the width of the seed. However, rules are meant to be broken, Mother Nature knows nothing of human-created “rules” and many seeds will not fit into this neat box. Your best advice comes from the back of the seed packet. The seed packet gives clear instructions on planting times, locations, seed depth, and spacing.

Temperature is key to germination. If the temperature is too cold, either in the ground or under lights, plants will grow unevenly or not at all. Seeds may try to germinate at lower temperatures but will either rot before seed leaves develop or growth will be weak and spindly. Gardeners often rush to plant outside but in waiting they will have plants that surpass those planted in the cold. Planting indoors requires a heat mat set at 75 to 80 degrees. Seeds sown outdoors should wait until night time temperatures reach 60 degrees.

Some seeds like it hot. Pepper seeds are best started indoors with a heat mat set to 80 degrees. Pepper seeds may take between seven to thirty days to germinate or even longer depending on the variety. Ghost pepper seeds may take up to four months to germinate. If the pepper is really hot it will want really hot temps to germinate. The back of the seed packet, again, will describe the seed's definition of patience.

Although planting in cold soil and planting too deeply are the major reasons seeds fail to germinate, there are other reasons also. The use of chemical fertilizers or fresh, hot manure will burn seeds. When you plant your seeds always press the soil down to tighten, giving the seed closer contact with the soil.

Watering in extremes will stop germination. Keep the soil moist, but not wet. Learn to feel the weight of the container to use as a guide. Wet soil is heavy. Also, use room temperature water, not cold.

Sometimes seeds become old or lose viability. Seeds should be stored in a cool, dry place to prolong their viability. To test whether seeds can still germinate, take 10 to 20 seeds and wrap them in a moist paper towel. Put the paper towel in a plastic bag in a warm spot. In a week count the number of germinated seeds. If there's a less than 50% germination rate, consider purchasing new seeds.

If you are planting your seeds directly in the garden germination might be stopped by your wild neighbors. Birds, squirrels, rodents, pet chickens, skunks, and possums might be enjoying your seeds as soon as you put them in to the ground. Protecting your seeds or starting them indoors might be the only way to stop the thieves.

Seeds that do germinate, and then grow only to fall over, are victims of damping off disease. Too much water, poor soil quality, or poor air circulation gives damping off its foothold. Controlling conditions will provide your seeds with maximum strength to fight disease.

Starting plants from seeds gives gardeners a wider variety of genetic strains of plants. If you are looking for seeds to start the Seed Library in the Tuolumne County Public Library at 480 Greenley Road in Sonora is open on Saturdays from 10:00 to 1:00. When starting seeds, just as in any relationship with Mother Nature, practice patience followed by optimism.

Julie Silva is a University of California Cooperative Extension Master Gardener of Tuolumne County. UCCE Master Gardeners of Tuolumne County can answer home gardening questions. Call 209-533-5912 or go to: <http://ucanr.edu/survey/survey.cfm?surveynumber=7269> to fill out our easy-to-use problem questionnaire. Check out our website at: http://cecentralsierra.ucanr.edu/Master_Gardeners/ You can also find us on Facebook.

Or pick up the local Master Gardener book "Sharing the Knowledge: Gardening in the Mother Lode" at Mountain Books or the UCCE Office both in Sonora, CA.