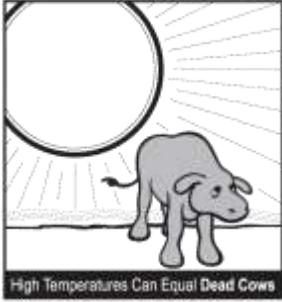


BeefTalk: Hot and Cold Leads to Checkmate



High Temperatures Can Equal Dead Cows

Cows prefer a very stable body temperature.

Heat, humidity and windless days are bad news for cattle. Actually, high heat and humidity are not good for most living things. A new record was set in North Dakota for the low minimum daily temperature when the thermometer failed to fall below 70 degrees.

When temperatures fail to fall below 70 degrees for an entire day, cattle struggle with cooling down. Cattle do not have a mechanism to dissipate their internal body heat production effectively. The body needs to function at a preset temperature range, so when that temperature gets out of the acceptable range, internal alerts sound loud and clear. The cattle will die unless their body temperature is restored to a normal range.

Recent high heat and humidity, with relatively calm winds, have caused considerable loss of life among cattle. Although the common thought is that this is a feedlot problem due to the confinement and proximity of the cattle to each other, heat exhaustion knows no boundaries.

For instance, cattle have a typical rectal temperature of 101 degrees. As the ambient temperature and humidity go up and the wind goes down, the ability of a cow to remove excess body heat goes down.

The heat stress index available through several websites helps producers by indicating the potential seriousness of pending weather scenarios. An example recently forwarded by the North Dakota Stockmen's Association is the U.S. Meat Animal Research Center's cattle heat stress alert system.

Common cow sense tells us that cattle should not be worked when the heat index indicates stress. Why is that? Those animals that have adapted to high temperatures have a much larger tolerance for big swings in body temperature. For instance, camels obviously can tolerate heat, while cows are not so fortunate.

Cows prefer a very stable body temperature. They prefer temperatures not varying much more than 1 degree under normal conditions. Any activity can increase a cow's body temperature by several degrees. Even inactivity during the period of a high heat index can raise a cow's body temperature by several degrees.

Water intake and excretion are required to reduce body temperatures. The point to remember is the cow is trying to expel heat. Even when all things seem right, if internal heat production exceeds the cow's ability to dissipate heat, the individual or group of cattle is in a crisis situation. Even with emergency intervention, such as external cooling with cold water, internal metabolic disturbances already may have advanced, which could result in weakness, muscle tremors and collapse.

As the circulatory system tries to respond to the heat, the cascading of failed heat-regulating mechanisms results in circulatory collapse and death. Even in recovered cattle, the disturbance of their electrolytic balance needs time to recover.

Those cattle that are older, fat or late-term pregnant, or have a compromised respiratory system are more susceptible to dying. Likewise, newborn calves also are very susceptible to heat stroke. Any cattle that are dark in color will be more at risk.

There really is not a lot that producers don't already know. Water, water and more water, combined with no to low disturbance, will help the cattle. Cows and calves will seek shade and a breeze. Artificial shading and air circulation sometimes are impractical in the world of extensive cow-calf production.

Having cattle adapted to the environment is a key to a long-term production system that works. Is a hot day in July worth changing cattle type? Is a cold day in January worth changing cattle type?

While you ponder the questions, let the cattle alone, but check the water and check the water and check the water because water is critical.

With the high temperatures and humidity, plus no wind, a producer can do everything right, but cows still can die. Somewhere in the middle is the comfort zone. In other words, cold and hot, wet and dry, full or hungry, fast and slow, the list can go on and on.

In the short term, one side may be better than the other. In the long term, the middle is not too bad. In passing through the extremes, one can rest assured you will pass back through the middle. For that, I guess, there is some rest. However, the environment is harsh and, at times, the environment wins and we lose. Checkmate.

May you find all your ear tags.