

Mineral Supplementation for Cow/Calf Pairs

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Mineral supplementation for cow/calf pairs is not difficult, but it is a management practice with which our producers continue to need assistance. Forage sampling should be an integral part of mineral supplementation programs. Often producers with well-fertilized pastures could reduce their mineral expenditures especially for calcium and phosphorous. In addition, a mixture of grasses and legumes will lead to a more balanced Ca:P ratio in the forage.

Producers should also be encouraged to supplement based on physiological status of the animal as well as forage nutrient results. In general, producers could use 2 or 3 different minerals during the year (Table 1). Producers also tend to feed hi Mag minerals year-round. Although, this does safeguard against grass tetany it is also expensive. Strategic feeding of high Mag minerals will save money and still prevent grass tetany.

Table 1. Physiological state of beef cows and general mineral requirements

Physiological state	Mineral requirements
Late gestation - early lactation (breeding)	High Ca & P; High Se, Cu & Zn; Trace mineral (High Mag if needed)
Mid lactation - late lactation	Moderate Ca & P, High Se & Cu; Trace mineral (High Mag if needed)
Mid gestation	Low Ca & P; High Se & Cu; Trace mineral

Example for herd calving in March:

January 1 - July 15 -- Complete high mag, hi Se, hi Cu mineral with high percent Ca and P (see table 2).

July 15 - October 31 -- High Se & Cu Trace mineral salt (good pasture fertility), High Se & Cu Trace mineral salt plus Ca & P (low quality pasture). Both pasture types may need hi Mag for part of fall.

November 1- January 1 -- High Se & Cu Trace mineral salt

Example for herd calving in October:

August 15 - January 30 -- Complete high mag, hi Se, hi Cu mineral with high percent Ca and P (drop hi Mag in December).

January 30- June 15 -- High Se & Cu Trace mineral salt plus Ca & P. Will need hi Mag for part of spring.

June 15 - Aug 15 -- High Se & Cu Trace mineral salt

Last year Mark Wahlberg put together some handy tables that some of you probably have seen or you may have a copy. However, I thought they were worth repeating especially for some of the new agents.

Table 2. Macro mineral ranges needed in supplements depending on forage quality.

Forage Quality		
Mineral	High	Low
Salt	15-30	15-30
Calcium	6-12	0-12
Phosphorous	6-12	0-12
Magnesium	8-14	8-14
Sulfur	0-3	0-3

Table 3. Trace mineral concentrations needed in mineral mixes based on consumption.

Mineral	4 oz/day	2 oz/day
Zinc	.18%	.36%
Copper	.09%	.19%
Manganese	.18%	.36%
Iodine	.0026%	.0052%
Selenium	.0026%	.0052%

From Wahlberg, 1997

Custom made mineral mixes can be of great benefit to your producers and your educational program. Several county cattlemen's groups are making bulk purchases of minerals based on forage tests for their area. This has created great cost savings for their members and in many cases increase mineral supplementation by cattlemen.