

## WINDBREAKS/SHELTERBELTS CONSERVATION PRACTICES 380, 650



### DEFINITION

Windbreaks or shelterbelts are single or multiple rows of trees and/or shrubs planted around and across fields for conservation purposes.

### PURPOSE

Windbreaks/Shelterbelts are a type of conservation buffer used to reduce wind erosion, protect growing plants, manage snow, and improve irrigation efficiency. Windbreaks also provide wildlife habitat and protection to structures and livestock. The height and density of the tallest row influences the amount of protection the surrounding areas will receive.

Other practices that complement windbreaks are alley cropping, herbaceous wind barriers, and conservation crop rotation and residue management.

### PLANTING CONSIDERATIONS

- Identify your need or purpose. The purpose determines whether evergreen or deciduous trees and shrubs or a mix of both will give the best protection.
- Identify factors that will have an effect on installation (soils, topography, precipitation or irrigation and seasonal temperatures).
- Identify adapted plants and the availability and type of planting stock (bareroot, container).
- Identify long-term management needs.

### MANAGEMENT

Trees and shrubs in the windbreak/shelterbelts need periodic maintenance and later on, possible renovation (pruning, thinning, and reestablishment). In arid areas windbreaks need supplemental water for establishment and some form of weed control to reduce competition for moisture.

**The following chart identifies various plant materials and their use in Windbreaks/Shelterbelts.**

Species *1	Wildlife Use Cover(C), Food(F)	Deciduous/Evergreen	(see Recommended Use Codes below)*2
Eastern Redcedar	F/C	E	2,4,5,7,9,10
Rocky Mtn Juniper	F/C	E	2,4,5,9,10
Arizona Cypress	C	E	1,4,9,10
Ponderosa Pine	C	E	1,9,10
*Austrian Pine	C	E	2,4,9,10
*Scotch Pine	C	E	2,10
*Afghanistan Pine	C	E	1,4,10
Leland Cypress	C	E	2,4,10
*Kettler Juniper	C	E	2,10
Green Ash	C	D	1,4,5,8,10
Bur Oak	F/C	D	1,5,6,9,10
Red Oak	F/C	D	1,5,9,10
Little Walnut	F/C	D	1,5,8,9,10
Black Walnut	F/C	D	1,5,9,
Hackberry	F/C	D	2,5,8,9,10
Cottonwood	C	D	1,4,5,6,
Desert Willow	C	D	2,4,9,10
Redbud, Eastern, TX	C	D	2,5,8,9,10
Hawthorn	F/C	D	3,5,8,9,10
Chickasaw Plum	F/C	D	3,5,7,9,10,11
Skunkbush Sumac	F/C	D	3,4,5,8,9,10
*Red Honeysuckle	F/C	D	3,7,9
*Chinese Elm	C	D	1,7,10,11

\* - Denotes an introduced species.

\*1 - Different ecotypes of the same species may have different use codes check local guides for final use.

\*2 - Recommended Use Codes

1 = Tall Growth Type

2 = Medium Growth Type

3 = Short Growth Type

4 = Saline/Alkaline Tolerant

5 = Adapted for Use Along Streams

6 = Adapted to High Water Tables

7 = Problem with Escaping

8 = Shade Tolerant

9 = Resistant to Insects

10 = Drought Tolerant

11 = Spreads Easily/Rootsprouts

Contact your local Natural Resources Conservation Service office, Practice Standards 380 and 650, for additional information related to the installation and management of each plant type and others that may be locally adapted.



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