

Natter's Notes

Healthy Seedlings & Transplants

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Once again, the annual Gardeners' Itch is surging. That's in spite of the mid-February snow storm that likely afforded one last browse through catalogs, or possibly created a faint cloud of apprehension as you wondered why you bought so many seeds.

Start your project with new containers or thoroughly wash used ones. Just about anything will do as long as it's at least two inches deep and has drainholes. Plastic containers are a good choice as they slow moisture loss. Consider multi-celled propagation trays; 6-packs you've saved from previous years; individual small pots; or use 4- or 5-inch pots as community pans, each one with a different kind of seed.

If you'll use individual peat pellets, pre-soak well prior to seeding. Then set them side-by-side, one pellet touching the next, thereby increasing moisture retention a bit. After the seeds sprout and begin to develop roots, the pellets will dry rapidly. You might consider a multi-cell tray with individual units the perfect size to hold just one pellet.

The method using individual peat pots is similar. Pre-soak the pots, fill with seeding mix, plant the seeds, then water to settle the mix. But when you transplant to the garden, strip off the peat pot to allow the roots unhindered access to the garden soil.

Fill your containers with a sterile, fine textured growing medium. Do it the easy way with a commercially-packaged seed-starting mix because they're formulated to drain well in shallow pots. A bonus: The mix is sterile, that is, as long as you don't set the filled pots on the ground.

Instead of scooping potting mix to fill the pots, use a professional trick to ensure the media remains light and airy, two qualities which guarantee good-sized air spaces that, in turn, allow excellent drainage, a critical factor for seedling success..



Spindly seedlings due to low light at a window. (Client; 2017-03-17)

To do so:

- Set your containers in a group, the sides touching each other.
- Slightly moisten* the media: Add hot water and toss gently to combine, until the media is barely moist throughout.
- Pour the barely moist media into the containers.
- Level off excess media with the side of your hand.
- Pick up each container and gently tap it onto a hard surface 3 times from a height of 4 inches.
- Lightly tamp the surface of the media in each container, just enough to level the surface. (An excellent "tamping tool" is the bottom of another container that matches the available surface area.)

Sow your seeds on the surface of the mix. Drop one or two seeds onto the surface of each of the smallest units. If you're using 4-inch pots, sparsely sprinkle about 20 seeds over the surface. With still larger containers such as a nursery flat, first create shallow rows, then seed.

Cover the seeds with moist media, the depth to match the diameter of the seed. Large seeds – such as beans, corn, radish, and squash – are best sown directly into the garden but, for these, wait until the soil is warm enough for rapid germination. Corn and basil planted early will fail.

Water each container thoroughly by setting it in water. Remove when the surface glistens with

moisture, allow to drain, and set in a bright, moderately warm place. Alternately, group the pots in a nursery flat and use a gentle spray, moving it back and forth, to thoroughly moisten the media.

Create a mini-greenhouse, of sorts, for your seeds by slipping its pot into a clear container of some sort. Match the “greenhouse” to the size of your project. Use what you have at hand, perhaps a clear plastic bag which rests on bamboo sticks to allow head room; or clear plastic storage boxes such as those for shoes and sweaters.

Set the ‘greenhouse’ in a warm but not sunny place. If needed, lift the cover briefly to vent excess moisture that accumulates on the insides.



Starving, light-deprived seedlings. Seedlings require bright light and regular doses of fertilizer, starting at half-strength when the cotyledons are flat out. (Client; 2017-03-27)

Seedlings require bright light! As soon as the seeds sprout, the main challenge is to provide enough light to develop sturdy seedlings. Sunny windowsills rarely provide adequate bright light for seedlings.

Some folks use a commercial light stand but you can substitute a 2-tube fluorescent fixture suspended 2 inches above a workbench holding the plants. Suspend the fixture on chain so that you can adjust the height as the plants grow. My old-school strategy of one cool white and one warm white tube works

well. The plantlets will thrive with 16 hours of light a day.

Seedlings will also benefit from a slightly lower temperature at this stage. On average, daytime temps of 65 to 70°F and nighttime temps of 55 to 60°F are adequate. Then, too, if seedling roots dry out, they die! Watering from the bottom is a gentle method, but dump the excess within 20 minutes.

Seedlings also require fertilizer! Begin fertilizing when the cotyledons (seedling leaves) are flat out. Use fertilizer-enriched water at half-strength for every other irrigation. And always transplant seedlings, either to a larger pot or to the garden, when the first set of true leaves expand.

Always transplant seedlings when the first set of true leaves expand. But recall that **you’ll need to harden off the seedlings** prior to planting outdoors. Hardening off means to prepare tender, indoor-grown plants for a harsher life outdoors. (See “Sustainable Gardening.”)

And finally, **be aware of the potentially unhappy side of gardening:** Herbicide carryover in manure compost. And that’s true whatever the manure’s source, free or commercial. In fact, I recently responded to an Ask Extension inquiry from a gardener whose vegetables were affected during 2020. (See resource list for online links.)

Resources

- “Sustainable Gardening” - Your trusty, research-based MG Handbook.
- “Growing Your Own” – A free tabloid with an extensive planting chart for vegetables (Page 7 and various helpful gardening information. The metro counties are in Region 2. (<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9027.pdf>)
- “Herbicide Carryover in Manures,” an overview - <https://puyallup.wsu.edu/soils/clopyralid/>
- “A Simple Bioassay for Herbicide Carryover” is an easy test to ensure safety for your plants. - https://s3.wp.wsu.edu/uploads/sites/411/2014/12/PDF_Clopyralid_Bioassay.pdf
- “What to do about Herbicide Carryover in the Garden” clearly outlines remediation. - <https://pesticides.montana.edu/reference/contamination.html>