

Amy Campion

www.amycampion.com

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Seedy Characters HPSO Study Group

Starting Seeds at Home

Pretreatment

Some seeds won't germinate without special treatment. Some have hard seed coats that need to be softened by either a cold or hot water soak or by scarification—a nick with a knife or rubbing the seeds on sandpaper may do the trick.

Some seeds have a dormancy that is satisfied by simulating winter temperatures (in the fridge or for reals outside). This treatment is called stratification. Some have a need for a period of warm stratification followed by a period of cold stratification.

Some seeds need to be exposed to smoke in order to germinate.

Light

You can get an early start on the season by sowing seeds indoors, but you'll need to get some lights. The proverbial "sunny windowsill" won't cut it—at least not in the Pacific Northwest!

You don't need special grow lights; basic fluorescent shop lights are fine.

T12—discontinued

T8—most common, more efficient than T12

T5—expensive but much brighter

If you use T12s or T8s, keep them very close to the plants—even almost touching. Raise the light fixture (or lower the plants) as they grow.

Leave lights on for 14-16 hours a day. A timer is helpful.

Heat

Your grow station should be in a heated room, though a few plants do like to germinate and grow at cooler temperatures.

A heating mat will speed germination, but once the seedlings are up, most don't want bottom heat. I don't use one.

Containers

I like 3 1/2-inch plastic pots. Eighteen of them fit in a standard 1020 (10 x 20 inch) tray. Square pots make the best use of space. Don't futz with egg cartons, yogurt cups, or newspaper pots. Just get some sturdy plastic pots that you can recycle again and again.

Contrary to popular belief, you don't have to wash them before using! (Well, maybe if you're sowing the last three seeds of Grandma's prize heirloom tomato.)

I don't like peat pellets or peat pots. They often don't disintegrate in the soil and they can wick moisture away from the plant.

Plastic 6-packs are a good choice if you want to sow seeds directly into those and skip the "pricking out" step.

Media

Must be sterile.

If you include loam or compost, it needs to be pasteurized—heated to 140° for 30 minutes. You can do this in the oven or in a roasting bag in the microwave, per Ken Druse.

Or, better yet, just use a sterile, peat-based or coir-based media.

I use Black Gold Seedling Mix (not potting mix, which is too chunky), plus extra perlite and pumice for better drainage in a ratio of 4:1:1.

You can mix your own if you like. Concentrates in Milwaukie has all the ingredients and they offer 10% off to HPSO members. But commercial mixes are more convenient, and they have a wetting agent, which is helpful (peat moss is slow to soak up moisture).

Seed-starting mix doesn't need to have any fertilizer in it.

How to Sow Your Seeds

When to sow? Portland's average last frost date is April 15. Count back from there.

Fill your pot with media and press down lightly.

Scatter your seeds and sprinkle with just enough media to cover. Large seeds go deeper than small seeds, but be careful not to plant too deep or the seedlings will struggle to emerge.

Top with a thin layer of vermiculite for small seeds or a mix of equal parts chicken grit and perlite for larger seeds. This helps keep the surface dry and free of fungus.

Water with a gentle spray of lukewarm water. You don't need to "bottom water."

Cover with clear plastic.

Don't forget to label it!

Remove the cover as soon as the seedlings emerge.

When they have their first true leaves or are big enough to handle, "prick out" your seedlings into individual pots or cells. Handle them by their leaves, not their stems, and pry the roots apart gently.

Water with a bulb sprayer as needed. Don't overwater (everyone does at first). Fertilize with half-strength liquid fertilizer once a week.

The last step is to harden off your plants. Don't push your babies out into the cold, cruel world all at once. Let them acclimate gradually to wind, sun, and cooler temperatures outside over a period of 1-2 weeks.

Common Problems

“Damping off” is a fungal disease that causes seedlings to fall over at the soil level and die. It’s encouraged by overwatering or by using unsterilized media.

Spindly or leaning seedlings are usually the result of too little light. Leggy plants can also be caused by crowding, too much fertilizer, or high temperatures.

Fungus gnats sometimes appear. They don’t usually cause a lot of damage, but their presence indicates that you may be overwatering or that your media isn’t well-drained. The larvae may eat roots; the adults don’t feed at all.

Sometimes a seedling has a hard time shedding its seed and wears it like a cap. Try misting it to soften the seed coat rather than tugging at it and risking damage to the seedling.

Resources

Thompson, Peter. *Creative Propagation, 2nd Edition*. Portland: Timber Press, 2005.

Powell, Eileen. *The Gardener’s A-Z Guide to Growing Flowers from Seed to Bloom*. North Adams, MA: Storey, 2004.

Gough, Robert and Cheryl Moore-Gough. *The Complete Guide to Saving Seeds*. North Adams, MA: Storey, 2011.

<http://awaytogarden.com/20-top-seed-and-seed-starting-faqs/>

<http://tomclothier.hort.net/>

Facebook group: Passion for Plant Propagation