Sowing Seeds

by The Garden Hoe, Lis Friemoth

When planning a garden's inhabitants, there are probably some favorites that make their way into any and all of your planting beds. With a quick check into some reference materials – either in a library or online, you can find out whether any or all of them are easy for the average gardener to start from seed. There are many flowers and vegetables that are quite easy to start at home, and then again, there are many that will endlessly frustrate. Starting your own annual flower and vegetable plants from seed can be a very rewarding activity – if done properly. If just starting out in this fun area of gardening, keep in mind that quality of seed, appropriate equipment, sources of adequate light, and provision of proper air and water temperatures as well as high quality growing media are all important to success. Don't run in fear yet – it is much easier than most people think, just take a bit of time to plan well and gather all of your materials before you start.

Get your list of possible plants together and give yourself plenty of time to peruse the seed offerings (and there will be lots to choose from) at your favorite local, and maybe some of the out-of-the way, garden centers. Once you have figured out which plant varieties are pushing your happy button, make your selections - remembering to ask the staff any questions you may have (about the reliability of the company, seed preparation, germination rates, and any future transplanting needs). Be sure to check the dates on the seed packet – it will be stamped with "packaged for" dates of either the current season or a previous one. Older seed may need extra love and good wishes during germination. If you are using seed that you purchased in previous years, be aware that successful germination rates may be lower. The level of success is in large part dependent on your storage conditions – humidity, temperature, and light. If stored properly, older seed may be kept viable enough to germinate quite well – give it whirl, what do you have to lose? For all current seed purchases, find the best quality seed from a reliable company - this will help to increase your chances of success. Seed available for purchase by the home gardener has been subjected to, unless otherwise specified, appropriate treatments to bring them out of dormancy. Don't worry though – quality garden centers really do try to offer products only from those companies that are reputable. And do remember to check out the wonderful heirloom seed selections, especially if you are interested in seed saving later in the season. Heirlooms are the only reliable seeds for producing consistent plant features in future generations.

Equipment for growing can be very complex or relatively simple. The optimal list would include things like a greenhouse; a hand held seed sower with different settings for various sized seeds; potting shed, shelf, or box for mixing soil media, filling containers, and other planting needs; watering cans; sprayers – manual or timed misters and general watering; a tamping tray to gently firm the soil; containers – cell trays (multi-sectioned with drainage tray and possibly dome cover), biodegradable pots for planting directly outside, plastic pots for transplanting; labels; growing light; fertilizer; and marking pens. Now let's cut to the necessities – what do you really need? Appropriate sterile growing media, sterile containers with some sort of cover for planted seeds, the seeds, water, fertilizer, a light source (natural or artificial), airflow, and a place to put the trays.

Many seeds do not require light for germination, but most will need good seed to media contact. Keep in mind that each variety may require the seed to be sown at varying depths for varying plant types, all need adequate moisture (not too wet), and most will need high levels of humidity. Each species, and sometimes the individual varieties within species, will have differing requirements for optimal seed germination. There are some basic guidelines that once uttered should be followed by a listing of all of the exceptions. Here are the general guidelines – it is up to you to research the specific exceptions. The plant industry standard germination temperature is 68 degrees Fahrenheit. In general though, plants that would normally sprout during cooler periods, like very early spring, tend to germinate well at temperatures in the 55 – 65 degree Fahrenheit range; later spring plants between 65 – 75 degree Fahrenheit; and those plants that sprout and thrive in warm temperatures do best when germinated between 75 and 85 degrees Fahrenheit (not many of these in our area). That being said, start looking for the exceptions – there will be many. The best method of setting very accurate germination temperatures is with a propagation mat or blanket. They are relatively expensive but you can often replicate that heat level by using warm surface areas in the home. It is not necessary to have the ambient room temperature that high – just find consistent surface heat, somewhere, to warm the bottom of the planting tray. Once seeds are sown, water the planting tray from the bottom by placing it in a larger one filled part way with room temperature water, allowing the media to moisten thoroughly. This technique will provide the moisture necessary without displacing the necessary air in the media or disrupting the planted seeds. Once the water is soaked into the planting media – the top will look moist - remove the planting tray and cover lightly to retain moisture and humidity during the germination process. Place the

covered tray(s) on the appropriately warm surface and be sure to check the growing media periodically during this process to make sure that those moisture and humidity levels are adequate.

Once the seeds have sprouted and the second set of leaves (true leaves) has emerged, remove the trays from the heat source; remove the cover, and increase light, moisture, airflow and fertilizer. This light can be natural – but do watch for sun scorch on those tender leaves – or artificially provided by fluorescent plant spectrum lights. Provide adequate airflow either through natural means – open a window if it is warm and breezy enough or use an oscillating fan to simulate nature. Airflow serves a couple of purposes. The first is to help keep pathogens moving, not allowing them to rest and grow on the tender and susceptible plant material and second it strengthens the stems, which encourages stronger plants. Monitor the moisture levels in the trays and water as necessary. Depending on the type of soil media used, you may have to begin a fertilization program immediately. If you have a mix that contains some nutrients, check the media label for the recommended start of fertilizing.

Often it is easier to find a wider and more unusual selection of plant material in seed form than it is to get already grown seedlings. Sowing your own seeds is a great way to get those fingers dirty during the late winter season while adding to your landscape diversity, trying some new cool plants, or just saying an early hello to some old plant friends.