

Field Border

Virginia Conservation Practice Job Sheet

386



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.

Criteria

General Criteria Applicable to All Purposes

Field borders shall be established around the field edges to the extent needed to meet the resource needs and producer objectives. Minimum field border widths shall be 35 feet but may be increased based on local design criteria specific to the purpose or purposes for installing the practice, and will be increased if needed to provide sufficient turn around space for farm equipment.

The field borders shall be established to adapted species of permanent grass, forbs, legumes and/or shrubs that accomplish the design objective and do not function as host for diseases of the field crop.

Additional Criteria to Reduce Erosion from Wind and Water

Plants selected for field borders will have the physical characteristics necessary to control wind and water erosion to tolerable levels on the field border area.

Refer to the Virginia Plant Establishment Guide for the recommended seeding or planting rates, dates, depths and methods that best ensure establishment and growth of the selected species.

Field border establishment, in conjunction with other practices, will be timed so that the soil will be adequately protected during the critical erosion period(s).

Locate borders to eliminate sloping end rows, headlands, and other areas where concentrated water flows will enter or exit the field.

Additional Criteria to Provide Wildlife Food and Cover and Pollinator or other Beneficial Organism Habitat

Select species that provide adequate habitat, food source and/or cover for wildlife species of interest. Include appropriate plants that attract beneficial organisms that prey on target pests.

Mowing, harvesting, pesticide applications and other disturbance activities will be scheduled to accommodate life cycle requirements of the beneficial organisms. Complete mowing, harvesting, weed control and other management activities within the field border outside of the nesting season (April 15 to August 15).

If planting a pollinator mix, plant native grasses, forbs and legumes to promote diversity. A minimum of 2 grasses and 9 flowering forbs shall be planted. The maximum seeding rate for all species is based on the number of seed density of no greater than 30 seeds per square foot (drilled) or 45 seeds per square foot (broadcast).

Vegetative successional state shall be maintained to accommodate target wildlife species requirements.

When wildlife is a concern, a lower percent groundcover than would be needed if protecting soil and water quality was the only goal is acceptable as long as the soil resource concern is also adequately addressed (i.e. no excessive soil loss). This may be achieved by simply increasing the field border width.

NOTE: This summary does not address all requirements and considerations in the VA Field Border Conservation Practice Standard (Code 386). Consult the Conservation Practice Standard for further details.

Planting Methods

Grass/Forbs:

1. Selected grass/forb and legumes species and management shall be compatible with producer's objectives, site conditions, and other crops/pasture and practices in farming system.
2. Control non-native grasses and legumes before sewing seed of native species.
3. Selected grass/forbs and legumes species and management shall be consistent with approved guidance such as Plant Establishment Guide for Virginia, Tech Notes, etc.
4. Plants designated in Virginia as noxious weeds shall not be used.
5. Drill grass/forbs and legumes seed _____ inches deep uniformly over area or broadcast the seed at the following rate _____. Establish vegetation according to the specified seeding rate. If necessary, mulch newly seeded area with 70% cover (approximately 2,000 lbs. straw per acre). A small grain crop may be needed as a companion crop at the rate of 1-2 bushels per acre (clip or harvest before it heads out).
6. Planting date_____.

Shrubs:

1. Selected Shrub species and management shall be compatible with producer's objectives, site conditions, and other crops/pasture and practices in farming system.
2. Selected shrub species and management shall be consistent with approved guidance such as Plant Establishment Guide for Virginia, Tech Notes, etc.
3. Plants designated in Virginia as noxious weeds shall not be used.
4. Shrubs can be arranged to meet the clients' objectives (rows or clumps).
 - Rows – the first row should start out side of the dip line using a spacing of 5' on center or in clumps of a 20' minimum diameter.
5. Planting Date_____.

Additional requirements:

Site Prep - *Specify any site prep to be conducted ahead of planting. Issues to address include: removal of unwanted material (to include non-native plant species); grading; topsoil stockpiling, spreading, etc; soil testing; and soil amendment with compost/lime/fertilizers.*

Additional requirements:

Additional Criteria to Reduce Erosion from Wind and Water

List any additional recommendations related to erosion control, if any, based on client's purpose(s).

