

Establishing a Meadow from Seed

By Gail Olson

Meadows are some of the most dynamic gardens for wildlife there are. They provide pollen and nectar for insects, as well as food, nesting material, and cover for wildlife. Native plants are ideal choices for a meadow for their wildlife benefits.

Establishing a meadow from seed is about a 3-year process. Preparing the site and sowing seed is year one. Year two is focused on weeding out persistent weeds. Year 3 will still require weeding but that task should be less demanding than the year before. Many species will not bloom from seed until the third year, their second growing season.

Year 1: Site preparation and Planting

Removing existing vegetation is time consuming but critical for a successful meadow. Whether you are removing vegetation from lawn or field, my preference is to solarize or smother the area. Solarizing does not require the use of chemicals. It also does not disturb soil that could bring up a weed seed. This method works nicely on smaller areas. I cover the area using black plastic or cardboard, laying rock or bricks on top of the cover to hold it in place. This needs to be done around mid-summer while the daytime temperatures are higher to optimize solarization.

Buy your seed from a reputable native seed company. You can find a mix that is designed for your site's conditions. I encourage you to choose species that are native to your area.

I prefer winter sowing seed (seed is sown early January). This is because I prefer to keep the area covered to prevent unwanted vegetation from germinating as long as possible. Yet, by getting my seed in place by early winter, stratification is done by Mother Nature. When you are ready to sow your seed, uncover the area. If you use cardboard, remove any cardboard that has not decomposed. If you



Plastic pulled back to reveal a clean slate for winter sowing.

added mulch to hold the covering down, remove mulch so it does not interfere with seed germination.

Cold Stratifying Seed for Spring Sowing

Many seeds of perennial plants germinate better after a period of moist, cold conditions. Sowing outdoors in fall or winter allows nature to provide these conditions, but if sowing in spring, you will need to complete the process in advance.

Sterilize all-purpose sand by baking it in a pan in the oven, perhaps on an unused rack while something else is baking. (The temp and time will be higher than you really need, but will ensure that harmful organisms are dead.) After the sand has cooled completely, wet it thoroughly, squeezing out excess moisture as you transfer the sand to a larger bowl.

Combine the moist sand with the seed or seed mix you plan to broadcast, and place in zip-lock bags. Label these bags and store in the refrigerator, *not* freezer, for at least 60, preferably 90 days. (Length of time depends on the species, so if you want to be more specific on the cold period, look up what each species in your mix needs and cold stratify for the longest length of time any of those species require.)

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Small areas can be hand sown. Many species have very small seeds, so people often add sand to their mix to help distribute the seeds more evenly over the area. Divide the seed mix in half. Broadcast one half of the mixture over the prepared area and then take the second half and broadcast going perpendicular to the direction you did the first half. Cover the area with seed free straw mulch.

You may choose to sow your seed in fall, winter, or spring. With any of those timelines, good contact with the soil is necessary. Soil contact can be insured by *lightly* raking the seed after sowing. Many seeds need light to germinate, so deeply raking is not recommended, as it might bury seeds and prevent germination.

Spring sowing is the best time if

planting a steep area. This is because much of your seed would be washed downhill by rain and snow during the winter. If broadcasting seed in spring, you will need to stratify your seed in ahead of time, starting 60 to 90 days in advance of sowing.

Year 2: Weeding

Weeds tend to outcompete desirable plants the first year. Cutting high (12") by hand or weed eater mid-summer this first growing season to remove tops of weeds before seedheads form is a good idea. Many perennials do not bloom in their first year and direct their energy to developing roots.

Year 3 and beyond: More blooms and monitoring

Your planting should have more blooms from forbs this year. You should have less weeding in this 3rd year or second growing season.

Continue monitoring and, as part of your long-term management, remove any woody plants (shrubs and trees) that come up in the meadow. This can be done by hand in small areas, but larger areas can be mown (spring).

Leaving meadow plants in place during winter provides much needed cover and food from seed. You should also consider rotating your mowing to one third of the total area each year. Many insects overwinter in stems and emerge at different times in the spring and early summer. The two thirds you leave unmown will give them a chance to complete their life cycle.

After it is established, enjoy the blooms plus the bees, butterflies, and birds that will be attracted to your new meadow!



A meadow from seed at around seven years old

A Few of Gail's Favorite Plants For a Short Meadow

Grasses

Eragrostis spectabilis/ Purple Lovegrass
Schizachyrium scoparium/ Little Bluestem

Forbs

Asclepias incarnata/ Red Milkweed
Aster oblongifolius/ Aromatic Aster
Baptisia australis/ Blue False Indigo
Coreopsis lanceolata/ Lance-leaf Coreopsis
Eupatorium hyssopifolium/ Hyssop Leaved Boneset
Heliopsis helianthoides/ Oxeye Sunflower
Liatris spicata/ Blazing Star
Monarda punctata/ Spotted Beebalm
Rudbeckia fulgida/ Orange Coneflower
Solidago odora/ Sweet Goldenrod
Verbena hastata/ Blue Vervain

Gail Olson is a native plant enthusiast and gardener living in Southwest Virginia. Together with her husband, Dick, she has established and maintains extensive meadows and other native plantings on their property. Gail is also a founding member of the Appalachian Highlands Chapter of the Wild Ones, a nationwide organization dedicated to promoting native plants in the landscape. You may visit the chapter's website at <https://appalachianhighlands.wildones.org/>