

### The Foe That Won't Quit

**Summertime is usually the peak season for Blue/Green Algae blooms because you need hot weather, stagnant water and bacteria. It's hard enough to battle within the season but this fall. It was still around two weeks ago. If you check out the KDHE website there are still 7 public water sites with active algae blooms being active with a watch or warning.**

**I've been in conversation with so many people about this foe. Right now I've got more questions than answers but we're going to get all the agencies to sit down together and discuss this and see if we can find out the answers. Stay tuned!**

**If you are tuned into the weather, you might be hearing about colder weather around the turn. It's Kansas after all! What does the cold snaps do to livestock? Most cattle producers know and appreciate that cold weather increases nutrient requirements. However, the obvious questions that come to mind are "What is cold to cow?" and "What increases (energy, protein etc.) and by how much?" Cattle are most comfortable within the thermoneutral zone when temperatures are neither too warm nor too cold. During the winter months cattle experience cold stress anytime the effective ambient temperature, which takes into account wind chill, humidity, etc., drops below the lower critical temperature. The lower critical temperature is influenced by both environmental and animal factors including hair coat and tissue insulation (body condition). The table lists the estimated lower critical temperatures of cattle in good body condition with different hair coats. In wet conditions, cattle can begin experiencing cold stress at 59°F, which would be a relatively mild winter day. However, if cattle have time to develop a sufficient winter coat the estimated lower critical temperature under dry conditions is 18°F. Cold stress increases maintenance energy requirements but does not impact protein, mineral, or vitamin requirements. The general rule of thumb (for a cow in good body condition, BCS = 5 or greater) is to increase the energy density of the ration by 1% for each degree (Fahrenheit) below the lower critical temperature. The classic response to cold stress in confinement situations is an increase in voluntary intake. However, it has been documented that grazing beef cows may spend less time grazing as temperatures decline below freezing, which reduces forage intake (Adams et al., 1986) and makes the challenge of meeting the cow's nutrient requirements even greater. In many cases, feeding a greater amount of low-quality hay may not provide sufficient energy. Therefore, providing additional energy by feeding a relatively higher-quality hay or grain may be required. More information on cold stress and nutrition may be found in "Beef Cow Nutrition Guide" available at the extension office.**

**Estimated Lower Critical Temperature for Beef Cattle**

<b>Coat Conditon</b>	<b>Critical Temperature (F)</b>
<b>Wet or summer coat</b>	<b>59 degrees</b>
<b>Dry fall coat</b>	<b>45 degrees</b>
<b>Dry winter coat</b>	<b>32 degrees</b>
<b>Dry heavy winter</b>	<b>18 degrees</b>