

LETTUCES,  
GREENS, AND  
ANNUAL HERBS  
STARTING



BY WEARY STONE FARM

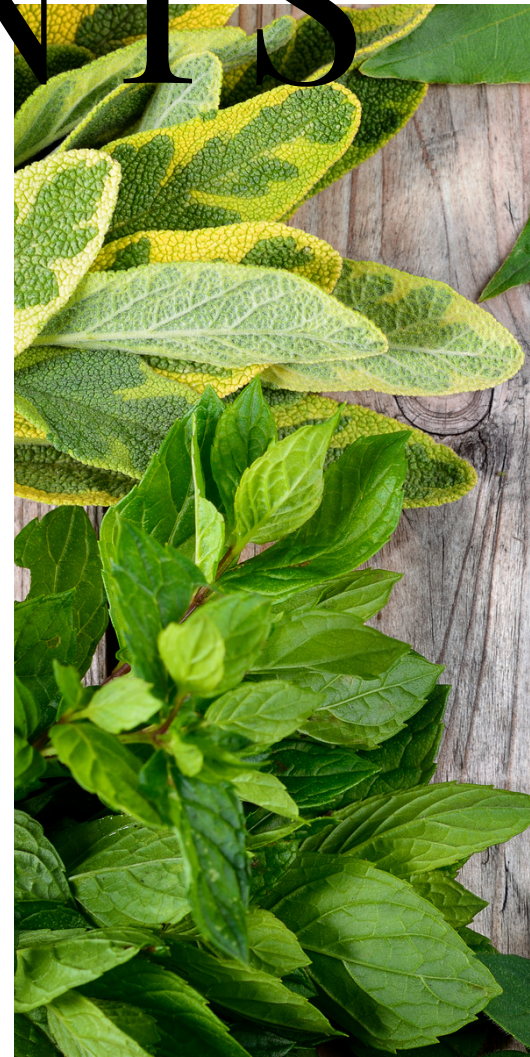
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# *Seeds & Soil* ABOUT



## Overview

A seed contains all the genetic material needed to create and grow the plant. I like to think of the seedling stage like infancy: It is the most fragile time of the life of the plant, and seedlings need a lot of attention and care as they grow into the transplant you will put in your garden. Temperature, moisture, and soil are key to transforming your seed into a healthy transplant.

## Garden Soil & Seedling Mix

You will start your seeds into a specially prepared seedling mix. Seeds need a loose medium that has good moisture holding capacity. You will also want to make sure there is a suitable space with good soil to plant your transplant out into once it is ready. Soil can take years to develop into a nice crumbly texture that has plenty of organic matter and air space for roots to spread out and absorb nutrients. If you don't already have a good garden bed or container to plant out into, consider how you will prep your space. You may need to set up a raised bed or other spot where you will put soil purchased from a retailer. Look for a soil mix that is specifically created for vegetables and fruits, often times they will be labeled "veggie soil blend" or something similar

# Seeds & Soil RECIPE



## Seedling Mix Recipe: About Ingredients and Measurements

The recipe we use at Weary Stone Farm is below. You can substitute compost for worm castings if you don't have a worm bin. Worm "castings" are the worm poop that is a byproduct of feeding worms food scraps in a worm bin. Sometimes it is sold as "black gold" or similar in nurseries and garden stores. Castings are high in nutrients and have a good loose texture. We used a store bought outdoor container soil mix for our soil part of the mix, you can use any crumbly soil. Do not add soil that is too clayey or sandy, it should be crumbly and loose but not sandy. Coconut coir is a byproduct of coconut production and comes in bricks of ground up coconut shell that are soaked in water until they expand into a moist, loose medium. Coconut coir is the moisture holding portion of your seedling mix, and we prefer it to peat moss. Peat moss is a non-renewable resource that takes thousands of years to build up in peat bogs, and it adds acidity to the soil which you generally don't want for veggie or fruit seedlings. We use any type of clean sand available, whether sold as "play sand", "paver sand" or another type, the main purpose is to allow for good drainage and as long as it's clean and not too fine it will work well.

