

Corner Post **CONVERSATIONS**

K-STATE | Midway District
Research and Extension

"AS I SEE IT"

Snow flurries are falling to the ground as I begin to write this, the inaugural bi-monthly Midway District Livestock newsletter, and the arrival of another holiday season gives me pause for reflection. Numerous challenges like wildfire, widespread drought, rising input costs, and tight financial situations have been brought to our district's doorstep in the last twelve months.

As I age I continue to marvel at the resilience of people in the agricultural community. Many days are spent in isolation with nothing but the company of a good dog, hungry livestock, and the familiar hum of a truck or tractor engine. It is in these moments that we as producers must wrestle with tough decisions, and gameplan for the future of our respective operations.

Sometimes the noise of our own self-doubt, bad experiences, or harsh words from close friends or family member's can get too loud to bear by ourselves. Mental health is a crucial pillar of personal well-being for everyone I know, myself included, but unfortunately often not cared for in the same fashion as a physical ailment or sickness.

My hope is that each one of you reading this take time for yourselves this holiday season and beyond, to recharge and reflect on the things you are grateful for in your life. If you find yourself struggling mentally, or need a break...reach out to close friends or contact a mental health professional for assistance. Here are some mental health contacts for your reference:

High Plains Mental Health, Hays: 785-628-2871, <https://hpmhc.com>

Central Kansas Mental Health Center – 785-823-6322 or 1-800-794-8281 www.ckmhc.org

National Suicide & Crisis Lifeline: 988

Remember, the best version of you, is a mentally healthy version! If I can provide additional resources please contact me.

This newsletter is designed to provide you with timely information on relevant issues facing livestock producers today. If I can assist you moving forward please contact me.

Looking forward to working with you!



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WINTER COW SUPPLEMENTATION

PROTEIN AND ENERGY EXPLAINED

NUTRITIONAL NEEDS FOR SPRING- VS. FALL-CALVING COWS

In a spring-calving system in the southern Great Plains, if warm-season forages are managed for grazing through the early part of the dormant season (stockpiling), cow maintenance requirements after weaning can be met going into December. Keep in mind forage type and maturity typically affect forage quality.

In fall-calving cows, protein and energy requirements for lactation and maintenance are typically not met by warm-season stockpiled forages as they transition into dormancy. At this point, lactating cows will start to lose body condition. It's not unusual to hear someone talk about how their cows look a little "hard" after coming through winter, even though they fed a supplement. Nine times out of 10, this is because they were protein-forward in supplementation all the way through winter.

MYTH: COWS ONLY NEED PROTEIN TO MAINTAIN CONDITION THROUGH THE WINTER.

Let's look at nutrient requirements during the fall/winter for both calving systems.

If you're on a spring-calving schedule with a February to April calving window (Figure 1 and 2, green line), you can expect a cow's nutrient requirements to be the lowest for both crude protein (CP) and energy (total digestible nutrients, TDN) close to and following weaning around September/October.

If you're on a fall-calving schedule with a September to November calving window (Figure 1 and 2, yellow line), you can expect a cow's nutrient requirements to be the highest for both CP and energy during the same time.

FIGURE 1

NRC CRUDE PROTEIN REQUIREMENTS FOR MAINTENANCE

Crude protein requirements for maintenance of a 1200 pound fall-calving (beginning in September; yellow line) and spring-calving (beginning in February; green line) cow with 20 pounds daily milk production - NRC (2000).

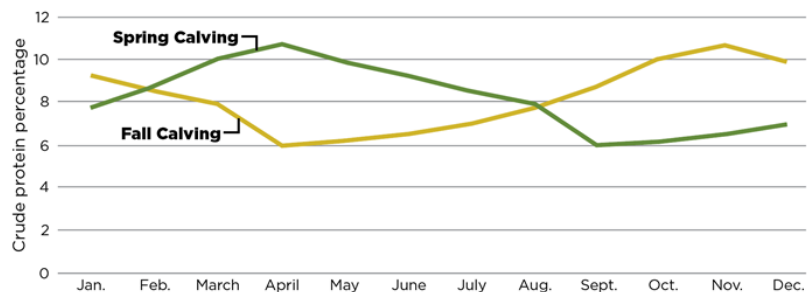
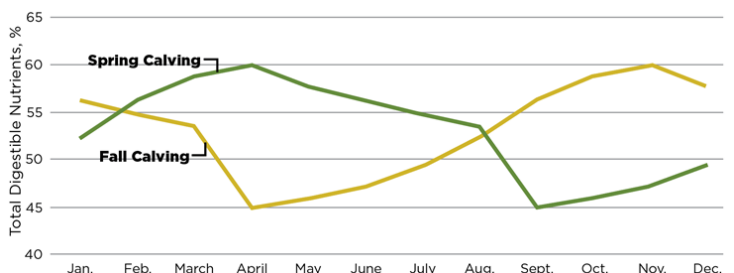


FIGURE 2

NRC TOTAL DIGESTIBLE NUTRIENT REQUIREMENTS FOR MAINTENANCE

Total digestible nutrient (TDN) requirements for maintenance of a 1,200 pound fall-calving (beginning in September; yellow line) and spring-calving (beginning in February; green line) cow with 20 pounds daily milk production - NRC (2000).



