

How Does Cold Weather Affect Energy Requirements

How much did the recent cold front that hit Throckmorton county on Monday, February 24 affect your cows energy requirements? Well I will try and answer that question as easily as I can.

A cow will use her energy to maintain her body heat first, then the remaining energy will be used for milk, or weight gain. Cattle can perform well in a wide temperature range, lets say from 40 to 90 degrees. A cow in good body condition, and a dry hair coat, has a (lower critical temperature) of 32 degrees. Below that temperature, energy requirements start to increase. If her hair is wet, maintenance begins to increase below 60 degrees.

How much more energy is needed in the face of a cold front depends on the moisture and wind chill. According to Glenn Selk, OSU Extension Animal Reproduction Specialist, a good rule of thumb is: for every degree of wind chill be low her lower critical temperature, the energy needs of a cow with dry hair increases one percent, and two percent if her hair is wet.

Here's how to figure her needs. Get the wind chill and subtract it from her lower critical temperature, 32 if her hair is dry and 60 if her hair is wet. Lets say the wind chill is 15 degrees and her hair is dry, she would have a LCT of 32. Subtract 15 from 32 and you get 17. You would need to increase her energy by 17% to meet her LCT if her hair is dry. If her hair is wet you would need to increase her energy by 34% since her needs are increased by 2% for every degree below her LCT.

In some cases where the wind chill is very low it would be impossible to feed a cow enough energy (cubes, ground feed, etc.) to meet her needs. In a case like this the only way to help her meet her energy needs would be to provide some shelter to get out of the weather, and reduce the wind chill.

One of the easiest ways to provide a good wind break and reduce the chill factor would be to run your hay stack east and west. A long hay stack placed in the right place and in the right direction will provide a excellent wind break.

For more information on the affects of wind chill contact your County Extension Agent: Corky Redden at 940-849-3321 or come by the Extension Office located in the County Courthouse.