

## STARTING SEEDLINGS AT HOME

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Starting your vegetable and flower seedlings at home is a good way to get a head start on the season and it's fun to see your seeds sprout and grow into strong, healthy plants. The time between planting and harvesting vegetables or planting and having flowers in bloom can be shortened by four to six weeks when you transplant vigorous plants rather than sowing seeds in your garden.

Growing your own plants may be the only way you can have a new or special variety in your garden. Commercial plant growers cannot grow all of the hundreds of varieties offered by seed houses and are often reluctant to offer varieties which have not been given widespread publicity.

The basic requirements for growing healthy seedlings include: good seed, a well-drained disease-free, fertile growing medium (potting soil), clean containers with holes in the bottom, high light intensity, clean water and warmth. Local nurseries and mail-order seed companies offer high quality seeds. Many good potting soils are sold in local garden centers and greenhouses listed in the telephone book. The best way to be sure that you are getting a quality seeds and potting soil is to ask a successful friend, a Master Gardener, or a Certified Nursery Professional for brand names on which they rely. Some greenhouses will show plants to you that are growing in potting soil which they have for sale. A good growing medium can be mixed from scratch by following directions found in Extension Leaflet L-2082 available from your County Extension Agent. The medium is prepared by mixing equal volumes of vermiculite and sphagnum peat (known as peat moss) and correct amounts of fertilizers listed in Leaflet L-2082. It is usually less expensive and much more convenient to buy a premixed soilless mix to grow plants for our home gardens and landscapes.

Any shallow wood, metal or plastic container at least three inches deep is suitable for growing plants. Milk cartons, foam cups and peat pots make

nice individual plant containers. Be sure to punch drain holes in the bottom of any container with a solid bottom. When filling containers leave one-half to one inch free space at the top of the container to enable watering without eroding mix out of the container. Sow seeds about 1/4 to 1/2 inch apart in rows two inches apart. When seedlings emerge you can thin them to correct spacing or transplant to pots for more growing room. Potted plants do not suffer as much shock when they are transplanted to your garden. L-2082 gives weeks needed to grow transplants, best seed planting depth, and optimum temperatures for germination and growing on. Seeding depth of 1/4 to 1/2 inch is good for most vegetable and flower seeds. Warm the soil to about 75 degrees F. Provide air temperature of 70 to 75 degrees F. during the day and a night temperature of at least 60 to 65 degrees F. After seeding, irrigate gently until water drains out the bottom of the container. Identify the kind, variety, and planting date with pencil or permanent marker on a wood or plastic label stuck into the container. Place containers in plastic bags (leave end open) or cover container surface with clear plastic film until first sign of seedling emergence. Then remove plastic cover immediately and be sure the container is exposed to maximum light. Most seeds do not require light to germinate, but seedlings need full direct light as soon as they emerge. Irrigate only when you can not see water when pinching a wad of potting soil between your thumb and finger.

Transplant seedlings when the first true leaves are just visible -- usually two to three weeks after sowing. Lift seedlings from beneath with a spatula or pencil. Do not pull them out. Hold seedlings gently by a cotyledon leaf with your thumb and forefinger. Make a planting hole with a wood pencil. Set the seedling slightly deeper than it was in the seedling container. Firm medium around seedling very gently to avoid injuring the tender stem and root tissue. Immediately after transplanting, water each seedling container thoroughly. After seedling emergence and during early development, strong, rapid plant growth can be assured by irrigating with a

solution of soluble fertilizer which is specifically designed for plant production. Be sure to mix the solution carefully as instructed on the label. Apply enough to allow some to flow out plant container bottom.

Provide as much direct light as possible to your plants. Some gardeners build cold frames or cable heated hot beds in which to grow their plants. I heat the inside of my three by four-foot plant growing hotbed with a 16-foot pipe heating cable. The cable is strung along the inside wall of the hotbed from hooks screwed into the wood. The thermostat is outside the hotbed in the open air. When outside temperatures drop below 38 degrees F., the thermostat closes the switch and heat is delivered inside the hotbed. When temperatures below 25 degrees are forecast, I lay a blanket over the hotbed top and temperature inside will stay above 40 degrees even when outside temperature falls as low as 15 degrees.

Careful daily attention to growing your vegetable and flower seedlings will bring you great joy as you see how beautifully your plants grow and what a wonderful garden you have as a result of your effort.