WINTER COW SUPPLEMENTATION

PROTEIN AND ENERGY EXPLAINED -Continued-

EXAMPLE SCENARIO

For example, CP and energy requirements of a spring-calving cow close to and following weaning drop to approximately 6% (CP) and 46% (TDN) of total dry matter intake (DMI) around September/October (see Figure 1 and 2). In a fall-calving cow, CP and TDN requirements during the first two months of lactation (September/October) are as high as 10-12% CP and 60-65% TDN of total DMI (Figure 1 and 2). This range in nutrient requirements in a fall-calving cow during lactation is dependent on cow size, cow age, peak lactation potential and DMI. For a spring-calving system going into the fall, this gives many producers a sense of relief. They met high nutrient requirements during the growing season, were successful in meeting nutrient needs throughout the summer, weaned a healthy calf and now the cows can be self-sufficient until spring again. For a fall-calving system going into the fall, the relief just ended.

ENERGY (TDN) DROPS IN FORAGE WHEN COW NEEDS IT MOST

As fall transitions into winter, the nutrients available in most forages begin to decline, particularly energy. Good quality native pasture will usually hold CP fairly well during the dormant season and can meet much of a dry cow's CP requirements through fall and maybe early winter.

Even well-managed bermudagrass can hold CP levels through December, depending on how wet the winter is.

However, it's important to remember that the dry cow is also the gestating cow and approximately 67% of fetal weight occurs during the last three months of gestation. This requires a significant amount of nutrients, specifically energy. Not only is the cow requirement now steadily increasing starting around December (again, considering calving season begins in February), but the fetus is starting to impose on rumen capacity as it grows, reducing her dry matter intake.

Therein lies the conundrum: she is eating less but needs more. And while she may be lacking in protein, the initiation of that latter trimester initiates a switch in the limiting nutrient — energy, which is now a priority.

KNOW CATTLE SIZE AND FORAGE QUALITY

There is no graph or chart that can be made to point you to the perfect supplement for the winter months. It all relies heavily on two things: cow type (size, age, stage of production and lactation potential) and forage (both quality and availability). It is critical to know the size of your cattle rather than just guessing and to test your forage in order to meet requirements without overspending and underfeeding one nutrient or both.

In December:

- A 1,400-pound cow with 20-pound peak lactation and a February calving date requires 1.5 pounds more TDN per day (14.2 pounds vs. 12.6 pounds) and 0.15 pounds more CP per day (2.1 pounds vs. 1.86 pounds) than a 1,200-pound cow with the same lactation potential.
- A 1,200-pound non-lactating cow that is seven months pregnant with a February calving date requires 4.5 pounds less TDN per day (11.8 pounds versus 16.3 pounds) and 1.2 pounds less CP per day (1.6 pounds versus 2.8 pounds) than a 1,200-pound lactating cow three months after calving.

WHICH NUTRIENT IS NEEDED?

In order to know what nutrient is limiting, you need to have a good understanding of the nutrients that you have available and how much you have available through the winter period. Then based on animal type and stage of production, you can identify which nutrient is limiting and how much. At that point, you can shop for supplements that provide the right nutrients at a reasonable price.

For example: If you are a producer whose property and resources favor feeding range cubes and who is on a spring-calving schedule, it usually is most financially sound to feed a high-protein cube (30-38%) up until December then switch to a less protein-dense cube (20-25%) up until calving. This way you can increase pounds of supplement to meet energy requirements without overfeeding protein and overpowering your feed budget.

If you are feeding a commodity ration, your nutritionist may be more forward with a higher protein base (cottonseed meal or soybean meal) early in the winter and incorporate more energy (corn or corn byproducts) closer to calving.

MOST COWS NEED WINTER SUPPLEMENT

Most cows in most production systems are going to require some form of supplementation during winter in order to support and promote fetal development, as well as to meet her own maintenance requirements. Every producer benefits from becoming more informed about the nutrients available to cows in the pasture, as well as what the cow requires throughout the year relative to her size, production state and production potential.

Knowing when to invest in protein, or when to invest in energy, to meet cow requirements as they fluctuate is sure to yield a healthier, more productive herd and to increase the effectiveness of dollars invested in the cow herd.

CALVING SUPPLY CHECKLIST

by Heather Smith Thomas, Angus Beef Bulletin

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 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 isn't breathing
- Iodine or Chlorhexadine for disinfecting navel stump of newborn calves
- Flashlight (with batteries that work!)
- Injectable broad-spectrum antibiotics for cow/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 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.