MONTANA
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# Shelterbelts Pay Their Way

## *Your Trees Will Pay Out in Beauty, Comfort And Savings in Fuel, Feed and Moisture*

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"IN AN effort to determine the value of windbreaks on American farms, 508 farmers in South Dakota and Nebraska were asked for their opinions. They placed the annual savings in their fuel bill at $15.85.

"Further study of the subject was made at the Montana Agricultural Experiment station at Havre. Two herds of cattle were wintered on the same rations—one in the protection of trees and shrubs, the other in an open lot with some protection from a shed. The tree-protected animals gained 34.9 more pounds each during a mild winter, and lost 10.6 pounds less during a severe winter, than the unprotected herd."

These reports on the value of shelterbelts are quoted from the USDA yearbook of agriculture.

**Conserve Moisture**

Shelterbelts are a decided factor in conserving moisture. Snow falling in fields protected by shelterbelts remains in place, instead of piling up along some fence row or other barrier where the resulting moisture is not needed. Also, the trees and shrubs in the shelterbelt catch the drifting snow and hold it within the belt. The added moisture is of great benefit to the shelterbelt in the dry summer months. The fields in the protection of the belt suffer much less from drying winds.

Tree planting for shelterbelts in Montana has become a business—good business for farmers and ranchers. Up to the present time about 15,000 acres of shelterbelts have been established. Each year forest nursery at Montana State university processes from 1,000 to 15,000 separate orders for planting stock, to be distributed throughout the state.

**Orders for trees must be in the hands of your county agent before Dec. 31 to insure delivery in the spring. No orders should be sent directly to the nursery. Trees are furnished at less than cost to the purchaser, and all species are the same price—$2.50 per hundred.**

**Another Crop**

The shelterbelt should be considered as another crop, the cash receipts being reflected in the increased income from other crops grown in its protection. The family garden and orchard can become a place of beauty and production instead of a place where man and climate battle for possession of that row of carrots or box of apples. But, like these other crops, an efficient shelterbelt requires good planning and maintenance.

The shelterbelt should protect fields or buildings, preferably on two sides, depending upon the direction of the prevailing winds. The belt should be long enough to extend beyond the limits of the area or buildings to be protected and should be dense enough to give good protection from winds and drifting snow.

The belt should consist of from five to eight rows of trees and shrubs, each spaced from 10 to 16 feet apart. Spacing within the rows should be 3 or 4 feet for the shrubs, and from 6 to 8 feet for the trees.

An effective shelterbelt consists of shrubs, medium and tall trees and evergreens; the latter being placed on the downwind side of the belt to insure better survival. Where the shelterbelt is planted around the farm buildings, the conifers in the inside row are a thing of beauty, as well as being utilitarian.

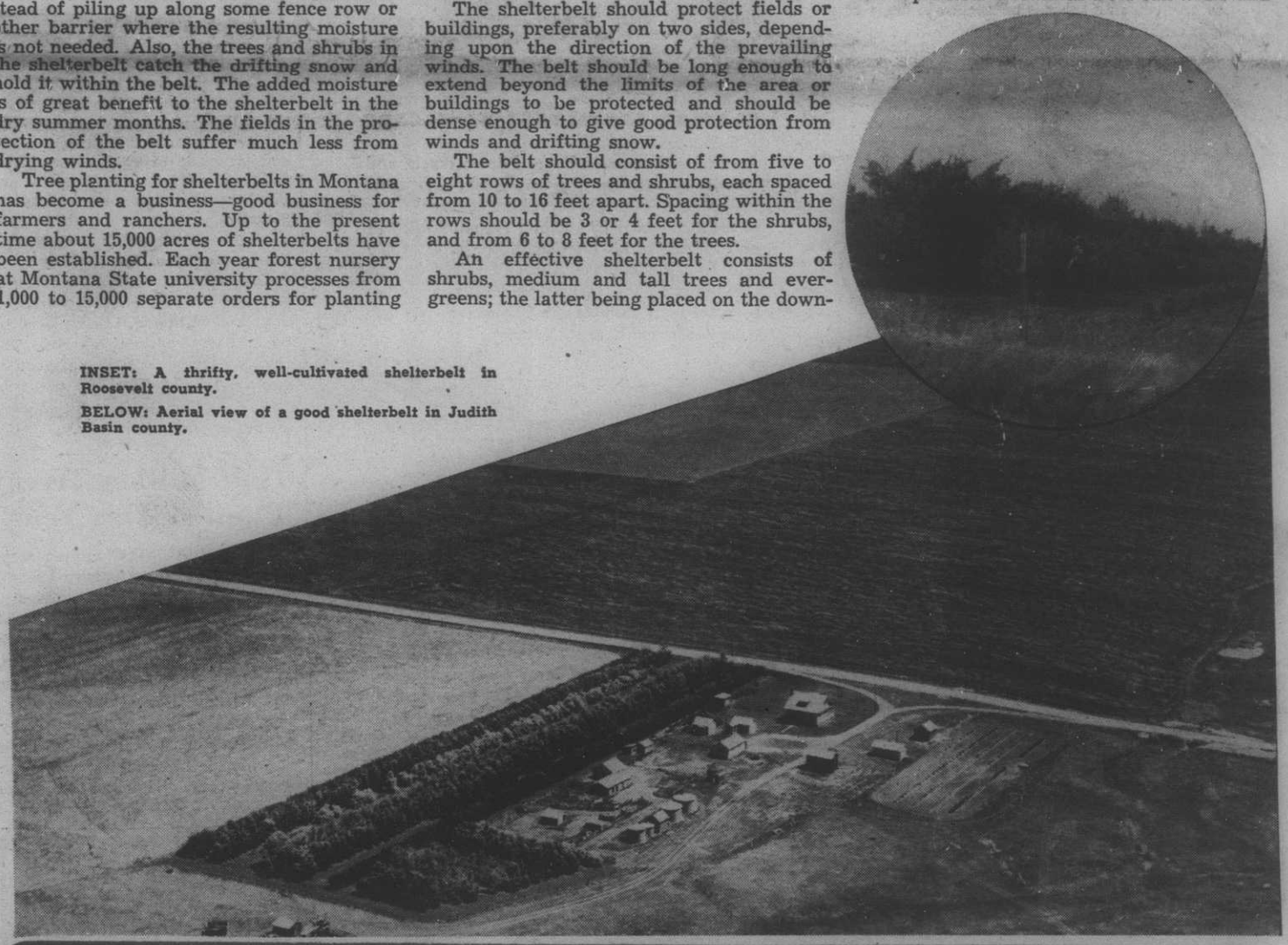
**Ground Preparation**

Ground preparation is one of the most important steps in the establishment of a shelterbelt. In the dryland areas of the state, the recommended procedure is to summer-fallow at least one year before planting. Trees have been planted directly in grain stubble, but this has not been very successful. The moisture conserved by summer-fallowing far outweighs the convenience of direct planting in stubble.

The area should be fenced from the time the trees are planted and kept in good repair. Livestock can do heavy damage to the shelterbelt by browsing on the lower branches and shrubs and by compacting the soil to prevent passage of water to the roots.

Planting the young trees is an important procedure. Failure to observe care in planting is the cause of most nonsurvival. The soil should be wet enough to insure adequate moisture, yet dry enough so that caking or clodding will not take place when the soil is worked.

The process of digging and root-pruning is quite a shock to these young plants. This can be minimized by keeping the roots wet until planted. Broadleaf trees can withstand



**INSET: A thrifty, well-cultivated shelterbelt in Roosevelt county.**

**BELOW: Aerial view of a good shelterbelt in Judith Basin county.**