

# Riparian Herbaceous Cover *Native Grass/Forb Planting*

## Conservation Practice Job Sheet **390**

Participant Name:

CRP Practice If Applicable:

**INFORMATION ON THIS JOB SHEET IS CONSIDERED TO BE PART OF THE CONTRACT AND/OR CONSERVATION PLAN.**

### Definition

Riparian Herbaceous Cover is a strip of permanent vegetation established and managed between upland and aquatic habitats. Vegetation consists of adapted grasses, legumes, and forbs.

### Purpose

This practice is used to accomplish one or more of the following purposes:

- Provide or improve food and cover for fish, wildlife and livestock,
- Improve and maintain water quality.
- Establish and maintain habitat corridors.
- Increase water storage on floodplains.
- Reduce erosion and improve stability to stream banks and shorelines.
- Increase net carbon storage in the biomass and soil.
- Enhance pollen, nectar, and nesting habitat for pollinators.
- Restore, improve or maintain the desired plant communities.
- Dissipate stream energy and trap sediment.
- Enhance stream bank protection as part of stream bank soil bioengineering practices.

### Where Used

Riparian Herbaceous Cover is planned adjacent to perennial and intermittent watercourses and water bodies where herbaceous cover is needed to meet planning objectives. This practice will be placed according to the plan map and this job sheet.



### Establishment Specifications

1. Native grass and native grass mixtures that include forbs will be seeded between April 15<sup>th</sup> and June 30<sup>th</sup>.
2. Species, seeding rates, and seeding dates will be according Table 3.
3. Seed will conform to minimum state standards for purity, germination and other features. Seed tags and other information may be requested by NRCS representatives to verify contract compliance.
4. Soil amendments, when planned, shall be made according to University of Kentucky fertilizer recommendations. Typically, fertilization is not recommended on native grass plantings for this practice. See Table 3 for more detail on soil amendments.
5. Competition control, seedbed preparation and seeding shall be done according to the following.

#### Competition Control Before Planting

Competition control is critical to ensuring a successful establishment. Conventional seedbed preparation, herbicide application or both may be used to control competition prior to planting.

Several steps are required to achieve successful competition control when using herbicide especially on fescue stands. The first step in killing fescue is to mow the area in late summer

for a fall herbicide burn down or in late fall or early spring for a spring herbicide burn down. If possible after mowing and prior to herbicide application, remove the hay to provide a better seed bed and allow for better herbicide contact with vegetation. If hay removal is not possible, the area may be raked so the hay and thatch is moved off the area that will be planted. (Hay removal is not allowed if the area is currently under a CRP contract.) Herbicide should be applied after 6 – 8 inches of new growth and when the vegetation is actively growing.

Prescribed burning is also a viable option for improving seedbed conditions and herbicide effectiveness. Burning must be done according to a detailed burn plan from KDFWR, The Nature Conservancy, or TSP.

When a second herbicide application is planned, it should occur just prior to native grass planting and after the remaining vegetation has new growth to a 6 - 8 inch height. Ensure herbicide applications are made when vegetation is actively growing.

A second herbicide application is required for dense fescue or orchard grass stands and other areas where competition may not be controlled by one herbicide application. Table 1 provides some options for controlling competition prior to planting.

#### Seeding and Seedbed Preparation

**Important: Regardless of the seeding method used, the seeding depth for most native species should never exceed ¼ inch unless specifically recommended. Avoid no-till planting or cultipacking planted seedbeds in wet soil since it may result in placing the seed too deep. Having some seed on the soil surface is better than having it too deep.**

No-till establishment is the preferred method since soil disturbance is minimal, thus reducing weed competition and the risk of soil erosion. Conventional seeding may be used for establishment on areas where weedy competition will be lessened and where the risk of soil erosion is minimal.

#### No-Till Seeding

Smooth seeded native species like Switchgrass can be planted using a no-till drill with the legume box.

Fluffy seeded native species will need to be seeded with a no-till drill specialized to plant these seeds. These specialized drills have seed boxes with dividers and agitators, picker wheels, and oversized drop tubes. Specialized drills are also designed so they can be adjusted to ensure shallow planting depths. Some conventional no-till drills have been retro fitted with a fluffy grass seed box. Care needs to be exercised when setting these drills to ensure that planting depths are no deeper than ¼ inch. Two common mistakes when no-till planting native grasses include pulling the drill to fast and not stopping to check seeding depth often enough.

#### Conventional Seeding

A seedbed may be prepared by disking two or more times to make a clean, firm seedbed. After disking, make at least one trip over the field using a cultipacker to firm the seedbed. The importance of a dry firm seedbed cannot be over emphasized to ensure proper planting depth.

Broadcast fluffy seeded native species with a drop spreader. When using a cyclone type spreader, a carrier should be used to help distribute the seed. The following carriers may be used: pelletized lime at a 200 lbs/acre rate; or oats at 32 lbs./acre rate. Since fluffy seed will only broadcast as far as the carrier, make sure your passes overlap to ensure even coverage. If oats or other cereals are used as a carrier, mow prior to seed head formation.

After broadcasting, cultipack or roll the seeded area only once to ensure good seed to soil contact and the proper, shallow seeding depth.