### Recipe

Coconut coir (purchased at nurseries or garden stores): Four parts

Sand (any type will do as long as it is clean): Three parts

Soil: Three parts

Worm castings or compost: Two parts

# Water & Light ABOUT



## Light

In addition to being the right temperature for germination and growth, your seedlings need the right amount of water and light. A sunny window gives plenty of light for most seedlings, as long as moisture and temperature stay consistent. Some seeds can also be started under a cloche outdoors, or in a greenhouse. If your seedlings become "leggy", which means the stem is long but not thick enough to support the leaves, that means it is trying too hard to reach the light and it needs a light source closer to the leaves. In this case you can put it under a grow light or put it somewhere it will get sunlight on all sides. Cloches are just mini-greenhouses and can be made with hoops and clear plastic, large soda bottles or jars, or clear containers like berry containers placed in the sun.

## Water

Always keep the seed bed moist but not wet. You want the tiny seedlings to be able to easily push their way up through the soil mix as they germinate, so keeping the top moist and not crusted over is crucial. Once seeds have germinated and are beginning to grow, water from the bottom by placing a shallow tray with water underneath your seedling container. Keep the top misted as well, but make sure you're not getting the seedlings too soaked. As the roots develop they need more water than can be given by just misting, but watering from the top will drown and displace the fragile seedlings, which is why we like to water from the bottom.

# Tips & Troubleshooting ABOUT



## Temperature

You want to keep temperatures as consistent as possible while your seeds are germinating and seedlings are growing into transplants. The cool weather seedlings can handle temperatures below 50 Fahrenheit at night, but the warm weather seedlings should be kept above 50 at night, and ideally not below 60. This is difficult without a heated greenhouse or space in your home that has plenty of light. If you have space, you can use any type of tube light, even if it isn't a grow light, as long as it is close enough to the top of your seedlings. A few inches or so above the seedlings or seedling tray works well, and you can hang the light from a chain and lift it as your seedlings grow. Once outdoor temperatures are warm enough for your crop you can place your seedlings outdoors for the light, especially during warmer days. Just make sure to bring them in if it will be a cold night.

## Damping Off

Damping off is a disease of seedlings that occurs usually when conditions are too wet or cool. Once you see a seedling that is damping off, just pull it and toss it in your compost. I've found that the amount of work it takes to try and rescue seedlings that aren't doing well just isn't worth it, and since I always start more seeds than I can use I prefer to let go of the ones that don't do well and keep things moving. You will recognize a seedling that is damping off by looking at the stem at the soil level. It will be thin and browning, and often the seedling is drooped over rather than standing up. Let these go and focus your energy on the seedlings that are healthy and strong, they will be your best plants for transplant and harvest in the long run.

# *Seeds & Seasons* ABOUT



## Seasons

For the purposes of sowing and growing food crops we think of four seasons: Cold, cool, warm, and hot. These seasons are from Nicole Johnsey Burke's Gardenary system and based on average high temperatures. Cold season has an average high temperature of 30°F, cool has average highs of between 35-65°F with frost or snow likely, warm has average highs between 65° and 85° with no chance of frost, and hot has average highs of at least 85° with no chance of cold.

Here in West Seattle we can grow year round, although most of our year fits into either the warm or hot season. December and January can get to the cold season but often stay in the cool range, while July, August and September can get into the hot range but generally stay within the warm range. Of course as average global temperatures continue to increase, we may see more time during our year get into the hot range. Crops like kale, cress, and cilantro do well during cool season. Crops like dill and basil need higher temperatures and do better during the warm season. A helpful exercise is to list the months of the year and fill in the average temperature for each, and this will help you plan your sowing calendar.

# *from Sowing to Harvest* COOL SEASON CROPS



## Getting from Seedling to Transplant

The cool season crops you planted at our class on April 24 were watercress, kale, and cilantro. All of these are relatively easy to grow from seed and should germinate in the next week or two. The watercress is the slowest to germinate, while the cilantro will emerge fairly quickly. If you see any signs of damping off, move to a spot with more light and good air flow, remove the seedlings that won't make it, and assure that your soil isn't too wet. If so, you can allow it to dry out a bit before watering them again. The nice thing about starting the cool season crops this time of year is they can be kept outside all day and night. Simply keep them on a table or chair that won't be disturbed by any animals. Covering overnight isn't necessary but can help germination. Warmth will help the seeds germinate faster, but isn't necessary by this time of year for these seeds.

