

Growing Plants from Seed

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Start seeds indoors to grow own plants

Many of the plants, especially annuals, that you read about in gardening magazines are not available at local nurseries. This is just one good reason to grow your annuals from seed. Other than the joy of watching your seeds grow, being able to have new varieties not available locally is one of the big benefits of growing from seed. Ordering from seed catalogues or from the many Internet sites is one way to try a new plant or variety with very little monetary investment.

There are also advantages to buying seedlings from your local nursery, because some of the more common plants that are difficult to grow from seed are impatiens, begonias and petunias.

Any soil-less potting mix made especially for seed starting from your garden center is an easy way to start a few flats of seeds, but if you are doing several flats, you may want to mix your own. To make a soil-less mix, combine one part each of peat moss, vermiculite and perlite. Be sure your mix is moist, but not overly wet, before planting your seeds.

If you have only a few seeds to start, you may want to consider using seed starting pellets. It is more expensive, but an easier and more convenient option.

If you saved some seeds from last year, you may still be able to use them. As long as the seeds have been kept in a dry place, they should still be good. The vigor of a seed never increases, so it is best to use your seeds as soon as you can. One way to check your seeds before planting them is to put them in water and, as a general rule, the seeds that sink after an hour or so are good ones or plant out 100 seeds and count how many germinate. Ninety-seven germinated out of 100 equals a 97 percent germination rate.

Once you have your seeds planted, all you need is a south or southeast facing window, or fluorescent lighting that can be adjusted to give plenty of light. When using fluorescent lights, set the trays of plants 3 to 4 inches from the light source. If you can't adjust your fluorescent light, elevate your trays.

Seeds need fresh air, without chilly drafts, and humidity which you can provide by misting lightly on a regular schedule. (A daily light misting should be sufficient.) The kitchen is a good area for raising seeds, but keep your seedlings away from gas and cooking fumes. The best temperature is around 65 degrees F. during the day and 55 degrees F. at night.

When seeds germinate and then die, it is a very common problem with seed starting called "damping-off". This is caused by a fungus and the seedlings fail to emerge or fall over and die.



Vegetables grown from seed soon will be planted in the Discovery Garden at the Washington State University Extension in Mount Vernon. *Photo by Trish Varrelman / WSU Skagit County Master Gardeners*

The fungi, such as *Rhizoctonia*, *Pythium*, and *Fusarium*, are the common causes and they affect seedlings just at or below the soil line.

To help prevent damping-off, be sure your container is well drained, allow the soil to dry slightly between waterings, apply a registered fungicide in the early stages of germination, or improve air circulation.

If you are growing your seedlings in flats, don't leave them in the flat too long. The ideal time to transplant seedlings is when they are small, and there is little danger of a setback. This is usually about the time the first true leaves appear above or between the cotyledons (the first leaves emerging from the seed, or the seed leaves).



A few simple tools and a growing medium are all that's needed for transplanting tomatoes.
Photo by Emma Davis / WSU Skagit County Master Gardeners

To transplant seedlings, carefully dig up the small plants.. Let the group of seedlings fall apart or gently ease them apart into small groups. Then pick out individual plants. Avoid tearing roots in the process. Handle small seedlings by their leaves, not their delicate stems.

Punch a hole in the soil or planting medium. (A pencil works well for this purpose.) Make it deep enough to put the seedling at the same depth it was growing in the seed flat. Place small plants or slow growers 1-inch apart and rapidly growing large seedlings about 2-inches apart.

After planting, firm the soil and water gently. Keep newly transplanted seedlings in the shade for a few days and keep them away from direct heat. If you are planting them directly into the garden, you may want to cover them with shade cloth for temporary protection.

Continue watering as before. About every two weeks after the seedlings are established, use a soluble houseplant fertilizer at the dilution recommended by the manufacturer. Remember that young seedlings are easily damaged by too much fertilizer, especially if they are under any moisture stress from soil that is too dry.

Growing plants from seeds is very rewarding and worth the effort. We hope you will give it a try.

RESOURCES:

- "Sustainable Gardening: The Oregon-Washington Master Gardener Handbook." Oregon State University. 1999.
- Park's Success with Seeds. Anne Reilly. 1978.