

# Put Trees To Work

Trees can be an integral part of a conservation plan and sustainability, but planning and management are required.

by **Kindra Gordon**, field editor

**T**here's always ample work to be done on a farm or ranch — and sometimes there are not enough workers to get the tasks done. Have you ever thought about utilizing trees to lighten your workload? Trees planted as windbreaks or living barns can play a valuable role on livestock operations to diminish the effect of wind chill during adverse weather.

Robert Drown, a natural resource specialist working with conservation districts in northwestern South Dakota, points out that during prolonged exposure to cold, livestock require significantly more feed — some research suggests as much as 50% more; animals are less efficient at converting the energy from this feed for growth or milk production because they use it for body heat; and livestock are more susceptible to disease and other health risks.

Given today's higher production costs, particularly for feed, most producers are seeking strategies to reduce their livestock feed needs. That's where trees can be put to work.

Windbreaks or living barns can reduce wind velocity as much as 70% while also helping to lower animal stress, maintain feed efficiency and improve animal health. Drown reports that a study in Montana found that during severe winters, cattle in feedlots with shelterbelt protection maintained 10.6 more pounds than cattle in unprotected lots.

Windbreaks can be suitable at the edge



PHOTO BY DANIKA GORDON

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of pastures, particularly near areas used for winter feeding or calving; near feedlots; and near dairy and swine facilities. During summer months, trees can reduce livestock stress by providing cooling shade and protection from hot winds as well.

Additional benefits from trees include helping reduce soil and water erosion; helping reduce dust and odors near concentrated livestock feeding areas; and providing habitat and cover for many species of wildlife, says Drown.

## Develop a farm plan

While busy landowners may recognize the benefits trees offer, the time and work to plan and establish windbreaks and living barns can seem daunting. Help for this process is

available through local conservation districts and the Natural Resources Conservation Service (NRCS).

"NRCS and conservation districts have staff who can provide landowners the technical assistance to determine how tree plantings may benefit their operation," explains Kent Baumberger, a district conservationist with NRCS in Miller, S.D. No fee is charged for the technical assistance they provide.

Baumberger notes that the needs of each operation are unique — soil suitability, tree species, and design of the tree planting with consideration to the prevailing winds, drainage and access roads to feeding areas will all be evaluated in the planning process.

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If the landowner desires, NRCS can provide whole-farm planning to address conservation needs and efficiency of the entire livestock operation, Baumberger adds. “With a conservation plan for the farm, landowners can develop a management plan for grazing, water developments, fencing and managing the trees that are planted.”

Additionally, with a conservation plan developed, landowners may qualify for Farm Bill programs such as the Environmental Quality Incentives Program (EQIP) that offer financial assistance for implementing conservation practices like establishing windbreaks. He cites the Wildlife Habitat Incentive Program (WHIP) and the Cooperative Conservation Partnership Initiative as additional programs with possible funding for tree planting, shelterbelt renovations or other conservation practices.

When it comes to the work of purchasing and planting the trees, many conservation districts across the country provide this service. Baumberger notes that conservation districts get their nursery stock from reputable growers, which means landowners are getting hardy trees and shrubs at reasonable prices.

Weed-control fabric is another option offered by conservation districts. The fabric can be put down the tree row at the time of planting for an additional fee.

### **Management key to survival**

Drown and Baumberger agree that once trees are planted, management is key to their survival and eventually reaping the benefits they offer.

“Volunteer grass and weeds between the tree rows soak up a lot of moisture and put pressure on the trees,” Baumberger explains. Thus, he says it is essential to mow, till or spray a chemical like Roundup® between the tree rows in the summer.

Drown adds that if weed-control fabric was part of the planting, it must be managed as the trees grow and mature. He explains that if the fabric does not disintegrate it may cause girdling around the tree trunk, which can eventually kill the tree. He recommends landowners make the holes in the fabric larger once the tree is 5 years old, or remove the fabric completely.

Drown also cautions against letting livestock graze in windbreak areas.

“Trees cannot survive if they are rubbed on and the bark is stripped,” he says. “A fence should be maintained around the windbreak area.” He notes that a windbreak enclosure could be grazed for a short time in the summer or fall, but then cattle should be removed to protect the trees.

In conclusion, as Drown works with landowners he emphasizes that trees are a long-term proposition. He says, “You’ve got to have a long view, because it’s 10 to 15 years before they will do a good job for you.”

That said, these conservationists suggest the old adage still rings true: “The

best time to plant a tree was 20 years ago. The second best time is now.”

For technical assistance on windbreak planning contact your local NRCS office.

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