NRCS Natural Resources Conservation Service

Field Border

Introduced Grass Planting

Conservation Practice Job Sheet 386

Participant Name: _____

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

Definition

Field borders are strips of permanent vegetation established at the edge or around the perimeter of a field. Vegetation consists of adapted grasses, legumes, forbs and/or shrubs.

Purpose

A field border is used to perform one or more of the following:

- Reduce erosion from water
- Protect soil and water quality
- Manage pest populations
- Provide wildlife food and cover
- Increase carbon storage
- Improve air quality.

Where Used

Field borders are located at the edges of crop fields and can connect to other buffer practices within fields. They may also apply to recreational land or on other land where agronomic crops or forage are grown.

Conservation Management System

Field borders are normally established as part of a conservation management system to address the soil, water, air, plant, and animal needs including wildlife and the owner's objectives.

A field border can be used with contour farming, contour strip cropping, cross-slope farming patterns, or rows or headlands in uphill and downhill directions. It also provides a turning area for farm equipment, which reduces sheet, rill, and gully erosion.

Field borders can also provide forage production and improve farm aesthetics. They are most effective when used in combination with other agronomic or structural practices to provide conservation benefits.

Wildlife

Field borders can enhance wildlife objectives. Benefits depend on the vegetative species used and management practiced. Consider using adapted native vegetation that can provide food and cover for important wildlife. Increase width, if needed, to provide necessary protection for nesting animals from predators. Also increase width to protect wildlife if a portion of the field border will be used for equipment movement or turn rows. Avoid mowing field borders between May 15st and August 1st which is the primary nesting season for ground-nesting birds and animals. When managing field borders for wildlife, never disturb (such as mowing or disking) more then 50 percent of the field borders surrounding a field in any one year.

Establishment Specifications

1. Species, seeding rates, and seeding dates will be according to Table 3.
2. 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.

3. For introduced species, certified seed is required unless there is a documented statewide shortage and the use of uncertified seed is deemed allowable by the State Resource Conservationist.
4. Fertilizer and lime applications shall be made according to University of Kentucky recommendations based on a soil test analysis performed consistent with University of Kentucky laboratory soil test procedures.
5. Competition control, seedbed preparation and seeding shall be done according to the following information.

Competition Control Before Planting

Competition control is critical to ensuring a good stand of introduced grasses. In most situations this control should begin prior to the seeding and seedbed operations. Either conventional seedbed preparation or herbicide application/s or both may be used to control competition prior to planting introduced grasses and legumes.

Several steps are required to get successful competition control when using a herbicide to eradicate existing vegetation. The first step in killing existing vegetation with herbicides is to remove excessive top growth that may be present. Removal can be accomplished by mowing or grazing the area immediately prior to beginning the recommended herbicide application program. If possible after mowing, remove the hay to allow for better herbicide contact (check program rules to determine if grazing/hay removal is allowed).

The recommended herbicide program may involve a fall application plus a spring application or one or two spring applications. The herbicide applications must be made while the target vegetation is rapidly growing (preferably at a 4 to 6 inch height).

Table 1 provides some suggested herbicide options for controlling competition prior to planting. Two herbicide applications are normally recommended for dense stands of Fescue or other sod forming species and in other areas where competition may not be controlled by one application. However, only one application could be used where the planner determines that competition can be controlled with only one herbicide application.

Seeding and Seedbed Preparation

Important: Regardless of the seeding method used, the seeding depth for most species should never exceed 1/4 to 1/2 inch. Avoid no-till planting or cultipacking planted seedbeds in wet soil since it may result in placing the seed 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 that have been recently cropped, where weedy competition will be lessened and where the risk of soil erosion is minimal.

☑ *Conventional Tillage*

A seedbed may be prepared by disking two or more times to make a clean, firm seedbed. As a general guide, a seedbed is considered firm when footprints leave no more than a half-inch deep depression. Roll or culti-pack immediately prior to and after seeding to ensure good soil-to-seed contact. Seeds are usually broadcast.

☑ *Reduced Tillage*

A seedbed may be prepared with a chisel, disk or other similar implement that leaves a significant amount of residue on the surface of the soil. Herbicides are normally used to kill existing vegetation prior to tillage. If using a broadcast seeder, roll or culti-pack immediately prior to and after seeding to ensure good soil-to-seed contact. If using a seed drill, rolling and culti-packing are not necessary. Make sure that the depth of

seeding is set correctly for the species being planted.

☑ *No Tillage*

In no-tillage planting, a seed drill is used to place seed at a prescribed depth (usually between ¼ and ½ inch below the soil surface) with minimal soil disturbance. Two common mistakes when no-till planting cool season grasses include pulling the drill too fast and not stopping to check seeding depth often enough.

