

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

FIELD BORDER

(Feet)

CODE 386

DEFINITION

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

The species planted shall be selected based on the planned purpose and site conditions. Vegetative establishment will follow the guidance in [Appendix 1](#).

PURPOSES

- Reduce erosion from wind and water
- Soil and water quality protection
- Management of harmful insect populations
- Provide wildlife food and cover
- Provide linkage to other buffer practices, square irregular and odd areas, and protect equipment travel areas.

The application of a dead litter cover, where needed, will follow the guidance in [Appendix 2](#).

Planting dates and methods in planting the seed or plant stock shall ensure that planted materials shall provide a minimum of 65% ground cover where average annual rainfall is ≥ 24 ", 50% ground cover where the average annual rainfall is < 24 " but ≥ 14 ", or 40% ground cover where rainfall is < 14 ".

CONDITIONS WHERE PRACTICE APPLIES

At the edges of cropland fields and to connect other buffer practices within the field. This practice may also apply to recreation land or other land uses where agronomic crops are grown.

Only viable, high quality and adapted seed or plant stock shall be used. Use of invasive species shall be avoided. Legume seed shall be inoculated with the proper Rhizobia bacteria before planting.

Site preparation shall be sufficient for establishment and growth of selected species. Ephemeral gullies and rills present in the planned border area will be smoothed as part of seedbed preparation process. Timing and use of equipment shall be appropriate for the site and soil conditions.

CRITERIA

General Criteria Applicable To All Purposes

The minimum width shall be 20 feet. The maximum widths will be that necessary to accomplish the intended purpose.

Field borders will be established around the field edges to the extent needed to meet the resource needs and producer objectives.

Vegetative manipulation will be accomplished by mechanical, biological or chemical methods, by prescribed burning, or a combination of the four. If burning is used alone or in combination with the other methods, Prescribed Burning, practice standard 338, must be included as a planned practice.

When nutrients are used on the field borders, all nutrients shall be applied according to practice standard, 590, Nutrient Management.

Pest management control methods will be applied according to practice standard, 595, Pest Management.

Additional Criteria To Reduce Erosion From Wind And Water

Wind Erosion Reduction

Locate borders around the entire perimeter of the field, or as a minimum, provide a stable area on the upwind edge of the field as determined by prevailing wind direction data.

Plant stiff-stemmed, upright grasses to trap saltating soil particles and store wind borne sediments originating upwind.

Minimum height of grass shall be one foot during the critical erosion period.

Water Erosion Reduction

Locate borders around entire perimeter of the field, or as a minimum, install borders to eliminate sloping end rows, headlands, and other areas where concentrated water flows will enter or exit the field.

For water erosion, based on the species being used, maintain the stem densities as given in [Appendix 1](#).

Additional Criteria To Protect Soil And Water Quality

Reducing Runoff and Increasing Infiltration

Locate borders around entire perimeter of the field, or as a minimum, install borders to eliminate sloping end rows, headlands and other areas where concentrated water flows will enter or exit the field.

Maintaining Field Setback Distances For Manure and Chemical Applications

Border widths will meet the minimum field application setback widths as determined by state or other local regulations. Field borders may include other non-application areas (e.g. flood prone areas, well-head protection areas, sinkholes, playas, etc.) that are restricted from manure application by state or other local regulations. Refer to the Waste Utilization (633) Standard for further information.

Sediment Trapping

Locate borders around the entire perimeter of the field, or as a minimum, in areas where runoff enters or leaves the field.

Based on the species being used, maintain the stem densities as given in [Appendix 1](#).

Additional Criteria For Management Of Harmful Insect Populations.

Provide a Harbor For Beneficial Insects

Plants and/or herbaceous species will be selected that attract beneficial insects.

Mowing, harvesting, and pesticide applications will be scheduled to accommodate life cycle requirements of the beneficial insects.

