SOIL CONSERVATION SERVICE

WEST VIRGINIA

FIELD BORDER (FT)

STANDARD

Definition

A strip of perennial vegetation established at the edge of a field by planting or by converting it from trees to herbaceous vegetation or shrubs.

Purpose

To control erosion, protect edges of fields that are used as "turnrows" or travel lanes for farm machinery, reduce competition from adjacent woodland, provide wildlife food and cover, or improve the landscape.

Conditions Where Practice Applies

At field edges, especially edges of crop fields. At edges of woodland adjoining grassland, at the border of mined lands, roads, trails and stream banks; around or along clearings within woods.

SPECIFICATIONS GUIDE

Two border types are recognized:

A. Herbaceous

1. Width: The intended use governs the width. For purposes other than wildlife, a 12 foot border is minimum. Borders for wildlife enhancement are more beneficial if 20 to 25 feet in width and interrupted by woody shrubs. Minimum width for wildlife enhancement is 20 feet.

2. Establishment: The purpose of the field border will guide the selection of seed mixture and rate per acre. Follow recommendations listed in Standard 512 (Pasture and Hayland Planting) for establishment. A grass border may be established in a meadow for wildlife purposes by designating the width and length and not mowing except as specified below. Planted field borders intended for wildlife purposes should avoid seed mistures which include tall fescue.

3. Maintenance: The border vegetation must be maintained in the condition to meet the landowner's objective. For wildlife purposes, herbaceous borders should be mowed occasionally to control woody plants. Specify that mowing should be done only after time of second cutting of hay or between July 15 and August 30 for the benefit of ground nesting birds.

B. Woody

1. Shrubby vegetation should be established along borders between open areas and forestland. This will provide a transitional zone between the two vegetative types which is better suited for wildlife use. If tree species are used to establish this zone they will require periodic clipping or replacement to insure low-growth (<15') characteristics.

2. Width: Establish at least two rows of woody plants or a cut back woodland border of 20 to 50 feet.

3. Establishment: For planted borders - disc or plow the planting area where erosion is not a problem and competition from existing vegetation is serious. Scalp the more densely sodded sites where plowing or discing would create an erosion problem. Mulching of trees or shrubs on extremely dry sites is beneficial. Protect from grazing. Wide spacing of plants may cause undesirable plant succession.

4. Species & Spacing: When a field border has a special purpose such as a living fence or barrier, closer spacing is required. If additional wildlife values are desired, double rows are recommended.

Plant	Spacing in Rows	Spacing Between Rows
European Mountain Ash (Sorbus aucuparia)	10-15 feet	10 feet
Highbush Cranberry (Viburnum trilobum)	4 - 8 feet	2 - 6 feet
Silky Dogwood (Cornus amomum)	4 - 8 feet	4 - 10 feet
Norway Spruce (Picea abies)	8 - 16 feet	6 - 12 feet
White Pine (Pinus strobus)	6 - 12 feet	6 - 12 feet
Flowering Dogwood (Cornus florida)	10 - 15 feet	10 - 15 feet
Shining Sumac (Rhus Copallina)	4 - 6 feet	6 feet

Gray Dogwood (Cornus racemosa)	8 - 10 feet	8 - 10 feet
Purpleosier Willow (Salix purpurea)	2 feet	2 feet
American Hazelnut (Corylus Americana)	4 - 6 feet	6 feet
Hawthorn (Crataegus sp.)	8 - 12 feet	10 feet

NOTE: For wildlife cover use the minimum spacings. For wildlife food production use the maximum spacings. Greater spacings are permitted when specified by the technician.

For cutback borders - desirable plants to leave should include: berry brambles, viburnums, rhododendrons, sumac, dogwoods, grape, and other shrubs and small trees valued for beauty and wildlife. Widths 40 to 50 feet are best. The minimum width is 20 feet. Cut selected trees and pile brush next to the woodland side of the border. The following guides produce desirable results: (a) cut all plants in the first 20 feet of border that are more than 1 inch d.b.h. For wildlife benefit the brush should be piled but could be left where cut, (b) in the next 20 feet cut and pile plants over 2 inches d.b.h., (c) in the next 10 feet cut and remove plants over 4 inches d.b.h., unless a tree or shrub exists that is producing a desired kind of food.

[Another method of obtaining a high quality "tiered" cutback border] is to cut all trees in the selected strip that are of a height that if felled in the direction of the field would extend beyond the edge. This method results in cutting progressively larger trees [as you progress from the field into the woodland.]

Minimum compliance is completion of item "(a)" above if border is between two land uses; if along a woods road or trail cut back at least 10 feet on each side of the woods or trail.

3. Maintenance: In planted woody borders remove undesirable volunteer growth every 3-4 years. In cut back borders when the trees and shrubs in at least 50% of the border exceeds 15 feet in height, the cutting and removal process should be repeated (about 5 years, depending on quality of the site).

CAUTION! Some woody plants beneficial for wildlife food and cover are coming under criticism due to spreading characteristics. We should stress these characteristics to the landowner so that he is fully aware of the situation. In some situations spreading is desirable.

Planning considerations for water quantity and quality

Quantity

1. Effects on the water budget especially on volume and rates of runoff.

Quality

1. Filtering effects of vegetation on movement of sediment, dissolved and sediment-attached substances.

2. Effects on erosion and the transport of sediment, pathogens, and soluble and sediment-attached substances carried by runoff.