

## SEED STARTING BASICS-2023

### **The reasons to start seeds are many:**

- To have starts available on YOUR schedule
- To have varieties that aren't available locally
- To avoid bringing in pests and diseases
- To have big, healthy starts
- To save money
- To continue the chain of saving seeds
- To have the satisfaction of doing it yourself and being self-reliant

### **Types of seeds:**

Hybrid (F-1)  
Open-Pollinated (OP)  
Heirloom

### **First, gather your tools:**

#### **Must haves:**

- Containers (to start the seeds in) I prefer germination trays for many seeds to start them in. Then transplant them up to next bigger size pots
- "Soil" (can be seed starting soil or I prefer **Moonshine from Agua Fria Nursery**)
- Small watering can/jug/bottle
- Misting bottle-use with chamomile tea (1 bag/1qt water)
- Plant labels
- Black sharpies, silver sharpie, garden marker
- Mild fertilizer (Vit B-1 mixed with liquid seaweed when plants newly germinated)
- Fish fertilizer+ seaweed-for after plants are transplanted but not while transplanting
- Seeds

### **Nice-to-have to start inside:**

-Lights-you can do this in a window *IF* you have a bright enough one (most aren't), so **lights are a most have.**

-**For COOL season crops inside**-they need light but NO HEAT

-**For WARM season crops inside**-they need light AND bottom heat

-Thermostat to control temperature of heat mat

-A cover for the tray to keep it moist (plastic wrap works great and it's cheap-take off once they sprout)

-Timer for the lights-nice to have!

.-Cold frame outside for hardening off

**A note about lights:** Most windows don't provide enough light. Large, south-facing ones might. If you start to see legginess (elongated stems between each set of leaves), that's a sign they're not getting enough light. In that case, use full spectrum fluorescent lights. The best suited fluorescent lighting to grow plants indoors are actually **T5 and T8 lighting fixtures**. Keep the lights just **2 or 3 inches above the tops of the seedlings**, and leave them on for 16 hours each day. When fluorescents are farther away, the energy reaching the plants is reduced, and the seedlings will stretch toward the light and become weak-stemmed.

Hang the lights 3 inches above the seedlings' leaves and raise in small increments as they grow.

### **Two rules to go by and you'll do well:**

1. Don't plant the seeds too deep: deep enough is twice as deep as the seed is big.
2. Don't let the seeds dry out: after germination, do let the top of the soil dry out, then let the dryness go progressively deeper as the seedlings get taller.

### **Planting Procedure:**

1. Fill containers with slightly moistened seed starting mix.

1. Plant seeds twice as deep as the seed is big. This means some seeds will be practically sitting on top of the seed starting mix with only a light dusting of mix sifted on top of them.

2. Label them. Do this immediately after sowing each type of seed or you WILL get them mixed up.
3. Bottom water until all seed starting mix is wet. If this doesn't happen after 24 hours, mist the top of the seed starting mix with your spray bottle until saturated, or use your watering can.
4. Keep warm and well watered and wait.
5. When germination has begun, place under lights if they aren't there already.
6. Once seedlings have their first set of true leaves, let top of soil dry out, but only the top. You can begin watering with a half- strength solution of fish emulsion and seaweed once a week.

7. Raise lights as needed, but only to one inch away from top of seedlings.

### **Repotting:**

1. If starting seedlings individually: wait until they are WELL rooted in their current pots, then lift the root ball out with a fork or knife and pot up into containers watering in with seaweed + Vit B1.
2. If starting seedlings in a communal pot: wait until the seedlings have at least one set of true leaves, lightly grasp by a leaf and lightly pull while pricking under the roots with a pointed object (small fork, tweezers, point of a knife, etc.). Transplant into an appropriately sized pot (small is better), and water in with half- strength seaweed. When well-rooted, pot up again according to the instructions above for individually grown seedlings.

### **Fertilizing: VIT B1/LIQUID SEAWEED/LIQUID FISH FERTILIZER**

Until the seedlings are good sized (a few inches tall and a few weeks old), only feed with half-strength fertilizer to avoid burning the seedlings.

**Hardening off:** Gradually getting the seedlings used to outdoor conditions. This takes a week or so.

1. Put outside in morning sun for a couple of hours every day, gradually leaving them out longer each day, until they can stay out all day and night.
2. If you can't bring them in and out so often, build a cold frame or use floating row cover - put the seedlings in the cold frame or under the row cover in the morning, then bring them in at night.