#### Eastern Gama Grass Planting

Eastern Gama grass may be planted into a conventionally tilled seedbed or into grass sod

using a corn planter. Since some corn drills do not handle the seed as well as others a trial run should be conducted prior to the planting operation. Planting depth for Eastern Gama grass shall not be deeper than 1-1½ inches.

## **Operation and Maintenance**

Competition control remains an important part of native grass establishment for up to two years after planting. Control competition and prevent weed seed formation in native grass stands by top clipping during this period as recommended by NRCS, Kentucky Department of Fish and Wildlife Resources, or a certified Technical Service Provider. Post-emergent herbicides like imazapic may also be used to control competition during the two-year establishment period when recommended by one of the above technical service providers.

Inspect and repair areas planted to riparian herbaceous cover after storms to fill in gullies, reseed disturbed areas, and take other measures to ensure the effectiveness of the practice.

Avoid mowing areas planted to riparian herbaceous cover between May 15<sup>st</sup> and August

1<sup>st</sup> which is the primary nesting season for ground-nesting birds and animals. In addition, to improve wildlife and pollinator habitat, try not to disturb more than 50 percent of the area in any one year.

**Areas enrolled in the Conservation Reserve Program (CRP) shall not be used for forage, turn rows, access roads or for storage of crops or equipment when planted to riparian herbaceous cover.**

**Areas where riparian herbaceous cover is being established under a Farm Bill program will require the participant to follow management requirements as outlined in the program specific Management and Maintenance Job Sheet that is attached.**

## **Specifications**

Site-specific requirements and additional provisions are listed on the next pages. Specifications are prepared in accordance with the Riparian Herbaceous Cover (390) practices standard in the NRCS Field Office Technical Guide.

**Table 1. This table contains options for controlling competing vegetation with burn down herbicides\* prior to planting native grasses/forbs. Eastern Gamagrass, Switchgrass, Virginia Wild Rye, and some forbs/wildflowers may not be compatible with the active ingredient, imazapic. If imazapic-containing herbicides will be used, check the label to determine which forbs/legumes are compatible with imazapic prior to species selection. Remove excess vegetation prior to application if needed. (For land currently under a CRP contract, vegetation can only be mowed and may not be removed.) Apply herbicide after vegetation has re-growth of at least 6 - 8 inches.**

| Applied                             | Option                    | Current Condition (circle one)                                       | Timing  | Method  |
|-------------------------------------|---------------------------|--|---|---|
| <input checked="" type="checkbox"/> | 1<br>(Single Application) | Cropland<br>Or<br>Grassland (excluding tall fescue and orchardgrass) | Spring<br>(April/June)                              | Apply just prior to planting.<br><br>Herbicide Rate: 2.0 – 3.0 quarts of glyphosate per acre. May be tank-mixed with 4-8 ounces of imazapic per acre.*  |
| <input checked="" type="checkbox"/> | 2<br>(Single Application) | Cropland   | Spring<br>(April/June)                              | Apply just prior to planting.<br><br>Herbicide Rate: 4-8 ounces of imazapic per acre.*  |
| <input checked="" type="checkbox"/> | 3<br>(Two Applications)   | Grassland  | Spring<br>(April/June)                              | Apply first application several weeks before planting and second application should be applied just prior to planting after 4- 6 inches of re-growth occurs three to four weeks after initial application.<br><br><ul style="list-style-type: none"> <li>• 1<sup>st</sup> Herbicide Application Rate: 2.0 – 3.0 quarts of glyphosate per acre.*</li> <li>• 2<sup>nd</sup> Herbicide Application Rate: 1.0 –1.5 quarts of glyphosate per acre. May be tank-mixed with 4-8 ounces of imazapic per acre.*</li> </ul> |
| <input checked="" type="checkbox"/> | 4<br>(Two Applications)   | Grassland  | Fall<br>(Sept/Oct)<br>And<br>Spring<br>(April/June) | <b>Fall</b> Herbicide Application Rate: 1.5 – 2.0 quarts of glyphosate per acre.*<br><br><b>Spring</b> Herbicide Application Rate: 1.5 - 2.0 quarts of glyphosate per acre. May be tank-mixed with 4-8 ounces of imazapic per acre.*  |

\* These rates are directly from the University of Kentucky publication "Weed Management In Grass Pastures, Hay Fields, and Other Farmstead Sites" (AGR-172) and based on a 41% a.i. formulation; Washburn, B. E. and Barnes, T. G., 2000, "Native Warm-Season Grass and Forb establishment using imazapic and 2, 4-D", *Native Plants Journal*, Vol. 1, No. 1, pp. 61-69; and the University of Tennessee publication "Native Warm-Season Grasses: Identification, Establishment and Management for Wildlife and Forage Production in the Mid-South" (PB1752). AGR172 was specifically referenced from the *Pasture Renovation or Replacement of Endophyte-Infected Tall Fescue* section. Additional information pertaining to vegetation control can be found in the above listed references. Note: Methylated soybean oil (MSO) or other additives may be used according to the label.



## Certifications

|  |  |        |       |
|--|--|--------|-------|
| Job Sheet  | Prepared by:                             | Title: | Date: |
|  | Approved by:                             | Title: | Date: |
| Installation   | Meets NRCS standards and specifications. |        |       |
|  | Certification by:                        | Title: | Date: |
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