

How to Germinate Native Seeds

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Native Seed Germination Codes and Instructions

The seeds of many native plants have built-in dormancy mechanisms which 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 which will unlock the dormancy mechanism and stimulate quicker, more consistent germination.

At Prairie Moon Nursery we have developed the following seed germination codes to help you successfully grow the native seed sold through our catalog and online store. 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 either a sealed (airtight) container under refrigeration (33–38°F) or in an open container in a cool, dry place. Avoid rapid or frequent temperature changes and protect against rodents. 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.

A: Seed should germinate upon sowing in a warm location. No pretreatment is necessary other than cold, dry storage (also called dry cold stratification). Seed purchased from Prairie Moon has been stored under these conditions. ([click for a list of all germ code A species.](#))

B: Hot water treatment

Bring water to a boil. Remove from heat, pour over seeds and soak in a warm place for 24 hours before planting.

C: (Number of stratifying days): Seeds germinate after a period of cold, moist stratification ([click for a picture tutorial on how to artificially stratify](#))

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.

Mix seeds with equal amounts or more of damp sand, vermiculite, or other sterile media (moist—but not so wet that water will squeeze out of a handful). We use silica sand ([available for sale](#)) for small quantities. For large quantities we use coarse grade vermiculite. Place mixture in a labeled, sealed plastic bag and store in a refrigerator (33–38°F). Stratify for the # days indicated in parentheses. If two months (C(60)) of this cold storage before planting 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 moist stratified too long. If sprouting occurs, plant immediately. Another method of breaking dormancy for species requiring moist stratification is to sow seeds outdoors in the fall so they may overwinter.

D: Seeds are very small or need light to naturally break dormancy and germinate

Sow seeds in a container (pot or flat) and water from the bottom as necessary. Seed requiring this treatment should not be covered after sowing, although a light dusting of soil can be applied. If grown in outdoor beds, sow seeds on level soil. Cover with a single layer of burlap or cotton sheet. Do not let soil dry out until seedlings are established. Remove cover after germination. Shading with a window screen set 12" above the soil the first season will help prevent drying.

E: In order to germinate, seeds need a warm, moist period followed by a cold, moist period

Mix seeds with damp sand (not dripping wet), place 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.

Some lilies, alliums

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, then store in warm (70 to 80 degrees F) place followed by a 2nd cold period. Or sow outdoors and allow 2 year or longer to germinate.

Trilliums, Solomon's seals.

G: Seeds germinate most successfully in cool soil

Sow seeds in late fall (after hard frost) or early spring.

H: Seeds need scarification

One way to accomplish this is by rubbing seed between two sheets of medium grit sandpaper. The object is to abrade seed coats—stop if seeds are being crushed. Scarification should be done before moist, cold stratification (Code C) if this treatment is also needed. Seed purchased from Prairie Moon Nursery has been scarified before shipment. **Exception:** *seed which will be dormant (fall) or frost (winter) seeded outdoors are not scarified to prevent the chance of premature germination and winter kill. If you are ordering seed in the fall for green-house plug production please let us know and we will scarify.*

Some Rosa species, Ceanothus

I: Legume, Rhizobium Inoculum

These species are legumes and although they will show satisfactory growth without inoculation we recommend using an inoculum if the proper type is available. The fixation of atmospheric nitrogen improves the long-term health of native plant communities and is especially important in low fertility soils. Prairie Moon Nursery supplies inoculum (when available) at no charge for legume seed purchased from us.

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: Hemiparasitic species which needs a host plant

Good hosts for many parasitic species include low-growing grasses and sedges: Hairy or Blue Grama, Little Bluestem, Common Oak Sedge, and June Grass. With a knife make a 2" deep cut at the base of the host plant. Sow seeds 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 hemiparasite. You may also try sowing seeds of the host and parasitic species together. To add hemiparasitic 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 a knife, soak in water overnight. Plant.

S: Fern spore sowing

Sow fern spores on sterile peat under glass in indirect light. Water with distilled water. Refer to other reference material on growing ferns. Or, direct sow spores on soil surface.

?: **Not sure**

Your input would be of interest to us.