



SOIL  
PREPARATION



STARTING SEED  
STARTING



GERMINATION



THINNING

# HOPE GARDENS GUIDE TO SEED STARTING



## Begin at the beginning

When it comes to organic food, everyone wants control. Control over their food, yes. But also a choice in their food's heritage, who produces it, how it is transported, who profits, what chemicals are used, how it is watered, how is it modified, how the workers are treated and on and on. Finally, in the end, we want our food to be delicious, nutritious and safe.

"Don't judge each day by the harvest you reap but by the seeds that you plant." Robert Louis Stevenson

# Germinate your own

In the end, is it enough to just *grow* your own? Maybe you should be *germinating* your own?

And listen, you don't need to do it for some high-falutin' ethical reason or to impress your friends. You can do it just BECAUSE.

I care deeply about organicness. My greatest joy is working with kids in the garden and I want them to be able to eat unwashed plants right from the bed. That's the level of organic I want to plan for. But that's not why I grow my own seedlings. No.

*I am just crazy about planting seeds.* The catalogs ALONE could make anyone swoon. The names of the seeds, their historical anecdotes, the photos bursting with hope. The seed packets in your hand. The little seed. The big seed. The rough. The smooth. Bean seeds that look just like...beans. The seeds so tiny you can't be trusted to hold it in the palm of your hand without losing it.

I love the clean table, the bleached pots, the fresh soil, the blank tags. The promise. The newness. Everything pregnant with life.



Who doesn't love to see that little tendril of life coming out of the soil? Sooooo rewarding.

Like most things gardening, there's a lot to know. But with a little work, you can set up a seed starting station in your own house. Control your food supply, define organic for you and watch your babies grow.

**"Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have a seed there, and I am prepared to expect wonders."**

**— Henry David Thoreau**

*Seed companies are a garden nerd's best friend. Check these out or discover your own source.*



**Baker Creek Heirloom Seeds** <http://www.rareseeds.com/>

**Territorial Seeds** <http://www.territoralseed.com/>

**Johnny's Seeds** <http://www.johnnyseeds.com/>



“SEEDS HAVE THE POWER TO PRESERVE SPECIES, TO ENHANCE CULTURAL AS WELL AS GENETIC DIVERSITY, TO COUNTER ECONOMIC MONOPOLY AND TO CHECK THE ADVANCE OF CONFORMITY ON ALL ITS MANY FRONTS.”

MICHAEL POLLAN

## Soil Prep

To say soil is important is an understatement. You need clean, fine soil. This is not the time for compost. An organic potting mix like Edna's Best or Black Gold is my choice. Mix your potting soil in a tub with 2/3 soil, 1/3 perlite. You do NOT have to add fertilizer at this point. WATER YOUR POTTING MIX. I get it almost soaking wet and let it sit for a half hour or longer. This is a good time to obsess over your seed packets, make your seed tags and start your gardening journal.

Once the soil is fluffy and moist I either make cubes with my fancy schmany cuber aka soil blocker or I start them in 4" pots. There are many cool ways to start seeds like ice cube trays and egg shells but I have found, for those short on time, planting seeds directly into a 4" pot buys you A LOT of time. The plant doesn't outgrow its home too quickly and the container stays moist longer. Meaning less watering and less transplanting.

Let's get started! Fill a square tray with clean containers. To re-use containers I soak them in a few gallons of water with 1/2 cup



of bleach for a few minutes, then rinse and let them dry. Do the same with your scissors, shears, trowels to keep disease at bay.

## More Organic Seed Resources



Botanical Interests <https://www.botanicalinterests.com/>

Renee's Garden <https://www.reneesgarden.com/>

Seed Savers Exchange <http://www.seedsavers.org/>



BEFORE



AFTER

## Starting Seed Starting

Get out your seeds, gloves if you like, labels and Sharpie. I love my little widger which you see in the photo above. It can help you rescue seeds in case you accidentally drop all your seeds out of the envelope and into a single pot. Not that that has ever happened to me.

Fill your 4" container 2/3 full of your soil and pack the soil down. Here's the thing about soil density. We made a nice fluffy soil only to pack it down? Right? I know...well there's a good reason. Seeds need to make DIRECT CONTACT with the soil so I don't want them falling into an abyss of fluffy soil only to be caught in a tiny air pocket and then not germinate. So I pack down a firm little bed for my seeds. And then when I carefully place the seeds on top I can see them clearly and know just how many I have put in and where. A slightly looser handful of soil goes on top. For smaller seeds, 1" -1/2" of soil. For larger seeds 1"-2" of soil. Press the soil down on top so makes contact with the soil. Label your seedling. When your tray is complete, give it a very gentle watering and let it drain.



