



United States Department of Agriculture

# CRP Mid Contract Management

Natural Resources Conservation Service - Indiana – February 2016 (ver. 1.0)

## Mid Contract Management for Grassed Waterways Job Sheet

### PURPOSE

Mid-Contract Management (MCM) activities in the Conservation Reserve Program (CRP) ensure plant diversity and wildlife benefits are enhanced throughout the contract period while maintaining soil and water resources. CRP participants are required to perform a MCM practice during the life of the contract. The only MCM option available for grassed waterways is inter-seeding of legumes.



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### WHY INTER-SEED LEGUMES?

Once established, grass waterways need to be managed so they don't become just monocultures of grass. A dense stand of vegetation is needed for the waterway to function properly and not erode, but the addition of legumes adds diversity to the site and can provide nitrogen to help sustain the vegetation. Many legumes are also beneficial for pollinators.

Eligible non-native legumes include red, white Dutch, alsike, and ladino clover, alfalfa, annual lespedeza, and birdsfoot trefoil. Native legumes such as partridge pea, wild senna, leadplant, prairie clovers, and round-headed and slender lespedeza are a rich and highly palatable source of protein and green browse. Legumes also tend to harbor a wide variety of insects that are an excellent source of protein for both game and non-game birds. Loafing and roosting cover for wildlife is another benefit. Many legumes start growing in early spring when most

grasses are still dormant and continue to grow well into the late fall, providing additional food resources.

In addition to improving soil fertility, many legumes are also deep rooted and drought tolerant, which provides additional erosion control and soil health benefits.

### INTER-SEEDING REQUIREMENTS

Inter-seeding will be applied to the **entire** grassed waterway CRP acreage. Broadcasting seed in the dormant season is the suggested method; seed may also be drilled but not in the bottom portion (the bottom portion will need to be broadcast seeded separately).

Normally, MCM activities are conducted between the 4<sup>th</sup> and 6<sup>th</sup> year of the contract. However, on land with existing cover, disturbance activities can begin as soon as technically feasible. All required MCM practices must be completed by the end of year 6 of a 10 year contract and by the end of year 9 of a 15 year contract. No required MCM can occur during the last 3 years of a CRP contract, but there are options for additional voluntary management activities in this period.

When the existing grass stand is too dense for successful seed to soil contact or creating too much competition for the legumes to get established, mowing or prescribed burning can be done on the side slopes and any additional seeded widths. If burning is used, see the CRP MCM Prescribed Burning Job-sheet for details and



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Broadcast seeding with an ATV.

requirements. Seedbed preparation methods such as disking or spraying are not authorized, to protect the intended purpose of grassed waterways to control soil erosion. All site preparation methods are not authorized during the primary nesting season (April 1 – August 1).

## SPECIFICATIONS

The following are specifications for inter-seeding legumes on CRP acreage. Note that this practice can be used in conjunction with the mid-contract management technique *Prescribed Burning*.

### A) GENERAL

- NRCS Indiana (IN) Field Office Technical Guide (FOTG) Standard (647) *Early Successional Habitat Development/Management* will be used for this practice.
- The entire grassed waterway acreage can be inter-seeded in a single year; however, to maximize wildlife benefits, participants may opt to perform the site preparation and inter-seeding on ½ - ⅓ of the area each of 2 - 3 years if they so choose to provide residual habitat each year.
- Inter-seeding by drilling will be avoided on environmentally sensitive areas including:
  1. Concentrated flow areas (bottoms of the waterways)
  2. Critical areas
  3. Acreage within the first 20 feet of a practice that borders a water resource to avoid water quality resource concerns
  4. Other areas where gully erosion is likely
- Environmentally sensitive areas will be marked on the plan map to ensure Mid-Contract Management activities are avoided on these areas.
- Waterways must be established for a minimum of three years before initiating inter-seeding.
- Erosion from inter-seeded strips will not exceed tolerable limits.
- Site-preparation for inter-seeding will not be performed from April 1 through August 1 to protect the primary nesting period for grassland bird species. It is also recommended, but is not required, to delay site preparation until after August 15 to reduce the chance of harming fledgling birds and other young wildlife.

