

Field Border – natural regeneration

Virginia Conservation Practice Job Sheet

386(a)



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, and/or shrubs.

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 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 used with

contouring, contour stripcropping, cross-slope farming patterns, or terraces eliminate the normal planting of

end rows or headlands in uphill and downhill directions.

Field borders also provide a turning area for farm equipment, which reduces sheet, rill, and gully erosion. In addition, field borders can 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. **If enrolled in WHIP or CRP, borders shall not be used for forage, turn rows, roads, or for storage of crops or equipment.**

Wildlife

Field borders can enhance wildlife objectives. Benefits depend on the vegetative species used and management practiced. Use natural regeneration to provide food and cover for important wildlife species. Increase width, if needed to provide necessary protection for nesting animals from predators. Also increase width to protect wildlife if a (a non-CRP or WHIP) portion of the field border will be used for equipment movement or turn rows. Avoid mowing field borders between April 15th and August 15th which is the primary nesting season for ground-nesting birds and animals. When managing field borders for wildlife, never disturb (such as burning or disking) more than 50 percent of the field borders surrounding a field in any one year.

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, Virginia Department of Game and Inland Fisheries, 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 management requirements as outlined in the program specific management and maintenance job sheet that is attached.



Specifications

Field borders are a minimum of 35 feet wide. Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide and the Virginia Field Border practice standard (386). Refer also to practice standards Upland Wildlife Habitat Management code 645, Early Successional Habitat Development code 647 and Prescribed Burn code 338.

Natural Regeneration

Natural regeneration can be used for establishing a field border if a 60% ground cover is established within the first two growing seasons in planned areas for wildlife habitat. Discontinuing farming the cropland will permit natural regeneration.

Field borders planned for natural regeneration shall include a cover crop at the time of practice installation, if slopes exceed 3%. Plant the cover crop at a rate of 30lbs per acre during the first year.

If slope, soil type, or other factors make soil erosion an immediate concern, the border should be established by other means

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 competition control. This is especially true on fields with fescue sod. The first step in killing fescue is to mow the area in late summer for a fall herbicide burn down. If possible after mowing and prior to herbicide application, remove the cut vegetation by prescribed burn. Removing the vegetation and thatch will provide a better seed bed and allow for better herbicide contact with vegetation.

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. 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. All herbicide applications shall be made when vegetation is actively growing. Table 1 provides herbicide treatment options.

Cropland

If vegetation is present, one herbicide burn down will be required. Table 1 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 deep plowed and disked.

Cover Crops

If a field border is being installed on cropland, participant may sow a cover crop to stabilize soil and prevent possible erosion during the first year. Table 1 provides options for sowing cover crops. **If enrolled in CRP or WHIP, cover crops may not be harvested.**



Table 1. This table contains several options for controlling competing, non-desirable vegetation during natural regeneration. If two burn downs are planned, records should indicate that the herbicide was applied to the field twice. All herbicides shall be applied and used according to label recommendations and may slightly differ from that listed below.

Option	Current Condition	Timing	Method
1 Single Burn Down	Grassland Or Cropland	Spring	<p>(This option should not be used when tall Fescue or Orchardgrass is the predominant cover. Two herbicide burndowns are required when Fescue is the predominant cover.)</p> <ol style="list-style-type: none"> 1. Remove excess vegetation in fall or winter. 2. Apply tank mixture after vegetation has grown 4 to 6 inches. <u>Tank Mixture: per acre in April – June</u> Apply 1.5 quarts glyphosate base product. May be tanked mixed with a glyphosate/imazameth mixture at a rate of 10.7 oz/acre. <p>If imazameth alone is available, it can be applied instead of the glyphosate/imazameth mixture at a rate of 4-8 oz per acre. Follow all label instructions.</p>
2 Two Burn Downs	Grassland	Fall And Spring	<ol style="list-style-type: none"> 1. Remove excess vegetation in late summer (Aug./Sept.). 2. Apply tank mixture after vegetation has actively grown to 4 to 6 inches. <u>Tank Mixture: per acre in Sept./Oct.</u> 1 to 2 quarts glyphosate based product. Follow all label instructions. <p>AND</p> <ol style="list-style-type: none"> 3. Apply tank mixture just prior to planting and after remaining vegetation grows 4 to 6 inches <u>Tank Mixture: per acre in April-June</u> Apply 1.5 quarts glyphosate based product. May be tank mixed with glyphosate/imazameth mixture at a rate of 10.7 oz/acre. If imazameth alone is available, it can be applied instead of the glyphosate/imazameth mixture at a rate of 4-8 oz per acre. Follow all label instructions.
3 Two Burn Downs	Grassland	Spring And Spring	<ol style="list-style-type: none"> 1. Remove excess vegetation in fall or winter 2. Apply tank mixture after vegetation has actively grown 4 to 6 inches. <u>Tank mixture: per acre in April</u> 1 to 2 quarts glyphosate based product. <p>IF green-up occurs two to four weeks after initial spraying:</p> <ol style="list-style-type: none"> 3. Apply tank mixture just prior to planting and after remaining vegetation grows at least 4 to 6 inches. <u>Tank mixture: per acre in April-June</u> Apply 1.5 quarts glyphosate based product. May be tank mixed with glyphosate/imazameth mixture at a rate of 10.7 oz/acre. If imazameth alone is available, it can be applied instead of the glyphosate/imazameth mixture at a rate of 4-8 oz per acre. Follow all label instructions.

*NRCS does not require specific herbicides by trade name and recommendations on herbicides and specifications on rate and timing should come from an extension agent.

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Natural Regeneration Job Sheet 386(a)

<i>Landowner:</i>	<i>Farm #:</i>
<i>Field(s):</i>	<i>Tract #:</i>
<i>Designed By:</i>	<i>Date:</i>
<i>Drawing No(s):</i>	<i>Signature:</i>

Field Number	Field Border Width (ft) (minimum 35 ft)	Pre-Planting Application(s) [Tentative Date]	Comments	Cover crop & Rate (year 1 only)

Installation shall be in accordance with the specified drawings, specifications, and special requirements. **No changes are to be made in the drawings or specifications without prior approval from the technical specialist developing the plan.**

Sketch of Layout

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