

Plant Enhancement Activity – PLT06 – Renovation of a windbreak, shelterbelt or hedgerow for wildlife habitat



Enhancement Description

This enhancement is for the renovation of existing sites that are declining in vigor, need additional woody plants (trees or shrubs) or otherwise no longer provide wildlife habitat benefits. Existing rows of woody plants may be thinned, removed or replaced with new plantings. Existing woody plants may be pruned, either branches or roots or both, to improve windbreak function, health and vigor.

Land Use Applicability

Cropland, Pastureland, Rangeland

Benefits

Renovation restores the function of existing windbreaks, shelterbelts or hedgerows to provide wildlife habitat benefits as well as other benefits such as reduced wind erosion, pesticide drift, mitigation of odor and noise and controlled snow deposition. Species composition may be upgraded by adding trees or shrubs that produce wildlife food and shelter as well as wood products and visual quality, such as spring blossoms or fall colors. Woody species threatened by pests such as emerald ash borer can be replaced with more resilient species that provide wildlife habitat benefits.

Conditions Where Enhancement Applies

This enhancement applies only to the acres of existing windbreaks or shelterbelts in the crop or pasture land use.

Criteria

1. Identify wildlife species to be benefited by the renovation,
2. Develop a plan for new trees and/or shrubs that will provide the desired habitat and windbreak or shelter belt functions,
3. Remove dead or dying trees that do not provide the desired habitat unless habitat for cavity nesting wildlife is desired,
4. Remove other trees or invasives that do not provide the desired habitat,
5. Replace removed trees by planting new trees or shrubs that will provide the desired habitat while serving the required windbreak or shelter belt function, and
6. Prune or thin less desirable trees to encourage the growth of trees that will provide wildlife habitat and windbreak or shelter belt functions.

Adoption Requirements

This enhancement is considered adopted when all six criteria above have been implemented.



United States Department of Agriculture
Natural Resources Conservation Service

2013 Ranking Period 1

Documentation Requirements

1. Brief written description of the tasks completed with dates and any receipts for planting stock, herbicides, etc.,
2. Delineations on a map or aerial photo of renovated windbreak, and
3. Photos of before and after renovation.

References

USDA-NRCS and Xerces Society. 2008. Using Farm Bill Programs for Pollinator Conservation. Technical Note No. 78. Washington, D.C. <http://directives.nrcs.usda.gov/OpenNonWebContent.aspx?content=24993.wba>

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References:

650 – Windbreak/Shelterbelt Renovation

- **Biology Jobsheet 10 – Tree and Shrub Establishment**

The following are wildlife species that would benefit from the renovation of windbreaks or shelterbelts:

- Neotropical Migrant Birds, such as the Bobolink and Eastern Meadowlark
- Small Mammals

The following table lists the trees and/or shrubs that will provide the desired habitat:

SPECIES		TREE RATING ZONE 1/	FOOD	COVER	NEST
CONIFEROUS TREES					
Balsam Fir	(Abies balsamea)	1-4	F,W	X	
Black Spruce	(Picea mariana)	1-4,5	F,W	X	X
Eastern Red Cedar	(Juniperus virginana)	1,2,4-6	F,W	X	X
Eastern White Pine	(Pinus strobus)	1-4,6	F,W	X	X
Jack Pine	(Pinus banksiana)	1 - 4	F,W	X	X
Northern White Cedar	(Thuja occidentalis)	1-4	F,W	X	X
Red Pine	(Pinus resinosa)	1-3	F,W	X	X
Tamarack	(Larix laricina)	1-4	F,W	X	
White Spruce	(Picea glauca)	1-5	F,W	X	X
DECIDUOUS TREES					
American Plum	(Prunus americana)	1-6	S,F	X	X
Bigtooth Aspen	(Populus grandidentata)	1-6	F,W		X
Bitternut Hickory	(Carya cordiformis)	1,2,4,6	F,W	X	X
Black Cherry	(Prunus serotina)	1-6	S,F		
Black Walnut	(Juglans nigra)	1,6	F,W	X	X
Bur Oak	(Quercus macrocarpa)	1-6	F,W	X	X

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SPECIES	TREE RATING ZONE 1/	FOOD	COVER	NEST
Common Chokecherry (Prunus virginiana)	1-6	S	X	
E. Cottonwood - Native (Populus deltoides)	1-6	F,W		
Green Ash (Fraxinus pennsylvanica)	1-6	F,W		
Hackberry (Celtis occidentalis)	1-6	W		
Hawthorn (Crataegus species)	1-4,6	W	X	X
Mountain Ash (Sorbus americana)	1-4	F,W		
Mountain Maple (Acer spicatum)	1-3	S,F		X
No. Pin Oak (Quercus ellipsoidalis)	1-6	F,W	X	X
No. Red Oak (Quercus rubra)	1-4,6	F,W	X	X
Paper Birch (Betula papyrifera)	1-4,6	F,W		
Pin Cherry (Prunus pennsylvanica)	1-6	S,F		
Quaking Aspen (Populus tremuloides)	1-6	F,W		X
Red Maple (Acer rubrum)	1-4,6	S,F,W	X	X
Shagbark Hickory (Carya ovata)	1,2	F,W	X	X
Sugar Maple (Acer saccharum)	1-6	S,F,W		X
Swamp White Oak (Quercus bicolor)	1,2,4,6	F,W	X	X
White Oak (Quercus alba)	1,2,4,6	F,W	X	X
Willows – Native (Salix spp)	1-6	F,W		X
Yellow Birch (Betula alleghaniensis)	1-4,6	F,W		
DECIDUOUS SHRUBS				
American Hazelnut (Corylus americana)	1-5	W	X	X
Arrow-wood (Viburnum dentatum)	1-6	F,W	X	
Chokeberry (Aronia melanocarpa)	1-3	W	X	
False Indigo (Amorpha fruticosa)	1,2,4-6	F	X	
Gray Dogwood (Cornus racemosa)	1-6	F	X	X
Highbush Cranberry (Viburnum trilobum)	1-6	F,W	X	
Nannyberry (Viburnum lentago)	1-6	F,W	X	
Ninebark (Physocarpus opulifolius)	1-3	F,W	X	
Red Osier Dogwood (Cornus stolonifera)	1-6	F	X	X
Serviceberry (Amelanchier alnifolia)	2-6	S	X	X
Silky Dogwood (Cornus amomum)	1,2,6	F	X	X
Silver Buffaloberry (Sheperdia argentea)	5,6	S	X	X
Smooth Sumac (Rhus glabra)	1-6	W		
Staghorn Sumac (Rhus typhina)	1-3	W		

Food availability codes: S = summer, F = fall, W = winter