



FIELD WINDBREAK

CONSERVATION RESERVE ENHANCEMENT PROGRAM CREP-CP5A

Natural Resources Conservation Service (NRCS)

OCT 2000



WHAT IS A FIELD WINDBREAK?

Field windbreaks are linear plantings of single or multiple rows of trees or shrubs established for environmental purposes. These purposes include reducing wind erosion, protecting growing plants, managing snow, enhancing wildlife habitat and improving aesthetics.

Field windbreaks intercept undesirable winds from eroding soils and damaging plants. Field windbreaks slow the velocity of wind, allowing the settling out of suspended snow and soil particles. Field windbreaks provide travel corridors for wildlife and also provide nesting sites, browse, food and escape cover for many wildlife species.

ELIGIBILITY

To be eligible for this practice for the Conservation Reserve Enhancement Program (CREP), the land must be within the approved watershed, have a cropping history (two out of the last five years) and be cropland needing protection from wind erosion or need to enhance the wildlife habitat.

CONSIDERATIONS

Field windbreaks shall be installed according to the Windbreak/Shelterbreak Establishment Standard (380) in the local Field Office Technical Guide.

The windbreak will be oriented as close as to perpendicular to the troublesome winds as possible. The interval between windbreaks shall be determined based upon the site conditions and the crop needs. The maximum width of the windbreaks shall not exceed the design standard established to reduce cropland erosion.

For the Conservation Reserve Enhancement Program, field windbreaks will consist of either 2 or 3 rows of

native trees with 1 row of native shrubs. The spacing between the rows and the spacing of plants within the row will be based upon Table 1 and 2 in the Windbreak/Shelterbreak Establishment Standard.

Tree and shrub native species selected for the windbreak will be adapted to the site conditions and meet the Windbreak Standard in the local FOTG. Only viable, high quality and native planting stock will be used.

It is very important to prepare a weed-free and firm seedbed before planting the trees and shrubs. It may be necessary to prepare the site the fall before the spring planting. Apply lime and fertilizer according to needs determined by a soil test. Apply all herbicides according to labeled directions.

Geotextile fabric, tree mats, and appropriate organic mulch materials may be used for weed control and moisture conservation on all sites. However, no cost share is available for these methods.

Plantings using bare rooted stock and non-rooted cuttings should be made in the spring, as soon as possible after the frost leaves the ground but no later than May 20.

Containerized and balled and burlap stock may be planted in frost-free ground provided soil moisture is adequate.

OTHER MANAGEMENT CONSIDERATIONS

To assure proper alignment of row and spacing, the windbreak should be stake or laid out prior to planting.

Supplemental watering may be needed for plant establishment and growth during dry conditions for the establishment period. No cost-share is available for supplemental watering.

Replacement of dead trees and shrubs will be needed until the field windbreak is functional. The landowner is responsible for replacement costs.

Noxious weeds and other undesirable plants, insects, and pests shall be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land.

Livestock will be excluded from the windbreaks.

For optimum wildlife winter habitat, plant dense evergreen tree species such as spruce and select a shrub which retain it's berries or fruits through the winter such as highbush cranberry.

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OPERATION AND MAINTENANCE

Vegetative competition should be controlled as needed.

Damaging pests should be monitored and controlled.
Repellents, poisons, tubing, netting and cages of various kinds may be needed to control rodents and animal damage.

Maintain central stems on trees by pruning to eliminate forks and multiple leaders.

The field windbreak should be inspected on a seasonal basis and following major storm and runoff events. Any damages or sediment accumulation that would adversely impair the function of the windbreak must be corrected immediately, at the landowner's expense.

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FIELD WINDBREAK DESIGN WORKSHEET CP-5A

Farm: _____ Field: _____ Tract: _____ Date: _____

REQUIREMENTS

Before planting:

_____ Shaping
 _____ Weed control in the fall
 _____ Lime

_____ Fertilizer
 _____ Weed-free Seedbed
 _____ Layout Windbreak

Recommended native plant species:

Row 1:
 Row 2
 Row 3
 Row 4

Recommended spacing:

Within Row _____ Between Rows _____
 Within Row _____ Between Rows _____
 Within Row _____ Between Rows _____
 Within Row _____

Design Considerations:

Soil Type(s) _____
 Spacing between windbreaks _____

Width of Field Windbreaks

Average width #1 _____ Average width #2 _____ Average width #3 _____

Length of Field Windbreaks

Length #1 _____ Length #2 _____ Length #3 _____

Area of Filter Strip(s)

Area #1 _____ Area #2 _____ Area #3 _____

Planting Method



LOCATION AND LAYOUT SKETCH

TYPICAL PROFILE