

## **Preventing Grass Tetany in Beef Cows**

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In some parts of Colorado due to dry conditions, it may seem foolish to mention grass tetany now. However, in other parts of the state, and even in areas where a flush of spring grass growth may occur such as creek bottoms or meadows, an ounce of prevention may eliminate losses from this condition.

Now's the time to evaluate the mineral needs of your herd and to decide an appropriate strategy to reduced the risk of grass tetany. Grass tetany (also called hypomagnesemia) is a metabolic disease of cattle usually associated with grazing lush pastures.

Several factors are important in causing grass tetany, some of these are:

- Low magnesium (Mg) and/or high potassium (K) content of rapidly growing grasses and pastures.
- High crude protein content of grasses and pastures.
- Bad weather, storms, stress, etc., that cause cattle to be "off feed" for 24 to 48 hours.
- Lactation due to high losses of Mg and calcium (Ca) in the milk.
- Ammonia fertilization of pastures or grasslands.
- Various combinations of the above factors resulting in low blood Mg and Ca.

Magnesium is a required mineral for all cattle. Magnesium requirements for growing cattle are 0.1 percent of their diet (on a dry matter basis or DMB) and for lactating beef cattle 0.2 percent of their diet DMB. The absorption of Mg in the rumen can be interfered with by potassium (K). Since rapidly growing plants have a high content of K there is considerable interference with Mg. Another interference problem exists with high levels of crude protein in the diet.

Just as the requirements for Ca increase during lactation, so do the requirements for Mg. Therefore, lactating cattle are at increased risk of grass tetany. The heavier milkers are at greater risk of grass tetany. Stress or fasting decreases both Ca and Mg levels, so bad weather (storms), trucking, and other stressors that cause cattle to stop eating can precipitate grass tetany.

A mineral supplement is generally the fastest and most certain method of preventing grass tetany. Cattle should consume 1 ounce of magnesium oxide daily, and their intake should be checked frequently. Magnesium is not stored in the body long, so daily consumption is important. Supplemental magnesium can be provided by several methods. Supplementation should begin 2 to 3 weeks before tetany is likely to occur. Numerous commercial mineral supplements are available that contain all needed minerals with additional magnesium. At least

12 percent actual magnesium is recommended. Check with your feed salesman for specific products available to you.

Probably the most economical way to feed supplemental magnesium is a 1:1 mixture of trace-mineral salt and magnesium oxide (60 percent magnesium). Cows do not like the taste of magnesium oxide and they may not eat enough of this mixture. Consumption can be improved by mixing equal parts by weight of ground corn, trace-mineral salt, and magnesium oxide. Other grains or dry molasses that are high in energy may also be used to increase consumption. Do not use protein supplements, meals, or any sources of non-protein nitrogen. High nitrogen feed ingredient would tend to aggravate the grass tetany problem.

*(For additional information see: Grass Tetany in Beef Cattle by Dr. John Maas, DVM, University of California, Davis and Dr. Bill Kvasnicka, DVM, University of Nevada, Reno. This factsheet is found in the Cattle Producer's Library published by the Western Beef Resource Committee, Animal Health Section CL62. The Cattle Producer's Library is available electronically at CSUBeef.Com)*