### B) SITE PREPARATION

**NOTE:** Except as indicated, all site preparation items below are required regardless of planting method used.

- Successful site preparation should begin the fall before seeding. Methods for controlling existing vegetation include the use of mowing or prescribed burning.
- If burning is used for site preparation, see IN NRCS FOTG Standard (338) *Prescribed Burning* for additional guidance. Extremely heavy stands of vegetation may need to be burned to enable good seed to soil contact prior to seeding.
- The presence of annual weeds (such as foxtail, common ragweed, and perennial forbs) is not a major concern, as these plants are important sources of food for wildlife, especially bobwhite quail as long as they don't dominate the stand and jeopardize the primary purpose of the waterway and not in the bottom of the waterway.

### C) SEEDING DATES

Species/Mix	Seeding Dates	Dormant Seeding Dates*
Legumes	Early March- Mid May	Early December – Early March

\* Increase seeding rates by 25% dormant seeding.

Inoculate legume seed before seeding with the proper Rhizobia bacteria specific for the species. Re-inoculate seed if it was pre-inoculated more than 60 days prior to seeding.

### D) SPECIES SELECTION

Legume mixes will contain a minimum of two (2) species selected from Tables 1 and/or 2. The rates in the tables are set for two species. If additional species are used, rates will need to be adjusted accordingly. Additional species may be suitable if approved by NRCS.

### E) PLANTING METHODS

**Broadcast Seeding (Preferred Method):** Seed may be broadcast if completed in a uniform manner. Pre-mixing the seed with 200 lbs. per acre of pelletized lime or utilizing coated seed and utilizing an airflow applicator is also effective. Wind speed should be 10 M.P.H. or less when broadcasting. Best suited for introduced legumes.

**Drill Seeding:** Ensure the drill is designed to handle the seed being planted (especially important for native legumes). Many Quail Unlimited and Pheasants Forever chapters, as well as local Soil and Water Conservation Districts, have native grass drills available. Set the drill to provide an ideal planting depth of no more than one-fourth (¼) inch unless otherwise directed. Seeding native legumes deeper than one-fourth (¼) inch will lead to

potential failure. Soils that are too wet or too dry can also cause improper seed placement. Suitable for both introduced and native legumes. Drilling will not be performed in the bottoms of the waterways.

The Indiana Department of Natural Resources, Division of Fish and Wildlife also has detailed information on seeding native legumes at <http://www.in.gov/dnr/fishwild/files/warmgrass.pdf>.

## CONSIDERATIONS

- Consider spot-spraying areas in advance of disturbance where noxious weeds, such as Canada thistle and Johnsongrass, or other troublesome species, such as Reed Canarygrass, exist.
- Landowners should be wary of tile blowholes, groundhog holes, fallen tree limbs, and other hazards that may have developed since they were last in the field.
- Some seeding mixtures contain seed that is extremely small and thus have very low seeding rates. This may make it difficult to set seeding equipment to uniformly seed these low rates of very small seed. Under these circumstances, a carrier may be needed to add enough volume to the mix for proper metering. The carrier should be no larger than the largest seed species and have similar shape, density, and texture to the majority of the seeds in the mix. The carrier can be an inert material that does not have abrasive properties that may cause damage to the equipment or the seed. Inexpensive seed that will have no significant negative impact on the purpose of the seeding may also be used - vernal alfalfa (unimproved varieties) at one (1) to two (2) pounds per acre is a viable option as a legume carrier. Coated seed is also sometimes available and is helpful in obtaining a more uniform planting.
- Coated seed has a coating of clay material surrounding the seed which actually helps you be able to sow very small seed more accurately. It does change the pounds of bulk seed you are planting. Most coating adds about 33-34% inert ingredients to the bag of seed. So if you are wanting to plant six pounds of red clover, you are actually going to have to increase the amount of bulk seed you plant per acre to about nine pounds per acre to get your planned six pound rate.

