

Starting Plants from Seed

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Starting your own seeds is FUN. An added plus is the enormous variety of the different vegetables you can start on your own and watching the seedlings grow is entertaining. In my opinion, the home-grown tomatoes always taste extraordinary.

SEED SELECTION

The first step in your adventure is deciding what you want to plant. Tomatoes, peppers, what varieties, what colors..... The seed packet has all the information needed to make your choices. Days to maturity is critical. In town, our last frost date in spring is approximately May 15th (sometimes May 30th). In town, our first frost date in fall is approximately September 15th. That is a 4-month window around 120 days. If the seed is usually planted straight in the garden, like carrot seed, then the time to maturity is the time between planting and harvesting the first carrot. If the seed is usually started indoors and then planted in the garden, like tomatoes, the time of maturity is the time from setting out seedlings to the harvest of the first tomato.

When to start seeds indoors. Usually 6-8 weeks before the mid May frost. So...start your seeds around mid March for an 8 week window or April 1st for a 6 week window.

The packet gives the year the seeds were packaged, a description of the plant, how deep to plant the seeds, thinning of the seedling, how tall the plant will grow, determinate or indeterminate, etc...

CHOSING THE RIGHT VARIETIES FOR YOU

*Heirloom or also called Open Pollinated

You can save these seeds and they will grow exactly like the plant you saved them from if the plants were not allowed to cross-pollinate in your garden.

Examples are Rutgers Tomato or Pineapple Tomato

*Hybrid

A mix of 2 or more parent plants. Seeds saved from a hybrid will produce a plant like **one** of the parents. Do not save these seeds.

Examples are the Early Girl Tomato and Celebrity

*Determinate

Vegetables ripen in a concentrated time frame. Plants usually stay smaller and more compact.

*Indeterminate

Fruiting and harvest occur during the entire growing season. Plants usually need staking, trellising and can get very large.

SEED STARTING MIX

The seedlings need a lighter soil mix to easily send down roots. Please use, or make, a product that says, "seed starting mix". It is helpful to moisten the mix a day before and warm water will efficiently moisten the mix.

Depending on your goals, you may choose a soil mix labeled as organic, or OMRI certified (Organic Material Review Institute) or one without those labels.

The soil mixtures usually contain sphagnum peat moss, vermiculite, perlite, yucca.

Dirt from outside and from your garden can harbor diseases and potting soil is too heavy for tender, immature seedlings and roots.

HEAT REQUIREMENTS

The temperature range for the best germination of the seeds (pepper & tomato) is between 75 to 85 degrees. This can be achieved using a germination mat. The mat is necessary, not optional.

The mat is an investment that will ensure your success and can be used year after year.

*An instant read cooking thermometer comes in handy for checking the soil temperatures. Refer to your Seed Starting Timetable handout for soil temperature requirements.

LIGHTING REQUIREMENTS

The seedlings need LIGHT and the proper degree of light. You are attempting to imitate a bright sunny day, indoors, in the middle of March! Windowsills in North Idaho in March don't provide adequate light.

There are two critical measurements of lighting to be aware of;

*Lumens are a measurement of the brightness of the lights being used (like comparing a candle to a searchlight).

*Kelvin is a measurement of the color of the lights being used (like comparing a cloudy day to a bright, sunny day).

In my experience, the best "recipe" of lumens and kelvin is

5000 to 6500 kelvin and 2900 to 3500 lumens.

This is readily available in a 4' fluorescent light tube and a LED 4' shop light.

The seedlings require approximately 14 to 18 hours of light daily. An automatic timer is very helpful.

TRAYS, CONTAINERS, DOMES

A waterproof tray is needed to place the seed starting containers in. Deli trays are a good resource, as are the rotisserie chicken packs because they have lids.

The possibilities are endless for seed starting containers. You can purchase small plastic pony packs, re-purpose yogurt containers, use small paper cups, Jiffy peat seed starters, etc.....

*Any container must bottom holes for drainage.

Domes are needed to create humidity. Plastic wrap over the tray is acceptable. You can also purchase clear domes.

One of the best options is to buy the seed starting kits. They include the waterproof tray, the tray to fill with seed starting mix and a dome. Some also include the heat mat.

*An important note

It is best to start the different vegetables in their own trays. Tomatoes germinate days earlier than peppers, so the light, heat and humidity requirements are different. If they are all in the same tray, problems arise.

MAKING THE MOVE TO A LARGER POT (TRANSPLANTING)

Generally, when your seedlings have two sets of true leaves, it will be necessary to move them into a larger pot. True leaves resemble leaves of the plant you are growing, not the initial “seed leaves” which emerge first. They will quickly outgrow their starting containers. A 3” to 4” pot works best. If you have ever repotted a house plant, the same reasoning applies here. Now is the time to use a good potting soil and remember to moisten the soil with warm water before use. At this time, you can supplement with a water-soluble fertilizer. Keep in mind these are baby plants and most importantly, *more is not better* regarding fertilizer. I use ¼ strength and use lukewarm water, not cold.

HARDENING OFF

By now your little seedlings are plants! When they have developed 5 true leaves, it is time to ease them into the outdoors. This process is necessary and takes a bit of time.

Move your seedlings outside into a shady sheltered spot for a few hours the first day, and then each day thereafter leave them out for a longer period. You start out by putting them in the shade, then filtered shade and finally into the sunlight over a period of about 2 weeks.

I call the process of taking them out and back in, THE PLANT PARADE.

There is never a marching band or clowns, but you could turn up your radio.

PLANTING ADVICE

I have found it beneficial to wait for 2 or 3 cloudy days when planting the garden. It is hard on the plants when they are planted on a hot sunny day.

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