Livestock on open grassland that can be sheltered behind a four to six row tree windbreak will be protected from the wind, require less feed and may be less susceptible to health problems, according to Jim Brandle, professor of forestry at the University of Nebraska-Lincoln.

In protecting cattle especially, temperature and wind chill factors need to be considered. A heavy winter coat will generally protect cattle from temperatures as low as 18 degrees.

But, temperatures combined with a wind chill, taking the “feels like” temperature below 18 degrees, can stress the animal requiring more feed to maintain body temperature. Windbreaks reduce wind speed in the protected zone reducing that wind chill temperature.

Protection from cold stress is especially important to exposed flesh for mature animals, and young or newborn animals, added Brandle.

Other livestock also benefit with shelter from a windbreak. Dairy cattle can have a decline in milk production when air temperature is below 35 degrees. Hogs in open confinement benefit and even confinement buildings protected with a windbreak will take less energy to heat the building.

Foresters recommend at least an “L” shaped and maybe a “U” shaped windbreak to provide protection from winds from different directions. All windbreaks for livestock protection must be fenced to prevent damage from grazing or breaking lower branches of the windbreak and reducing its effectiveness. Space must be allowed on the leeward or downwind side of the trees where snow will accumulate.

Windbreaks for feedlot livestock in summer conditions should also be spaced to allow for summer air movement to reduce potential heat stress.

In Nebraska, typically coldest winter winds come from the north or west so a windbreak provides protection on the south and east side of the trees. In contrast, summer winds are generally southerly, and livestock will benefit from the cooling southerly winds of windbreaks open to the south.

Windbreaks consisting of trees and shrubs reduce wind speed. The protected area is generally 10 to 12 times the height of the windbreak on the leeward side. Windbreaks also provide other benefits like snow control, wildlife habitat, screen unsightly areas, dust or odor control, soil erosion control or energy conservation.

Planning, design and ordering of trees and shrubs assistance is available at Natural Resources District or USDA Natural Resources Conservation Service offices.

Tree orders are now being taken by most NRD’s. Most cost-share programs are available through a continuous sign-up process.