

Plant windbreaks for snow protection

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Many Nebraskans may be saying “enough already with the snow and cold wind,” but there is a way to protect yourself in the future, and that is with a well-planned windbreak of trees and shrubs, says Dennis Adams, forester with the Nebraska Forest Service at the University of Nebraska-Lincoln.

Properly planned windbreaks can greatly reduce wind velocity, which impacts the distribution of blowing snow, said Adams. By modifying wind flow, blowing snow can be distributed across an open field or deposited with a desired zone, instead of your driveway, work area or livestock pens.

Properly designed windbreaks with trees and shrubs can save on labor and energy needed for snow removal and reduce stress on livestock, he added.

Field windbreaks can spread snow across protected areas, provide moisture for crop and rangelands, increase productivity because of the soil moisture and add to economic return in both yields and crop protection.

Research has found winter wheat yields can increase 15-20% from the added snow moisture, said Adams. Windbreaks in rangeland provide protection for spring calving or other new born livestock.

The width and location of a field windbreak for depositing snow are important. A single row of a tall deciduous tree species, planted 15-20 feet between trees and perpendicular to prevailing winter wind can provide snow distribution in a field 10 to 15 times the height of the trees.

Snow blowing over the tree tops falls to the ground on the leeward (downwind) side of the windbreak. A denser field windbreak may cause too much snow near the tree row. This may trap too much moisture near the windbreak which can delay field operations in the spring.

Farmstead or feedlot windbreaks are planted to reduce the force of winter wind on the leeward

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side of the trees and shrubs. Feedlot windbreaks can get livestock out of strong winds and driving snow. In addition, the animal is less stressed aiding in better animal health. Both home and feedlot windbreaks should be at least 150 to 300 feet from the area to be protected.

Typical windbreaks for snow control around farms, ranches, or feedlots consist of four to six rows (a row of shrubs, two or three rows of conifers and one or two rows of tall deciduous trees).

“We have learned from the windbreaks planted in the 1930s and 40s, that we can be just as effective with less tree rows, still get the benefits, and use less land for trees. People should visit with a forester at their local Natural Resources Conservation Service or Natural Resources District office,” Adams said.

Assistance in planning, designing and ordering trees and shrubs is available at Natural Resources Conservation Service or Natural Resources District offices. Tree orders are now being taken by NRDs.