

Starting your Seeds in the Spring

By B.J. Miller, Happy Leaf LED

Seed starting can be surprisingly easy and having the right knowledge can take a lot of the guesswork and frustration out of the process.

Let's get some basic light info out of the way before we delve into the process of seed starting.

A lot of people are still using fluorescent lights for seed starting because that was all that was really available to us as homeowners. This is usually fine because seeds require lower light intensity for germination and fluorescent lights can be sufficient for this stage of plant growth. However, problems can occur once the plants have germinated and start growing on their merry way but now do not have the light quality to grow strong stems and healthy green leaves. They start to stretch looking for better quality and intensity of light. But, fluorescent lights have done the job for years before LED's started to make their way to the stage front, so grow with what tools you already have.

Growing seeds in a sunny window often fails to produce high quality seedlings because the number of hours of sunlight they receive is lacking. This can be due to home or landscape shadows, cloudy days or the short days of winter even if the window is south facing. Seeds and seedlings like to have at least 12 hours of quality light per day. Most window sills aren't providing the duration of light necessary.

Now that we have identified one of the major issues that seed starters have, let's talk about how to set yourself up for success!

When should you start your seeds? Follow the directions on the seed packet because some seeds take longer than others. For example, it is usually recommended that peppers are started 7-8 weeks before you want to plant them whereas broccoli will only need 3-4 weeks. These are good guidelines to follow. I will tell you that when I converted from fluorescent lights to Happy Leaf lights, I was able to reduce the number of days it took to get my plants ready for the garden. In any case, be careful not to get over-excited to get your seeds started too early, resulting in plants that are ready to be planted in your garden much too early in the season.

Here is a quick and dirty how-to and tips of seed starting at home.

1. Make sure you use high quality seeds for the best germination. I have been known to pull out some old seeds to use them up but I go into it knowing that they may not all germinate.
2. You can use a wide variety of containers to germinate in. There are trays made specifically for the act of sowing seeds but you can use almost any sterile

pot/jar/cup/egg carton/greenhouse flat/tray. Do not choose something too large. Too much soil matter tends to hold too much water and makes watering more challenging.

3. Most seeds will germinate at temperatures between 65 and 75 degrees although plants like peppers, eggplant and tomatoes would prefer 70-80 and cool crops like lettuce and parsley will do well with 60-70 and even less. You can use a seed mat with a thermostat to boost the temperature if need be. It may help to accelerate germination but isn't necessary for most crops. Most homes are in the acceptable range.
4. Seeds tend to germinate better when using a soilless mix specifically for that purpose. They are usually labeled "Germination Mix" or "Seed Starting Mix". These formulations have much finer particles and make it easier for baby roots and shoots to move and grow through the media.
5. Know that some seeds need light and some seeds need dark to germinate. Most seed packets will tell you this in the form of how deep to plant the seed. It is generally safe to say that you should plant the seed three times as deep as the seed is wide. This means that bigger spinach seeds can be planted deeper than teeny lettuce seeds which should barely be covered.
6. Moisten your soilless media (moist, not wet) before sowing your seeds.
7. Gently plant seed in your media at the depth recommended for that variety. Do not be tempted to over-seed. The seedlings need space, not competition.
8. Once your seed is planted properly, very gently tamp on the soil to remove unnecessary air space. This puts the seed in better contact with the moist soil. Use a spray bottle to settle the soil and water them in being very careful not to over water. You do not want water-logged soil at any point of the growing cycle.
9. Having said that, it is crucial that the seeds stay moist throughout germination process. If the seed dries out at any point during germination, you will halt the process.
10. Seeds are remarkable little nuggets of nature. They have packed away the energy that they need to sprout. You do not need to start using any fertilizer until germination is complete and they are in the seedling stage. At that point, you should start with a weak solution of fertilizer that can be strengthened as the plant grows and requires more nutrients.
11. Fluorescent lights need to be placed closer to the plants to provide enough light. Quality LED lights can be hung higher because they deliver a better spectrum and intensity. (Find more on what makes a good grow light on our website.) For Happy Leaf lights, we generally recommend 12-18" above the plants. Keep in mind that the higher you can hang the light, the better coverage you will have but the intensity of light is reduced the higher you hang it. (Happy Leaf lights provide about 5x the light as fluorescents for the same energy input.)

12. If your seeds get leggy, you do not have enough light or not enough quality light. Move your light closer (be careful not to be so close you burn the seedlings) or provide a better source of light and make sure you are getting complete coverage of your seedlings.
13. Air circulation is pretty important to keep stems strong and to avoid disease. This is not to say that you should blast them with a fan but it is something to consider.
14. Depending on what you planted in, you may need to transplant your seedlings to a larger container. Do this when roots have reached the edge of the container you germinated in. Transfer it to its larger home, being careful not to damage the tender shoots and roots and then gently water it in.

If you want to grow lettuce, herbs, or other leafy greens, I highly suggest trying out the Kratke method in canning jars. You can find information on this on our website. It is easy and practically fool-proof and you can be happily growing away all year long using this method.

I really like the using a baker's rack or wire storage shelf to grow plants on because it can hold a lot of plants in a small footprint of space. It also gives you the perfect set up to hang the lights!

Use the LED grow lights to start seeds in the spring and then to use the lights to grow food or other plants indoors for the other ten and a half months.