



# Establishment of Introduced Grasses and Legumes (327) Biology Jobsheet #8

## 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.;

#### 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 plant species and varieties best adapted to the climate and the soils in the field being established to permanent vegetative cover. Introduced grass and legumes beneficial to upland wildlife are listed in Tables 1 of practice 327 – Conservation Cover.

- Mixtures will comprise a minimum of 4 species consisting of at least 3 grasses and at least 1 forb/legume.
- Total recommended grass seeding rate is a minimum 30-40 seeds per square foot.
- At least 50% of the mixture shall comprise of grasses. Mixtures may include up to 20% native grasses. All legumes shall be inoculated using inoculant specific to the legume seed.
- 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 interspersion 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 327 – Conservation Cover.

#### Establishment Considerations

A companion crop shall be used for spring seeded Introduced Grasses and Legumes for erosion control and weed suppression. No companion crop is required for late summer seeding but it may be desirable for erosion control and to protect developing seedlings.

Companion crops shall be clipped after jointing but before heading out unless otherwise directed by NRCS. A second and subsequent clippings may be necessary when re-growth provides competition

during the first year of establishment. Clipping height should be above developing seedlings. Where excessive growth has accumulated, the vegetation should be mowed or chopped.

## Nutrients

For introduced grasses and legumes a soil test from the year of seeding or during the two preceding calendar years is required to determine the need for commercial fertilizer and liming materials.

The rate of application for commercial fertilizer shall be 100 percent of the recommended rate per acre of each nutrient for a 2 ton yield goal for the species being established.

The recommended rate per acre of liming materials shall be used to raise pH to 6.5 for alfalfa or 6.0 for other legume species. Liming materials shall be applied and incorporated prior to seeding. Liming materials normally contain a sufficient amount of fines to permit application at seeding time and still obtain an adequate stand of legumes for the program

## 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, or timely application of herbicides.
2. Prevent 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-legume cover to rejuvenate grass 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 1 or between August 1 and September 1. For fields greater than 20 acres, no more than 50% of the field may be manipulated in a given year.
8. Control rodent infestations that adversely affect the perennial ground cover.
9. 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 specific label instructions will be used for guidance on herbicide selection and use.



# Permanent Introduced Grasses and Legumes - Specifications Sheet

Landowner \_\_\_\_\_ Tract Number(s) \_\_\_\_\_ Field Number(s) \_\_\_\_\_

Total Acres to be Seeded \_\_\_\_\_ Prepared By \_\_\_\_\_

Pure Live Seed Needs			Bulk Seed Need <i>(To be completed by participant)</i>				
(1) Species	(2) Strain or Variety	(3) PLS lbs/ac *	(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) divided by (Germination x Purity)**

Planned Application Date \_\_\_\_\_

Seeding Dates: **South of I-94** April 1 - June 1 and August 1 – September 10  
**North of I-94** April 1 - June 15 and July 15 - September 1  
**Dormant** Nov. 1 - Freeze-up

Companion Crop \_\_\_\_\_

Seedbed Preparation Method \_\_\_\_\_

Fertilizer Recommendations \_\_\_\_\_

Total Acres \_\_\_\_\_ X Estimated Cost per Acre \_\_\_\_\_ = Project Cost Estimate \_\_\_\_\_

