

STARTING HERBS FROM SEED: An Inexpensive Way to Begin an Herb Garden

Annual herbs: Many annual herbs, such as *anise*, *borage*, *dill*, *parsley*, *caraway*, *chervil*, *sweet marjoram*, *coriander* and *fennel*, respond best to direct sowing in the garden. Many of these herbs also self-sow, meaning they drop their seeds after flowering, creating a new generation of plants the next year. A gardener must be extremely vigilant, however, not to disturb the soil around where these annuals matured until the new seedlings get established.

Tender annual herbs, including *basil*, need more care to succeed in your garden. These plants do best started indoors and then set outside when night temperatures are warm. In zones 5 and 6 (we are in zone 6), it is best not to set out your tender herb seedlings until the end of May, unless temperatures are consistently around 50 degrees. Temperatures in the cool 40's can cause basil to wilt and die.

Perennial herbs: Gardeners who plan to grow a large quantity of perennial herb plants may decide to start these herbs from seed. For example, *edging herbs*, used in quantity for knot gardens or lining a path, are expensive if you have to buy mature plants. For the price of a packet of seeds, and some time and effort, you can have an abundance of herbs. *Hyssop*, *germander*, *savory* and *santolina* are fairly easy to grow from seed. Unusual herb varieties, such as *golden anise hyssop*, *white sage*, and *horehound*, may be difficult to find at garden centers, but can be grown by a determined gardener. Also consider tender perennials like *hibiscus* and *palmarosa*. You are limited only by the space you have.

Ordering seeds: Order seeds, preferably from companies specializing in herbs. You can find all kinds of herb seed vendors on the Internet, from huge companies to small specialty growers. Garden centers can also be a source for obtaining seeds, however, they may only carry the more popular herbs and less variety than many of the companies specializing in herbs.

Planting the seeds: When you receive your seeds, read the instructions on the packet. Some seeds need light to germinate. This means placing them on top of the soil, with little or no covering. Others may need soaking; others may need "nicking" the seed coat, to prevent the hard covering of the seed from obstructing germination. A hard file or rasp can be an ideal way to rub the coating of the seed. Pay careful attention to the time frame for planting. Some seeds need to be started 8-10 weeks before setting out, others need as little as 2-3 weeks. Count backwards from the frost-free date for your planting zone to see when you should begin. Ordering seeds as early as January or even December allows you to plan seed starting properly.

What you need for proper germination:

- Soil-less planting medium (a combination of peat, vermiculite and perlite)
- Clean containers
- Tray with clear plastic cover to hold containers
- Source of bottom heat
- Strong light source

How to proceed: preparation: A waterproof tray (usually 11" x 22") is needed to start seeds indoors. If the tray does not have a high domed, plastic cover, you can use plastic wrap to cover the seed tray. (Note that you must remove plastic wrap as the seedlings emerge, so they have room to grow. Plastic wrap is also more cumbersome to remove, making it harder to monitor the moisture.) The germinating seed (and subsequent seedlings) must have a consistently moist (but not soggy) growing medium.

Some trays have plastic inserts for the planting medium, in various sizes to accommodate different seeds. A 72-cell insert is a good, all around choice. Some trays come with peat pots. These can be a poor choice; watering the peat pots can be difficult since they sometimes absorb water and dry out unevenly. If you want to re-use 4, 6 or 9-plant holders, be sure they are sterilized to kill any bacteria, spores, etc. Wash them in a container, using a couple of tablespoons of bleach in cool to warm water. Soak the pots 10-15 minutes, then remove from the solution and air dry.

A soil-less growing medium helps with water retention and provides better drainage than ordinary soil. Using clean, sterilized pots and a good growing medium helps prevent “damping off,” a fungal disease where seedlings look pinched and eventually keel over and die. Too much water and/or poor air circulation can also cause this problem. Soil-less mediums are light and fluffy compared with garden soil. You can blend your own, or buy bales at garden centers.

