

Using Old Seed

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Seeds are living things. Before being planted, they respire, use up stored foods and build up toxins. Seeds, like the rest of us, age and their ability to germinate and produce healthy plants declines over time.

Although we've all heard about seeds that have survived in the tombs of pharaohs, most seeds do not remain viable for nearly that long.

The seeds from some plant species tend to live longer than those of others. (See sidebar.) But most are good for only a couple of years.

Storage conditions are critical, too. Cool, dark, dry conditions (or the exact opposite of what makes a seed want to sprout) are the best storage conditions for most seeds. Storage life is doubled for each 10° F decrease in temperature or each 1% decrease in seed moisture content. Ideally temperature plus relative humidity should equal 100.

To keep seeds cool, store newly purchased seeds in clearly marked packets in the refrigerator or freezer. To lower the humidity around the seeds, store the packets in a sealed container with a desiccant that will absorb moisture. **DO NOT PLACE THE DESICCANT DIRECTLY IN THE SEED PACKETS.**

Commonly used desiccants include silica gel crystals (like those in the packets found in shoe boxes or handbags), rice and recently opened powdered milk. To use powdered milk, place about ½ cup of fresh powdered milk in a small cloth bag and place the bag in the sealed container with the seeds. Replace the desiccant every 6 months.

Because moisture can move through paper and plastic, it is better to store seeds in glass or metal. A glass jar with a tight fitting lid is perfect. Some gardeners use surplus ammo cases or empty film canisters which are also air-tight. Plastic or paper with an aluminum vapor barrier, like that used by many commercial seed producers, will block moisture.

If you want to reuse seed but don't know the age of the seed or whether it was stored under proper conditions, you can determine the viability of the seeds by doing a germination test:

1. Spread 25 seeds from the pack on a stack of 2-3 moist paper towels;
2. Roll up the towels loosely and seal them in a plastic bag or container;
3. Keep the paper towels in a warm place (70-80° F) until the seeds germinate.

After a week or so, check to see how many seeds have sprouted. If at least half of the seeds germinate, the seeds can be used, but you might want to sow them thicker than you normally would. If less than 50% germinate, it would be best to discard them.

Planting seeds that do not germinate or grow well is a waste of your time. Worse yet, it could delay getting your garden in the ground.

For best results, buy new seed each year, limit your purchases to the seeds you will use that year, and share leftovers with friends, family members and community garden groups.

SIDEBAR

Average number of years (from date stamped on commercially-produced seed packets) that seeds can be saved if stored in cool, dry conditions.

1-2 years	3-4 years	5 or more years
Corn	Bean	Broccoli
Leek	Beet	Cabbage
Onion	Carrot	Cauliflower
Parsley	Pea	Cucumber
Parsnip	Pepper	Eggplant
	Pumpkin	Kale
	Squash	Lettuce
	Tomato	Radish
		Spinach