



Seed Starting 101

By Tammy Borden ©

I am continually amazed by the miracle of germination. The thought of a shriveled up seed, some the size of a grain of salt, eventually becoming a lush mass of blooming beauty never ceases to fascinate me.

While there are some basics to starting your own seeds, there is too much information than can be shared in this article. If you really want to get serious about starting seeds I suggest getting a book on plant propagation. While seed packets share important information on planting depth and germination time, there are often helpful hints that can be shared about specific cultivars that can make your plantings more successful.

For example: Did you know that morning glory and sweet pea seeds should NOT be handled with care? To help them germinate it's recommended that you scrape the seeds with sandpaper or even nick them with a knife. If that's not enough, it should be followed up by an overnight soak in lukewarm water before finally planting them in the soil. Stir in some eye of newt and you're done! Well, okay, maybe not that last part. But it's these types of specific instructions and tips that a good propagation book can offer.

Not all seeds require such techniques; in fact, most seeds are pretty straight forward. Here are some basics:

Materials and Supplies

- Seed starting mix (Generally, do not use regular potting soil. Seeds prefer a lighter mix to get started. Peat pellets are also an option.)
- Light (TIP: It's not necessary to spend a lot on expensive grow lights. Research has shown that a few bright standard fluorescent shop lights work just as well.)
- Seedling Containers/Trays (For large quantity plantings, start by seeding a large tray and transplanting the seedlings to individual cells later. If you're only planting a couple dozen plants you can plant in individual cells right away. TIP: Some plants like Nasturtium and Zinnia do not like to have their roots disturbed and prefer individual cells or peat pots, so check in your propagation book for the best method.)
- Clear Cover/Dome (If you don't get a clear "greenhouse" dome with your trays, simply use plastic wrap. The key is to let light in while keeping moisture in too.)
- Heating Mats (Specific heating mats for starting seeds are available, but expensive. TIP: I have had great success using an old electric blanket with a temperature control set low – just put a shower curtain between the blanket and seedlings to avoid getting it wet. I used a candy thermometer to monitor temperatures and kept the temperature around 70-75 degrees.)
- Plant Markers (TIP: Cut up mini blinds and a Sharpie work great. So do popsicle sticks and plastic knives.)

Getting Started:

1. Moisten your soil mix and place it in your choice of container. Mark each container with the plant name and date of planting.
2. Following the seed packet instructions, plant your seeds at the recommended depth. For some seeds like Impatiens, this just means pressing them onto the surface of the soil because they need light to germinate. For smaller seeds I generally plant 3-4 per cell. For larger seeds like Nasturtiums I only plant 1-2.
3. Cover the trays with a clear covering and place on top of your heat mat. Some seeds may not need as much heat to germinate, but some plants, like peppers, will struggle to break the ground without it. Check your packet instructions and plant propagation book.
4. Let there be light! Provide lots of bright light for your plants and wait for them to sprout. While some seeds planted beneath the soil surface do not require light to germinate, I have found that it didn't hurt, and provided some ambient heat. Generally, keep the light close to the plants, but not touching.

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Keep record of your plantings in a note book and mark when you should expect to see sprouts. Note what things seemed to work well and what didn't so that next year, you'll remember that you had better success planting your Hyacinth Beans in plain old potting soil than you did in the seed starting mix, as I did. Upon seeing the first sign of sprouts you should definitely get the trays under bright light. It is not necessary to give the plants a dark period if you don't want to. It is fine to just leave the lights on them continuously.

Once the seeds have sprouted, you can remove the clear covering to allow air flow. When the first set of true leaves appear place a fan to blow on them gently and help them strengthen their stems. Keep the seedlings moist by watering from the bottom and allowing the soil to soak it up, but don't over water. For instance, tomatoes like to dry out a little bit between waterings. Over watering is usually the biggest mistake, putting added stress on tender seedlings, plus it can cause mold to grow and provide an atmosphere for diseases like damping off.

Once you have nurtured your seedlings to the point where they're ready for the outdoors, begin to "harden" them off. What this means is slowly introducing them to their new environment. This can be done by bringing them outside during the day in a protected area and back inside at night when temperatures dip lower for a few days or so. The attempt here is to try to avoid shock when transferring from their controlled environment to the unpredictable mood swings of a Wisconsin spring. Eventually, they will accustom themselves to the new climate and they will be ready for planting outdoors once the chance of frost has passed.

Good luck!