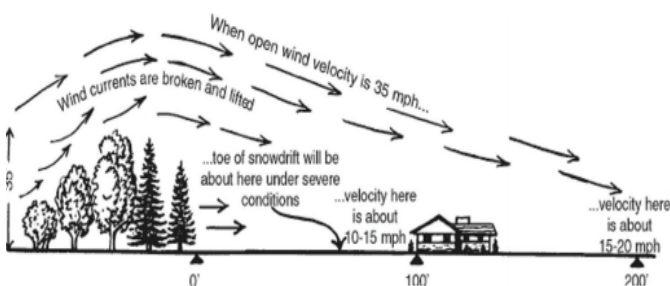


Windbreak Fact Sheet

Windbreaks or shelterbelts are single or multiple rows of trees or shrubs in linear configurations.

Purpose

- Reduce soil erosion from wind
- Protect plants from wind related damages
- Alter the microenvironment for enhancing plant growth
- Manage snow deposition
- Provide shelter for structures, animals, and people
- Provide wildlife habitat
- Provide noise screens
- Provide visual screens
- Improve air quality by reducing and intercepting air borne particulate matter, chemicals and odors
- Delineate property and field boundaries
- Improve irrigation efficiency
- Increase carbon storage in biomass and soils
- Reduce energy use



Types of Windbreaks

- Windbreak Renovation
- Farmstead Planting
- Wildlife Planting
- Field Windbreak



Windbreak Characteristics

Height

- Most important factor to determine the area protected from wind
- Reduces wind speed

Density

- For downward wind protection and soil erosion control, a density of 40 to 60% is best
- For catching snow, a greater density is needed from 60 to 80%

Length

- Length determines the total area of protection
- Gaps in a windbreak create funnels that concentrate wind flow

Orientation

- Windbreaks are most effective when planted at the right angles to prevailing winds
- Farmsteads and feedlots need protection from cold winds and blowing snow or dust
- Field crops need protection from hot, dry, summer winds
- Wind direction changes so having multiple legs to the windbreak will increase the areas of protection