Planting Native Prairie
Into Cool Season Sod
(Brome, Orchard, Fescue, Bluegrass)

1. **Late Summer** - Start the sod to prairie conversion process. Mow existing grass (4-6” ht.) between Aug. 2 and Sept.1. *(The earlier, the better to ensure time for regrowth during dry conditions. Haying is preferred over mowing, but follow program rules.)*

2. **Early Sept. to Mid Oct.** - Apply glyphosate herbicide and 2,4-D Ester *(for additional perennial broadleaf control if needed)*, after there is 6-8 inches of regrowth. Good growing conditions are required (overnight lows 40F+, daytime high 60F+) when and after you spray for 2-3 days.

3. **Early Spring (optional)** - Burn off dead plant material in early spring with fire. This will:
   a. encourages a flush of regrowth from any living brome in the Spring;
   b. encourages a flush from seed bank (i.e. red clover, annual weeds);
   c. remove duff layer;
   d. allow better herbicide contact;
   e. make it easier to plant into;
   f. allow you to see hazards such as: ant hills, badger holes, and tile breaks. *Use combination of disk and blade to smooth those areas.*

4. **Late May** - Apply glyphosate herbicide to the area to be planted after green up.

5. *(Option 1) Late May to Early June* - Plant mixed native grasses and forbs with a native no-till drill 7+ days after the herbicide application. *Chemicals need time to translocate into the root system of emerged vegetation. Cutting up sprayed grass could affect the performance.*
   a. Drill shallow: 1/8” for forbs, 1/4” for grass.
   b. Broadcast and roll only if > 50% of soil is exposed.

5. *(Option 2 - Preferred) Leave area fallow for the growing season*
   a. Spray 1-2 times during the summer when majority of weeds are < than 12” tall. *Caution:* Don’t let weeds get too tall. They will be harder to kill, and you don’t want them to add seed to the seed bank. Weeds in a fallow field left unchecked can produce a tremendous amount of weed seed.
   b. Spray again in September – first ½ of October
   c. Complete a dormant seeding.
If Tillage Is Necessary

» Tillage is only recommended when the field is very rough from gophers, etc.
» Several tillage passes will be required to prepare an acceptable seedbed.
1. If you decide to till, follow steps 1 and 2 from the previous page. If the field is too rough to mow, then skip step 1 and go to step 2.
2. Perform Tillage
   » If spraying occurred, complete tillage in the spring to smooth the area.
   » If no spraying occurred, deep tillage will be required in the fall to kill the cool season stand using a plow or chisel plow, followed up in the spring with a disk and a field cultivator.
3. Seedbed must be rolled 1-2 times before planting to create a firm seedbed.
4. Drill or broadcast, and then roll again.

Fall/Dormant Seeding

Fall/Dormant seedings can be conducted 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.
» Need > 50% of soil exposed.
» In diverse forb mixes, seed 0.25 lbs. (4 oz. or 1.0 seed/ft²) each of Big Bluestem, Indiangrass, and Switchgrass. Dormant seedings are not as conducive as a spring planting for the tall warm season grasses. For spring plantings, use 0.1 lbs. (1.6 oz or 0.4 seeds/ft²) to 0.25 lbs. (4 oz. or 1.0 seed/ft²) of each seed, as recommended.
» Broadcast and then roll. If the ground is frozen, don't roll.
» Don't broadcast seed on ice covered ground, snow crusted ground, or when snow cover is > than 4”.

Other Considerations:

» Seed forbs on the surface or a shallow depth (up to 1/8” depth). Grasses do fine planting up to 1/4” depth. Seed on the surface is ok (up to 40%).
  Tip: When using a native grass drill, disconnect every other tube on the forb box, so seed lands on the ground.
» If you are trying to complete a seeding in an area 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 only help the weeds out-compete your seeding.
» When broadcasting, rolling will help with seed to soil contact and to reduce predation of seed from birds, mice, and night crawlers.
» 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, paper mulch, pell lime, ground cobs). Consider broadcasting the area twice to ensure good coverage.
» On small areas (< 2 acres), you can seed from a bucket.
  • Flag off lines every 50' to help stay in line.
  • Use sand as a carrier — 2 parts sand to 1 part seed, minimum.
  • Weigh seed and separate into buckets.
» Adding ½ - 1 bu. of oats to spring seedings can reduce erosion. NRCS 327 Standard requires ½ bu. on slope > 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 is: 50% grass/50% forbs.
  • Strive for diversity.
  • Limit tall grasses (Big Bluestem, Indiana, and Switchgrass) to .25lbs/acre (4 oz. or 1.0 seed/ft²) each. They grow quickly and can out-compete forbs in the establishment. It’s still important that they are in the mix.
  • Consider using high-end seedings around the farmstead for added beauty.
  • Consider Iowa ecotype seed (Iowa prairie remnant plants) for long-term to permanent seedings.

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.