

Starting Seeds Indoors

Seed starting indoors can be accomplished by anyone with a little space to devote to the task but there are a few considerations...

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

- 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 & spacing directions

Now you know what needs 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

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.

You will need...

Containers

You can purchase a variety of seed starting containers or use your own. Make sure containers, humidity domes & trays are new or sterilized by washing them in warm soapy water, dipping them in a 10% bleach solution & 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 disturbing seeds or seedlings.

A seed starting tray, humidity dome & heat mat.



Warmth

Most seeds germinate best at 72 degrees so use a warming mat, specially made for seed starting, under your seedling tray 24 hours a day until the seeds germinate. This will keep the system at 65 to 75 degrees. You can make that more precise using a thermostat but it is not necessary.

Air Circulation

Use a plastic cover over your seed starting container until the seeds germinate. Then remove it at once. To reduce the possibility of disease in your new plants, provide air circulation. It's useful to use a power bar and plug in your lights and a fan and then put that power bar on a timer at the plug to automatically run that system 12-16 hours a day.

A seed starting set-up with a light.



Artificial Light

Some seeds need light to germinate but once your plants are up they need strong, cool light. It's best to use

fluorescent light within about 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 some system of raising and lowering 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. Tomato and parsley also benefit from overnight soaking. Larger seed like sunflower can be started in small pots. Others require chilling. Rosemary needs sterilized soil to grow without damping off due to fungal problems. Some seedlings don't transplant well. In the case of nasturtium, melons and cucumbers, either 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 they are transplanted. Again, 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 plants you keep. 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 strong.

Transplanting

Depending on when you start your seed, young plants may need to be transplanted to a larger container prior to setting out in the garden. Transplant until the plants develop their true leaves. Try to handle the seedling 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.



Drummers Garden Center & Floral

507-388-4877 281 Saint Andrews Drive, Mankato

www.drummersgardencenter.com