

Windbreaks

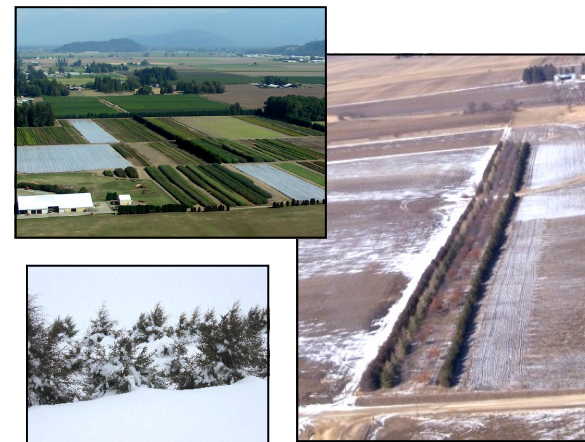
- Careful planning and the correct plants are essential to windbreak design.
- Knowledge of the prevalent wind direction is important for the location of the designed windbreak.
- The windbreak should be placed approximately 100-150 feet away from structures it's shielding.
- It should extend at least 50 feet if not longer past the area to be shielded.
- Windbreaks that are planted with multiple rows of plants are more effective than single row windbreaks. A windbreak with 5 rows is optimal, however fewer rows can be effective if properly designed.
- The better a windbreak is maintained the sooner it will reach an effective size for success.

What Are Living Snow Fences?

- Living snow fences are designed plantings of trees and/or shrubs and natives grasses located along roads or ditches.
- These plantings create a vegetative barrier that traps and controls blowing and drifting snow.
- Living snow fences can be a low-cost solution to effectively prevent snowdrifts, improve visibility, and reduce slush and ice accumulations.
- These fences can reduce the effort spent on snow management.

Why Plant Windbreaks?

- **Improved Energy Conservation** - Properly planted and maintained windbreaks can reduce winter home heating costs by 10%-40%.
- **Better Crop Yields** - Crop production on the lee side of windbreaks can run from 5%-45% greater due to the reduced amount of moisture loss.
- **Less Soil Erosion** - Reduced wind blown soil.
- **Improved Livestock Performance** - Beef cattle use more energy as wind chill temperature drops. A windbreak could reduce the herds energy requirements by up to 50%.
- **Improved Wildlife Habitat** - Windbreaks provide food and shelter for wildlife.
- **Increased Home Value** - Homes with windbreaks have potential to have higher values.
- **Future Revenue Potential** - Windbreaks planted with timber species may produce future revenue once harvested.
- **Agricultural Spray Barriers** - Reducing drift to adjacent crops and provides protection for environmentally sensitive areas.
- **Financial and Technical Assistance Available for Windbreaks** - Many programs are available to landowners installing windbreaks. They include Wildlife Habitat Improvement Program (WHIP), Stewardship Incentive Program (SIP), and Environmental Quality Incentive Program (EQIP). These are USDA programs that provide cost-sharing and technical assistance.



Planting Windbreaks and Snow Fences

Putting Conservation on the Ground

WACD Plant Material Center
16564 Bradley Road
Bow, WA 98232

Phone: 360-757-1094
Fax: 360-757-3923
E-mail: pmcsales@clearwire.net
Web: www.wacd.org/PMC

Native Plants for Windbreaks and Snow Fences

MEDIUM EVERGREENS

- **Austrian Pine** (*Pinus nigra*)
Height: 40-60' / Spread: 20-35''
- **Colorado Spruce** (*Picea pungens*)
Height: 50-60' / Spread: 25'
- **Rocky Mt. Juniper** (*Juniperus scopulorum*)
Height: 20-30' / Spread: 15'
- **Scotch Pine** (*Pinus sylvestris*)
Height: 50-60' / Spread: 30-40'

TALL EVERGREENS

- **Douglas Fir** (*Pseudotsuga menziesii*)
Height: 60-80' / Spread: 20'+
- **Grand Fir** (*Abies grandis*)
Height: 100'+ / Spread: 40'+
- **Ponderosa Pine** (*Pinus ponderosa*)
Height: 80'+ / Spread: 25-30'
- **Western Red Cedar** (*Thuja plicata*)
Height: 80'+ / Spread: 20-30'

TALL DECIDUOUS

- **Black Cottonwood** (*Populus trichocarpa*)
Height: 60-80' / Spread: 20'
- **Paper Birch** (*Betula papyrifera*)
Height: 60-80' / Spread: 30'
- **Quaking Aspen** (*Populus tremuloides*)
Height: 40-60' / Spread: 15'
- **Red Alder** (*Alnus rubra*)
Height: 40-60' / Spread: 30-40'
- **Rocky Mt. Maple** (*Acer glabrum*)
Height: 30-40' / Spread: 15-20'
- **Sugar Maple** (*Acer saccharum*)
Height: 60-80' / Spread: 35-40'

MEDIUM SHRUBS

- **Black Hawthorn** (*Crataegus douglasii*)
Height: 12-15' / Spread: 12'
- **Blue Elderberry** (*Sambucus careulea*)
Height: 15-20' / Spread: 12'
- **Red Osier Dogwood** (*Cornus stolonifera*)
Height: 20' / Spread: 20'
- **Serviceberry** (*Amelanchier alnifolia*)
Height: 6-15' / Spread: 12'
- **Water Birch** (*Betula occidentalis*)
Height: 20' / Spread: 10-15'
- **Vine Maple** (*Acer circinatum*)
Height: 10-30' / Spread: 15-20'

DENSE SHRUBS

- **Golden Currant** (*Ribes aureum*)
Height: 4-6' / Spread: 4-6'
- **Mock Orange** (*Philadelphus lewisii*)
Height: 6-12' / Spread: 6-8'
- **Rugosa Rose** (*Rosa rugosa*)
Height: 8' / Spread: 8'
- **Russet Buffaloberry** (*Shepherdia canadensis*)
Height: 4-6' / Spread: 4-6'
- **Silver Buffaloberry** (*Shepherdia argentia*)
Height: 3-4' / Spread: 3-4'
- **Snowberry** (*Symphoricarpos albus*)
Height: 3-8' / Spread: 3-8'
- **Woods Rose** (*Rosa woodsii*)
Height: 6-8' / Spread: 6-8'

The spacing between plants in the windbreak should range from 5 feet apart for the smaller dense shrubs to 15 feet apart for the larger trees. For help contact the PMC staff.

