



# Establishment of Introduced Grasses and Legumes (327) Honey Bee Habitat Biology Jobsheet #18

Natural Resources Conservation Service (NRCS) – Minnesota

October 2014

## Landowner \_\_\_\_\_

### Definition

Creating, restoring, maintaining or enhancing foraging areas for honey bees.



### Purpose

To provide floral forage habitats to benefit hive nutritional health.

### Where used

On all landscapes that are suitable for the establishment and management of cover for pollinators, including honey bees. Locate practice within close proximity to existing hives or apiaries.

### 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 Practice Standard 327 – Conservation Cover.

- Encourage blocks of herbaceous cover as opposed to narrow linear plantings.
- Minimum width shall be 20 feet.
- Minimum size shall be 0.5 ac.

### 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.

A second and subsequent clipping 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 a grass legume mixture.

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.

### 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 unplanned disturbance of cover during the primary nesting season for wildlife (May 1-Aug. 1). Fences may need to be constructed and maintained to exclude livestock.
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. Re-seed any areas that do not have adequate permanent cover.
5. Control rodent infestations that adversely affect the perennial ground cover.
6. Use all chemicals according to label instructions. University and Extension publications and specific label instructions will be used for 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)
Timothy		0.5					
Alfalfa		2.0					
White Clover		3.0					
Alsike Clover		4.0					
Red Clover		3.0					
Buckwheat		16.0					
<b>Optional <u>additional</u> species</b>							
Purple Prairie Clover		0.5					
Canada Milkvetch		0.25					

**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 or August 1 – September 10  
                           **North of I-94**    April 1 - June 15 or July 15 - September 1  
                           **Dormant**            Soil temperature <50° - Freeze-up

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

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

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

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

