MINERALS  
  
3/27/17  
We as beef cattle farmers are careful not to overlook proper mineral supplementation within our livestock feeding program. Minerals are becoming as important part of livestock feeding as many of our feed options have and are changing.  
  
Generally, we thought minerals were taken care of with trace mineral salt and grass. However, with increased production per cow many rations are often supplemented with by-products such as: distillers grains, corn gluten, soybean hulls, cotton seed, cotton seed hulls, peanut hulls, wheat maids and others which can and will change the mineral requirements and supplement programs.  
  
If minerals such as Copper, Zinc, Selenium and Manganese are out of balance the cows could develop problems with their immune system, reproduction and feed utilization among others. Minerals are a requirement for all metabolic processes within the body and should minerals be inadequate the cows/calves can not preform properly.  
  
The combination of forages and feed ingredients can and will influence mineral requirements. Thus, laboratory analysis of ration ingredients are important when developing rations for cows and calves.  
  
Chelates: Animals absorb the organic forms of minerals more efficiently but these are more expensive.  
  
Bio-availability: Animals do not absorb certain forms ( inorganic ) of minerals as readily, also minerals in the oxide forms do not deliver the minerals as intended.  
  
Antagonists: Sone minerals are known to work against others. Mineral supplements high in iron or zinc may counteract an animals ability to absorb copper, thus extra copper may be required.  
  
In general farmers work closely with their feed ingredient supplier and herd veterinarian using feed analysis reports to develop a proper mineral supplementation program to maintain optimum growth from their cows and calves.