



Native Prairie establishing & managing native plantings

This guide provides directions for establishing and managing native prairie plantings, including post-planting weed control, prescribed burning, mowing and haying.

First Year (Mow Often)

Prairie grasses and wildflowers grow slowly. Weeds grow much faster in the first couple of years. In the first year, prairie plants work to establish their root systems and therefore grow very little on the surface. In fact, some forbs take several years to appear. You may see some of the quick establishers in the first year, such as Black-eyed Susan, partridge pea and sideoats grama. Have patience and give it time.

The following are key management tips for the first year:

- » Scout your field during the establishment period for weed growth and pressure. Weeds can double their height in a week.
- » **Expect to mow weeds 2 to 3 times from June through July.** The actual mowing frequency will depend on rainfall, weed density, height, and weed species present.
- » **Mowing before weeds get “Knee High”** is a good rule of thumb. Allow as much light as possible to the seedlings.
- » Mow weeds down to approximately 6-8 inches. The first mowing after seeding, if done timely, can be mowed at 3-4 inches.
- » Do not spray any broadleaf chemicals on establishing stands. Not only will broadleaf chemicals kill forbs, but they can also kill or damage seedling grasses.
- » Dormant/early plantings will require mowing early in the season, and an additional mowing trip may be needed.
- » Typically, don't mow after Aug. 1.
- » Evaluate stand in early fall.



A native planting mowed during the first year.





Second Year (Early Bloomers)

- » **Plan to mow once (6-8")**, then evaluate the native planting to see if additional mowing will be needed.
- » Spot mowing may be needed in areas where weed pressure is still prevalent. *Giant Ragweed* can be very *persistent*. Musk thistles may still be prevalent, but will be out-competed by the prairie long-term.
- » Do not use herbicides for spot spraying until Year 3 of the native planting.
- » Marestalk (a winter annual shown at right) will often show up in the second year. It looks worse than it is, but its growth pattern still allows light through the canopy. Marestalk will naturally decline as the prairie establishes.
- » Mow Canada thistle patches at bud stage (late June to early July). The prairie will often out-compete thistles with timely mowing.
- » By mid-July, an inspection of a new establishment should indicate a diverse mixture of natives, though the seeding will still have a weedy appearance. Forbs will start to bloom.
- » A prairie stand is “established” when there is an average of 1 plant/ft². This may take until Year 3.

Marestalk grows in a second year native planting.



Third Year & Beyond

- » Evaluate your native planting annually from the third year on.
- » Spot treat perennial weeds or invasives (i.e. Canada thistle, introduced grasses) as needed.
- » Mowing and haying (July 15-Aug. 31) are great tools for reducing the tall grass component and will invigorate forbs. (Follow program guidelines.)
- » **Prescribed Burning** is a useful tool that is part of the tall grass prairie ecosystem. Burning helps control unwanted trees, remove duff, and stimulate native grasses and forbs. *Refer to the Prescribed Burn Schedule on the next page for influence of fire on the plant community.*
 - Consider burning every 3–5 years to promote a healthy prairie. Additional burning may be warranted for certain conditions.
 - Delaying the first prairie burn until after the third growing season can help with forb establishment.
 - Burning can stimulate sometimes unwanted invasives, like sweet clover.
 - When conducting burns on acres enrolled in conservation programs, refer to program policy.
 - Utilize the Prescribed Burning Iowa Job Sheet when completing prescribed burn plans.

Prescribed burning on a southern Iowa native planting.



Natural Resources Conservation Service

Affect of Burn Timing on Plant Community



Positive



Neutral



Negative

Prescribed Burn Schedule

Dates	Forbs	Warm Season Grasses	Introduced Cool Season Grasses	Trees
11/15-4/1				
*4/1-4/15				
4/15-5/15				
7/15- 8/31				

*These dates vary, but it's a time when the introduced grasses are actively growing and fire will set them back. The forbs are just starting, so the fire will have minimal impact.