Operation and maintenance

Competition control remains an important part of successful grass establishment for up to two years after planting. To control competition and prevent weed seed formation, grass stands may be top clipped during this period as recommended by NRCS, Kentucky Department of Fish and Wildlife Resources, or a Technical Service Provider.

Inspect and repair field borders after storms to fill in gullies, remove sediment, reseed disturbed areas, and take other measures to ensure the effectiveness of the border.

If the field border is being established under a program, the participant must 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 NRCS Field Office Technical Guide. See practice standard Field Border, code 386.

Table 1. This table contains several options for controlling competing grass and weed vegetation with burn down herbicides* prior to planting introduced grasses. Remove excess vegetation prior to application if needed. Apply herbicide after vegetation has re-growth of at least 4 to 6 inches.

Applied	Option	Current Condition (circle one)	Timing	Method
☐	1 (Single Application)	Cropland Or Grassland	Spring (April)	Apply just prior to planting. Herbicide Rate: 26-39 ounces of glyphosate active ingredient (a.i.) per acre.*
☐	2 (Single Application)	Cropland Or Grassland	Fall (Sept/Oct)	Apply just prior to planting. Herbicide Rate: 13-20 ounces of glyphosate ingredient (a.i.) per acre.*
☐	3 (Two Applications)	Cropland Or Grassland	Spring (April)	Apply first application will be several weeks before planting and second application should be applied one to two weeks prior to planting. • 1st Herbicide Application Rate: 26-39 ounces of glyphosate ingredient (a.i.) per acre.* • 2nd Herbicide Application Rate: 6.5-13 ounces of glyphosate ingredient (a.i.) per acre.*
☐	4 (Two Applications)	Cropland Or Grassland	Fall (Sept/Oct)	Apply first application will be several weeks before planting and second application should be applied one to two weeks prior to planting. • 1st Herbicide Application Rate: 13-20 ounces of glyphosate ingredient (a.i.) per acre.* • 2nd Herbicide Application Rate: 6.5-13 ounces of glyphosate ingredient (a.i.) per acre.*
☐	5 (Two Applications)	Grassland	Fall (Sept/Oct) And Spring (April)	**Fall** Herbicide Application Rate: 13-20 ounces of glyphosate ingredient (a.i.) per acre.* **Spring** Herbicide Application Rate: 26-39 ounces of glyphosate ingredient (a.i.) per acre.*
☐	6 (Two Applications)	Grassland	Spring (April) And Fall (Sept/Oct)	**Spring** Herbicide Application Rate: 26-39 ounces of glyphosate ingredient (a.i.) per acre.* **Fall** Herbicide Application Rate: 13-20 ounces of glyphosate ingredient (a.i.) 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. Specifically, from the *Pasture Renovation or Replacement of Endophyte-Infected Tall Fescue* section. Additional information pertaining to vegetation control can be found in publication AGR-172. Note: Ammonium Sulfate or other additives may be used according to the label.

Purpose (check all that apply)	
☐ Reduce erosion from water	☐ Protect soil and water quality
☐ Provide wildlife food and cover	☐ Manage pest populations
☐ Increase carbon storage	☐ Improve air quality

Table 2. The following table contains information about a planned herbicide application(s) to be carried out as part of the conservation plan for native grass plantings. Some herbicide applications will be made prior to planting (pre-planting) to burn down existing vegetation. Other applications may be made after planting (post-planting) to help control competition during establishment. All herbicide products must be used according to label specifications.

Field No.	Option (from Table 1)	Pre-Planting Application (Tentative Date)	Post-PlantingApplication (Tentative Date)	Comments

Table 3. Species and seeding rates will be according to the information provided in the table below. If planned, the application of soil amendments shall be made according to University of Kentucky fertilizer and lime recommendations. All recommendations must be made from a soil test that is performed according to University of Kentucky laboratory soil test procedures. If additional room is needed on the tables below or above, make copies of this page and attach it to the back of the job sheet. If shrubs are planned in a field border, see the Tree/Shrub Establishment (612) Job Sheet for technical requirements associated with shrub handling and planting.

Field No.	Border Average Width (ft)	Acres	Species	Lbs./Ac Seed (PLS) or Seedlings/Ac	Total Lbs. (PLS)	Seeding Method (Conv./No-Till)	Lime Tons/Ac	Nitrogen Lbs/Ac	P_2O_5 Lbs/Ac	K_2O Lbs/Ac	Seeding Date

Additional Information:

Program specific requirements or additional technical recommendations that may apply are as follows:

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