**Seeding for the Seasons**

To many that live in cold climates, the reality of starting seeds inside, in the dead of winter, under lights, on a heat mat and watering them twice a day until spring likely seems a pipe dream. This approach will definitely make an impact on your already busy schedule, your electricity budget, and your cramped living quarters. And what to do with all those plants once they need potted up if you don’t have a greenhouse? Warm sunny windows can be hard to come in cold climates and most houseplants do not take kindly to giving up their space.

Starting seed this way is standard practice for a farm or nursey business because they want plants to be large enough to sell come Memorial Day for the big send off into summer. But what if your goal is to slowly build the herb garden of your dreams without the winter commitment?

Luckily, there are many ways and times of year to successfully plant perennial seed. And since perennials often take 2-4 years to really come into adulthood, what’s the rush? After all, if you live in a cold climate like me in northern VT, as many of my customers do, mother nature would not be germinating seeds until it warms up a bit more in April, May and June. So why not seed according to nature’s rhythm instead of fighting it.

Following are two ways to do this that will likely be much more of a friendly process to the home gardener. Just remember that there really is no right or wrong way to do something. If you ask 100 farmers how they go about growing plants you will get 100 variations. The right path for you is the one that is the most appealing and supports your learning. If all you have time to do is toss some seeds on a bare path of ground and come back in a few months to see if you can identify any new life that you helped to seed…well then do it!!!

**First some seeding vocabulary…**

**Stratification:** When a seed packet says that the seed needs “stratification” or “cold treatment” that means that the plant is native to a cold climate that experiences long periods of freezing temperatures. Often the seed from these plants needs to experience a long cold and moist “dormancy” before they will germinate. So, if the packet says “cold stratify for 60 days” that means that you would need to mix the seed with a small amount of moist soil (think damp not soaking wet!) in a plastic bag and put in the fridge for 60 days before seeding.

The average gardener is usually not thinking about pre-treating seeds in the middle of winter, so it is often a huge bummer when you order seeds in the spring only to find you needed to pre-treat them months ago! However, I recently came across a technique that is supposed to help speed up this process. It is also known that the "trigger" for many seeds to start germinating is often the back and forth freeze/thaw cycles of spring that let the seed know that summer is just around the corner and that it’s ok to come out of their shell.

A technique posted by Miriam Goldberger of Wildflower Farm in ON Canada that she calls "speed dial germination" takes advantage of this “trigger” to coax the seeds into germinating despite not having gone through a long cold dormancy. Goldberger reports that they use this technique to reliably germinate their wildflower seed that requires stratification in a much shorter time frame. The “speed dial germination” process is quite simple. Mix your seed with a small amount of damp soil in a plastic bag just and alternate back and forth, 24 hrs in the fridge/24 hrs in the freezer for 10 days total before seeding in flats. This will put the seed through 5 freeze/thaw cycles which will work on and soften the seed coat and will also give the seed the required signal that it’s time to come alive!

**Scarification:** If your seed packet says to “scarify seed” before planting, that means that the seed coat is quite hard and thick and needs to be warn down a bit for the embryo to be able to break out. You can easily scarify seed using sand paper. Use fine grit sandpaper for tiny seed and medium grit for small to medium seed and reserve coarse grit for large, very tough seed. Simply place one piece of sand paper down, place seeds on top and place a second piece of sandpaper on top. Place your hand on top and press down gently while making circles so that the seeds are getting a gently exfoliation. The larger and tougher the seed, the more pressure you can use and the more exfoliation they will need. With very large seed you can hold them one by one and rub on the sandpaper until you can see that the seed coat has worn off a bit.

In nature, other factors would aid in the process of breaking down the seed coat. It may be softened from being in the moist soil all winter, or cracked open from the freeze/thaw cycles of spring, maybe it was eaten by a critter who’s stomach acid did the trick, or even the fermentation of the berry holding the seed can start to decompose the seed coat. When seed is gathered and put in envelopes by us humans we have to improvise and try to mimic the divine design of mother nature!

**Seeding in Springtime**

If it’s late March, April or even early May do not fret you still have plenty of time to start your seeds!

First step is to go through your seed packets and pull out any that need stratified or scarified and put aside. Follow the “speed dial germination” technique above and then either wait and seed everything at once when your stratified seed is ready or do two rounds of seeding.



To minimize the amount of trays you will have to take care of I suggest broadcast seeding and then “pricking out” seedlings to pot up…which I will explain in more detail later. Broadcast seeding allows you to seed more freely and densely instead of trying to drop just a few seeds into each cell.

**Broadcast Seeding:** Fill a tray (the kind with drainage holes) with soil to about ½” below the lip. Use toothpicks, popsicle sticks or shish kabob sticks to designate spaces for seeding the different species. Sprinkle seed in rows between the dividing lines, one species per row. Make sure to try and spread the seed out evenly without getting too close to the dividers. If seed is very tiny you can mix it with sand to make it easier to spread out.

Follow directions on the seed packet to see if the seed needs surface sown or covered with soil. If a packet contains a lot of seed (ex. 200 count), you may want to consider only seeding ¼ to ½ and saving the rest for next year.

For those of you super eager seedsters that want to dedicate to months of tending seeds in the dead of winter. More power to you! Below are some tips and set ups that you may find helpful.

**Seeding in Winter**

**The Set Up**

**Germination chamber:** This is simply an enclosed to keep your seed tray in that traps humidity and heat to keep the soil and seeds evenly moist and warm. If seeds are allowed to dry out too much during critical early periods of germination then you are likely to not have great results. This is especially true when you can’t see much happening yet as the tiny seedling has barely put down any roots and cannot yet brig in water from farther away. Their “reach” so to speak is quite short so you must ensure they have moisture once they break out of their protective seed coat. Trapping humidity in the early stages helps keep the soil hydrated to take some of the watering burden off of you.

**Budget version**- metal shelves with cheap shop lights and florescent bulbs (use ones that simulate daylight wavelengths). To create the chamber just wrap the sides, top and bottom with plastic and tape permanently to the shelves. Then drape a plastic flap over the front that you can roll up to water and check on plants. The lights will heat up the chamber nicely and you can put your heat loving plants on the top shelves. Lights can be hung from metal S hooks and chain that you can get at the hardware store, and they will often cut the chain for you.

Grow Tent: For best success it is helpful to create a germination chamber,