

Iowa Native Prairie Planting Guide

Planting Native Prairie Into Corn/Bean Stubble



Soybean Stubble (Spring Seeding)

- 1. 5 to 7 Days Before Planting** - Apply glyphosate herbicide to kill emerged weeds. If you are planting early (March 15-April 15), evaluate the field to see if emerged weeds are present before spraying.
- 2. Planting Day** - Use a no-till drill or broadcaster to plant a mix of native grasses and forbs. Plant shallow (maximum - 1/8" for forbs, 1/4" for grass), since forbs germinate well on the surface. Don't till soybean stubble - untouched bean stubble is an ideal seedbed.
- 3. Roll/Cultipack After Planting** - If you broadcast seed, roll after planting to improve seed to soil contact and help decrease seed predation.



Corn Stubble (Spring Seeding)

Option 1 - No-Till

Follow the same guidelines as above for bean stubble with the following considerations:

- » Drilling into corn is more challenging than soybeans due to the amount of residue. Low humidity days will help.
- » Broadcasting in the spring is not recommended due to the amount of corn residue.
- » Baling cornstalks is a way to reduce the residue without tillage and reduce erosion concerns from the site. Do not mow stalks before baling. You want some residue (30%–40%). *When residue is removed, broadcasting seed is allowed in the NRCS 327 Standard.*

Option 2 - Use Tillage

- 1. Till Cornstalks** before planting to reduce residue. Approximately 50% of the soil should be showing. Time the second trip within a few days before planting to kill emerged weeds. *Tillage may increase weed pressure.*
- 2. Roll/Cultipack Area** once or twice to create a firm seedbed. *Your footprint should not sink in more than 1/8". Rolling is critical to keep the forb seed shallow.*
- 3. Plant:** drill or broadcast seed.
- 4. Roll/Cultipack again** after planting.





Fall/Dormant Seeding

Fall/Dormant seedings can take place Nov. 15 through April 1, or until the freeze/thaw season ends.

- » Advantageous to the forb component. Germination increases for many forb species if they go through freeze/thaw cycles.
- » In diverse forb mixes, recommended seeding: 0.25 lbs./acre each (4 oz. or 1.0 seed/ft²) of Big Bluestem, Indian grass, and Switchgrass. Dormant seedings are not as conducive as a spring planting for tall warm season grasses.
- » Ideal seedbed is untilled soybean stubble.
- » Broadcasting on cornstalks in the dormant season can be effective.
- » Plant: drill (if ground isn't frozen) or broadcast seed and then roll. Rolling is not as critical for dormant broadcast seedings; freeze/thaw will work seeds in.
- » Don't broadcast on ice covered ground, snow crusted ground, or when snow cover is > than 4".



Other Considerations:

- » Residual herbicides from the previous crop can impact prairie establishment. Consider herbicide products that are less likely to carryover. Some contact herbicides have no residual or limited residual.
 - » Seed forbs on the surface or to 1/8" depth, and grasses to 1/4" depth. Some seed on the surface is ok.
 - » For seedings in areas with reed canary, develop a long-term plan to kill it completely (very difficult) and a proper seed mix that will compete with it.
 - » Do not use fertilizer because it will help the weeds out-compete your seeding.
 - » When broadcasting, rolling will help with seed to soil contact and to reduce seed predation.
 - » When seeding small areas or when broadcasting seed, add a carrier to help ensure you don't run out of seed (i.e. rice hulls, cocoa shells, pell lime, ground cobs). Consider broadcasting the area twice to ensure good coverage.
 - » On areas < 2 acres, you can hand broadcast seed.
 - Flag lines every 50' to help stay in line.
 - Use sand as a carrier — 2 parts damp sand to 1 part seed, minimum.
 - Weigh seed and separate into buckets to monitor the distribution rate.
 - » Adding ½ - 1 bu. of oats to spring seedings can reduce erosion. NRCS 327 Standard requires 1 bu. on slopes > 5% when seeding on tilled land. Mow before seed head emergence to allow light and to preserve moisture for seedlings.
 - » **For High-end Seedings** (pollinator/CP-25 /prairie reconstruction):
 - Ideal mix: 25-50% grass/50-75% forbs to develop an ecologically stable community.
 - Strive for diversity.
 - Limit amount of tall warm season grasses (Big Bluestem, Indian Grass, & Switchgrass). They establish quickly and can out-compete forbs. Recommended seeding rate: 0.1 (1.6 oz. or 0.4 seeds/ft²) to 0.25 lbs. (4 oz. or 1.0 seeds/ft²) each for Big Bluestem, Indian Grass, and Switchgrass. Other native grasses (i.e. little bluestem, side oats gramma, drop seeds, Canada wild rye) are not as competitive.
 - It is important that tall warm season grasses are present, if the goal is to mimic the tall grass prairie ecosystem and maximize the benefits.
 - » Native grasses are an important component of the tall grass prairie. Less favorable grasses such as woolly cupgrass, smooth brome, tall fescue and quack grass will take over if native grasses are excluded.
 - » Consider Iowa ecotype seed (originated from prairie remnant plants) for long-term to permanent seedings.
 - » Use high end seedings around the farmstead for added beauty.
- If you have additional questions, contact your local NRCS Field Office, Iowa Department of Natural Resources (DNR) biologists, or Pheasants Forever biologist for further guidance.