



# LIVING SNOW FENCES

## Michigan CONSERVATION RESERVE PROGRAM CRP – CP17A

Natural Resources Conservation Service (NRCS)

October 2006



Photo courtesy of USDA NRCS

### WHAT IS A LIVING SNOW FENCE?

Living snow fences are linear plantings of multiple rows of trees or shrubs established for environmental purposes such as managing snow, providing living screens, and enhancing wildlife habitat. Living snow fences intercept snow to protect roads, lanes, railroads, etc. and 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 Program (CRP), the land must have a cropping history (4 out of 6 years from 1996 - 2001), and need protection from snow.

If wildlife habitat is the only resource concern, the site is not eligible for a CRP Living snow fence. However, the site may be eligible for a Field Windbreak (CP5A) through the Continuous Conservation Reserve Program, or it may be eligible for other USDA cost-share programs.

If the purpose of the windbreak is to protect growing plants, minimize wind erosion, or protect buildings or livestock areas, the site is not eligible for a CRP CP17A. However, the site may be eligible for a Field Windbreak (CP5A) or a Shelterbelt (CP16A) through CRP, or it may be eligible for other USDA cost-share programs.

### CRP POLICY

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

**For the Conservation Reserve Program, the maximum width of living snow fences will be the minimum needed to manage snow, according to the FOTG, regardless of the purpose of the living snow fence (windbreak density of at least 50%).**

The living snow fence will be oriented perpendicular to the troublesome winds, and will be located so as not to create visibility or snow accumulation problems. The interval between new and existing living snow fences, and the spacing between and within the rows, will be determined based on the Design and Mature height of the species in the living snow fence according to FOTG. The windward row will be located at least 75 feet from the area to be protected and will extend at least 85 feet in either direction from the area to be protected.

Tree and shrub species selected for the living snow fence will be adapted to the site conditions 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 weed-free to maximize tree growth. Fabric weed barriers are very effective at minimizing weed competition, but are not eligible for CRP cost-share. **Mowing is not allowed for weed control for trees.**

A weed control method **between** rows is to plant non-competitive grasses. **However, the 3-foot weed and grass-free radius around each tree will still need to 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 CRP Living Snow Fences.**

**CONSIDERATIONS**

To assure proper alignment of rows and spacing, the living snow fence 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.

**After** the Final Status Review, maintain the planting according to your CRP conservation plan. 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 CRP cover or adjacent lands. **MOWING** is only authorized between Aug 1<sup>st</sup> and Aug 20<sup>th</sup> to protect ground-

nesting wildlife and to allow re-growth for winter cover. Other maintenance activities or Mid-Contract Management will only be allowed outside the designated dates to protect ground-nesting wildlife. Designated dates are from May 1<sup>st</sup> to August 1<sup>st</sup>. If management or maintenance activities are needed within these dates, the FSA County Committee **must** approve the management activity **prior to** the activity occurring.

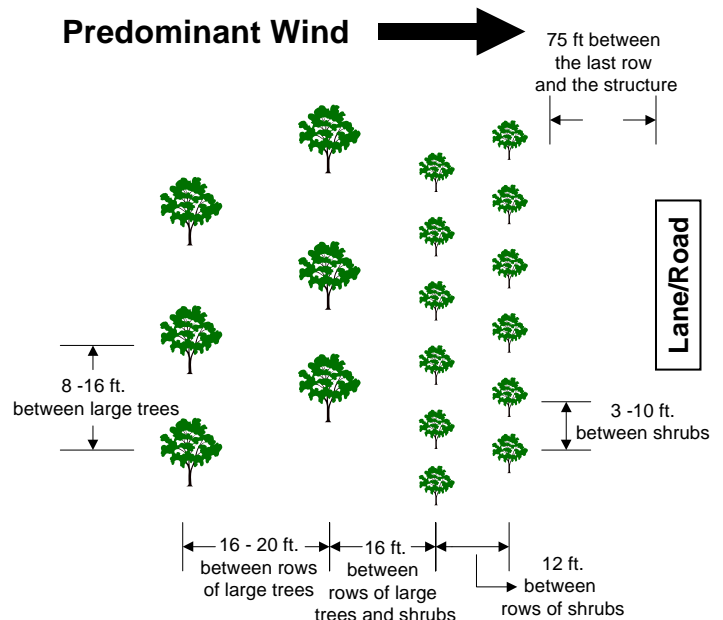
Consult the Windbreak/ Shelterbelt Renovation (650) standard in the FOTG for other maintenance information.

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

The living snow fence 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 living snow fence 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 of a CRP Living Snow Fence. Note: other designs may also be eligible for CRP.



# LIVING SNOW FENCE DESIGN WORKSHEET CRP CP-17A

**Landowner:**

**County:**

Farm:

Tract:

Field (s):

Length / Width:

Date:

## REQUIREMENTS FOR LIVING SNOW FENCE #

### 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 Living snow fence (= H)  ft. = Distance Sheltered by the Living snow fence (= 10 x H)  ft.

	RECOMMENDED SPECIES	TOTAL # NEEDED	RECOMMENDED SPACING (ft)
Row 1:			Within Row 1: <span style="float: right;">ft</span> Between Rows 1 & 2 <span style="float: right;">ft</span>
Row 2:			Within Row 2: <span style="float: right;">ft</span> Between Rows 2 & 3 <span style="float: right;">ft</span>
Row 3:			Within Row 3: <span style="float: right;">ft</span> Between Rows 3 & 4 <span style="float: right;">ft</span>
Row 4:			Within Row 4: <span style="float: right;">ft</span> Between Row 4 & field <span style="float: right;">ft</span>

### BEFORE PLANTING:

- Herbicide<sub>1</sub> (per label): Dates =
- Herbicide<sub>2</sub> (per label): Dates =
- Tillage: Dates =
- Grass Dates =
- (between rows only): -
- 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)
- Other:**

### POST-PLANTING MAINTENANCE for Pest Control

- Maintain a 3-ft. weed & grass-free radius for up to 3 years around each tree for optimal growth\***
- Herbicide (per label):\* Date =
- Other:\*

**\*\*NOTE:** after the Final Status Review has been issued, other maintenance activities will be conducted outside the primary nesting season (May 1<sup>st</sup> – August 1<sup>st</sup>), and weeds will be treated on a “spot” basis only, unless prior approval is granted by the County Committee.

**LOCATION AND LAYOUT SKETCH & ADDITIONAL INFORMATION**

**ADDITIONAL INFORMATION:**

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