



Establishment of Native Grasses and Forbs (645) Biology Jobsheet #9

Natural Resources Conservation Service (NRCS) - Minnesota

Landowner _____

Definition

Creating, restoring, maintaining or enhancing areas for food and cover for upland wildlife and species which use upland wildlife habitat.



Purpose

- Provide a variety of food for the desired kinds of upland wildlife species;
- Provide a variety of cover types for the desired kinds of upland wildlife species. Examples include nesting, fawning, loafing, resting, escape, travel lanes, and thermal protection.

Where used

On all landscapes that are suitable for the kinds of wildlife habitat that are needed. Locate practice within the range of the desired species or the natural community under consideration.

Wildlife Criteria

This practice is well suited for wildlife food and habitat. Selection of grass species will affect what type of wildlife will utilize these acres. Supplementing the grass planting with other wildlife practices or plantings will further enhance the cover.

- Select native plant species and varieties best adapted to the climate and the soils in the field being established to permanent native vegetative cover. Native grass and forbs beneficial to upland wildlife are listed in Table

2 of practice 645 - Upland Wildlife Habitat Management.

- Total recommended seeding rate is 8-12 PLS lb/acre, resulting in 30-40 seeds per square foot. Total recommended forb seeding rate is 4.0-8.0 PLS oz/acre, resulting in a minimum 2-4 seeds/square foot.
- Optimum size and height of herbaceous cover for nesting is dependent upon the species of concern. Refer to species specific requirements for individual species recommendations. In general, 20-40 acres is recommended, however, some wildlife species are area sensitive and may require larger blocks to provide suitable habitat conditions.
- Encourage blocks of herbaceous cover as opposed to linear plantings. Optimum width of herbaceous cover is 300'-600', with a minimum width of 100'.
- Locate to increase the interspersions of cover types, locate adjacent to existing cover and food sources.

Specifications

Site-specific requirements are listed on the specification sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide practice standard 645 - Upland Wildlife Habitat Management.

Establishment Considerations

Prepare a firm seedbed for all planting methods.

Conventional Tillage - Prepare a fine firm seedbed to a minimum of 3 inches. The seedbed should contain enough fine soil particles for uniform shallow coverage of the seed as well as contact with moisture and nutrients. If possible, use specialized native grass drills with depth bands designed to handle a wide variety of seed. For conventional drills, as a minimum cultipack before seeding. Cultipack after seeding if possible.

Do not use heavy drills on conventionally prepared seedbeds as heavy drills tend to sink in the soil and depth control is difficult.

Plant seed between one-quarter and one-half inch deep. Some seed may be seen on the surface of the ground after seeding. Tillage should only be used on flatter slopes or in conjunction with erosion control measures.

No-Till - No-till drilling reduces the exposure of the newly seeded site to erosion. A no-till drill must be used to seed these sites. A drill should be selected that can handle a wide variety of seed (fluffy, smooth, large, and small) and low seeding rates. Plant seed to a depth of one-quarter to one-half inch deep.

Use of a herbicide is essential in order to kill existing vegetation. Land that has been in grass for many years usually has a thick residue layer on the soil surface. To allow for the best no-till seedbed, this residue must be removed. Three options are (1) grazing, (2) mowing with residue removed, and (3) prescribed burn. In the fall a burndown herbicide can be applied to prepare for a spring no-till seeding. An additional spring herbicide application may be required, depending on plant growth.

Broadcast - Prepare a fine firm seedbed to a minimum of 3 inches. Use a roller, cultipacker or similar implement prior to seeding. The seedbed should contain enough fine soil particles for uniform shallow coverage of the seed as well as contact with moisture and nutrients. Broadcast seed at a rate of 1.5 times the normal seeding rate and roll or cultipack again after seeding. Do not harrow in the seed.

During the establishment year, mow weeds after they have reached 12" in height. Mow 2 to 3 times, generally on 30 day intervals from the date of seeding. Mow to a 6-8 inch height. Use a rotary mower or remove the clippings so as not to smother the seedlings. This will slow the weeds but won't harm the prairie plants.

The second year, evaluate the stand to determine if weed control is necessary. If it is, spot mow weeds at a height of six inches. If there is enough material for a prescribed burn, this may be an effective method to control weeds.

Nutrients

Lime and fertilizer are usually not required for native grasses.

Operation and Maintenance

Operation and maintenance will include but not be limited to the following:

1. Control annual weeds and other competition the year of establishment, with early and timely clipping before seed heads appear.
2. Prevent unplanned disturbance of cover during the primary nesting season for wildlife (May 1-Aug. 1).
3. After the seeding is established control all noxious weeds as identified by state and local laws, by: (a) treating with chemicals per label directions, or (b) spot mow before seed heads form. When possible delay use of control measures until after August 1st to protect nesting wildlife.
4. Protect the acres from unplanned disturbance year round. Fences may need to be constructed and maintained to exclude livestock.
5. Re-seed any areas that do not have adequate permanent cover.
6. Do not use the area for field borders, field roads or other uses that will damage or destroy the cover.
7. Manage grass or grass-forb cover to rejuvenate quality and vigor. Management should occur within 4-5 years of adequate vegetative establishment. Refer to practice 647 - Early Successional Habitat Management for recommendations. Management activities must take place prior to May 15 or between August 1 and September 1. No more than 50% of the field may be manipulated in a given year.
8. Use all chemicals according to label instructions.

Use of Pesticides

Only those pesticides, which are labeled for the specific use, will be recommended. University and Extension publications and label instructions will be used for guidance on herbicide selection and use.



Permanent Native Grasses and Forbs - Specifications Sheet

Landowner _____ Tract Number(s) _____ Field Number(s) _____

Total Acres to be Seeded _____ Prepared By _____

Pure Live Seed Needs			Bulk Seed Needs				
(1) Species	(2) Strain or Variety	(3) PLS lbs/ac * Seeding Rate	(6) Purity	(7) Germination	(8) Bulk lbs/ac needed (3)/(6x7)	(9) Acres to be seeded	(10) Total Bulk lbs needed (8)x(9)

Specific Recommendations: * Note: %PLS = %Germination x %Purity. To obtain pounds of bulk seed needed per acre, use the following: (PLS lbs/ac seeding rate) divided by (Germination x Purity).

Planned Application Date _____

Seeding Dates: May 15 - July 1
 Dormant seeding after November 1

Companion Crop _____

Seedbed Preparation Method _____

Fertilizer Recommendations _____

Total Acres _____ X Estimated Cost per Acre _____ = Project Cost Estimate _____