1. Canopy cover not less than 60%
2. Installation of all associated conservation practices in a timely manner, so the soil will be adequately protected during the critical erosion period.
3. Orient plant rows as closely as possible to perpendicular to sheet flow direction.

After the field border has been established ensure that canopy cover is greater than 60%. Using the line transect method measure the canopy cover:		Additional requirements:
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Additional Criteria to Protect Soil and Water Quality

Write in applicable additional criteria, if any, based on client's purpose(s); see complete Standard for details.

1. Field Border cannot be burned.
2. As a minimum, locate field borders along the edge(s) of the field where runoff enters or leaves the field.
3. The border must have a vegetation stem density/retardance of moderate to high (e.g. equivalent to a good stand of wheat).

Additional requirements:

Additional Criteria to Provide Wildlife Food and Cover and Pollinator or other Beneficial Organism Habitat

Write in applicable additional criteria, if any, based on client's purpose(s); see complete Standard for details.

1. Select species that provide adequate habitat, food source and/or cover for the wildlife species of interest.
2. Perform management activities within the field border outside of the nesting season (April 15 to August 15).
3. Maintain vegetative successional state for targeted wildlife species requirements
4. Plant pollinator habitat field borders with a minimum of eleven species including two native grasses; at least three species that bloom very early or early season; three mid-season and three late season species. The maximum seeding rate for all species is based on the number of seed density of no greater than 30 seeds per square foot (drilled) or 45 seeds per square foot (broadcast).
5. Shrub borders will consist of at least three parallel rows.
6. Space rows 5 feet apart, with a spacing of 5 feet between plants in the row. Clumping of shrubs is permissible and will be planted at a 20 feet minimum diameter.
7. Plant shrubs no closer than the drip line edge of trees when adjacent to "mature" woodland.
8. Plant a minimum of three shrub species for greater diversity.
9. Borders established for wildlife primarily will not be used as machinery turn areas and vehicle traffic should be avoided. Additional widths for these purposes shall be provided.

Additional requirements:

Additional Criteria to Increase Carbon Storage.

Write in applicable additional criteria, if any, based on client's purpose(s); see complete Standard for details.

1. Maximize the width and length of the border to fit the site and increase total biomass production.
2. Establish plants species that will produce adequate above- and below-ground biomass for the site (i.e. a positive Soil Conditioning Index).
3. Do not burn.
4. Do not disturb the roots of the established vegetation with tillage.

Additional Criteria to Improve Air Quality

1. Establish plant species with morphological characteristics that optimize interception and adhesion of airborne particulates. Select plants with persistent roots and residue that stabilize soil aggregates and capture airborne soil particles.
2. Do not burn if the main goal of the field border is to improve air quality.
3. Establish species resistant to damage from equipment traffic.

Operation and Maintenance

- Remove sediment from above or within the field border when accumulated sediment either alters the function of the field border or threatens the degradation of the planted species' survival.
- Shut off sprayers and raise tillage equipment to avoid damage to field borders.
- Shape and reseed border areas damaged by animals, chemicals, tillage, or equipment traffic.
- Maintain desired vegetative communities and plant vigor by liming, fertilizing, mowing, disking, or burning and controlling noxious weeds to sustain effectiveness of the border.
- Scout the field border for undesirable vegetation. Remove non-native vegetation in native stands, woody vegetation in herbaceous stands, and trees and shrub field border promptly.
- Repair and reseed ephemeral gullies and rills that develop in the border.
- Minimally invasive tillage (e.g. paraplowing) may be performed in rare cases where compaction and vehicle traffic have degraded the field border function. The purpose of the tillage is strictly to decrease bulk density and increase infiltration rates so as to provide a better media for reestablishment of vegetation and field border function.
- Maintenance activities that result in disturbance of vegetation should not be conducted during the nesting season of grass nesting birds.
- No more than 50 percent of the field borders surrounding a field should be disturbed in any one year to maintain a supply of forage for native pollinators.

Additional requirements:

Planner Certification

The Field Border practice planned in this job sheet fulfills the minimum requirements of Virginia NRCS Conservation Practice Standard 386.

Signature Title Date

Certification of Practice Completion

The Field Border practice planned in this job sheet has been completed and maintained according to Virginia NRCS specifications (indicate in Practice Specifications any changes to the planned activities and acreage).

Signature Title Date

