

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**FIELD BORDER**

(Ft.)

**CODE 386**

**DEFINITION**

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

**PURPOSE**

- Reduce erosion from wind and water
- Soil and water quality protection
- Management of harmful insect populations
- Provide wildlife food and cover
- Increase carbon storage in biomass and soils
- Improve air quality

**CONDITIONS WHERE PRACTICE APPLIES**

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

**CRITERIA**

**General Criteria Applicable to All Purposes**

Field border widths shall be between 20 and 120 feet and should be planned based on site conditions, intended use, and farm equipment size.

The field borders shall be established to adapted species of permanent grass, legumes and/or shrubs. Utilize wildlife friendly species whenever possible.

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

Plant materials, seedbed preparation, seeding rates, dates, depths, and planting methods will be consistent with the following conservation practice standards:

- Conservation Cover (327)
- Tree/Shrub Establishment (612)

Field borders may also be established through natural regeneration where erosion is not a concern by abandoning the field edge, provided a 60% ground cover can be established during the first growing season.

Ephemeral gullies and rills present in the planned border area will be smoothed as part of seedbed preparation.

The site will be graded, if necessary, to permit adequate drainage across the border. Concentrated water flow parallel with and adjacent to or within the border shall be avoided.

**Additional Criteria to Reduce Erosion from Water**

**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. Use stiff stemmed vegetation.

**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 should be designed to conform to minimum field application setback widths established by state or local regulations or herbicide labels.

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

**Reducing Soil Compaction from Equipment Parking and Traffic.** Border widths will be designed to accommodate equipment parking, loading/unloading equipment, grain harvest operations, etc.

**Additional Criteria for Management Of Harmful Insect Populations.**

**Provide a Harbor for Beneficial Insects.** Include herbaceous plants that attract beneficial insects. See planning considerations for including shrubs.

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 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**

Establish plant species that provide wildlife food and cover for the target wildlife species.

Schedule mowing, harvest, and weed control activities within the field border to accommodate reproduction and other life cycle requirements of target wildlife species.

Field borders for upland wildlife habitat purposes must be established and managed according to the following:

- A wildlife field border may be created either by planting native or wildlife friendly introduced herbaceous species and/or

native shrubs or through abandonment of the field edge.

- Herbaceous field borders planned as wildlife habitat must include at least two grasses and at least one legume or forb and shall be seeded according to the Additional Criteria to Provide Wildlife Habitat in the NRCS Conservation Cover (327) practice standard.
- Shrub plantings in field borders shall be completed according to the Additional Criteria to Provide Wildlife Habitat in the NRCS Tree/Shrub Establishment practice standard.
- Naturally regenerated wildlife field borders cannot have fescue, bermudagrass, bromegrass, or old-world bluestems in excess of 20% of the total plant composition. These species must be eradicated from wildlife field borders when in excess of 20% of the total plant composition.
- Mowing, disking, or prescribed burning shall be used to maintain field borders in an early successional state. Prescribed burning may only be done once every three years on field borders. Prescribed burning must be done according to a Kentucky Department of Fish and Wildlife Resources prescribed burning plan and the Kentucky Prescribed Burning (338) NRCS practice standard.
- Annual mowing of the entire field border for generic weed control should be avoided when possible since it greatly reduces habitat quality.
- Any mowing, disking, and other disturbance activities must occur before May 15<sup>th</sup> or after August 1st to avoid the primary nesting season.

**Additional Criteria to Improve Air Quality**

Establish plant species with foliar and structural characteristics that optimize interception, adsorption and absorption of airborne particulates.

### **Additional Criteria to Increase Carbon Storage in Biomass and Sequestration in the Soil**

Establish plant species that will produce the greatest above and below ground biomass for the site.

#### **CONSIDERATIONS**

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.

Field borders can be used to comply with required field setback distances applicable to manure and chemical applications.

Wildlife enhancement and other benefits of native plants should be discussed during planning.

Consider mowing or disking only  $\frac{1}{3}$  to  $\frac{1}{2}$  of the field border each year to improve habitat, wildlife benefit from residual cover during non-growing period.

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

Consider overseeding the border with legumes or forbs for plant diversity and wildlife benefits.

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

Consider marking the field border boundary to prevent encroachment by cropping equipment.

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 chemicals planned for application.

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 installation or maintenance of the practice has potential of affecting cultural resources (Archaeological, historic, historic landscape, or traditional cultural properties), follow NRCS state policy for considering cultural resources.

Consider using plant species that enhance the biomass collection opportunities.

Increasing the width of the field border to increase the potential for carbon sequestration.

Consider using posts or other markers to separate the field border and cropland or forage land to prevent encroachment.

#### **PLANS AND SPECIFICATIONS**

Plans and specifications are to be prepared for the practice site. The following items should be specified:

- Border widths and lengths based on local design criteria.
- Location within the field or farm boundary
- Vegetation to be used.
- Site preparation.
- Planting method.
- Liming or fertilizer requirements.
- Operation and maintenance requirements.

A job sheet is available to document these items.

#### **OPERATION AND MAINTENANCE**

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

- The following O&M activities 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.

- Shut off sprayers and raise tillage equipment to avoid damage to field borders.
- Shape and reseed border areas damaged by chemicals, tillage or equipment traffic.
- Fertilize, mow, harvest, and control noxious weeds to maintain plant vigor.
- Fill and reseed ephemeral gullies and rills that develop in the border.
- Maintain herbaceous vegetation so that it provides at least 80% ground cover throughout the year in most years. Sixty percent ground cover in most years is adequate when wildlife habitat is a concern.