

Starting Plants Indoors

Written by: Tina Savage, Extension Educator, Agricultural Resources

With the weather so cold and snowy it's hard to believe, but spring is here! Starting your seed indoors will give your garden a jump on the competition and will allow you to enjoy the blooms and bounty of your garden sooner.

The first step to starting seeds indoors is knowing the average date of last frost in your area. The starting date for various crops can be determined by counting back from that date to determine the best time to start your seeds indoors. Cold hardy plants (*) can be set out 4-6 weeks before the average date of last frost.

- 12-14 weeks- onions*, leeks*, chives*, pansies*, impatiens & coleus
- 8-12 weeks- peppers, lettuce*, cabbage family crops*, petunias, snap dragons*, alyssum* and other hardy annuals
- 6-8 weeks- eggplant, tomatoes
- 2-4 weeks- cucumbers, melons, okra, pumpkins & squash

Seeds contain enough nutrients to nourish themselves through sprouting; therefore seed starting mixes don't require the addition of nutrients. They should however, be free of weed seeds and toxic substances, hold moisture and provide plenty of air spaces.

Planting directly into a potting soil mixture eliminates the need for transplanting and may be preferred over non-nutritive seeding mixes. Squash and melons do better if their roots are not disturbed, so planting seeds into large pots using potting soil is ideal. Commercial potting soil is available, or you can make your own. To make your own potting soil you need, vermiculite and a weed free source of compost. Combine in equal amounts. Moisten mix before filling containers, mix should hold together when squeezed in your hand but should not drip.

Sowing Seeds:

Cover the seeds to a depth of 3 times the seed's thickness by sprinkling them lightly with dry potting mixture. Don't cover seeds that need light to germinate, instead gently pat them to the surface to insure good contact between seeds and soil. Label each planting immediately to prevent future mix-ups. Set trays or flats in a shallow container of water and soak until surface looks moist. You can also use a sprayer to mist the plantings. Be careful not to wash the seeds out of the soil.

Cover the planting with clear plastic, or floating row cover for seeds that need light to germinate, or use black plastic, damp newspaper or burlap for those that prefer dark. Place containers in a warm place and check daily. Keep soil moist but not waterlogged. As soon as sprouts emerge, expose containers to light.

Raising Healthy Seedlings:

Seedlings need more intense light than mature plants. Insufficient light results in spindly or leggy seedlings. Sixteen hours of light is ideal, more than 18 hours of light may cause plants not to thrive. While a wide window sill can be used for starting plants indoors, the air next to the window may be too cold for proper plant growth. It is also difficult to control the amount and intensity of light available through the window. There are special plant grow florescent lights

available, but the light from cool white florescent light works well and is much less expensive to purchase. Incandescent lights do not stimulate the same level of growth as the fluorescents. Keep lights no more than 3 inches away from the seedlings for the first few weeks. Then raise the lights to 4-6 inches above the seedlings.

Seedlings require a steady supply of moisture, in a warm dry house; seedlings may require watering every 2-3 days. Check soil moisture by poking your finger into the soil, water seedlings from the bottom to prevent disturbing delicate roots and to prevent damping off.

Young plants require less warmth than germinating seeds. Average temperatures of 60-70 degrees will keep plants growing fine. Temperature extremes of 30-45 degrees will cause cold injury while temperatures of 75 and above may produce weak spindly plants that will be vulnerable to harsh conditions when moved outdoors.

Ventilation:

Remove any plastic or coverings as soon as seeds sprout. Lack of air circulation can lead to damping off caused by soil borne fungi. Seeds may rot before they germinate or seedlings rot at the soil line and fall over. Damping off can be controlled by keeping soil moist but not wet. Be sure to provide adequate air circulation and make sure soil is warm enough before seeding. Sterile starting mix or a mix with compost can help prevent problems as well.

Nutrition:

Seedlings planted in non-nutritive seeding mix will need small doses of plant food as soon as the first true leaves develop. Half strength fertilizer solution once a week for the first 3 weeks will be sufficient, after the first 3 weeks use full strength fertilizer solution every 10 -14 days. Seedlings grown in potting soil may not need extra nutrition for several weeks. If seedlings begin to look pale, or yellowing occurs feed them according to the same schedule as above.

Transplantation:

Seedlings will grow faster, stronger and more disease resistant if they have plenty of space and proper nutrition; this can be accomplished by transplanting the best seedlings to a bigger container of richer soil. Seedlings are ready to transplant when they have developed their first set of true leaves.

Before planting seedlings outdoors they must be "hardened off". Sheltered plants moved directly outdoors are not accustomed to wind, sunlight or temperature variations. Exposure to these stresses without "hardening off" will result in the loss of some seedlings. Two weeks before outdoor transplanting, stop supplemental feeding and slow down on watering. One week before outdoor planting put seedlings outdoors in a sheltered area, out of wind and direct sunlight. Leave plants outdoors for 1 hour at first, then 2 hours, then the morning, etc until they are used to being out all day, water frequently.

Transplant on a cloudy or drizzly day, or in early evening to avoid the heat and drying of direct sun. Make sure plants are watered before you begin transplanting. After planting you can use cut out plastic jugs, berry baskets or a floating row cover to protect the transplants from sun, wind and cold. If the weather is dry and sunny water plants several times during their first week outdoors until their roots are able to take hold. If they wilt, water and cover to protect them from direct sunlight for a few days until they recover.

Starting your own plants indoors can be an educational and inexpensive way to get transplants ready for the home garden. Starting plants indoors will help your plants out compete weeds in the

garden and get you in the garden mood while the ground is still cold and snow covered. Happy Planting!

Tina Savage is an Extension Educator, Agricultural Resources, UNH Cooperative Extension. She can be reached at 539-3331, or at tina.savage@unh.edu

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