

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

WINDBREAK/SHELTERBELT RENOVATION

(Ft.)

CODE 650

DEFINITION

Replacing, releasing and/or removing selected trees and shrubs or rows within an existing windbreak or shelterbelt, adding rows to the windbreak or shelterbelt or removing selected tree and shrub branches.

PURPOSE

Restoring or enhancing the original planned function of existing windbreaks or shelterbelts.

CONDITIONS WHERE PRACTICE APPLIES

In any windbreak or shelterbelt that is no longer functioning properly for the intended purpose.

CRITERIA

Thin trees or shrubs to reduce plant competition, alter the density of the planting, and maintain or improve the health of the residual stand.

Prune or shear the trees or shrubs to remove diseased branches or alter the density of the planting. For normal and periodic pruning, refer to Tree/Shrub Pruning (660) and Tree/Shrub Pruning Design Procedures (660DP).

Remove entire or partial rows of trees or shrubs to release adjacent rows. For renovation design procedures refer to Windbreak/Shelterbelt Renovation Design Procedures (650DP) and Nebraska Forestry Technical Note No. 70, Windbreak Renovation.

Trees or shrubs to be coppiced shall be cut close to the ground. Competing herbaceous vegetation will be mechanically or chemically controlled to improve the growth and vigor of young trees and shrubs.

Add rows of trees or shrubs adjacent to or within an existing windbreak or shelterbelt to improve windbreak or shelterbelt density.

Extending the length of an existing windbreak is described under Windbreak/Shelterbelt Establishment Design Procedures (380DP).

Existing growing space, shade level, and root competition will be evaluated and adjusted to permit acceptable growth of planted trees/shrubs.

Residual plants will be protected during renovation.

CONSIDERATIONS

Renovation may be accomplished over a period of years.

Debris should be removed from the site and disposed properly if the debris will cause insect, disease, fire or access problems.

Vegetation removed during renovation can be burned as specified by Prescribed Burning (338).

Debris and other vegetation removed during renovation may be used for products. Consider the energy balance of this action.

Erosion control may be needed during the renovation process.

Wildlife needs should be considered when selecting tree or shrub species to add or remove. Species diversity, including use of native species, should be considered.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.

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Refer to Windbreak/Shelterbelt Establishment Tree Planting Procedures (380TPP) for further guidance on planting trees and shrubs.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation. See NE-CPA-15 and NE-CPA-15B for job sheets and Nebraska Forestry Technical Note No. 70 for detailed windbreak renovation guidance.

OPERATION AND MAINTENANCE

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance).

Additional thinning, pruning or coppice management may be needed in the future to maintain the windbreak function. See Tree/Shrub Pruning Design Procedures (660DP) and NE Forestry Tech. Note 71 for pruning techniques.

Periodic applications of nutrients may be needed to maintain plant vigor.

REFERENCES

NE NRCS FOTG:

Windbreak/Shelterbelt Establishment Design Procedures (380DP)

Tree/Shrub Pruning (660)

Prescribed Burning (338)

Windbreak/Shelterbelt Establishment Tree Planting Procedures (380TPP)

Tree/Shrub Pruning Design Procedures (660DP)

Tree and Shrub Planting Plan Job Sheet (NE-CPA-15)

Tree and Shrub Planting Plan Job Sheet-Direct Seeding (NE-CPA-15B)

Windbreak/Shelterbelt Renovation Design Procedures (650DP)

Nebraska Forestry Technical Note No. 70, Windbreak Renovation, 1998, by Craig Stange, Jon Wilson, Jim Brandle, and Mike Kuhns.

Nebraska Forestry Technical Note No. 71, How to Prune Trees, 1995, by Peter J. Bedker, Joseph G. O'Brien, and Manfred M. Mielke.