



FIELD WINDBREAK

Michigan CONSERVATION RESERVE ENHANCEMENT PROGRAM CREP - CP5A

Natural Resources Conservation Service (NRCS)

June 2014



Photo courtesy of USDA NRCS

WHAT IS A FIELD WINDBREAK?

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

Field windbreaks intercept undesirable winds preventing soil erosion and damage to plants. They also slow the velocity of wind, allowing the settling out of suspended snow and soil particles. Field windbreaks also provide travel corridors, nesting sites, 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 located in the Saginaw Bay, River Raisin Western Lake Erie, or Lake Macatawa Watersheds, the land must have a cropping history (4 out of 6 years from 2008 - 2014), and the site must need protection from wind erosion or enhancement of wildlife habitat.

If the purpose of the windbreak is to protect a homestead or livestock area, or to manage snow, the site is not eligible for a CREP CP5A. However, the site may be eligible for a Shelterbelt (CP16A) or a Living Snow Fence (CP17A) through CREP, or it may be eligible for other USDA cost-share programs.

CREP POLICY

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

For CREP, the maximum width of field windbreaks and the spacing between windbreaks will be the minimum needed to reduce cropland erosion, according to the FOTG, regardless of the purpose of the windbreak (windbreak density of 40% or greater).

The windbreak will be oriented perpendicular to the troublesome winds. The interval between new and existing windbreaks, and the spacing between and within the rows will be determined based on the Design and Mature height of the species in the FOTG.

For CREP, field windbreaks will contain a minimum of 1 row of trees and 2 rows of shrubs, and a maximum of 2 rows of trees and 3 rows of shrubs. Species are limited to those in the FOTG.

Tree and shrub species selected for the windbreak will be adapted to the site conditions (see Conservation Tree/Shrub Suitability Groups in Sect. II of FOTG) and meet the standards in the local FOTG. Only viable, high quality planting stock will be used.

INSTALLATION

It is very important to prepare a weed-free and firm seedbed before planting the trees and shrubs, and cost-share is authorized for this component. It may be necessary to prepare the site the fall before planting the trees in the spring using tillage, herbicides, etc. Contact your local Michigan State University Extension Office for specific herbicide recommendations. **All herbicides will be applied according to the label.**

Plantings using bare-rooted stock and non-rooted cuttings should be completed in the spring after the ground thaws, but no later than June 1; or planted in the fall after October 1 until the ground freezes when soil moisture is adequate. Containerized and balled and burlap stock may be planted between October 1 and June 1 as local soil moisture and weather conditions permit.

Weed Control is also important to ensure survival and maximum growth of the trees after they are planted. Cost-share is authorized for one weed control application within 24 months after the trees are planted. A 2 ft radius around each tree should remain

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weed-free to maximize tree growth. Fabric weed barriers are very effective at minimizing weed competition, and are eligible for limited cost-share (up to the amount of one follow-up herbicide treatment). **Mowing is not allowed for weed control for tree establishment.**

A weed control method **between** rows is to plant non-competitive grasses. **However, the 9 ft² weed and grass-free area around each tree will still be maintained to maximize tree growth.** Eligible grasses are found in the Conservation Cover Standard (327) in the FOTG. **Mowing of these grasses is not authorized.**

Livestock will be excluded without cost-share from all CREP windbreaks.

CONSIDERATIONS

To assure proper alignment of rows and spacing, the windbreak will be staked or laid out prior to planting.

For optimum wildlife winter habitat, plant dense evergreen tree species such as spruce and select shrub species that retain their fruits through the winter such as highbush cranberry.

Following is a list of trees and shrubs referenced in the 380 Standard in the FOTG that are considered Good to Excellent for both Wildlife & Windbreak Suitability. Consult the local FOTG for more information and other species that may be used.

Tree Species	Mature Height (ft)	Windbreak Suitability	Wildlife Suitability
Cedar, Eastern Red*	48	E	G
Cedar, Northern White*	48	E	G
Crab, 'Roselow' Sargent	20	G	E
Cranberry, Highbush*	13	G	E
Dogwood, Gray*	13	G	G
Dogwood Red-Osier*	9	G	G
Hawthorn*	20	G	E
Hazelnut, American*	12	G	E
Plum, American*	8	G	E
Spruce, Norway	81	E	G
Spruce, White*	80	E	G
Sumac, Smooth*	20	G	G
Viburnum, Mapleleaf*	7	G	G

E-Excellent, G-Good; *Denotes Species Native to Michigan

OPERATION AND MAINTENANCE

Noxious weeds and other undesirable plants, insects, and pests need to be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land. Prior to receiving the Final Status Review, weed control and maintenance should occur as needed.

Maintenance activities are allowed only on a spot basis and only if necessary to maintain stand health, maintain stand diversity, or control pests that will damage the CREP cover or adjacent lands.

