Shelterbelts : No Place for Livestock

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SHELTERBELTS:
No Place for Livestock

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Fire and livestock have the same effect on a tree planting—both of them kill shrubs and trees. The only difference is that it takes grazing livestock longer to do it.

Without that moisture, the trees decline and eventually die out.

After destroying the shrub row, livestock will then ruin the lower tree branches. The animals compact the soil, exposing and killing the top feeder roots. The compacted soil will cause moisture to run off so that the trees no longer can make use of subsoil moisture.

The absence of a shrub row and a small number of lower tree branches will allow hot summer winds to dry out the soil.

All classes of livestock will eventually ruin the effectiveness of the S/W. Even poultry can reduce the vigor of trees.

The shrub row is the first to go. Once the shrub row is ruined, hardly any wintertime snow is held inside the S/W. Many tree plantings rely on winter snows to store extra moisture that will be needed during the summer.
Fig 5. The tree planting on the right can still be saved. First, string a good, strong fence. Then plant rows of shrubs on both leeward and windward sides of the trees. The planting on the left has been protected from livestock; it is an excellent wind and snow barrier.

For protection against livestock, a good tight fence is needed about 20 feet outside the tree planting. It will require an annual inspection because drifted banks of snow will push down and stretch a fence.

The trees in Fig 5 were planted at the same time. A fence separates the two plantings. Livestock are kept out of the fenced S/W on the left. All the tree and shrub rows are complete and vigorous (note the density). The planting on the right is open to livestock and has been grazed. The shrub row has already been killed and the trees have been weakened (note the amount of light visible through the crowns).

A tree planting in fair condition will usually have only a small amount of usable forage. The amount of forage that livestock could consume is not worth ruining the trees. Livestock would be more comfortable in the shade, but their real discomfort will come in the winter when there are no trees or shrubs to protect them from the winds and snows.

Fig 6. Cattle are at work here. Note the even browse line on the trees and sunlight on all except the inside rows which a healthy canopy would have kept out.