

# Starting Seeds Indoors



## After you decide what to grow this season check the back of the seed packet which describes...

- how deep to plant the seeds.
- days to germination gives an idea how long it takes the seed to come up
- days to maturity = the number of days from planting to harvest.
- seedling thinning and spacing

## Examples of plants that need a head start indoors:

Time needed to start vegetables before transplanting to the garden

### Cold season

Broccoli	4-6 weeks
Brussels Sprouts	4-6 weeks
Cabbage	4-6 weeks
Cauliflower	4-6 weeks
Onion	10-12 weeks

### Warm season

Eggplant	8 weeks
Parsley	8-10 weeks
Pepper	8 weeks
Tomato	8-10 weeks

**These crops get the best results seeding directly into the garden.**

beets, beans  
carrots, corn  
kohlrabi, lettuce  
radish, peas  
potato, spinach  
swiss chard

## When to plant outdoors?

Cold-season crop, plant after April 1 or after Aug. 15 for a second crop, still protect tender foliage from hard frost. Many make a great fall crop too.

Warm season crop, plant out around May 31 after soil and air temps warm. For the rest plant after danger of frost is past - about May 15.

## CONTAINERS

You can purchase a variety of seed starting containers or make your own. Make sure containers, humidity domes and trays are new or sterilized by washing them in warm soapy water, dipping them in a 10% bleach solution and completely drying them.

## STARTING MEDIA

Rather than using soil at this step, use seed starting media or vermiculite so the young plants will have less chance of disease problems. Wet the starting media and drain it before sowing seeds. Water from below to avoid



A seed starting tray, humidity dome & heat mat.

## TEMPERATURE

Most seeds germinate best at 72 degrees so use a warming mat made for seed starting under your seedling tray 24 hours a day until the seeds germinate. You can make it more precise using a thermostat but it is not necessary if the directions are followed on the heating mat.

## AIR CIRCULATION

Use a plastic cover over your seed starting container until the seeds germinate. Then remove it. To reduce the possibility of disease in your new plants, provide air circulation. It's useful to put both the lights and fan on a timer and run them for 12-16 hours a day.

## ARTIFICIAL LIGHT

Some seeds need light to germinate but once your plants are up they need strong, cool light. It's best to use a grow light within 2-3 inches of the tops of the plants at all times. This way seedlings won't stretch to the light and become weak. You will need a system that can raise and lower the light. **Seedlings will need 14-16 hours of light daily.**

## SEED TREATMENT

Some seeds require special treatment before they will germinate. For instance, morning glory seeds need to soak overnight or the seed coat be nicked with a sharp point before it germinates. Others require chilling. Rosemary needs sterilized soil to grow without damping off due to fungal problems.

In the case of seedlings that don't do well being transplanted, direct-sow into the garden or use biodegradable containers that can be transplanted with the seedling. When you plant the container, be sure it is planted below the soil surface or it will dry out and the seedling may die.

## FERTILIZATION

When the seeds germinate and emerge from the soil, the first leaves are called cotyledons. The next set of leaves are the true leaves. Once you see the first **true** set of leaves, begin to fertilize with a water-soluble fertilizer mixed half-strength before they are transplanted. Avoid watering over the top of the plants.



Basil seedlings with cotyledons.

## THINNING

Thin excess seedlings by cutting or pinching them off rather than pulling so as not to disturb the roots. It can be tempting not to thin with the goal of growing a large number of plants but thinning is important to give plants room to grow.

## TRANSPLANTING

Young plants may need to be transplanted to a larger container prior to setting out in the garden if it's still too cold. Try to handle the seedlings by the root ball. When moving plants outside, they must first be hardened off before the garden. This is the process of acclimating the plants to wind and sun. Start by putting the plants outdoors in a shady, sheltered spot for a couple of hours the first day and gradually increase the time outdoors, and into and the wind, over the next 5-7 days. Keep a close eye on seedlings this time for sunburn and to prevent them from drying out.

Most seedlings are planted at the same soil level that they are growing their pots. Tomatoes can be planted deeper after removing a few leaves from the bottom of the plant. Also plant cabbage, broccoli, cauliflower and up to the first leaves.