Or

Provide a Habitat to Cause Pest Insects to Congregate

Select plants or species for the field border that attract pest insects.

Use mechanical, cultural, and/or chemical techniques to reduce pest populations when and where they congregate in the field border.

Additional Criteria To Provide Wildlife Food And Cover

Plants that provide wildlife food and cover shall be used.

The field border shall not be mowed or harvested during the nesting season of the target wildlife species. Livestock and vehicular traffic shall also be excluded during the nesting season of the target species.

Additional Criteria To Provide Linkage To Other Vegetative Practices and Protection For Travel Areas.

Locate field borders around the entire field or as needed at the edge of the field to connect other vegetative practices and to square irregular shaped areas.

Field borders used for travel or turning areas shall require vegetation, normally sod-forming grasses, that can withstand equipment traffic.

Border widths will be designed to adequately accommodate equipment parking, equipment travel patterns, loading/unloading equipment, grain harvest operations, etc.

PLANNING CONSIDERATIONS

Field borders should be used in conjunction with other conservation practices to achieve the goals of the conservation management system for the field.

Field borders are more effective and provide more environmental benefits when planted around the entire field.

Field borders enhance the aesthetics and provide stability around the field edge. They also provide turn and travel areas for equipment and reduce airborne dust.

To increase trapping efficiency, consider establishing a narrow strip of stiff-stemmed upright grass at the crop/field border interface (Vegetative Barriers, 609). When significant amounts of sediment, nutrients, or pesticides are concerns, a Filter Strip, practice standard 393, should be considered to be used in conjunction with the field border to meet the divergent purposes.

Field borders can be used to meet the required field setback distances, flood plain, and other sensitive areas restrictions applicable to manure and chemical applications.

Wildlife enhancement and other benefits of native plants should be discussed during planning. Consider over-seeding the border with legumes for plant diversity.

Native species should be used when feasible if they meet the producer objectives.

Schedule mowing, harvesting, and weed control to accommodate wildlife nesting needs and other special requirements or purposes.

Waterbars or berms may be needed to breakup or redirect concentrated water flows within the borders. If bank stabilization is a concern, select fibrous deep-rooted plants.

Consider plants tolerant to sediment deposition and herbicides being used.

Rows of shrubs (windbreak/shelterbelt, 380) adjacent to field borders will often enhance field

borders ability to harbor beneficial insects, and may also provide additional wildlife benefits.

If the installation or maintenance of this practice has a potential of affecting cultural resources (Archaeological, historic, historic landscape, or traditional cultural properties), follow NRCS guidance in General Manual 420, Part 401 prior to the installation and during the maintenance of this practice.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for the practice site. The following items shall be specified. A job sheet is available to document these items:

- Border widths and lengths
- Location within the field or farm boundary
- Vegetation to be used
- Site preparation needed
- Planting method
- Liming or fertilizer requirements
- Operation and maintenance requirements

OPERATION AND MAINTENANCE

Field borders require careful management and maintenance for performance and longevity.

The following will be planned and applied as needed:

- Storm damage repair.
- Sediment removal - when 6 inches of sediment have accumulated at the field border/cropland interface.
- The need to shut off sprayers and raise tillage equipment to avoid damage.
- Shape and reseeding border areas damaged by chemicals, tillage or equipment traffic.
- Fertilize, mow, harvest, and control of noxious weeds to maintain plant vigor.
- Ephemeral gullies and rills that develop in the border will be filled and reseeded.

APPROVAL AND CERTIFICATION

FIELD BORDERS

(Acre)

CODE 386

PRACTICE STANDARD APPROVED:

/s Monty Dollar

State Agronomist

November 1, 2000

Date

This practice standard is needed in the _____ Field Office Technical Guide.

Natural Resource Manager

Date

CERTIFICATION:

Reviewed and determined adequate without need of revision.

Technical Specialist (Agronomy)

Date

Technical Specialist (Agronomy)

Date