

Growing Your Own Seedlings

Here are two good reasons to grow your own seedlings. If you purchase transplants, you'll be lucky to find a dozen varieties to choose from, but you'll find *hundreds* if you grow your transplants from seed. But more important, it's simply for the thrill you'll get from seeing those first tiny seedlings peeking up through the soil. It's a delightful experience that sure makes the month of March in the great Northeast easier to deal with!

Most seeds need warmth, but little or no light to germinate. The top of the refrigerator is warm and works well or you can purchase heat mats. Once they've emerged, seedlings need **12 to 16 hours of light each day** and prefer a cooler growing temperature of 60 - 70 degrees F. These cooler temps encourage slower growth and produce sturdier, more durable transplants. Growing seedlings on a sunny windowsill usually results in tall, spindly plants that are being forced to stretch toward the light to "grab" all they can. Fluorescent lights work very well. Be sure you can adjust the light so that the bulbs are always 2" - 4" from the tops of the seedlings. Place books or pots under the seedlings trays to raise them and adjust them as they grow.

Many household items can be used for seed starting as long as it will hold soil and drain excess water. Plastic seed starting flats are great for starting a bunch of seedlings, and they make watering and moving plants easy. Peat pots work well for plants that dislike root disturbance (like squash and melons) because the whole pot is placed in the ground. Peat pots must be closely monitored because they dry out very quickly. Plastic pots must be thoroughly cleaned with bleach before reuse to kill bacteria and fungi. Rinse pots well with clear water.

Use a sterile, soil-less potting medium to start seeds. Soil-less mixes are lightweight, provide good drainage, and are free from pests, diseases and weed seeds often found in potting soil.

Young seedlings require careful watering. You can mist seedlings with a gentle spray or place the container in water until the soil surface feels moist. Always use lukewarm water and try to water early in the day so seedlings have a chance to dry out before dark. Don't leave seedlings in standing water for any length of time.

Over watering promotes damping off, a common fungal disease that attacks young seedlings. The stem of infected seedlings will appear sunken and water soaked close to the surface of the soil. Wet soil, crowded seedlings, high nitrogen and poor aeration are all conditions that favor damping off. Using clean containers and a sterile growing medium can help control this disease. A small fan to circulate air around seedlings can also help. Don't fertilize seedlings until they've developed their first set of true leaves, and be sure to sow seed thinly to avoid overcrowding. A thin layer of finely milled sphagnum peat moss added to the surface of the seed flats helps prevent damping off.

When seedlings have developed three leaves (or in the case of onions are about 2" tall), they'll need to be thinned out or transplanted to a larger container. Use scissors to snip unwanted seedlings at soil level to avoid disrupting the roots of plants you want to keep. 2" spacing is fine for most plants.

If transplanting seedlings to larger containers, fill the pots with moist potting medium and poke holes in the soil for the plant's roots. Carefully lift the tiny seedlings out of the soil and hold them by the tips of their leaves to prevent damage to the stem or roots. Plant seedlings slightly deeper than they were in the old containers to promote strong root and stem growth. Firm the soil gently around the roots and water well.

All seedlings need to be hardened off or gradually exposed to the brighter, windier and cooler conditions found outdoors. During the hardening off process, plant growth slows down allowing seedlings to store food and increase the thickness of the outer leaf layer. Place seedlings in a sheltered spot outdoors out of direct sunlight. The first day, it might be for just a few hours, but gradually increase their time outdoors and the intensity of the light they're exposed to. On cold nights, move them inside until morning. A few days before planting, put seedlings out in full sun. The drying effects of sun and wind may

