

# *Horticulture 101: Knowing, Growing, and Showing Plant Propagation: Propagating Plants from Seed*



# *Plant Propagation: Propagating Plants from Seed*

## **Objectives:**

- To learn how to grow plants from seeds that don't require special treatment
- To gain hands-on experience with all types of seeds
- To practice sterile planting practices to optimize propagation success

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## **Introduction**

This hands-on workshop will help you **improve your success** propagating plants from seed. Propagation by seed is an economical and fun way to add plants to your pleasure, display, or vegetable garden - and promotes genetic diversity in the plant world.

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## **Equipment needed:**

- Seed packets
- Disposable plastic or latex gloves
- Spray bottle with water
- Clean, sterile pots or propagation flats (with drainage holes)
- Sterile potting mix (avoid any mix which includes fertilizer)
- Plastic Plant Markers
- #2 Pencil
- Plastic bag or clear plastic cover for the pot or flat
- Twist tie for plastic bag


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Step 1: **Research** the plant you plan to grow before you start. **Read the seed packet** or search online to learn the requirements for germination. These might include light, heat, a cold treatment, etc. A good seed packet has a lot of information!

*Spotted Joe Pye Weed - Eutrochium maculatum*  
Perennial, rose-purple, July-September, moist to wet, sun to part shade, 4-6' tall. Butterflies, Pollinators, Salt & Clay tolerant, Good Rain Garden plant

201 **6** Lot **A** approx 200 seeds

Germination: **Easy**  
Cold stratify 4 weeks. Surface sow or cover seed lightly



*Toadshade Wildflower Farm*  
NATIVE PERENNIAL PLANTS & SEEDS  
NURSERY GROWN & PROPAGATED

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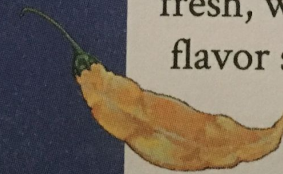
**Step 2: Check your timing.**  
Annual and vegetable seeds will usually include instructions on when to start your seeds relative to the last frost date in your area.

## Lemon Drop Hot Pepper

25 seeds  
100 days *from transplant*

Depth: ¼"  
Plant spacing: 24"  
Row spacing: 30"

**Timing:**  
Start indoors 8-10 weeks before last spring frost. Transplant after threat of frost has passed.



Start early; this variety ripens 2 weeks later than other hot peppers. Transplant out after threat of frost has passed. Plants will set a heavy flush of green fruits and will take their time getting to the full yellow color, but the flavor is worth the wait! Use fresh, where its hot citrusy flavor shines, or dry to use it in recipes all year long.

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Step 3: **Prepare a work area** where you can make a mess. Make sure your container, hands, and tools are **clean**. Use the **right container** for the plant(s) you are propagating.



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Step 4: Using sterile growing medium, fill your flat, pot, or container to within about  $\frac{1}{4}$ " of the container lip. **Don't tamp down your medium** since that will remove air spaces. **Roots need both air and water to thrive.**





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Step 5: Water your potting medium gently with warm water and allow excess to drain freely. **Medium should be moist, not soggy.** Lift your container to know how heavy it feels when properly watered. Make sure your pot has adequate drainage.



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Step 6: Plant your seeds following seed packet instructions. **Don't crowd the seeds in your pot or flat** (two seeds for a small pot or cell is perfect). Some seeds should be surface sown because the seed needs light to germinate. Other seeds should be covered with a layer of potting medium or sand (this will hold them in place when watering). Larger seeds are usually planted so the top of the seed is at or just below the top of the potting medium. Hard coated seeds sometimes require scarification (nicking the coating) or pre-soaking to improve germination. **Read the seed packet and follow recommendations!**

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Step 7: Once you've finished planting your seeds, **mist the container with warm water to moisten the seed and make sure it is in contact with the potting medium.** Write the date of propagation, botanical and common name on a tag.



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Step 8: If you are using individual pots, **put the pot in a plastic bag** and blow some air in before closing with a twist tie. You can prop up the baggie with a plastic stake, but avoid wood which can rot. For a flat, cover with a plastic dome or other clear covering and keep air vents closed.



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## **Next steps:**

Seed germination takes from a few days to several weeks. **Be patient!** Make sure you are providing the conditions required for germination, including **temperature, moisture, humidity, and light**. If you've done your research in Step 1 - you'll know whether your seed germinates in light or dark, prefers bottom heat or cooler temperatures, needs strong light from a bright exposure or supplemental LED fixture. Do your best to create these conditions and you'll have seedlings before you know it!

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## **Next steps (continued):**

Once seeds begin to germinate, which will likely be staggered over several days or even weeks, **loosen the tenting or cover** to allow more air flow. Allow the potting medium to dry a little between watering to promote healthy root growth. Most watering should be done by misting from above, not bottom watering. Once the roots develop and elongate, return to bottom watering to encourage deeper rooting. Allow the medium to dry out between waterings, forcing the roots to grow down in the bottom of your container for moisture.

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**Workshop developed by:**  
The GCA Horticulture Committee

**Photos by:**  
The GCA Horticulture Committee



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