

Starting Seeds for the Flower and Vegetable Garden – PNW Garden Savvy

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WSU Extension Master Gardener Colleen Donahue

Essentials for successful seedling growth

Heat – at ambient temperatures of 60-70 degrees, bottom heat will increase germination rate and consistency. Optimum range 75-90 degrees for most seeds. Perennials often need cool temps. 18 watt, 10x20" heat mats work well. Remove from heat at 50% germination.

Air circulation – important during early seedling development, especially if over-watering is a risk. Helps prevent fungal disease and seedling collapse. Direct a gentle fan over the tops of seedlings.

Lighting – the single most important factor that influences seedling vigor. More light is needed than most expect. Set automatic timer to turn on for 12-14 hours. Full spectrum LED, 4000 to 5,000 Kelvin, 25-45 watts, 3,000 lumens or more, 4' strips

Soil – finely textured, sterile media is best for tiny seeds. Coarse media/potting mix is okay for large seeds. Cover with dome or plastic wrap to keep surface moist until germination begins.

Plant and cover seed according to **packet directions**. Press tiny seeds into soil without covering. Take care to not over sow – 2-3 seeds per cell/pot for small seeds, 1 per cell for larger seeds

Water – over-watering is the main reason for seedling failure. Tiny seeds require a gentle sprinkle when watering – seeds that need light to germinate can get washed too deeply into the soil for germination to occur. Over-saturated soil leads to fungal damping off and fungus gnat pressure.

Resources

Books

The Complete Guide to Saving Seeds, Robert Gough

The New Seed Starter's Handbook, Nancy Bubel

Starting Seeds Indoors, Ann Reilly

Web resources

WSU Home Gardener's Guide to Soils and Fertilizers

WSU Home Vegetable Gardening in Washington – EM057E

WSU Extension FS075E – Raised Beds

Territorial Seed Company

Johnny's Selected Seeds – Grower's Library

Many large seed sellers provide good growing information – be sure to study the seed packet

Good seeds for beginners

Easy

Lettuce, beans, peas, beans, kale, mustard, chard, green onions, chives, zucchini, cucumber, calendula, cosmos, zinnia, marigold, sunflower, dahlia. These can be grown indoors under lights until their second set of true leaves emerge, then planted out when small. Protect against predators – crows, rabbits, deer, slugs. Any of these can be eaten to a nub overnight if not protected.

More challenging

Tomatoes, tomatillo/ground cherry, peppers, eggplant, basil, perennials grown as annuals. These all require longer growing times indoors under lights. The longer your seedlings are growing indoors, the more likely things can go wrong, especially for beginners. Timing is everything!

Cool season annuals

Leeks, onions, peas, cabbage, Swiss chard, kale, mustard, lettuce, broccoli, spinach, parsley, beets, calendula, snapdragon, pansy, bachelor buttons, sweet peas, annual lobelia, petunia, nicotiana

Plants that need to be direct sown

Parsnips, carrots, beets, radish, borage, nigella, larkspur, poppy, stock, phacelia

Pollinator friendly flowers easily grown from seed

Annual coreopsis, zinnia, cosmos, calendula, anise hyssop (*Agastache foeniculum*), single flowered dahlia, salvia, sunflower, marigold, lacy phacelia

Warm season annuals that don't like cold soil

Tomato, tomatillo, ground cherry, cucumber, eggplant, pepper, squash, melon, amaranth, basil