



IOWA DEPARTMENT OF NATURAL RESOURCES

Wildlife Diversity News

Conservation and Recreation



Dreaming of prairie in your backyard?

The Planting Prairie 101 Series will be a handful of articles that walk through the process of planting a prairie garden or a small patch of native prairie at your home. If you have 5 or more acres you'd like to restore to native prairie, please reach out to the [DNR's Private Lands Biologists](#).

The Timing of Planting

It may seem odd to be planting seeds at the start of winter but this is one of the more successful times to plant prairie seed. Why?

- The seeds of many prairie plants require what is called cold stratification to germinate successfully. The seeds require a period of cold before the warmth of spring. You can either do this artificially in a refrigerator or naturally by planting in late fall or early winter.
- If you are going to be broadcasting seed (spreading the seed lightly on top of soil), which is the easiest method in a smaller space, the freeze-thaw cycle that will take place over winter helps to work the seed into the soil.
- If you broadcast the seed just before a snow, especially an early season smaller accumulation storm, the seeds will get some moisture as the snow melts and also some protection from seed stealers like mice and birds.

With those main reasons, late fall -early winter is a great time to plant prairie seed! However, if you miss this window, you can plant seed in the early spring as well just as things start to thaw.

Site Preparation

For best success you do want to start with bare ground. There are a few methods to do this.

The fastest method and likely the best for a larger area will be to use a non-selective herbicide, like one that contains glyphosate, to kill the grass and other vegetation. This may need to be applied a couple of times over a month period, completing applications two weeks or more before planting your prairie seed. If you have the time, it is most effective if you can apply in Spring and then again in the fall before planting.

If you have a smaller space or don't want to use chemical you can kill lawn or grass by mowing as short as possible and then covering the area in cardboard or black plastic. This method will take several months to be completely effective.



In this area, herbicide was used to kill lawn grass and other weeds in preparation of planting prairie seed.

You can also repeatedly deep till the area or hire a sod cutter or just get in there with a shovel yourself. Whatever the method you use, you want your site to be mostly bare dirt with any existing vegetation brown and dead. If you are planting into part of an already cleared crop field or similar situation, your site should be good to go!

There is no need to add fertilizer or compost. Prairie plants do well in nutrient poor soil and will over time enrich it! It's also fine to leave the dead vegetation standing unless it is really thick. In the case of thick vegetation, the best method to clear it would be to burn the dead vegetation. Tilling, though recommended on many sites on the web,

should be avoided as it is most likely to stir up weed seeds in the soil and it won't improve germination.

How To Plant

Now to the fun part! Planting! The easiest way to “plant” your prairie seed is simply to broadcast it onto the surface of the soil. In fact, for species with very small seeds, this is the much preferred method for the best germination. If you do have the ability to drill in the seed, it is best to keep the smaller seeds separate so they can be broadcast. Since we are mostly focused on smaller areas of seeding here (less than 1 acre) a drill is likely not a great option, especially because prairie seed does best with a specialty prairie seed drill.

Frost Seeding Definition

Frost seeding is a term used to describe the method of broadcasting seed over the soil surface during the day when temps are above 32, but overnight temps are below freezing and will lock the seed into the outer crust of the soil. It can be done in the fall/early winter or in early spring. Frost seeding relies on the freeze-thaw cycle and early spring showers to establish quality seed to soil contact. As spring approaches, the soil awakens and actually begins moving up (freeze) and down (thaw). That up and down movement causes tiny little cracks, which ultimately suck in the small and hardy seeds.

To make sure seeds are evenly spread across the whole site, it is a good idea to divide the site into equally sized sections and then divide your seed into the same number of equally divided portions. You can then work your way through the area broadcasting one portion of seed into one section of your planting area and then moving to the next and so on. It is recommended that you also mix your seed in with a “carrier” to help with broadcasting the seed. For example, mix the seed with kitty litter, sand, sawdust or grain hulls.

Now that you've got your prairie planted, you can sit back and wait until next spring!



Bags of prairie seed that has been separated into large and small seeds.

What's Next?

We'll be back in the spring to talk about planting a prairie garden using seedlings and how to manage a seeded prairie during the first couple of years.

If you'd like to check out the first part of this series, which discusses harvesting or buying seeds and plants, you can find it [on the Iowa DNR website on our pollinator page!](#)

WANT MORE INFORMATION?

There are so many great educational resources out there!

- [Tallgrass Prairie Center at the University of Northern Iowa](#)
- [Iowa Prairie Network](#)
- [Iowa State University Extension](#)
- [Iowa Native Plant Society](#)
- [Iowa DNR Pollinators Page](#)

If you do plant some pollinator habitat or have already planted some in the last 3-4 years, it would help us track our progress towards our Monarch conservation goals if you would report it via HabiTally ([iOS](#) | [android](#)). Thanks!