Protecting Livestock with Windbreak

Fences and Shelters

Simple shelters, sheds, or windbreaks are necessary to protect livestock from winter storms.

Usually, severe cold alone will not affect the performance of animals on full feed. Wind, however, can be a serious stress factor. A strong wind has about the same effect on animals as exposure to a sudden drop in temperature. In general, a 20 mph wind is approximately equivalent to a 30°F drop in temperature. Under extreme conditions, simple wind and snow protection devices will not be 100% effective. But to help minimize exposure problems:

I) Consider wind and snow as a joint problem when deciding the kinds of livestock protection you need.

2) Simple windbreaks, shelters, or sheds are essential for livestock protection from wind and snow.

3) The effectiveness of a windbreak depends on its height and density. Windbreaks may be either natural (trees) or constructed (fences).

4) Shelterbelts consisting of trees with high branch density supplemented with thick-growing brush are effective as windbreaks.

5) Snow fences can be good substitutes for tree windbreaks, which take time to grow and are not practical under all conditions.

6) Porous fences of 80% density offer the best wind protection.

7) Snow will drift through a porous fence. A solid fence keeps most of the snow outside a yard and provides the best snow barrier, but might direct snow to other parts of the farmstead. Porous fences can give good snow control if you locate the fences to allow for the resulting drifts.

8) Swirling and relocation of snow within a farmstead is often the main cause of drifting problems.

9) Shallow open-front sheds provide excellent shelters for livestock. Such shelters should have slot openings along the eaves on the back side of the shelter. The openings will provide ventilation, and prevent snow from swirling into the front of the shed. Plan slot size according to building width. You should have a 1- to 2-inch opening per I0 feet of building width. Ridge ventilators are also recommended.

10) Do not attach windbreak fences directly to the front corner of an open-front shed. Instead, use a swirl chamber arrangement. Attach a separate short fence to the building. Start the longer fence behind it and away from the building.

11) Divide long open-front sheds into 20- to 40-foot sections to reduce drafts and possible snow build-ups.

12) Locate shelters so that adjacent buildings will not deflect wind and snow into a shed. Local experience is the best indicator of distances between windbreaks and facilities. A tree windbreak usually should be 100 to 300 feet away from protected areas. The shorter distance is suitable where snow accumulation is less severe.