***Label everything. I put the name of the plant, the seed company and the date on the tag. Label stuff religiously.***

### SIZE MATTERS

The bigger the seed, the less seeds you use. Per 4" pot, I use 2-3 large seeds (beans, peas), 3-5 medium seeds (beets, chard) and a sprinkle (8-10) of tiny seeds (lettuce, kale). The exception are plants I know that grow bigger (broccoli, carrots). Those I treat like medium seeds. Don't worry too much. It can all get fixed in post: the thinning process. Visit your seedlings often. Before you know it you will have given birth and you don't want to miss it! Write down your plants birth dates in your journal. Track their progress through first sight, first leaves and true leaves.



## Seed Germination

Different seeds of different plants have different needs. This down and dirty seed starting guide does not cover every seed known to woman. The renegade seeds that need stratification or soaking or some other coddling are not discussed here. We are talking about prepared seeds. We will tackle seed collection a tiny bit at the end but know this is just the beginning of your journey into seed starting!

I love seeds. In fact, Hope Gardens is all just a front for my desire to purchase seeds. This here is my seed storage unit.



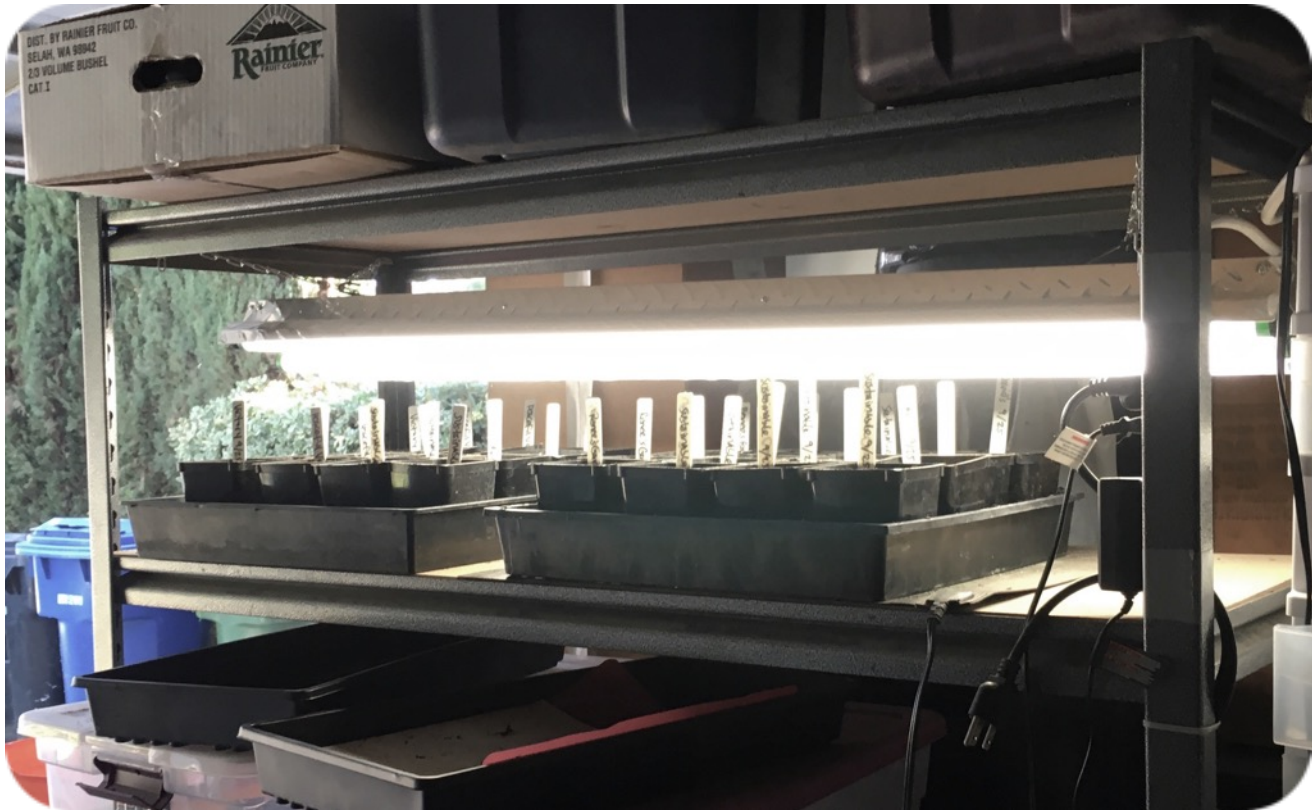
Different seeds of different plants last for different periods of time. I try to throw away my old seed packets pretty regularly. It's the right thing to do. When in doubt? Do what you are doing today. Plant a small sample and see how they do! (This is why we want to keep meticulous records.)

