

Seed Germination Tips: Kathy VanDyke – LIMG Meeting May 21, 2025

Why start plants from seeds?

- **Save Money!** Buying seeds is much cheaper than buying a lot of plants.
- **More Options!** Lots of variety to choose from in seed catalogs.
- **It's Fun!** It's exciting to see seeds grow into plants, and then eat them.
- **It's Easy!** Seeds, Water and Light, and you will succeed.
- **Bonus Extras!** When you grow from seed, you will have extra plants to share with your friends and neighbors.

What to start from seed?

Grow your Favorites!

- **Search Catalogs** for new Favorites.
- **Save seeds** from your favorite annual and perennial plants.
- **Swap seeds** with other gardeners.

My Favorites from seed: Marigolds, Zinnias, Snapdragons, Coleus, Alyssum, Cosmos, Sunflowers, Basil, Parsley, Dill, Tomatoes, Lettuce, Onions, Peas, Beans, Peppers, Celery, Bok Choi, Squash, Cukes, Watermelons, Pumpkins, etc.

Tough to start from seed: Petunia and Lobelia (buy plants instead). Corn: needs good space. Carrots need sandy soil.

Read the Seed Packet for Lots of Useful Info

- Annual or Perennial
- Common and Latin Names and Variety
- Sun or Shade needs
- Heat or Frost needs
- Days from planting seed until Bloom
- Height when full grown
- Spacing between plants in garden
- Depth to plant seeds
- How long before germination
- Best dates to plant (outside or indoors earlier)
- Bloom information (size, date)
- Ideal Plant conditions (water, light, wind, soil, etc.)
- Container Friendly
- Growing Zones (We are Zone 7)
- Germination Tips: Prechilling improves germination.
- Use Tips: Great for cut flowers.

Starting Seeds: Indoors vs. Outdoors

- **Outdoors:** Some Seeds are Easy to Start Outside:
 - Some seedlings don't transplant well, or grow so quickly that there is no benefit to starting them early indoors.
 - Veg like: Peas, Beans, zucchini, and root crops like Carrots, Radishes, beets, leafy greens like lettuce and spinach are easy to grow from seed outdoors.
 - Quick germinating and fast growing annual flowers like Marigolds, Nasturtiums, Cosmos, Sunflowers, Tithonia, Bachelor's Buttons, and more can be started outside.
- **Indoors:** Slow growing annuals like alyssum, snapdragons or coleus, and some perennials benefit from being started early indoors and planted out when it warms up.

Sort Your Seeds

- Figure out which seeds you want to start inside vs. outside.
- Put the seeds in the order you plan to start first, based on the longest time before last frost. (10-12 weeks.)
- End of April to Early May minus 10 weeks = February 20th.

Labels

- Create labels using plant markers, popsicle sticks, old mini blinds, etc.
- Use Sharpie, or special UV resistant Garden Markers (won't fade.)
- Label each pot with the variety. Put the date you planted the seeds.

Seed Preparation Tips

- Some seeds like to have a cold period before they will break germination. Others have hard seed coats that should be scratched or chipped to aid germination, or they can be soaked, or both.
- **Stratification:** seeds that like Prechilling Gypsophila (baby's breath), Columbine, Milkweed, Coneflower, Delphinium, Lupines, Poppies (papavar), Lavender, Chelomes, Liatriis.
- **Scarification:** Cutting of hard or thick seed coats Morning Glories and Moonflowers, Nasturtiums, Parsley, Purple Hyacinth beans, Alchemilla (lady's mantle), Aconitum (Monkshood), Heliopsis, Helianthus, Poppies, Asclepias.
- Use nail clippers or cuticle nips on large seeds, and a file or sandpaper on very small seed.

Soil:

- Use clean all-purpose potting soil for starting seeds indoors. Outside garden soil won't work inside.
- Mix dry potting soil with water until moist before adding to pots. Don't make too muddy.
- Fill pot with moist soil and press down to firm soil into pot.

Planting Seeds

- Check seed depth on back of packet
- Put some seeds on top of soil. Don't use too many.
- Sprinkle seeds evenly or place seeds in rows.
- (Rows are especially helpful when planting seeds outside to help identify seedlings from weeds.)
- Cover seeds with fine soil to depth shown on seed packet.
- Press down and water to ensure good contact with soil.

Sun and Water

- Label pots with plant name and date.
- Put in sunny spot and keep moist until germination. Turn plants if they lean towards the sun.
- Provide lots of sunlight (Some seeds require darkness for germination, like nasturtiums. Read the seed packet.)
- Keep evenly moist. Humidity Domes can help keep moisture in before seeds germinate. Do not dry out completely.
- Provide good air circulation. Consider using a portable fan if you notice humidity or pest issues.

GERMINATION!!

- Once seedlings are 1" to 2" high, I will transfer them to larger cell packs.
- "Large enough to handle" is subjective...
- Lettuce likes cool weather, so I want to plant these plants outside in March.
- They can get planted early in cold frames and they will do fine.

Moving Up

- Using a chopstick, poke all the way to the bottom of the seed tray to get under the roots and pop out a few seedlings.
- Gently separate into individual seedlings.
- Put into the new pots using the chopstick to make a hole, poke the root in, and settle the soil.
- Keep seedlings at same depth in new pot.
- Water well with gentle stream. (Holes drilled in a soda bottle cap work great!!)

Growing Seedlings

- Keep planting seeds weekly until you have put in all your seeds. (Don't use all seeds in pack, just what you need.)
- Allow for no more than 5 or 6 weeks of green growth in cell packs, or the plants will become potbound, and stunted.
- Small slower growing plants like coleus, portulaca, alyssum and snaps can stay in cell packs longer.
- Bigger faster growing seeds like sunflowers can only do 3 or 4 weeks in cell packs. So don't start them too early!
- Thin seedlings for plenty of space for roots and leaves to grow. Keep new transplants out of direct sun for a few days.
- Move larger seedlings up to bigger pots if still more than 3 weeks before they can be planted outside.

Planting Out Seedlings

- Wait until after all danger of last frost to put out annuals, a week after Mother's Day but usually okay by end of April.
- Harden off all seedlings by exposing to outside air for a few hours each day, over a few days, before moving baby seedlings outside permanently.
- Keep in shade, no direct sun at first. Keep well watered for the first few weeks until they get established.
- Some perennials can take a little more cold than the annuals.
- Plant seedlings outside in the ground at the same depth as they were in the pots.
- Protect with cover if frost is expected at night.

Suggested Seed Sources:**Flowers & Veg: Catalogs or Online**

- Burpee
- Gurneys
- Jung Seed
- Park Seed
- Johnny's Selected Seeds

Local Sources with Seed Racks:

- Nurseries and Garden Centers
- Supermarket Racks
- Hardware Stores
- Home Depot and Lowes
- Dollar Stores

FREE seeds!

- Save seeds from your own plants.
- Keep stored in cool and dry area.
- Swap seeds with Gardening friends