Post Rock Extension District Column

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Top 10 Things to Keep in Mind with Free Choice Minerals

Minerals and vitamins are a very challenging aspect of beef cattle nutrition. This is mostly because plant mineral and vitamin precursor levels are influenced by many factors including soils, water, and forage growing conditions. As such, mineral plans can vary significantly from one operation to the next. Regardless of the specifics of your program, the following are the 10 most important things to keep in mind with free choice minerals.

Remember the priority of nutrients. Energy and protein are of higher priority than minerals and vitamins. When concerns regarding reproduction or calf performance arise, mineral or vitamin status of a cowherd is often questioned. Only after important production calculations (i.e. calf crop weaned per cow exposed) are made and the adequacy of the key components (energy, protein) of the cowherd nutrition program assessed should minerals and vitamins be further evaluated. Take time to plan what your needs will be. While estimating product usage can be challenging, accurately budgeting how much mineral you will use for the next several months or even the entire year can help avoid under- and over-purchasing. Your feed service provider can also help estimate mineral usage based on how products are designed and what your needs are. Measure intake to help plan your needs. Record when and how much mineral is being put out for a group of cows and track consumption on a pasture or group basis. Remember, while we may observe a wide range in actual consumption we are targeting an average per label directions. Both management and ingredients used impact consumption. Proximity to water and resting areas, water source, supplementation of other feedstuffs, precipitation, feeder design, and number of animals per feeder all drive consumption, either positively or negatively. Read, understand, and follow label directions. It is always important, but particularly with medicated minerals that one clearly understands the label. If medicated, you need to know 1) what the product is medicated with 2) what the dosage is and units used are and 3) the intended use of the product. There can be value in custom products. Accurate forage and water analyses can aid in the formulation of custom products which may be appropriate and economical for some operations, but volume minimums, and product quality and consistency need to be considered. Focus on Ca and P. Calcium and phosphorus are two of the most important macro minerals and requirements for the beef cow change throughout the year like energy and protein. The P requirement for a 1,200 lb lactating cow grazing a forage containing on average 0.2% P (DM basis) would be exceeded by 4 oz/hd/day of a mineral containing 6% P, thus providing some margin if forage is of lower P content than assumed. Keep salt in mind. If a free choice mineral supplement contains 25% salt, 4 oz/hd/day of consumption would provide 28 g/hd/day of salt or 11 g/hd/day of sodium which would meet the sodium requirements of a typical beef cow. Therefore, feeding a product containing greater than or equal to 25% salt would not require additional free choice salt to be fed based on meeting the sodium needs of a beef cow. Micros come in varying packages. Many different sources of trace minerals exist in the feed ingredient market, and they all have a proper place in which they can be effectively used for the benefit of the animal. A

conversation with your feed service provider can help you navigate the intended use of products based on their trace mineral source and level as well as ensure the difference in cost is within your budget. Avoid overconsumption. With current prices, a sound and well managed mineral program can be implemented for $40-50 per cow per year. While underconsumption can certainly be costly if deficiencies arise, overconsumption is likely to occur more frequently and represents additional costs which should be retained to improve profit margin per cow.

Thanks to Jason Warner, Kansas State Extension Cow-Calf Specialist, for sharing information related to mineral supplementation. For further information, contact me at any Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne, or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Blaire may be contacted at blairet@ksu.edu or by calling Beloit 738-3597, Smith Center 282-6823, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at "Post Rock Extension" along with our website www.postrock.k-state.edu.