## Indoor Seed Starting

by Rick Stone



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## WELCOME GARDEN FRIEND

I have created this e-book just for you to help you in your vegetable gardening journey. I want you to be able to affordably grow your own organic food.

After reading this step-by-step guide you will learn how important seed starting can be to your vegetable garden success.

Happy Gardening Lick Stone

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#### Why Should you Start your own Seeds?

After a few years of gardening, most new gardeners start thinking about growing their own transplants or seedlings.

It is just a natural progression in a gardener's journey to want to start raising your own seedlings. There are several advantages to growing your own seedlings.

We started to learn about seed starting mainly because we knew it would save us money from buying so many starts at the beginning of our garden season. We also began to see that our local garden nurseries didn't have the varieties we wanted nor did they have the starts in their stores when we needed them.



## ADVANTAGES OF SEED STARTING



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#### **Cost Savings**

Buying hundreds of transplants for your garden can quickly become pretty expensive. For our small garden alone we average between 450 to 500 transplants a year. Even if you only assume \$1 a transplant that cost can add up pretty quickly! After the initial investment in a few supplies, the ongoing costs related to seed starting are pretty small. Most years you will only need to buy soil and some fertilizer. This will be a huge savings for you going forward!

## 2

#### **More Varieties**

There are literally hundreds of varieties of tomatoes you can grow. But if you look at your local nursery the selection is normally limited to maybe 10 or 15 varieties. The same can be said for almost every vegetable out there. If you know how to grow your own seedlings a huge world of variety opens up to you. This lets you grow unique and fun varieties that you could never get from the local stores!

## 3

#### **Better Timing**

Having to be reliant on commercial growers to get you your starts can be a pain. For example, I love getting 2 or 3 of my favorite tomato varieties planted out early using water-filled cloches called Walls O Water. These clever devices let you get planted up to 6 weeks early. Commercial growers are not ready for this and that means I won't have tomatoes to plant out early unless I grow the transplants myself.

The same thing happens in the fall when I would like to be planting broccoli, cabbage, and other related crops. Most people are done gardening in the fall so it is hard to find transplants from commercial growers. So instead I have to grow them myself!





#### **Basic Seed Starting Supplies**

There are a lot of complicated methods for starting seedlings. Really all the different methods come down to just 6 simple things. These basic supplies are easy to find and are not very expensive either.

All of the other supplies like heat mats, timers, soil blocks, peat pots, etc can help but all you really need is a container, soil, and light.



### SEED STARTING SUPPLIES



#### **ESSENTIAL**

- Seeds
- Pots
- Seedling Soil Mix
- Plant Trays
- Organic liquid fertilizer
- A spray bottle
- Plastic Wrap
- Lights

#### **OPTIONAL**

- Heat Mats
- Timer
- Plant Tags
- Grow Light
- Soil Block Maker









#### **Seed Starting Containers**

You can start seeds in just about anything that can hold some dirt and has holes cut in it for drainage.

Over the years we have accumulated a big stack of seed starting containers and have used them all with varying success.

There are a few basic requirements for the containers you will be using to start your seedlings.

### **CONTAINER TIPS**







#### **Food Safe**

The first important thing to remember about containers is that they should be food safe. So if you are using recycled containers be sure they were used for food in their first life. You don't want to be using containers that used to have oils, chemicals, solvents, cleaners, pesticides, or herbicides.

#### **Flexible**

I prefer to use containers that are made either from thin food-grade plastics or paper or cardboard. The container needs to have a little flexibility to allow you to easily remove the seedlings when it is time to transplant them out into the garden. Containers like tin cans are food safe but can be very hard to get the seedlings out of when the time comes.

#### **Drainage**

The most important part of any seed starting container is drainage holes. Your container must be able to drain! There need to be holes in the bottom of the container that will allow excess water to drain off. If the water doesn't drain then it will build up in the bottom of the container creating a boggy mess that fosters diseases, root rot, and lack of oxygen. All of these conditions will harm or even kill your new seedlings.

#### **FAVORITE CONTAINTERS**

There are many recycled options you can use to start seedlings but my favorite containers to use are those that were intended for growing seedlings in the first place.

Commercial seedling containers are designed to grow seedlings. They are made of soft plastic so it is easy to get your fully grown seedlings out of the pots. They have holes in the bottom allowing for both drainage and for bottom watering. They are made from durable materials and with proper handling they will last for many years. I have been using the same containers for more than 10 years now and they are just now starting to show signs of giving out.

