

Letter to Teachers - Greenhouse growing helpful hints

Congratulations on being selected to participate in the Seed Starter Activity of the Pollinator Habitat Education Program! I've compiled some helpful hints for you, based on several years of working with teachers on this project.

I recommend using only one baggie per packet of seeds for stratification (so split your students into 10 groups, 1 group per species) and about $\frac{1}{4}$ cup of sand. When it's time for germination, each baggie of seed/sand should contain enough seed to cover a 10"x 10" area, or half of a 1020 tray. With 10 packets, you will have enough seed to cover 5 full 10" x 20" germination trays. Be sure to label both baggies, and trays halves super clearly so you don't lose track of species! It's also helpful to write the date you start stratification, and the date you start germination directly on the labels.

For germination, plan on one large 2 cubic foot bag of *high-quality* potting/seed-starting mix. This comfortably fills 5 full 10" x 20" trays at the 1.5–2" depth seedlings need, with a little left over. If you're planning to upshift seedlings into individual pots later in the season, budget for additional soil at that stage- the amount will depend on how many seedlings you end up transplanting.

Make sure you start the germination and upshifting activities with **pre-moistened soil**. Mix soil and water into a larger vessel (a rubbermaid tote or old cooler works well) and fill trays/pots from it. Otherwise, soil may appear moist on the surface but stay dry below. Another big factor in failure to germinate is TOO MUCH SOIL on top of the seeds! Seeds only need to be covered with the equivalent of *its own width* of soil. So for the smaller/tiny dusty varieties, they just need a tiny little dusting.

Throughout the germination process, be sure to **keep the seeds moist**- if they dry out during this stage they will die! Left unattended over a sunny weekend in the greenhouse could prove fatal for them. Keep in mind, I've also had schools accidentally kill all their plants by watering them with too harsh of a spray setting! Consider keeping trays during the germination process inside the classroom where you can keep a close eye on them and monitor, before moving them to the greenhouse. After seedlings are a bit more established, short periods of "dry-down" are okay. **Take a look at your calendar for spring break, and make a plan for seedling care.**

Activity extensions could include: drawing their wildflower, labeling the parts of the plant (stem, root, flower, leaf) or presenting on their wildflower to the class. For a math extension, they could take measurements as they grow, or do a 'garden mapping' activity using grid paper to learn about scale and spacing requirements of plants. Contact me for more ideas, or how to adapt them to a standard!

If you would like to plant outside, collect cardboard and lay it down as a ground cover as soon as you can to start to 'smother' weeds, and weigh it down with rocks or a thick layer of mulch (some cities can deliver wood chips for free). Plant directly through the cardboard and wood chips at 1' spacing, (I recommend using a cordless drill with an auger bit) planting species in groups of 3-5 so pollinators can 'see' them. Kids also LOVE to take home plants, if there's extra.

Happy growing!

Haley