

News Column

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WIND CHILL

The last time I flirted with frostbite was maybe five or six years ago, on a really cold, snowy, and windy winter morning when I decided to open the road so my wife could get to work. We were snowed in, but we both grew up on farms — in our minds a little snow is no excuse for missing work.

Pam is a nurse and usually gets to work around 6:30 a.m.,.... or somewhere close to that time. She is either gone, or leaving about the time I normally get up. All I really know is that she is getting ready for work earlier than I want to be awake. And and I usually wake up gasping for air when I inhale hair spray, the final touch before she heads out the door.

On this morning, I intentionally beat the hair spray wake-up call, hoping to have the road open when she was ready to leave. I bundled up in my coveralls, winter cap with ear flaps, hooded coat, rubber overshoes, and a great pair of insulated winter gloves.

I don't know how I even got my tractor going that morning, but I wish it wouldn't have started. It may have been just 30 minutes, or it might have been an hour before I finally made a path wide enough to get to the highway. Whatever the length of time, anything past five minutes was too long.

By the way, my tractor is a 1960s model John Deere 3010, with no cab. I was miserable!

When I returned to the house, my fingers were somewhere between numb and frozen. They didn't hurt bad, but the worst was yet to come. Warming frozen fingers is pure agony.

Imagine hitting your fingers – all of them – with a hammer, then hitting them over and over for four hours straight instead of letting the pain subside. That’s about what it feels like while your fingers thaw out.

It was a bad experience, but I learned my lesson and I won’t do that again.

As we head into the cold months of winter, livestock producers should remember the effect that wind and moisture have on the effective temperature — the temperature that animals and humans actually feel. Call it the wind chill factor if you like that term best, but moisture is in play too, not just wind.

When feeding cattle, the general rule is that for every degree the effective temperature is below the lower critical temperature, the cattle’s energy needs increase by 1%. As an example, the lower critical temperature of a cow with a dry winter coat is 32 degrees Fahrenheit. If the effective temperature drops to 15 degrees, then she needs about 17% more energy to maintain her body condition.

Wind protection is really important to cattle exposed to the elements. A cow with a normal winter coat would be comfortable on a 30 degree day with no wind. However, add a 10 mph wind, and the effective temperature on a 30 degree day becomes just 18 degrees and she will be burning calories to stay warm.

The good news is that cattle will have a thicker coat in mid-winter and can withstand an 18 degree effective temperature when sporting a heavy winter hair coat. The bad news though is that the temperature in January is often below 18 degrees. And there is usually wind.

Looking at a more extreme example, if the temperature is 10 degrees and cattle are exposed to a 10 mph wind, the effective temperature now drops to -1 degree F. Now, a cow with a heavy winter coat – the cow that was comfortable at 18 degrees Fahrenheit – needs about 19%

more energy to keep warm. Remember, she needs 1 percent more energy for each degree below the lower critical temperature.

Cows will consume more in cold weather, so for minor temperature changes cows on full feed will self-adjust. They will eat more to get the energy they need to stay warm. The bottom line though is that cows need protection from wind, and they need more, or better, feed when it gets really cold.

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 gmclure@ksu.edu.

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