

Seed Basics 101

Seed Saving and Starting

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Supplies:

Indoors: Seed starting mix, Potting mix, Plug trays, Seedling trays, Various re-purposed items, Heat mat, Small fan, Lighting

Outside: Containers, Potting mix, Tape, Scissors, Sharp tool, Paint marker

Seed Acquisition: Purchase, gifted; Harvest

Harvest:

Collect

Mature: dry, firm, often brown, tan, black or grey colored;

Should break off plant easily with a gentle tug

Immature seeds: moist, pliable, green, yellow or white

Mesh bags; repurposed envelopes, lunch bags, etc

Avoid harvesting soon after rains

Thresh; Winnow; Clean

Thresh: apply pressure to seed heads; rubbing between hands, stomping; between boards

Winnow: light breeze to remove chaff; blow gently; drop seeds from one container to another

Dry/cure: open bag or bin with good air flow (out of heat and direct sun) before storing

Store

Use/share

Seed Dispersal Modes: Gravity, Wind, Water, Ballistic, Animal

Seed Harvesting, collecting, short term storage:

Junk mail envelope; mesh bag; paper bag

Seeds often dislodge as they dry

Use a fork on seeds that poke

Seed Storage:

Tips:

Start with clean, dry seeds: Single layer, paper plate; Place in envelope then in container with envelope of silica gel, 1-2 weeks in a glass jar

Cool, dry, dark location; Avoid humidity less than 60%; Shouldn't see moisture in storage containers

32-50 degrees is optimal; room temp works – consistency is key

Sealed container, plastic bag, wax or paper envelope, glass jar, metal box, plastic container

Fridge: in sealed container; Set out for 12 hours before opening; Open lid for couple days before planting

Cabinet in cool, dry basement
Silica gel pack in storage container
2-5 years viability is common
Get organized with what works for you.

Getting Started:

Germination Test:

Viability/germination test: 10 seeds, damp paper towel in baggie; Keep in warm spot (70-80); Check daily for a week or two; Calculate germination
90% or higher = good; 70-80% = acceptable; 50% or lower = too low
Now what? Toss? Add more seed per cell?
Is a germination test even needed?

Inside:

Goldilocks and the 3 Seeds – getting it just right

Moisture: Moist, but not soaked; Oxygen: Removed from soil with excess moisture

Seed to Soil Contact: Allows initial root to easily access soil moisture; Light: Cover with media or not?

Set Up

Seed starting mix; Seeds; Plug tray, Seedling flat; Container to combine mix with water; Lighting; Small fan

Remove humidity dome when germination begins

Use appropriate lighting; add foil for reflection as needed

Growing Conditions: Read the seed packet; Research trustworthy online sources

When to start seeds: Read the seed packet; Research trustworthy online sources

Things to Consider:

X weeks before last frost date; Better later than sooner; Days to germination

How many days of Cold, Moist Stratification (CMS)

Soil temp; Amount of moisture; Depth of sown seeds; Age/quality of seed; Light – cover or not; Days to maturity, fruiting, harvest, etc.

Outside:

Place potting mix in plug trays or pots; add seeds; place under weighted screen; place in area where it will receive snow, rain and light

Winter Sowing: Drainage holes in bottom, water holes in top; 3"-4" potting mix in bottom; sprinkle seeds on top of potting mix; Seal; Label; Place outside

Germination

Inside: Over Loving, Failure – How to Avoid, Learn

Too wet

Gas Exchange: Oxygen in/Carbon Dioxide out & move away from seedlings

Non-viable seed or low germination rate

Store in cool, dry environment

Chemical Dormancy: Natural delay – seeds drop in fall but don't germinate

Physical Dormancy: Hard seed coat – beans, etc

Cold Moist Stratification: Treating seeds to simulate natural conditions needed to germinate: Fridge, Winter Sowing

Scarification: Weakening or altering a seed coat to encourage germination: Natural elements: wind, rain, snow, soil abrasion; Sandpaper, nail file, clippers to wear down coat; soaking seeds in water, etc.

Damping off: Use a small fan to simulate wind and a light to mimic sun exposure

Helpful to group similar growing rate seedlings together

Pot up as needed

Hardening Off:

1 – 2 weeks before planting; at least 45 – 50 degrees; Place outside in shaded, protected spot, 2 - 3 hours each day; Bring in each day; Increase outside time each day; work up to 24 hours outside; Avoid windy days; Avoid temps below 45

Pinch blooms and/or grow tips to encourage bushier plants

Outside:

Ensure evenly moist until germinated and planted