I love these 4 cell pack containers for smaller plants that will only be indoors for 4 to 6 weeks. For larger plants that will be indoors for longer periods, I use 2.5-inch containers. Both types can be recycled for many years.

You can also buy seed starting trays to hold your seedling pots. I put all of my seed starting pots into a larger plant seed tray that holds water. Another great idea that I use is a boot mat tray. I just set my seed pots into this tray and it has been working well and does hold water.





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#### **Seed Starting Soil**

The easiest way to get started growing your own seedlings is to just buy a good quality seedling mix from your local garden store. I prefer to grow all my veggie plants in a nice store-bought organic mix.

Look for a mix that is mostly peat moss with just a little compost and some perlite or vermiculite. I also try to use a mix that is sterile because those mixes tend to prevent the fungal infection "dampening off".

You do not need to buy seed starting mixes that contain fertilizer. Seeds have all the nutrients in them that they need for the first few weeks of life. Later you will want to add some organic liquid fertilizer to your water to give the growing plants the nutrients they need.

Never use soil directly from your garden to start seedlings. Garden soil very quickly becomes compact and hard when placed in a container. Using garden soil also increases your chances of bringing diseases or pests into your seed starting operation.

Also, be sure to choose a mix that is meant for seedlings. Many "potting mixes" are meant to be used in larger containers for more mature plants. Potting mixes will contain too many rough/large materials and too much compost and fertilizers. I have also found that most of these mixes are not sterile and almost always bring in pests like whiteflies or aphids.



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#### Seed Starting Lights

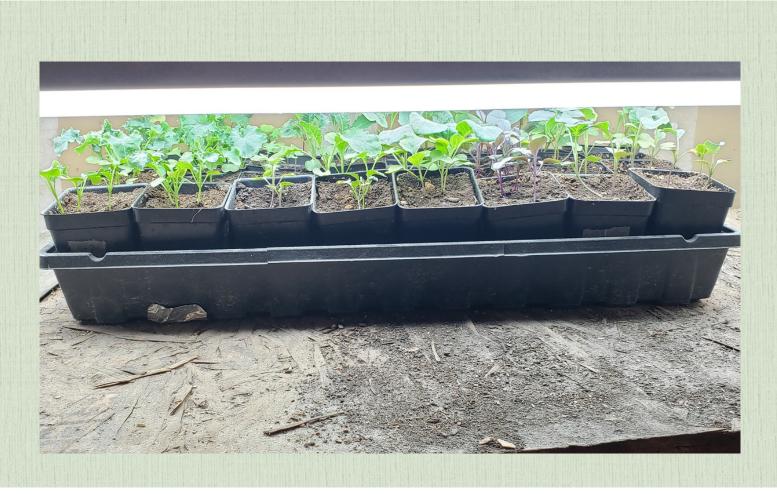
In order to be successful at starting seedlings, I think you need a nice 2 bulb fluorescent or LED light. Some people start their seedlings in a south-facing window with direct sunlight, but I've always been disappointed with the results of window-started seedlings.

Instead, run to your local home improvement store and buy a simple 2 bulb "shop light". They usually cost around \$25 including bulbs. Don't bother buying expensive grow light bulbs. Instead, just get a couple of cool white fluorescent bulbs and you will be good. LED shop lights are also becoming more popular and will work nicely for seed starting as well.

The more lights you have the more seedlings you can grow. So if you have space to hang 2 shop lights side by side you can get more seedlings growing. Or if you are crazy like me and grow a million starts a year then you can have 4 or more lights.

The most important part of lighting when starting seedlings is that you need to have the ability to get the lights very close (within an inch) of your seedlings. And then you need to be able to adjust those lights up and down. Keep the light about 1 inch from the tops of the seedlings as they grow.

So find a spot where you can hang the light with an adjustable chain or rope. I specifically built a seed starting shelf that I put all my seedlings on. However, you don't need anything fancy, you just need a place to hang the shop lights and put the seeds on a table or counter. It is nice to have a timer to help with the hours of light needed for your seeds, but it isn't necessary since you can set an alarm on your phone as well.







#### 9 Steps to Starting Seedlings

Now that you know that seed starting really isn't that complicated are you ready to get started? It is so easy to do and will make you feel so good that you grew your own starts this year.

So let's get into some more details about how to start seeds indoors. Here is a simple step-by-step guide you can easily follow to get your seeds started.

#### **STEP 1-Find Seed Containers**

Find some seed starting containers that have good drainage holes. Make sure the containers are clean and disinfected. Put your seed starting pots in a sturdy plant tray that will hold water.