Other Considerations

- » In the establishment phase, limit competition from weeds to prevent a stand failure. Too many of the wrong kinds of weeds in your native plantings may block the sunlight and smother out establishing natives.
- » It is okay to have some non-noxious weeds in your native planting. Annual weeds provide many benefits for wildlife, including habitat for insects, food for growing chicks, protection from predators and weather, and an overall food source for managing wildlife.
- » Do not mow after weeds are 4-6 feet high. At that point you are better off **not** to mow. Doing so will put a mat of material on the new emerging seedlings. It may look better to the neighbors, but it will have a negative impact to the seeding.
- » Spot mowing on established stands is preferred over chemical use for weed control. Using chemicals to spot treat noxious weeds will also kill native forbs. Wait until Year 3 to use herbicides for spot spraying, after the prairie is established.
- » Mowing CRP acres is allowed until the stand is considered established. Once the stand is considered established, visit your USDA-Farm Service Agency office before conducting any weed control activities, such as mowing or spraying.
- » Prescribed burns need to be planned and executed in a careful and strategic manner using a prescribed burn plan. **A burn plan is a site specific technical guide that details:**
 - firebreak locations (critical component),
 - an ignition plan,
 - equipment needed,
 - personnel needed,
 - potential fire escape areas,
 - potential damage risks (i.e. wood fence posts, plastic culverts or intakes)
 - May 15 to Aug. 1 is the primary nesting season. Conservation Reserve Program (CRP) rules do not allow prescribed burning or managed haying during this time period.
- » Eastern red cedar trees can be controlled with prescribed fire. *Green foliage must be totally burned to kill it.*
- » Varying the disturbance and the timing can be beneficial overall to the prairie and plant community.



Canada Thistle Control

Before seeding

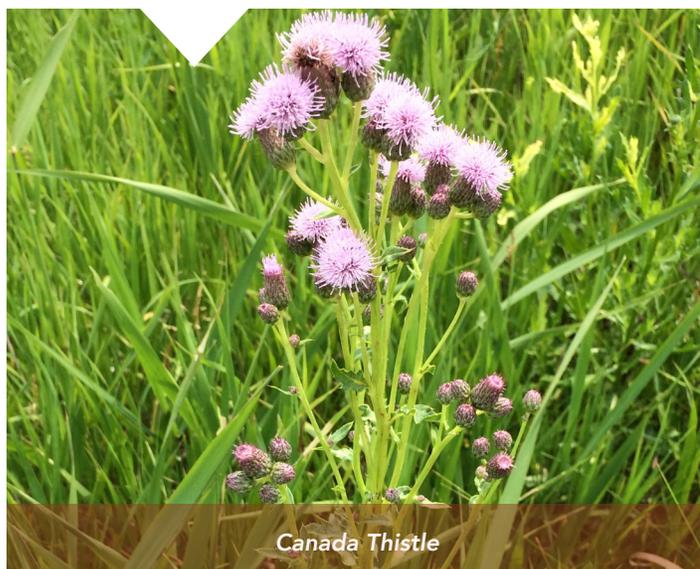
- » Use 3 quarts of glyphosate when active ingredient is 41%.
- » Glyphosate will have no residual affect to a new seeding.
- » Follow label for specific rates, spray adjuvants, etc.

After seeding

- Option 1 - Mowing: Mow at bud stage (late June to early July) for greatest affect. Timely mowing will often be enough to give the prairie the edge to out compete.
- Option 2 – Spraying: Rely on mowing in the first 3 growing seasons, if possible.
 - * (Best) - In the third growing season, mow the patches where the prairie is struggling to out-compete it at bud stage (late June – early July). Then, come back in the fall and spot spray with aminopyralid (i.e. Milestone) on those areas.

Aminopyralid (i.e. Milestone) Details

- » Long residual (2+ years). The residual makes it more effective because the rhizomes of Canada thistles are not all active at the same time, making it difficult to kill.
- » It is more selective than most broadleaf herbicides; some forbs are not susceptible to it, especially if they are well established.
- » Follow label for specific rates, spray adjuvants, etc.



Canada Thistle

Introduced Grass Control

It is much easier to kill introduced grasses before you seed a native mix than eradicating them after the seeding is planted.

Option 1 – Prescribed Burn

- » Complete in May to setback the actively growing introduced cool season grasses.
 - **Benefits:** Warm season native grasses will thrive, while the introduced grasses will be stunted.
 - **Negatives:** Native forb population can also be reduced, since they are cool season. Provides only a short-term benefit.

Option 2 – Kurtz Method

- » Mow an established native stand (after 3 growing seasons) in mid-October. *Established forbs mowed at this point will not grow back that fall. Native warm season grasses are dormant.*
- » Spray glyphosate at the perennial rate (2 quarts when active ingredient is 41%).
 - **Benefits:** Very effective at killing introduced grasses such as smooth brome grass, bluegrass, orchard, etc. *This method is not effective at killing reed canary grass, which would need time to get fresh regrowth.*
 - **Negatives:** There is a risk of killing some native forbs and native cool season grasses.

Option 3 – Prescribed Burn/Grass Herbicide

- » Complete a dormant or early spring prescribed burn.
- » When the cool season grasses green back up (4”-5” of height), spray a grass-only herbicide (i.e. Clethodim) to stunt/kill the introduced grasses.
 - **Benefits:** Much better at stunting/killing the introduced grasses than a fire burn alone.
 - **Negatives:** Risk of stunting/killing the cool season native grasses (Canada Wild rye, June grass, etc.)

