News Release Brent Plugge, Extension Educator University of Nebraska, Buffalo County March 4, 2010 For: Around the County

## Preventing Grass Tetany

Believe it or not, it will be soon when pairs are turned out to pasture. This doesn't come without risks however. Lush, green, rapidly growing grasses present a risk for grass tetany, usually in the spring or fall as cool season grasses are a bigger risk that warm season grasses. High potassium and nitrogen impacts absorption of magnesium in these forages and thought to be the primary cause of grass tetany. Because of the increased forage production and growth rate, cattle grazing fertilized pastures are generally at higher risk, because the nitrogen impacts absorption. Legume pastures and legume hay are good sources of magnesium and calcium and are generally not a concern for grass tetany.

The most effective management strategy to address grass tetany is to prevent it. Prevention can be accomplished several ways. One method to minimize the risk of grass tetany is to delay turnout until the forage is more mature and is past the rapid growth stage. Delaying turnout will not only help reduce the risk of grass tetany, but it can also be quite beneficial to the pasture. This strategy works quite well, but may not be practical for some producers. Another method is to feed or graze legumes when you start on pasture because they have higher magnesium levels. If your plan is to graze legumes, have a plan to prevent bloat.

A more common management strategy to prevent grass tetany involves supplementing magnesium while the cattle are grazing higher risk forages. Follow label directions that are attached to the mineral bag. Magnesium is not effectively stored in the body so supplementation prior to the grazing period is not an effective prevention strategy unless the supplementation strategy continues through the peak risk time. The most practical means of supplementing magnesium under range or pasture conditions is through a "free choice" high magnesium (10 to 13% Mg with a 4 ounce target) block, tub or mineral mix. Supplemental magnesium can also be added in combination with a protein supplement, silage, or a liquid, but are less common avenues to supplement magnesium. Because of the low palatability of magnesium supplements, care should be taken to insure that the cattle are consuming adequate levels of the supplement. If they do not consume adequate levels of magnesium from a free-choice mineral mix, the supplemental magnesium should be combined with a more palatable feed (i.e. molasses, distillers grain, soybean meal) to help drive consumption. It is important to begin feeding a mineral supplement that has magnesium at least 30 to 45 days before spring turnout.

Regardless of the prevention strategy utilized, cattle should be observed at least twice per day when they are first turned out on spring pasture. There are some clinical signs that can be used as indicators of grass tetany; however, the first sign is usually a dead animal. Animals with grass tetany frequently stop grazing and appear nervous or high-headed. They will likely respond quickly and erratically to the slightest stimulus. As the condition advances, they may begin to stagger or experience twitching of the skin, followed by stiffening of the muscles and violent jerking convulsions with their head pulled back. They may also lie down and "pedal" with their legs and chew to the point of frothing at the mouth. If the convulsions subside, the animal may appear more relaxed; however, noises or touching of the animal, even to administer a treatment, may result in violent reactions.

If an animal is suspected of having grass tetany, time is of the essence. A veterinarian should be contacted immediately. The response to treatment depends heavily upon how advanced the condition is at the time of administration.

Grass tetany is a potentially deadly condition in beef cattle. However, control and prevention can be accomplished quite easily with management and supplementation.

Source: Beef Cattle at www.extension.org