The comforting sound of a rare December rain falls as I write this. The gifts are wrapped, and wait patiently to be opened on Christmas morning. 2023 has been a year full of ups and downs, with drought, high interest rates, and challenges…but optimism is found in strong cattle markets and low national cattle inventory.

As the calendar rolls into 2024 I am excited to host impactful programs that will assist you in your operation. Please consider attending this January program…and contact me to RSVP. Extension agents Clint Laflin and Alicia Boor will host a joint extension program in Ellsworth, Kansas on Thursday January 18th, 2023. Topics covered include financial budgeting, understanding interest rate trends, risk management insurance options, and farm family transitions.

Experts from local banks, the Kansas Farm Management Association, and Kansas State Research and Extension will serve as speakers, and be on hand to answer attendee questions. Registration cost is $10 payable at the door by cash or check. The event will take place at the Ellsworth Health and Recreation Center: 221 West Douglas Ave, Ellsworth, KS 67439. Registration begins at 9:00 a.m. with coffee and doughnuts provided, followed by our first speaker. The event will conclude by 3 p.m. An RSVP is requested by Friday, January 12th to give organizers an accurate count for our catered lunch provided to attendees. Please email or call Midway District Livestock Agent, Clint Laflin, to register by emailing him at cllaflin@ksu.edu, or calling his office at 785-483-3157. We hope to see you there!
Winter is here and most cattle producers appreciate that cold weather increases nutrient requirements. However, what increases and by how much? Cattle are most comfortable within the thermoneutral zone when temperatures are neither too warm nor cold. The upper and lower boundaries of the thermoneutral zone are referred to as the upper and lower critical temperature. 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 below 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.

<table>
<thead>
<tr>
<th>Coat Condition</th>
<th>Critical Temperature</th>
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<tbody>
<tr>
<td>Wet or summer coat</td>
<td>59°F</td>
</tr>
<tr>
<td>Dry fall coat</td>
<td>45°F</td>
</tr>
<tr>
<td>Dry winter coat</td>
<td>32°F</td>
</tr>
<tr>
<td>Dry heavy winter coat</td>
<td>18°F</td>
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</table>

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 cattle maintained in extensive environments (native range, wheat pasture, corn stalks) 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 will replace grazed forages but may not provide sufficient energy. Therefore, providing additional energy by feeding a higher-quality hay or fiber-based supplement (DDGS, Corn gluten feed, or Soybean Hulls) may be required.
Before the start of calving season, it helps to have everything on hand that might be needed and to have all facilities and equipment functional and ready for use. If you have a fertile and efficient herd with a short breeding/calving season, it may have been more than 10 months since last year’s calving; your mind and efforts have been directed at other tasks. Some calves may arrive ahead of schedule, so you might not want to wait until the last minute to get the machinery out of the calving barn or maternity pen, or to find that new box of obstetrics (OB) gloves you bought last year. You may not have used your calf puller, or a halter and rope, for a couple of years, but it pays to remember where you left these things, just in case. It’s frustrating to be rummaging around in the middle of the night trying to find what you need when a heifer decides to calve three weeks ahead of your start date and needs help. Even more frustrating is when you find what you are looking for, only to discover that it is broken and needs to be repaired or replaced.

Here’s a suggested list of things to have on hand:

- Halter and rope
- Disposable long-sleeve OB gloves & Obstetrical lubricant in a squeeze bottle
- Plastic bucket for wash water and/or plastic squeeze bottles for wash water
- Rags for washing the cow
- Clean OB chains and handles & Calf-puller
- Oxytocin and epinephrine
- Suction bulb for suctioning fluid from nostrils of newborn calf that’s not breathing
- Iodine or chlorhexadine for disinfecting navel stump of newborn calves
- Flashlight (with batteries that work!)
- Injectable broad-spectrum antibiotics for cows/calves, prescribed by your vet
- Sterile syringes and needles
- Bottles and nipples
- Stomach tube (nasogastric tube) or esophageal feeder for feeding a newborn calf that can’t nurse, and a different one for giving fluid to sick calves
- Frozen colostrum from last year or a package of commercial colostrum replacer & Electrolytes
- Tool box to hold/carry needed items in one handy place
- Calf sled for transporting a newborn calf from the pasture to the barn, if necessary

Make sure the calf puller works and that you cleaned up the esophageal feeder since the last time you used it — or buy a new one! The bottles, nipples, feeders, OB chains, etc., should be cleaned and in the house, not hanging out in the barn somewhere. It seems like sometimes the things we used last are still out in the barn or shed. Calving ended, and they didn’t get cleaned up, gathered or put away for the next year.