## Transplanting

Once your seedlings have two-four sets of true leaves, you can harden them off if they've been inside, or simply transplant into their permanent home if you've had them outside. If you've been covering them at night give them a few nights without the cover before planting out into the garden. On the day of transplant, water them in the morning and transplant after 3 pm. This helps prevent transplant shock. Handle the plants gently by the stem, close to the soil line, or by the root ball. You can tap the container lightly to get it out, or if you used egg cartons, simply break open the paper a bit as you place the transplant in the soil. You can place them about 8-12" apart.



# *from Sowing to Harvest* COOL SEASON CROPS



## Getting from Transplant to Harvest

Once your crops are transplanted into their permanent home, keep them weeded and watered regularly. Check on them a few times a week, preferably every day, especially right after they are transplanted. That way you can troubleshoot sooner rather than later if they are getting too much or too little water, or being attacked by slugs or other critters. Slugs can be picked by hand and put in your city yard waste, or you can use traps or barriers.

## Water

Water deeply once per week, ideally before 10 am. Watering deeply helps the roots stretch out and grow deeper into the soil, making the plant stronger as it grows. Watering in the morning helps the plant stay free of disease, as our cool cloudy weather can be a problem for some crops. With greens and herbs it isn't as important, but it's a good rule of thumb for our climate.

## Light

The cool season crops need minimum of 4 hours of sunlight per day.

## Harvest

All these herbs and greens are "cut and come again", which means you can cut the older leaves first and keep harvesting until the plant has exhausted its energy at the end of summer. The cilantro can bolt easily once temperatures reach the 70s, which means it will flower and go to seed. You can collect the seed and start over if you wish. If you decide to do this in the summertime, find a cool spot (some shade is ok) to keep it from bolting too quickly.

# WARM

*from Sowing to Harvest*

## SEASON CROPS



### Getting from Seedling to Transplant

The warm season crops you planted at our class on April 24 were basil and dill. Dill is fairly fast growing and easy to start from seed, while basil is a bit more delicate. The basil is very sensitive to temperature fluctuations and likes to stay warm. Once it germinates you will want to keep it from getting too wet, as our cool nights combined with wet soil can kill the tiny seedlings pretty quickly. Favor a little dryness if it looks like there will be a cool spell while your basil seedlings are growing into transplants.

### Transplanting

Once your seedlings have two-four sets of true leaves, you can harden them off. Begin hardening off by putting the transplants outside on a warm day for a few hours, adding time every day for 3-4 days until they are out all day. Then you can bring them in only at night for a day or two, and once temperatures are at least 50° at night. Basil gets planted out into the garden at the same time as tomatoes. Basil is fast growing once it's warm, so there is no need to rush transplanting it. The dill and basil can also be planted about 8-12" apart.

# WARM

*from Sowing to Harvest*

## SEASON CROPS



### Getting from Transplant to Harvest

Once your crops are transplanted into their permanent home, keep them weeded and watered regularly. Check on them a few times a week, preferably every day, especially right after they are transplanted. That way you can troubleshoot sooner rather than later if they are getting too much or too little water, or being attacked by slugs or other critters. Slugs can be picked by hand and put in your city yard waste, or you can use traps or barriers.

### Water

Water deeply once per week, ideally before 10 am. Watering deeply helps the roots stretch out and grow deeper into the soil, making the plant stronger as it grows. Watering in the morning helps the plant stay free of disease, as our cool cloudy weather can be a problem for some crops. With greens and herbs it isn't as important, but it's a good rule of thumb for our climate.

### Light

The cool season crops need minimum of 6 hours of sunlight per day.

### Harvest

Basil needs to be kept well trimmed in order to produce sweet tasting leaves. Don't let it flower else it becomes bitter. Be sure also that your basil has plenty of air circulation. It favors warm dry weather, and if it has lots of light, air, and plenty of moisture it will produce well. Dill is fairly carefree will reseed readily, so be aware if you don't want lots of it in your garden.

# RESOURCES



Master Gardeners of King County List of Gardening Websites

[WSU LINK](#)



Master Gardeners of King County List of Gardening Publications

[WSU LINK](#)



Master Gardeners of King County Growing Herbs Tipsheet

[WSU LINK](#)



Master Gardeners of King County Container Gardening Tipsheet

[WSU LINK](#)



We can't wait to see your harvest! Don't hesitate to contact us for troubleshooting help and questions.

## C O N T A C T

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