Most herbs benefit from some bottom heat to encourage germination. (You don't have to provide bottom heat, but germination occurs more quickly with it.) There are many types of mats available, but some people use heating pads set on the lowest setting, or even the top of a refrigerator where warm air rises. Note: the bottom heat is only necessary until the seeds germinate.

The last essential is a good, strong light source. If you are starting seeds in January or February, grow-lights are a must. The amount of light coming in through windows is simply insufficient for seedlings. (If you have a south facing window, you can possibly be successful in growing seedlings there. However, the plants often become leggy from reaching out to the sun.) Turn the trays each day to allow for straighter seedlings. The best method for growing sturdy seedlings is a fluorescent shop light. A combination of a cool and a warm bulb works, or you can use special grow-lights instead. These lights need to be replaced every couple of years, as the wavelength decreases as the bulb ages. The lights should be suspended in a way that allows you to raise and lower them over the plants. The lights need to be very close to the plants – a ½ to 1 inch or so away – to avoid spindly plants. The lights also need to be on 12–15 hours a day; a timer is a good way to ensure this is done.

Planting the seeds: Put some growing medium in a large tub. Pour in warm water and mix so that the medium is wet, but not soaked. You should be able to form a soft clump with your hand, one that holds together but is not solid. Fill the containers loosely with the medium and place them in the tray. Sow the seeds thinly if possible, and follow the packet directions. Cover with the plastic dome, and place on a heat source. Most seedlings do not require light at this point, though it is a good idea to put the grow-lights over them anyway. Many seeds will germinate in a day or two, but some may take a week or more. Check your flats at least once a day, being sure to keep the medium moist but not wet. If you see mold on the top of the soil, remove the cover to let it dry out a bit. Also be careful not to let the pots dry out. Bottom watering is best, to avoid disturbing the seeds.

As they grow: Once the seedlings appear, you can leave the plastic cover off part of the time. A small fan, or some sort of air circulation, helps prevent damping off and produces plants with thicker, sturdier stems. Getting air to the seedlings helps keep the moisture level down, so be sure not to let the seedlings get too dry. They can shrivel up and die more quickly than you could imagine. The first leaves you see when the seedlings emerge are known as seed leaves. They often do not look anything like the mature plant leaves. As the plants begin to grow, the true leaves will appear. When two sets of true leaves appear, it is time to transplant them into a larger pot, also known as “potting up.” Transplanting into a larger, usually deeper pot, spurs growth, and gives the roots more room. You will be surprised to see how long the roots are on these tiny seedlings.

Potting up: When transplanting, use a broad popsicle stick, dull butter knife, or something similar. The idea is to disturb the seedling and its roots as little as possible. Be sure the plants have been watered before transplanting, so the soil is moist and sticks to the roots. Gently push the tool into the cell, keeping as close to the outer edge as you can, and scoop the seedling out. If you must handle a seedling, DO NOT grab it by the stem. The stem is fragile, and you can damage the stem wall, cutting off its ability to take up moisture. Hold the seedling instead by a leaf, which can withstand more handling. Place the seedling in the new clean and sterilized pot. The pot may be pre-filled with soil mix, and a depression made in the center into which you can place the seedling. Another method is to place a little soil in the bottom of the pot, place the seedling in the center, and fill it up with soil. Be sure to keep the seedling at least as deep as it was before, and you can usually bury it just a little more deeply.

Keep the new transplants under lights and well watered. Add a small amount of weak organic fertilizer to your watering once a week or so. Fish emulsion works well, but you can use whatever you like, as long as it is a weak solution. Water from the bottom so the seedlings are not disturbed. Never let the plants stand in water.

Planting outside: Set your plants outside after all danger of frost is past, following directions from the seed packet as to proper spacing. Most herbs do best in a good garden soil, and one that drains well. Enjoy your new garden of herbs!

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