

January 21, 2011

IMPROVE CATTLE COMFORT IN WINTER

The winter of 2009-2010 was particularly hard on cattle, particularly for those in the feedyards. In many parts of the state, cattle were exposed to moisture in the form of rain and snow, plus pen conditions were wet with excess mud.

Feedlot cattle performance was 10 percent to 20 percent poorer compared with that typically observed under more normal winter conditions. However, even in normal winters, efficiency of feed conversion is often 10 percent to 20 percent poorer in the winter than in the summer.

Even though cattle acclimate to cold conditions, differences in performance between summer and winter are the result of increased maintenance energy expenditures for cattle exposed to low temperatures.

For cattle that have a dry hair coat, maintenance energy requirements are approximately 20 percent to 25 percent greater in the winter than in the summer. Furthermore, these requirements will increase 35 percent to 40 percent when temperatures fall to near zero degrees Fahrenheit.

However, for cattle with wet muddy hair coats, under normal windy conditions of 10 miles per hour, maintenance energy requirements increase nearly 90 percent - that is double - for cattle exposed to sub-zero conditions. Cattle can typically keep hair coats dry, if they have dry areas to rest on. When surfaces of pens and other animal holding areas get wet and/or muddy than the animal's hair coat begins to get wet and will remain wet.

The effort or energy expenditure required to walk or travel through mud is insignificant when compared to the energy needed to keep an animal warm that has a wet hair-coat. However, if cattle have to walk through mud or on surfaces that are rough and frozen, as a result of being muddy, than feed consumption will likely be 5 percent to 15 percent below normal. Thus winter cattle performance and efficiency of feed conversions can be significantly compromised as a result of decreased feed consumption and increased maintenance requirements to maintain body temperature when wet muddy conditions exist.

There are a number of things that can be done in the areas where cattle are held in close confinement to improve cattle comfort. If pen surfaces are frozen, smooth or knock down rough frozen surfaces with a blade or harrow. Sharp edges that are formed when cattle tracks freeze can cause bruising of the feet which can lead to foot injury and limit cattle access to feed. Sick cattle or cattle that are not in good physical condition should be moved to areas that have some shelter. Bedding, such as wheat straw, corncobs, or corn stalks, can be used to help insulate cattle from the cold ground during severe cold outbreaks or when those areas become muddy due to moisture accumulation and snow melt.



Also, accumulation of snow in the pens can cause cattle bunching or piling, which can lead to increased death losses. Therefore, when heavy snowfall or drifting snow does occur, snow should be removed from these areas as soon as possible or before the next storm arrives.

Current feed cost suggest that it is cheaper to keep an animal dry through good maintenance of pens and holding areas versus trying to feed the animal extra feed that will be required for maintenance if the animal has a wet or partial wet hair coat.

Upcoming Meetings:

- Ag Management Expo – Wednesday, January 26th, 9:00 AM – 2:00 PM, Southeast Community College Truman Center-Beatrice Campus, 4771 West Scott Street.
- Nebraska Sorghum Seminar – Wednesday, February 2nd, 9:00 AM, Saline Center.
- Wilber Crop Clinic – Friday, February 11th, Sokol Hall, 306 South Wilson, Wilber. Time to be announced.

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