Starting Seeds Indoors

Resource Sheet

A Grow Lab
Ideally, you will place your grow lab where you will have space to hang fluorescent light fixtures and have room for flats to place your seedlings in. You will also want to be able to access these flats so you can water them and watch them grow. If you do not have lights, do not let this stop you from growing inside. Just select a spot where there is bright light—a south-facing window is best. See our instructions on how to build your own grow-light frame at **www.dug.org**.

Containers
You can start seeds in just about any kind of container, as long as it is shallow. Trays, flats, pots, old egg cartons, cut-off milk cartons or even eggshells are suitable. Try all kinds to see what works best for you. Make sure they are clean and have good drainage. If the trays or pots are old it is a good idea to soak and clean them in a solution of 90% water and 10% bleach, before using them. If you are using a fiber or peat pot, soak it well before adding soil. Dry fiber pots draw moisture away from the soil.

Seeds
You will get the best results if you purchase fresh seeds that were packaged for the upcoming growing season. If you have saved seeds that you purchased last year, test the germination rate before planting. You want at least 70% germination.

Growing Medium
Your growing medium will most likely be a soil-less mixture designed for starting seeds. Nothing beats a good commercial medium because it is sterile and free of unwanted weed seeds. Make sure you are not using any garden soil for germinating your seeds. Growing mediums are available at your local garden center.

Sowing Seeds
Fill pots or flats to within ¼" of the top with your potting mixture and level the surface. It is a good idea to water the soil and allow it to drain thoroughly before sowing the seeds. Make a hole for each seed with your finger or a pencil. Keep in mind that most seeds need to be planted two to three times as deep as the seed is wide. If your seeds are very fine, cover them with a fine layer of soil.

What Seeds to Sow
Seeds that benefit from starting indoors include the cabbage family (cabbage, broccoli, cauliflower and kale), onions, tomatoes, eggplant, tomatillos and peppers. You can start others, but it is not necessary. Cool season crops (peas, lettuce, spinach, root crops and more) can be sown directly into the garden as early as April. Cucumbers, squash and beans can be planted

directly into the garden in mid to late May. Reading the seed packets will help you determine what to plant and when.

When to Sow Seeds

Onions: As early as January 30
Broccoli, cauliflower, cabbage and kale: Around February 28
Eggplants and peppers: Around March 1
Tomatoes and tomatillos: March 15

Do not be tempted to start seeds before the recommended time window.

Moisture and Humidity

The germinating medium should be kept evenly moist but not soaking wet. Too much moisture will cause the seeds to rot. Use a fine sprayer to water newly planted seeds and tiny seedlings or, if possible, water from the bottom. If you can, slip your pots and flats into plastic bags, or use a humidity dome, to keep the humidity and moisture even and reduce the frequency of watering. Remove the clear humidity dome daily and lightly blow on the soil, replacing dome after you do this. Carbon dioxide decreases seed germination time. Check daily for seed germination. As soon as first seeds in the flat have emerged, remove the clear humidity dome and leave it off.

Light

Some seeds require light to germinate, while others prefer total darkness. Your seed packet should tell you what your seed's requirements are. Once germinated, all seedlings need light to develop into strong, healthy plants. Supplement the natural light with florescent bulbs if necessary. New seedlings thrive in about 16 hours of light.

Seedling Care

The care you give your seedlings in the weeks following germination is critical. Keep it moist, but not dripping. Use warm water to water the seeds for the first two or three days. Once the seedlings have germinated use water that is just a little warmer than room temperature. Try to water from below so as not to disturb your seeds and seedlings. Small pots and flats dry out quickly, so check it often. To check, stick a sharpened pencil into the soil about a quarter inch, if moist soil sticks to your pencil tip you do not need to water. If your seedlings are growing in a windowsill, turn often to encourage straight stems. If you are using grow lights, keep lights directly above the plants once they are germinated. The lights should be almost touching, about 2-3” above the top of the plant. Raise the lights as the plants grow.

The first two leaves you will see on the plant are not true leaves but food storage cells called cotyledons. After seedlings have been growing for several weeks (assuming both seeds in each cell have germinated successfully), use a small scissor to cut weaker seedling off as close to the soil as possible. Choose the shorter, stockier seedling to leave in each cell. It is important to stress to children that seedlings need enough space to grow into healthy plants.

Hardening Off

One week before transplanting your seedlings outdoors, start to harden them off. This process acclimates the soft and tender plants, which have been protected from wind, cool temperatures,

and strong sun, to their new environment. Move the plants to a shady outdoor area at first and bring them indoors for the night if night temperatures are cold. Each day, move them out into the sun for a few hours, increasing the time spent in the sun each day. Keep them well watered during this period and do not place them directly on the ground if slugs are a problem. Monitor them closely for insect damage since tender young seedlings are a delicacy for insects.

Transplanting

Do not be in a rush to put your plants in the garden. If they will not withstand frost, be sure all danger of frost has passed before setting them out. The strongest seedlings are those between six and eight weeks of age with sturdy stems and strong roots. Plan the garden in advance. Consider companion planting and plant sizes. Make sure your tall plants will not shade their low growing neighbors.

Water the ground outside and the seedlings thoroughly before transplanting. This helps prevent transplant shock. It is preferable to transplant on a cloudy day so strong sun will not wilt your seedlings. Very gently remove your seedling from its container. Dig a hole about twice the size of the root ball and set the transplant into the hole so the root ball will be covered by ¼" of soil. Press the soil firmly around the roots. A small depression around the plant stem will help trap moisture. Water immediately after transplanting and every day for the first week. Be sure to water deeply so your plants will not develop shallow roots.

Sources

www.dug.org
www.frontrangeliving.com
www.gardenguides.com