Preventing Grass Tetany
LEWIS, Iowa – Thanks to recent rains, the grass is starting to turn green across much of the state. With additional rainfall, warmer temperatures, and some sunshine, spring vegetation will soon be flourishing. When that time comes there will be a surge of grass growth and spring forage will become available for grazing. Utilization of high magnesium mineral now can help prevent grass tetany when cattle are turned out to pasture.

Grass tetany (or hypomagnesemia) is a magnesium deficiency of grazing cattle. Iowa cattle are most susceptible in the spring when consuming the fresh, lush growth of green grass. This grass tends to be high in protein, moisture, and potassium but low in magnesium, calcium, and sodium. Spring-calving cows in early lactation have high requirements for magnesium and calcium as they share these electrolytes with calves through the milk.

Affected cattle will become nervous, agitated, and may experience muscle tremors. Additional clinical signs can include staggering, paddling, convulsions, lack of coordination, grinding of teeth, aggressiveness, excessive vocalization, blindness, etc. Grass tetany requires emergency therapy and veterinary diagnosis is usually made based on history and clinical signs.

Blood samples can be taken to analyze magnesium levels for confirmation of diagnosis. Treatment typically includes IV administration of magnesium/calcium solutions. It is strongly recommended to seek the assistance of a veterinarian to ensure proper diagnosis and appropriate therapy. Using IV administration of magnesium/calcium solution requires technical skills to achieve venous access and to properly infuse the solution. It is also important to check cattle frequently during high risk grazing periods so affected cattle can be identified and treated quickly.

It is helpful to provide high magnesium mineral mixes during times of high risk grazing on tetany-prone pastures. Commercial mineral mixes are available that contain 10-15% magnesium. When consumed at 3-4 ounces per day, these mineral mixes can aid in the prevention of grass tetany.

Cattle do not have the ability to build significant stores of magnesium so the mineral must be offered daily during the high-risk grazing period. It can be helpful to begin offering the mineral a few weeks before turnout to ensure adequate blood magnesium levels at first exposure to spring forage.
The high magnesium mineral mix needs to be part of a comprehensive mineral supplement that also offers adequate calcium and sodium as spring grass is often low in these minerals as well. Some sources of magnesium can be somewhat unpalatable so it is important to monitor the mineral intake. Adjustment of the salt content, additions of palatable feeds, or force-feeding the mineral through a grain supplement may be necessary if free choice consumption is insufficient.

Spring forage will be here soon; work closely with your veterinarian, nutritionist, and regional beef specialist to create a prevention plan that works for you.