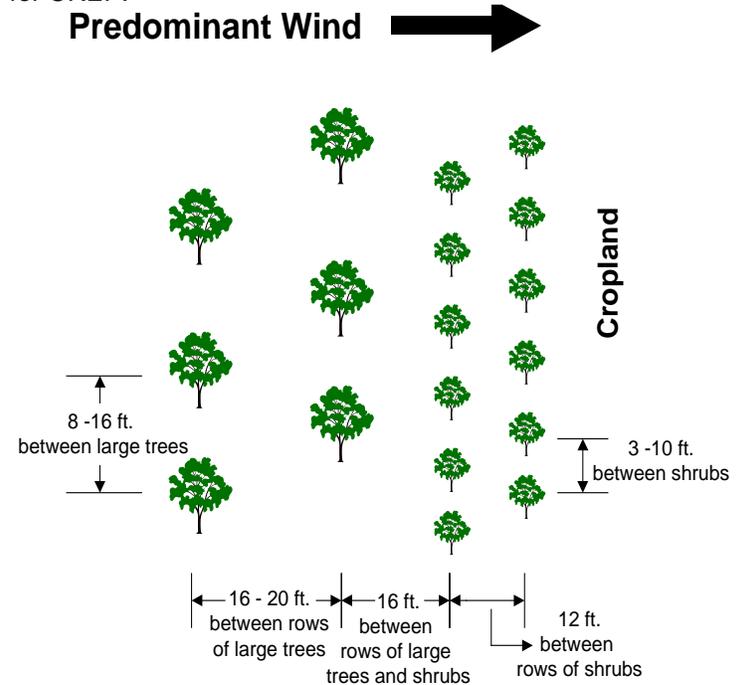
MOWING** is not allowed for weed control for CREP tree maintenance. Other maintenance activities are only allowed between August 1 –May 1st (i.e. - outside of the Primary Nesting and Brood-Rearing season). For trees, all maintenance activities should occur during the dormant season. If maintenance activities are needed at times other than these, the FSA County Committee **must** approve the maintenance activity **prior to** the activity occurring.

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.

Replacement of dead trees and shrubs will be needed to ensure that at least 90% of all trees & shrubs are living, and no 2 plants missing together within a row - according to the Tree/Shrub Establishment (612) standard in the FOTG. The landowner is responsible for replacement costs.

Below is a typical layout and design for a CREP Field Windbreak. Note: other designs may also be eligible for CREP.



FIELD WINDBREAK DESIGN WORKSHEET CREP CP-5A

Landowner:

County:

Farm: Tract: Field(s): Length / Width: / Date:

REQUIREMENTS FOR WINDBREAK

DESIGN CONSIDERATIONS:

(Soils information is based on the FOTG, Section II-I – Conservation Tree/Shrub Suitability Groups)

Predominant Soil Type(s): = Windbreak Suitability Group:

20 – Year Height of the Tallest Species in the Windbreak (= H) ft. = Distance Sheltered by the Windbreak (= 10 x H) ft.

	RECOMMENDED SPECIES	TOTAL # NEEDED	RECOMMENDED SPACING (ft)
Row 1:			Within Row 1: ft Between Rows 1 & 2 ft
Row 2:			Within Row 2: ft Between Rows 2 & 3 ft
Row 3:			Within Row 3: ft Between Rows 3 & 4 ft
Row 4:			Within Row 4: ft Between Row 4 & 5 ft
Row 5:			Within Row 5: ft Between Row 5 & field ft

SITE PREPARATION - BEFORE PLANTING:

- Herbicide₁ (per label): Dates =
- Herbicide₂ (per label): Dates =
- Tillage: Dates =
- Grass (between rows only): - Dates =
- Temporary Seeding:
- Other:

PLANTING METHOD in Year

- Tree Planting Method:** :
- (If unforeseen circumstances prohibit the planting of the trees/shrubs by this date, please contact our office as soon as possible)
- Tree Protectors: Number Needed =** -
- Other:**

POST-PLANTING MAINTENANCE for Pest Control

Maintain a 9 ft² weed & grass-free area for up to 3 years around each tree for optimal growth*

Fabric Weed Barriers:

- **Note: cost-share is limited to the same cost as a follow-up herbicide treatment.**

Herbicide (per label):*

Date =

Other:**

***NOTE: after the Final Status Review has been issued, all maintenance activities (MOWING** is not authorized for maintaining trees) will only be conducted between August 1 & May 1st, and pests will be treated on a "spot" basis only, unless prior approval is granted by the FSA County Committee.**

**** MOWING may be conducted between the rows to control pests from August 1 - 20, and pests will be treated on a "spot" basis only, unless prior approval is granted by the FSA County Committee.**

MID-CONTRACT MANAGEMENT for Plant Diversity, Wildlife Habitat, and Soil and Water Protection

The predominant cover will be trees, so Mid-Contract Management is not Required

LOCATION AND LAYOUT SKETCH & ADDITIONAL INFORMATION

ADDITIONAL INFORMATION:

Reset Form

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