

Minerals Make the Meal

To work at maximum efficiency your cows may need mineral supplements. Which minerals they need and in what mix will be determined by what's available in their daily pasture diets. That formula will change with the resources available on each farm/ranch. If you aren't working with a mineral supplementation program today, contact a supplier or your Extension office for help in figuring out what the cattle on your operation need.

Mineral nutrition should not be viewed as one-size-fits-all, says Dr. Cody Wright, Extension beef specialist at South Dakota State University. Cattle requirements change with respect to stage and level of production.

"There are substantial differences between forage mineral supplies in various regions of the country," Wright says. "It is important to understand what is required by the cattle and what is supplied by the forages to determine the best supplementation strategy."

Providing too much of one mineral is throwing money away. And some minerals are antagonistic, which means one may diminish the desired effect of the other. Mineral-deficient cattle display symptoms that indicate such, but part of the diagnosis problem is that some of the symptoms of different mineral deficiencies overlap, notes Dr. John D. Arthington of the Range Cattle Research and Education Center at the University of Florida.

He says that mineral supplementation in beef cattle can be divided into two broad categories, macro-minerals and micro-minerals (trace minerals). As a rule of thumb, Arthington says micro-minerals are required in amounts less than 1 gram per day compared to macro-minerals, which are often required at levels greater than 1 gram per head per day.

Multiple trace minerals are essential for basic physiological functions in beef cattle. A list of common trace minerals used for Florida cattle include copper, zinc, selenium, manganese, iodine, iron and cobalt.

Dr. Glenn Selk, Extension cattle specialist at Oklahoma State University, points out that many cow-calf producers use the same mineral mix year round. Testing forage samples periodically will help producers determine what their cattle are getting and what they need, and help prevent a deficiency or expensive over-supplementation, says Wright.

For instance, most Oklahoma cow-calf operators must provide phosphorous via a mineral supplement. It is important that cattle not be phosphorus deficient, especially near the breeding season, but excess phosphorus can be expensive. As such, Selk says match the phosphorus supplement with the needs of the cow.

Managing mineral supplement consumption can be a challenge during the summer, Wright says, when cattle often over-consume mineral supplements. Blending a mineral supplement with white salt will help counter excess consumption.

A second problem may be convincing cattle to consume minerals at all. This is often the case where water quality is poor. If that is the case, it often is necessary to blend the supplements with a highly palatable feed like ground corn or soybean meal.

Producers need to watch sulfur intake. High sulfur intake from feed and/or water can have negative effects on ruminants. High sulfur concentrations can be toxic to cattle, Wright says. Also, sulfur, either alone or in combination with molybdenum, can severely reduce copper absorption.

IRM Calendar

June 21	Ranch Stewardship Live, Hebron, Neb. Contact: Greg Wiedel 402/768-7344 or Vaughn Hinrichs 402/353-4585
June 30 - July 3	Beef Improvement Federation, Calgary, Alberta www.beefimprovement.org/convention.html
July 15-19	Cattle Industry Summer Conference, Denver, Colo.
Aug. 1	Cattle Buyers Summit, Kearney, Neb.
Aug. 4-6	Texas A&M Beef Cattle Short Course, College Station, Texas Contact: 979/845-6931 or extansc@ag.tamu.edu

IRM NEWS is produced by NCBA.

Direct questions about IRM programs to Renee Lloyd, rlloyd@beef.org, (303) 850-3373.

Dedicated to improving the economic efficiency of cattle operations through effective resource management.