

Shelterbelts

Shelterbelts are rows of trees and/or shrubs that are used primarily to provide protection from the elements for farms and homesteads on the prairies. Shelterbelts perform a variety of functions that benefit ranching and farming operations including:

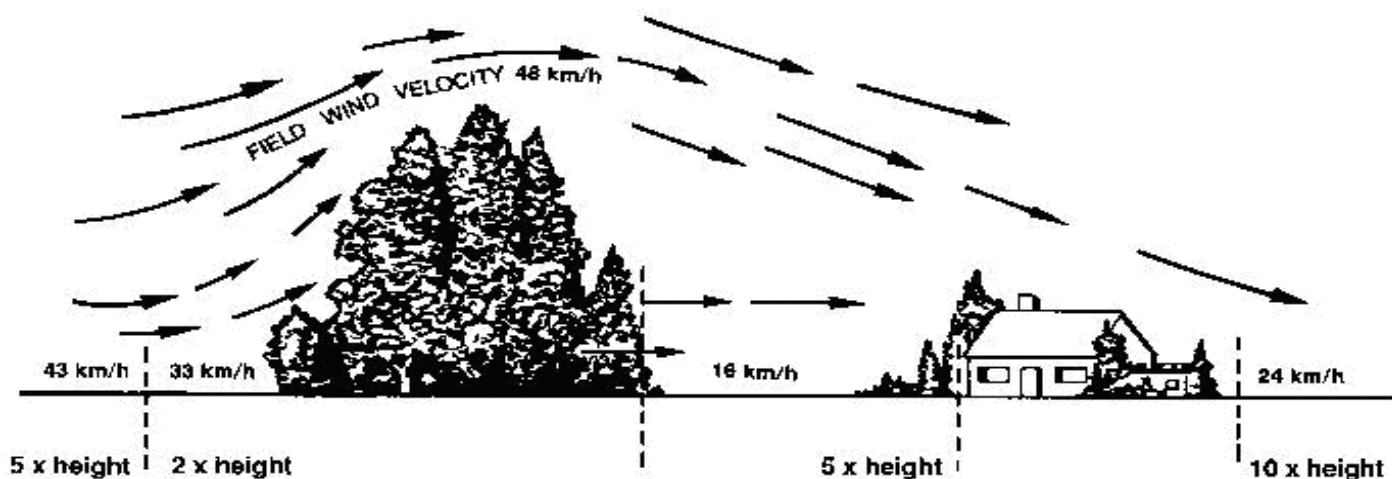
- Reduce wind speed
- Reduce soil erosion
- Increase local soil moisture by trapping snow
- Create a sound buffer
- Creates a sense of privacy on the prairies
- Provide shelter for livestock
- Are aesthetically pleasing and may increase land value

Along with sheltering humans from the elements, shelterbelts also provide important habitat for many species of wildlife. Various bird species, including the loggerhead shrike, Swainson's hawk and the odd ferruginous hawk will use shelterbelts as nesting and perching sites. These birds act as a natural pest control as they primarily feed on Richardson's ground squirrels and grasshoppers. Shelterbelts also provide important habitat for mule and white-tailed deer, sharp-tailed grouse, pheasants and song birds. They are often used as habitat corridors, allowing for the safe passage of animals from one area to another. Shelterbelts provide food directly for some foraging species and are home to small mammals like mice and rabbits, which in turn provides food for various raptor species.

Several species at risk use shelterbelts at one time or another during the year, including:

- Loggerhead Shrike Sensitive (Special Concern)
- Swainson's Hawk Sensitive
- Ferruginous Hawk At Risk (Endangered)
- Sharp-tailed Grouse Sensitive

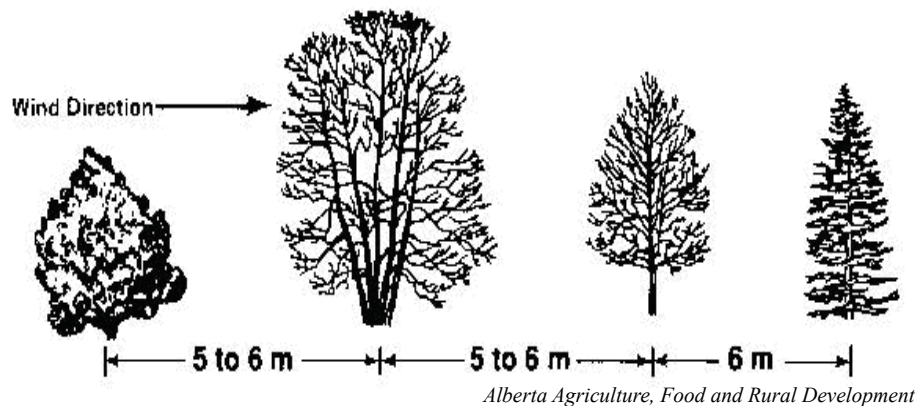
Shelterbelts act as wind breaks to reduce wind damage



Beneficial Management Practices

- Do not remove existing shelterbelts, including those surrounding abandoned homesteads. Ferruginous hawks prefer to nest in areas away from human activity, thus shelterbelts around abandoned homes provide excellent nesting habitat.
- Reduce grazing near shelterbelts or fence off if being damaged by cattle.
- Minimize human activities around shelterbelts supporting raptor nests from March to mid-July.
- Leave dead and dying trees standing as they will provide excellent perches and raptor nest sites.
- Reinforce dead and dying trees that already contain nests as birds will often return to use these nest sites year after year.
- When replacing trees use native species.
- Maintain shelterbelts and add native shrubs to them. Leave a 2-4m grassy area around shelterbelts to allow foraging near nests.
- Reduce linear structure of shelterbelts by planting shrubs irregularly and in patches.
- Avoid use of insecticides, especially around nests.
- Spray shelterbelts lightly with soapy water to reduce browsing by ungulates.
- Do not plant shelterbelts where there are no natural trees/shrubs unless protecting your home.
- The most productive shelterbelts contain a row of shrubs furthest away from the structure for snow capture, then a row of medium and tall trees like aspen, maple or cottonwoods to divert the wind, followed by smaller and dense spruce or pine closest to the structure, which act further as a wind block and create more habitat for wildlife. See diagram below.

Recommended layout for a shelterbelt



Industrial Guidelines:

- Do not allow developer to destroy or remove any part of established shelterbelts.
- Ask companies to abide by set back distances and timing restrictions for species nesting in a shelterbelt:
Ferruginous Hawk – 1000m buffer year round around all nest sites for high impact developments like wellsites, power lines and pipelines.

For more information please read MULTISAR's Industrial Guidelines Factsheet and Grazing Factsheet in your binder or online at www.multisar.ca.

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