

Seed Starting for Native Plants

Think like a Plant!

In the wild, native plant seeds have evolved to sow themselves at the time that they ripen and drop to the ground. They simply lie on the surface of the ground until the following spring when they germinate. The weather may splash a drop of mud on top of them, but no one buries them in the soil, no one waters them, and no one cleans them. Native seeds will germinate very well if we treat them the same way that nature treats them.

The following rules apply to most species. (There are a few exceptions. See below.)

- **Spring-flowering** species: For germination the following spring, sow seeds directly outdoors in the garden as soon as they ripen. Rough up the soil surface with a garden claw, scatter seeds, then pat down the soil surface to assure good contact with the soil. Do not actually bury the seeds, they will need light to germinate in spring. The seeds will experience summer, fall, winter and spring conditions naturally.
Or **mimic** summer > fall > winter > spring conditions for germination indoors. See below.
- **Summer-flowering** species: For germination the following spring, sow seeds directly in the garden as soon as they ripen. Rough up the soil surface with a garden claw, scatter seeds, then pat down the soil surface to assure good contact with the soil. Do not actually bury the seeds, they will need light to germinate in spring. The seeds will experience fall, winter and spring conditions naturally and germinate when their chemistry is ready.
Or **mimic** fall > winter > spring conditions for germination indoors. See below.
- **Fall-flowering** species: For germination the following spring, sow seeds directly in the garden as soon as they ripen. Rough up the soil surface with a garden claw, scatter seeds, then pat down the soil surface to assure good contact with the soil. Do not actually bury the seeds, they will need light to germinate in spring. The seeds will experience winter and spring conditions naturally and germinate when their chemistry is ready.
Or **mimic** winter > spring conditions for germination indoors. See below.

How to **Mimic** Seasonal Conditions **Indoors**

- To mimic **summer** (“warm stratify”), press seeds firmly into the surface of moist soil in pots or flats. This gives seeds good contact with the soil. Do not cover with soil, the seeds will need light to germinate. Keep the pots or flats moist, between 65 and 85°F, with a heating mat or similar method, for 4 to 12 weeks. Then move the pots into fall/winter conditions, as below.
- To mimic **fall/winter** (“cold stratify”), sow the seeds as above (or move previously sown and treated seeds from summer conditions) and keep the pots or flats moist, between 35 and 45°F for 4 to 12 weeks (depending on seed species). This can be done in the refrigerator or, if it’s wintertime, in an unheated screened porch or garage. Then move the pots into spring conditions, as below.
- To mimic **spring** (“germination”), move the previously sown and treated pots or flats to a very sunny location indoors, under grow lights, or outside to a protected and very warm sunny spot. Indoors, keep the pots or flats moist, between 65 and 85°F with a heating mat or similar method, under light, for about 4 weeks (or until seedlings have 2 pairs of true leaves).

If you sow seeds **outdoors**, whether in pots, flats or directly in the garden, put a cover on the containers or

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cover an outdoor garden bed with wire screen, straw, burlap or similar material to protect the seeds from birds and chipmunks.

Some species' seeds need special treatment

- Require two full years of seasonal cycles (or mimic two years) before germination.
- Require removal of fleshy fruit to eliminate chemicals that inhibit germination, for example rose hips and berries.
- Require scratching the seed surface or soaking in warm water to mimic passing through an animal's gut or to mimic outdoor winter conditions. These are usually seeds that have a tough outer coat.
- Some seeds need no special treatment and will germinate if properly sown in the spring and are kept warm and moist.

Dormancy

- Cold **dry** storage will **maintain dormancy** until you are ready to sow the seeds. Fall-flowering meadow species may tolerate this kind of storage for up to three years. But long-term storage is not recommended for woodland species or spring-flowering species.
- Cold **moist** conditions (again, called "cold stratification") will **break dormancy** after several weeks. This allows seeds to germinate as soon as the weather warms, or when containers are moved to a warm location with plenty of light.

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