

**NATURAL RESOURCES CONSERVATION SERVICE  
PACIFIC ISLANDS AREA**

**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. Extending the length of, or conducting supplemental planting within an existing windbreak is handled under Windbreak/Shelterbelt Establishment (380). For normal and periodic pruning, refer to Tree/Shrub Pruning (660).

**CRITERIA**

Thin trees or shrubs to reduce plant competition or alter the density of the planting.

Undesired (i.e. “target”) tree and shrub species and/or stems are identified and methods to control or remove them are specified to achieve all planned purposes.

Prune or shear the trees or shrubs to remove diseased branches or alter the density of the planting.

Remove entire or partial rows of trees or shrubs to release adjacent trees, shrubs or rows.

Trees or shrubs with coppicing capability shall be cut close to the ground to improve density and/or vigor of trees or shrubs in decline

Competing herbaceous vegetation will be mechanically or chemically controlled to improve the growth and vigor of trees and shrubs.

Existing growing space, shade level and root competition with vegetation in adjacent fields will be evaluated and determined to be at acceptable levels.

Residual plants will be protected during the 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 operability problems. Refer to Woody Residue Treatment (384)

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

Erosion control may be needed during the renovation process.

Wildlife and pollinator needs should be considered when selecting tree or shrub species to add or remove.

Species diversity, including use of native species, should be considered.

Increasing species diversity could reduce impacts from existing and new diseases and pests.

**PLANS AND SPECIFICATIONS**

Plans and specifications for applying this practice shall be prepared for each site and recorded using the Pacific Islands Area Windbreak/Shelterbelt Renovation (650) Jobsheet.

## **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 function.
- Periodic applications of nutrients may be needed to maintain plant vigor.

## **REFERENCES**

Bentrup, G. 2008. Conservation buffers: design guidelines for buffers, corridors, and greenways. Gen. Tech. Rep. SRS-109. Asheville, NC: Department of Agriculture, Forest Service, Southern Research Station.

Brandle, J.R. et al. 1988. Windbreak Technology. Agric. Ecosyst. Environ. Vol. 22-23. Elsevier Pub..

Stange, C., et al. 1998. Windbreak Renovation. University of Nebraska Cooperative Extension EC 98-1777-X.