News Column
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COLD WEATHER FEEDING

I got all dressed up – jacket and tie – to attend a dinner meeting last week in what turned out to be a fancy meeting room with a malfunctioning heating system. Because it was a dressier event, I left my hat and heavy jacket in my pickup.

As I shivered through a nice meal, I couldn't get my mind off the temperature,....and the fact that I have no hair on the top of my head to slow the heat loss. I didn't know how cold it was, but I was sure it would feel warmer if someone would just turn off the faulty system that was blowing cold air on my bare head.

As I was leaving, I checked the thermostat and it said 60 degrees. Really, just 60 degrees? Surely I'm tougher than that! Why did I feel so cold if the temperature was 60 degrees? That's bearable. Or, at least I think it should be.

To satisfy my curiosity about what I was feeling, I went online to a wind chill calculator and typed in 60 degrees with a 20 mile per hour wind. Yes, the fan was probably blowing that hard, making the effective temperature where I was sitting feel like 56 degrees.

Yeah, that's probably why I felt cold.

Extension Agents have long been proponents of planting windbreaks to protect livestock from wind chill effects, so wind effect on livestock naturally comes to my mind when I experience a little wind chill myself.

Wind chill is a bigger factor at colder temperatures than it is when temperatures are

moderate. While the effective temperature only dropped 4 degrees for me with a 20 mile per hour wind with a 60 degree temperature, it will drop more like 13 degrees on a 30 degree day with the same wind. Thirty degrees with a 20 mph wind will feel like 17 degrees.

For cattle that are exposed to the elements, there is more at play than just temperature and wind. Hair coat and moisture also affect how cattle feel. If you think about it, it's pretty obvious. If cattle are wet, they are going to get cold faster, and at a higher temperature.

If cattle are sporting a slick summer coat and the temperature suddenly drops, they will also get cold faster. They are just like us. If we wear a winter coat on a cold winter day, we might be comfortable. But, if we wear a light summer jacket on the first cold day, we're probably going to suffer.

The lower critical temperature for cattle with a normal winter hair coat is 32 degrees Fahrenheit. That's the temperature at which they are still comfortable. When the temperature drops below that point, cattle feel cold and need more feed to stay warm.

After it has been cold for a while cattle will develop a heavy winter hair coat that will provide better protection from cold temperatures. With a heavy winter coat, the lower critical temperature for cattle drops to 18 degrees.

Now, let's put wind back into the equation. If the temperature is 30 degrees and cattle are exposed to a 10 mile per hour wind, it feels like 18 degrees to them. If it is 30 degrees and they are standing in an open field, exposed to a 30 mile per wind, then the temperature feels like minus 6. Wind protection is really important.

K-State research indicates that cattle need about 1% more energy for each degree the temperature drops below the animal's lower critical temperature. That energy is provided as feed. When it is really cold, or cold and really windy, cows need more feed.

In a normal year, January and February will be colder and cows will need 10 to 20% more energy during those months. An additional three to four pounds of hay, or 2 to 2.5 pounds of grain will often do the trick.

Cows that don't receive extra energy during times of extreme cold will lose ½ to 1 pound of body weight per day. Cows that have free-choice access to feed will automatically consume more during cold weather. If the feed is high quality, that works. If it isn't, then supplementing with grain, or providing higher quality hay is recommended.

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to gmcclure@ksu.edu.

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