



# STARTING FROM SEED

The seeds of many native plants have built-in dormancy mechanisms that protect them from germinating before killing frosts or in times of drought. In the wild, seeds will lie dormant until the proper conditions for growth occur. But in cultivation, the successful gardener must become familiar with several simple pre-sowing seed treatment methods that will unlock the dormancy mechanism, and stimulate quicker, more consistent germination.

We have developed the following seed germination codes to help you successfully grow the native seed sold in our catalog. These seed-treatment suggestions have been compiled from our own experience, available literature, and feedback from other growers and customers. **These are only suggestions and not the definitive source of germination information.** If your experience reveals successful methods other than these, please let us know.

Until you are ready to plant or apply pre-sowing treatment, seed should be stored in an open container in a cool, dry place, or in a sealed (airtight) container under refrigeration (33–40°F). Avoid rapid or frequent temperature changes and protect against rodents.

In a garden setting, sow seeds shallowly and keep seedlings carefully weeded. Periodic watering is helpful to establish seedlings. If seed does not germinate the first year, don't give up; germination may occur the second year or even later.

**Find the appropriate germination instructions for your species on your seed packet, and on every species page of our new, easy-to-use website!**



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**A: Seed should germinate upon sowing in a warm location:** No pre-treatment necessary other than cold, dry storage (also called dry cold stratification). Seed purchased from Prairie Moon has been stored under these conditions.

**B: Hot water treatment:** Bring water to a boil, remove from heat, pour over seeds, and soak in at room temperature for 24 hours prior to planting.

**C (# of stratifying days): Seeds germinate after a period of cold, moist stratification:**  
*Please note: You do not need to stratify if you are fall-planting or using a seed drill. Also, do not use this method if you are planting a seed mix and cannot keep the site moist after planting.*

For seeds that are to be planted outside (in rows or containers), mix with equal amounts or slightly more damp sand, vermiculite, or other horticultural-use medium. We use silica sand purchased from a building supply center. For larger quantities (hand-broad-casting, field rows) we sometimes use coarse vermiculite. Moisten the mixture slowly to a moist but not wet consistency. You should not be able to squeeze any excess out. Place seed/medium mix in a labeled, sealed plastic bag and store in a refrigerator (33–38°F). Stratify for the number of days indicated in parentheses. If two months, C(60), of this cold storage is normally required to break the dormancy of these seeds, one month may work for many species if time is a constraint. Some seeds may sprout in the storage bag. If this occurs with more than a few seeds, plant immediately. *Another method of breaking dormancy for species requiring this pre-treatment is simply to sow seeds outdoors in the fall so they may overwinter. Weathering will provide the stratification.*

**D: Seeds are very small or need light to naturally break dormancy and germinate:** Seed requiring this treatment should be surface-sown. No soil cover or just a dusting of soil should be applied. If grown in outdoor beds, sow stratified (if required) seed on a level surface. Cover with a single layer of burlap or cotton sheet. Remove cover after germination. Do not let soil dry out until seedlings are established. Shading with a window screen set 12" above the soil during the first season will help prevent drying. If sowing seeds in containers, water from the bottom as necessary.

**E: In order to germinate, seeds need a warm, moist period followed by a cold, moist period:** Mix seeds with horticultural-use medium, place mixture in a labeled, sealed plastic bag and store in warm (about 80°F) place for 60–90 days. Then place in refrigerator (33–38°F) for 60–90 days before sowing. Or, sow outdoors and allow one full year for germination.

**F: Seeds need a cold, moist period followed by a warm, moist period followed by a 2nd cold, moist period:** Seeds germinate after alternating cold-moist, warm-moist, cold-moist stratification treatments. Start by following instructions for code C for 60-90 days, then store in a warm (about 80 degrees F) place for 60-90 days, followed by a 2<sup>nd</sup> cold period in the refrigerator. Or sow outdoors and allow 2 years or longer to germinate.

**G: Seeds germinate most successfully in cool soil:** Sow seeds in late fall (after hard frost) or early spring.

**H: Seeds need scarification:** For spring orders, Prairie Moon scarifies quantities of 1 oz or less before shipping. Seeds for fall or frost planting are not scarified to prevent premature germination and winter kill. Please let us know if scarification is needed in fall for greenhouse production or other reasons. Scarify by rubbing seed between two sheets of medium-grit sandpaper. Lightly abrade seed coat without crushing seeds. Scarify before stratifying (Code C) if needed.

**I: Legume (member of the pea family):** Most legume species harbor beneficial bacteria called rhizobia on their roots. Genus-specific strains of this bacterium called inoculum can aid in the fixation of atmospheric nitrogen and improve long-term health of native plant communities. Inoculum is naturally-occurring in most soils and additional amendments is not needed. However, inoculum can be purchased from us for most legume genera: [prairiemoon.com/inoculum](http://prairiemoon.com/inoculum)

**J: We remove the hulls from these legume seeds:** This gives more seeds per pound and greatly improves germination. If you have unhulled seed from another source, treat as in Code H.

**K: Parasitic species, which needs a host plant:** Good hosts for many parasitic species include low-growing grasses and sedges: Blue Grama, Pennsylvania Sedge, Little Bluestem, and June Grass. With a knife make a 2" deep cut at the base of the host plant. Sow seed in the cut, making sure seed is not more than 1/8" deep. If host is transplanted at sowing time, the cut is not needed because damaged roots will be available for attachment by the parasite. You may also try sowing parasitic and host species seeds together at the same time. To add parasitic species to existing sites, scatter seed on soil surface (rake in if seed is large) in late fall.

**L: Plant fresh seed or keep moist:** Refrigerate until planting or starting other treatment.

**M: Best planted outdoors in the fall**

**O: Seed needs nicking:** Nick seed coat with knife, soak overnight. Plant.

**S: Fern spores:** Sow spores on sterile peat under glass in indirect light or direct-sow spores on soil surface. Keep moist with distilled water. Consult other sources for details on growing ferns.

**? : Not sure:** Your input would be of interest to us.

FOR PHOTO TUTORIALS OF INDOOR STRATIFICATION (GERMINATION CODE C)  
[prairiemoon.com/PDF/Prairie-Moon-Nursery.Seed-Starting-Basics.pdf](http://prairiemoon.com/PDF/Prairie-Moon-Nursery.Seed-Starting-Basics.pdf)