The only seeds I almost never start ahead of time are peas, beans and radishes. They germinate quickly when planted directly into the garden. Onions, garlic and shallots are home grown by bulb rather than seed. A bulb is like a year old seed which is a nice head start on the project. Potatoes are grown by tuber. There's an entirely different blog for that! You will figure out over time what is easy to get going and what is not worth it. A seed packet is a pretty cheap investment in your education.

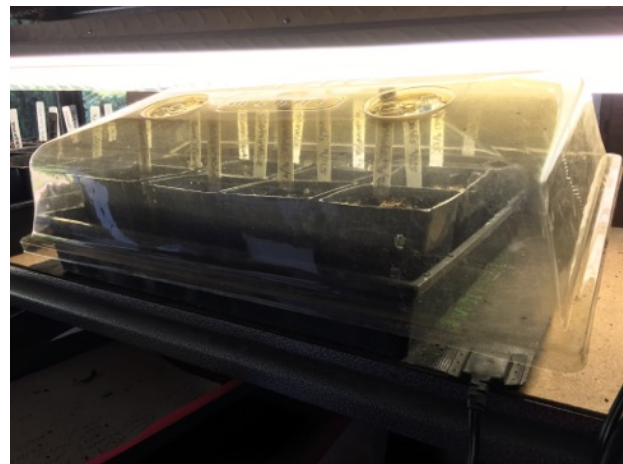
Now you can plant your seeds in pots and stick them outside in temperate weather or you can be a bad ass and grow them indoors!

I have a heating mat that is such a wonderful tool. Many seeds germinate by heat rather than light. Now when they do finally pop their head out of the seed they are going to want light immediately but it is heat that really lights their germinating fire.

# GROW LIGHTS



I give you this really lovely photo of my grow lights to show you you don't have to be fancy to be a bad-ass seed starter. Nothing pretty about this. Utility shelving is standard. The fluorescent light stand and bulbs are cheap-ish. We got some chain and s-hooks to install it on the shelf (the shelf already has places for hooks. See insert shot below). We taped a surge protector on the frame to plug it all into. And my handy dandy heat mat sits under my seeds until they germinate. I also move my flats around to rotate the light they receive. I need to pull my flats out every couple days to water them. If your flats are drying out quickly, you can also cover your flat with a dome.





# Thinning



“The tiny seed knew that in order to grow, it needed to be dropped in dirt, covered in darkness, struggle to reach the light.”

— Sandra Kring

Once a seedling emerges, the tiny stalk has 2 leaves. The technical name for these are “God’s Little Angel Wings.” No that’s not it. They are called “cotyledons” and are actually part of the seed! The next set of leaves are called true leaves. Once these leaves mature you can consider fertilizing your plant, hardening it off or transplanting it. We are planting in 4” pots so we don’t have to worry about transplanting. What we are looking for is a strong seedling.

Since you may get multiple seedlings in each pot, you may need to thin your seedlings. There are two different methods and as usual this all depends on the kind of vegetable you are dealing with.

In this photo to the right, we are looking at carrot seedlings. These need completely separated and replanted in their forever home. Seedlings that are small, broken or withered would be tossed. This would be true also of the seedlings of broccoli, tomato, onion, peppers, kale, beets, etc. The seedlings of lettuce can be left to grow in a tight circle for smaller plants or thinned out to allow them to become bigger. You can also thin out a plant by using snips to cut off too-small seedlings. That widger can be used to carefully dig out seedlings. The separated seedlings can be temporarily replanted in its own 4” pot or planted right into the ground.





## Success!

From seed to viable seedling! After gently separating our seedlings and choosing the best ones we plant them in the soil, giving them room to grow.

Below you can see the lettuce seedlings. They are too small to dump out and separate. Instead, the smallest seedlings can be cut off with snips (and eaten! Microgreens!) so each lettuce can have room to grow its own head, or you can let them all grow together into a small lettuce mound. Arugula does not need thinned. It can grow successfully very close to each other.

Many plants, like arugula, will happily give you their offspring seeds if are patient enough. The plant usually has to die completely and the seed pods need to dry out before the seeds should be removed. Sometimes these plant seeds like the pansies below will drop and re-seed right in your garden. I love that!



# happy seed planting!