

Field Border (386) Natural Regeneration

Kentucky Conservation Practice Job Sheet

August 2004

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 vegetation established at the edge or around the perimeter of a field.

Purpose

A field border is used to reduce soil erosion from wind and water, protect soil and water quality, manage harmful insect populations, provide wildlife food and cover, increase carbon storage in biomass and soil and/or 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 forages 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.

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.

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. **If enrolled in the Conservation Reserve Program (CRP), borders shall not be used for forage, turn rows, roads, or for storage of crops or equipment.**



Wildlife

Field borders can enhance wildlife habitat. Benefits depend on the vegetative species used and management practiced. Consider using natural regeneration that can provide food and cover for important wildlife species. Increase width, if needed, to provide necessary protection for nesting animals from predators. Avoid mowing field borders between May 15th 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 than 50 percent of the field borders surrounding a field in any one year.

Specifications

Site-specific requirements including field border width are listed in Table 3. Specifications are prepared in accordance with the NRCS Field Office Technical Guide and the Kentucky Field Border practice standard (386).

Natural Regeneration

Natural Regeneration can be used for establishing a field border if a 60% ground cover is established within the first two growing season in planned areas for wildlife habitat.

Competition Control

Pastureland

Competition control of unwanted species is critical to ensuring good natural regeneration. Conventional tillage, herbicide application or both may be used to control competition.

Several steps are required to get successful undesirable 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 summer or early spring for a spring herbicide burn down. If possible after mowing and prior to herbicide application, remove the ground litter to provide a better seed bed and allow for better herbicide contact with vegetation. (If under CRP contract, removed ground litter can not be used for feeding livestock or any commercial gain.)

If needed, a second herbicide application should be planned. This application should occur after the remaining vegetation has regrown to a 4 - 6 inch height. All herbicide applications shall be made when vegetation is actively growing. Table 2 provides herbicide treatment options.

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.

Cropland

If vegetation is present, one herbicide burndown will be required. Table 2 provides herbicide treatment options.

Conventional Tillage

Although not preferred due to soil erosion concerns, conventional tillage can be used. If the field has existing fescue, it should be either deep plowed and disked or bog disked.

Cover Crops

Field Borders planned for natural regeneration on cropland should include a cover crop at the time of practice installation to prevent possible soil erosion. Refer to Table 1 for seeding options.

Operation and Maintenance

Weedy type forbs and grasses are highly desirable for many wildlife species. However, infestations of Johnsongrass and other certain non-beneficial noxious plants should be controlled. Participants should consult with NRCS, Kentucky Department of Fish and Wildlife Resources, or a Technical Service Provider to determine appropriate control measures.

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 specifications in Table 3. Follow all management requirements as outlined in the program specific Management and Maintenance Job Sheet that is attached.

Table 1. Seeding rates for temporary cover.

<u>TEMPORARY COVER SPECIES</u>	<u>SEEDING DATES</u>	<u>SEEDING RATE</u>
Spring Oats	March 1 – April 1	2 bushels
Winter Oats	Sept. 15 – Oct. 15	3 bushels
Wheat	Sept. 15 – Oct. 30	1.5 bushels
Rye grain	Sept. 15 – Oct. 30	1.5 bushels

Table 2. This table contains several options for controlling competing, non-desirable vegetation during natural regeneration.. If two burn downs are planned, records should indicate that herbicide was applied to the field twice. **All herbicides shall be applied and used according to label recommendations. Some herbicides restrict grazing or hay harvest for a period of time after application. Two burn downs are required when the dominant species in a field is either fescue or orchardgrass.**

Option	Current Condition	Timing	Method
1 Single Burn Down	Grassland or Cropland	Spring	(This option should not be used when Fescue or Orchardgrass is the predominant cover. Two herbicide burndowns are required when Fescue or Orchardgrass is the predominant cover.) Remove excess vegetation in fall or winter. Apply tank mixture just prior to planting and after vegetation has grown 4 to 6 inches. (For land currently under a CRP contract, vegetation can only be mowed and may not be removed.) Tank Mixture: per acre in April – June Apply 1.5 quarts Roundup Ultra* (or similar Glyphosate base product). May be tanked mixed with Journey* at a rate of 10.7 oz/acre. If Plateau* is available, it can be applied instead of Journey* at a rate of 4-8 oz per acre. Follow all label instructions. Methylated soybean oil (MSO) or similar adjuvant may be added to the mixture to aid in product effectiveness.
2 Two Burn Downs	Grassland	Fall And Spring	Remove excess vegetation in late summer (Aug./Sept.) Apply tank mixture after vegetation has actively grown 4 to 6 inches. (For land currently under a CRP contract, vegetation can only be mowed and may not be removed.) Tank Mixture: per acre in Sept./Oct. 1 to 2 Quarts Roundup Ultra* or similar Glyphosate based product. Follow all label instructions. Note: Ammonium Sulfate or other additives may be used when applying herbicide at lower rates. And Apply tank mixture just prior to planting and after remaining vegetation grows 4 to 6 inches. Tank Mixture: per acre in April-June Apply 1.5 quarts Roundup Ultra* (or similar Glyphosate base product). May be tank mixed with Journey* at a rate of 10.7 oz/acre. If Plateau* is available, it can be applied instead of Journey* at a rate of 4-8 oz per acre. Follow all label instructions. Methylated soybean oil (MSO) or similar adjuvant may be added to the mixture to aid in product effectiveness.
3 Two Burn Downs	Grassland	Spring And Spring	Remove excess vegetation in fall or winter. Apply tank mixture after vegetation has actively grown 4 to 6 inches. (For land currently under a CRP contract, vegetation can only be mowed and may not be removed.) Tank Mixture: per acre in April. 1 to 2 Quarts Roundup Ultra* or similar Glyphosate based product. Note: Ammonium Sulfate or other additives may be used when applying herbicide at lower rates. And if green-up occurs two to four weeks after initial spraying. Apply tank mixture just prior to planting and after remaining vegetation grows at least 4to 6 inches. Tank Mixture: per acre in April-June Apply 1.5 quarts Roundup Ultra* (or similar Glyphosate base product) May be tank mixed with Journey* at a rate of 10.7 oz/acre. If Plateau* is available, it can be applied instead of Journey* at a rate of 4-8 oz per acre. Follow all label instructions. Methylated soybean oil (MSO) or similar adjuvant may be added to the mixture to aid in product effectiveness.

**NRCS does not require specific herbicides by trade name. The active ingredient in Roundup is glyphosate. The active ingredient in Plateau is imazameth. The active ingredients in Journey are glyphosate and imazameth. Other brands of herbicide containing these ingredients may be substituted, however, application rates, application timing, and results may vary. Additional information regarding vegetation control can be found in the University of Kentucky publication “Weed Management In Grass Pastures, Hay Fields, and Fence Rows” (AGR-172).*

Table 3. The following table contains information about a planned herbicide application(s) to be carried out as part of the conservation plan for natural regeneration. 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 unwanted competition during establishment of the practice. All herbicide products must be used according to label specifications. Cover Crop and Seeding Rate will be listed below as selected by landowner and certified conservation planner.

Field Number	Field Border Width (ft)	Pre-Planting Application(s) (Tentative Date)	Comments	Cover Crop & Rate