#### STEP 2- Add Soil

Fill the containers with premoistened soil nearly to the top. If you don't add moisture to the soil before you put it in the containers you will have a hard time keeping the soil moist later on.

After filling containers with the soil press it down just slightly. You don't want to pack it down super tight as this can affect root growth.

#### STEP 3- Label Seed Pots

This is an important step to remember with seed starting because if you're like me 2 seconds after you plant the seeds you forget what seeds you planted in which pots. I usually just put tape on my containers with the name of the plant. You can also use some popsicle sticks that you can write on and stick in the soil and reuse them year after year.







#### STEP 4-Plant the Seeds

I simply place the seeds on top of the moist soil medium. I then add the prescribed amount of soil on top of the seeds and moisten lightly again with a spray bottle. Sow seeds at the right depth. You can find the right depth on the back of your seed packet. However, as a rule of thumb plant your seeds 2 to 3 times as deep as the seed is wide. Once you plant your seeds get them right under the lights.



#### STEP 5- Heat Mat (optional)

A heat mat is also a good addition to your seed starting operation Although you don't have to have one, they do help speed germination along. The heat mat warms your soil and makes the seeds germinate faster. Once the seeds have germinated be sure to remove the heat mat, leaving the heat on can cause your seedlings to get leggy. The first couple of seasons that I grew seedlings I didn't have a heat mat or have them on anything warm and things were fine. Heat Mats cost about \$15 to \$30 depending on the size.

#### **STEP 6- Add Humidity**

After planting your seeds put a layer of plastic wrap over the top of the containers, this keeps the humidity up. I take the plastic off as soon as the seeds start germinating. You can also use a plastic dome or humidity dome but I don't particularly like them and since plastic wrap works just as well, why waste the money.

#### STEP 7-Watering your Seeds

Be sure to keep the soil moist but not soaking wet. I usually use a spray bottle full of water to keep the surface of the soil moist until the seedlings have their first sets of true leaves.

Once the plants are established I will start watering from the bottom. As the plants get bigger their water needs will grow and you don't want to be pouring water on the tops of the plants. Instead, keep the plant pots in a watertight tray and add about an inch of water to the tray.

That water will then soak up through the drainage holes in the pots and gently water your plants. Plan on watering the plants about every 3 or 4 days as they grow.

#### STEP 8- Give your Seeds Light

Keep that light about 1 inch from the tops of the plants. You will want to run the light for 14 to 16 hours per day.





In 6 to 8 weeks your seedlings will be ready to plant outdoors in the garden! These rules apply to most veggies and flowers. Take a look at your seed packages before planting to be sure your seeds don't need any special treatment.

Before you move your seedlings outdoors to their permanent location you need to harden them off first. Hardening means slowly introducing your seedlings to outdoor conditions over the course of 7 to 10 days.



#### **Additional Resources**

#### Seed Starting Simplified Video Course

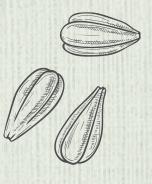
- Full-Length Video Course
- Step-by-Step Seed Starting Guide
- Start Seeds like a Pro
- Special offer for reading ebook
- Save \$15 buy the course for only \$35

You can sign up for the course for only \$35.00 using the link below: <a href="https://onlinegardeningschool.com/p/seed-starting-simplified?">https://onlinegardeningschool.com/p/seed-starting-simplified?</a>
<a href="coupon\_code=SSS-EBOOK-35">coupon\_code=SSS-EBOOK-35</a>

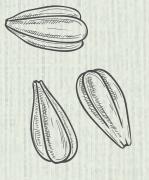
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## FAVORITE VEGETABLE SEEDS TO START INDOORS



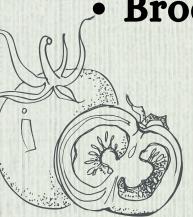
You can start almost any seeds indoors. I would recommend that you avoid planting root crops indoors. Plants like carrots, radish, beets, turnips, and parsnips do not transplant well and are better planted directly in the garden.

Some of my favorite vegetable seeds to start indoors include:

- Lettuce
- Herbs
- Peppers
- Tomatoes
- Broccoli

- Cabbage
- Kale
- Cauliflower
- Marigolds







#### **FAVORITE SEED CATALOGS/WEBSITES**

Over the years I have bought seeds from many different sources, below is a list of my favorite catalogs and websites

#### Catalogs

- Territorial Seeds
- Baker Creek Seeds
- Johnny's seeds
- Burpee Seeds

#### Websites

- True Leaf Market Place (Mt. Valley Seeds)
- MI Gardener
- Seeds for Generations
- Honest Seed Company

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