K-STATE Research and Extension | Meadowlark District

August 8, 2025

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Fall Calving in Heat

Producers choose calving seasons for many reasons; periods of better weather are often one of those considerations. There is something so rewarding about driving through native grass fall pastures tagging newborns, that has a much better feeling compared to pulling newborns out of snow drifts or fighting muddy spring lots. As it is with everything, there are pros and cons to every situation and those late summer/early fall hot days can present a challenge to fall calving.

The thermoneutral zone for a young calf is between 50 – 77 degrees Fahrenheit. Temperatures outside of this range cause additional stress on the calf, so targeting a calving window in this temperature range is an ideal goal. Weather data for northeast Kansas shows September average highs in the upper 70's and lows in the mid 50's. October is mid 60's to lower 40's, so it stands to reason why September and October calving fits for many fall herds.

The calf stress is not the only issue to consider when calving in the heat. Cows calving in hot weather are more likely to become overheated and exhausted sooner in the partition process than cows calving in cooler temperatures. This can lead to extended calving and more stress on both cow and calf. Heat stress has effects on blood flow within the cow's body. In late gestation cows, this change in blood flow can create signals to initiate parturition, leading to premature calving around heat events.

So, what exactly are the challenges facing fall calving herds in hot weather? The primary challenge is the effect high temperatures have on newborn and young calves.

- Heat stress is harder on young calves than cold stress in many ways. When calves are heat stressed, they lose appetite, eat less and quickly become dehydrated.
- Newborn calves have an immature internal thermostat, which causes them to have more problems regulating body temperature during weather extremes.
- Shade and fresh water are critical to cows and calves alike. In addition to milk, calves need more fresh, cool water in hot weather to prevent dehydration, keep their rumen functioning correctly and maintain health, as well as appetite.
- Effects of heat stress on the dam can also negatively impact calves by reducing the transfer of passive immunity to the calf and consequently have negative effects on weaning weights.
- Black-hided cattle are more susceptible to heat stress than lighter colored cattle, which might be a consideration to calving in a more thermoneutral window.

Some important best management practices for fall-calving herds in heat include providing ample shade for calving cows and the young calves, plenty of fresh water is vital and having calving areas where wind flow is adequate. Young calves need to be able to reach water sources, so keep this in mind if utilizing automatic waterers or tanks. Calves need to be able to reach and navigate drinking water sources. Providing areas of elevation where wind flow can reach the cow and calf is important, especially where shade is limited.

There can be many benefits to fall caving, especially if it truly happens in cooler fall weather. The University of Nebraska has video discussion around this topic of fall calving in heat on their Tailgate Talks YouTube channel, https://www.youtube.com/@tailgatetalks Check it out to watch and learn more. A wealth of weather-related and heat stress information can be found on the Kansas Mesonet website as well at https://mesonet.k-state.edu/