**Table 1: Native Legumes**

Species	Soil Moisture Tolerance	Seeding Rate (lb./acre)
Bundleflower, Illinois ( <i>Desmanthus Illinoensis</i> )	MWD - ED	½
Lead Plant ( <i>Amorpha canescens</i> )	WD – ED	¼
Lespedeza, Roundheaded ( <i>Lespedeza capitata</i> )	MWD – ED	¼
Lespedeza, Slender ( <i>Lespedeza virginica</i> )	MWD – ED	¼
Partridge Pea ( <i>Cassia fasciculata</i> )	MWD – ED	¾
Prairie Clover, Purple ( <i>Petalostemum purpureum</i> )	MWD - ED	¼
Prairie Clover, White ( <i>Petalostemum candidum</i> )	MWD - ED	¼
Senna, Wild ( <i>Cassia hebecarpa</i> )	VPD – WD	2
Tick Trefoil, Hoary ( <i>Desmodium canescens</i> )	MWD – ED	1
Tick Trefoil, Illinois ( <i>Desmodium illinoense</i> )	MWD – ED	¾
Tick Trefoil, Showy (a.k.a. Canada) ( <i>Desmodium canadense</i> )	SPD – WD	½
Wild Indigo, Blue ( <i>Baptisia australis</i> )	SPD – WD	2
Wild Indigo, Cream ( <i>Baptisia leucophaea</i> )	SPD – ED	1.5
Wild Indigo, White ( <i>Baptisia leucantha</i> )	SPD – ED	1.5

**Table 2: Introduced Legumes**

Species	Soil Moisture Tolerance	Seeding Rate (lb./acre)
Alfalfa ( <i>Medicago sativa</i> ) (Branched rooted/multi-rooted only)	MWD – ED	7
Clover, Alsike ( <i>Trifolium hybridum</i> )	PD – WD	2
Clover, Ladino ( <i>Trifolium repens</i> )	PD – WD	1
Clover, Red ( <i>Trifolium pratense</i> )	MWD – ED	5
Clover, White ( <i>Trifolium repens</i> )	PD – WD	1
Lespedeza, Common, Kobe, or Marion <sup>1</sup> ( <i>Kummerowia striata</i> )	WD – ED	6
Trefoil, Birdsfoot ( <i>Lotus corniculatus</i> )	MWD – WD	4

1/ Substitutes for *Lespedeza* must be used on sites north of Interstate 70

# INTER-SEEDING SPECIFICATIONS SHEET

Landowner:			County:		
Farm:	Tract:	Field(s):	Acres:	Date:	

## SPECIES AND SEEDING RATES

All rates are in Pure Live Seed (PLS)

	Legumes	Rate Lb./acre	Total = (Rate X Acres)		Legumes	Rate Lb./acre	Total = (Rate X Acres)
<input type="checkbox"/>			oz.	<input type="checkbox"/>			oz.
			oz.				oz.

NOTES:

## SITE PREPARATION - BEFORE PLANTING IN YEAR:

<input type="checkbox"/>	Herbicide (per label):	Dates:
<input type="checkbox"/>	Herbicide (per label):	Dates:
<input type="checkbox"/>	Herbicide (per label):	Dates:
<input type="checkbox"/>	Tillage:	
<input type="checkbox"/>	Prescribed Burning:	
<input type="checkbox"/>	Temporary Seeding:	
<input type="checkbox"/>	Other:	

NOTES:

## PLANTING YEAR:

<input type="checkbox"/>	Planting Method:	Date:
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If unforeseen circumstances prohibit planting by this date, please contact the local NRCS office as soon as possible.

## ADDITIONAL INFORMATION

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