



## Ben Beckman

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### WINTER TETANY

Grass tetany is an issue that we typically associate with spring. It occurs when animals are first turned out to pasture and have lush, new growth to eat. While high in quality, new grass growth doesn't have enough magnesium to meet the cow's needs. This is even worse for lactating animals as milk production raises this demand even more. The resulting magnesium deficiency results in tetany.

Tetany can exhibit itself as animals that are easily excited, have reduced feed intake, and exhibit muscle twitching, especially around the face and ears. Animals can also appear uncoordinated and walk with a stiff gait.

In a recent Nebraska Beef Watch article, Extension Beef Educator Aaron Berger and Beef Systems Specialist Mary Drewnoski shared that winter tetany is something we need to keep an eye on just as closely as we do grass tetany, especially for fall calving cows. During the winter months, a low magnesium diet can be just as big of an issue as in the spring.

Grass, alfalfa, and cereal grains harvested for hay can all be low in magnesium. When they make up a majority of an animal's diet and no additional magnesium is supplemented, tetany can be once again a concern. Getting a hay test with mineral analysis can easily show if this is an issue of concern. If tests come back showing less than 0.15% magnesium, the hay is deficient.

Because high levels of potassium interfere with the body's ability to absorb magnesium, forages that are high in potassium (greater than 2.5%) are at even higher risk. Another mineral to look at is calcium. Calcium can act as a sort of buffer, limiting the impact of high potassium. Tests showing calcium levels below 0.4% are considered low. In lactating animals, like fall calving cows, this drain on magnesium and calcium from milk production throws these imbalances off even more.

If you think your animals are at risk for winter tetany, there are preventative measures you can take. First, make sure animals have plenty of salt. Sodium is important in transporting magnesium into the cell, so an adequate supply of salt is critical to proper magnesium utilization.

Second, test your hay. If it comes back low in magnesium (<0.15%) and calcium (<0.40%) and high in potassium (>2.5%), consider switching over to a high calcium and magnesium mineral. Most options use magnesium oxide, which is bitter tasting and can reduce animal consumption. Consider mixing with a protein or energy supplement or mixing with distillers grain or soybean meal to improve consumption if it is not at target levels (for a 10-13% Magnesium mix, this is 4 oz. per head).

Finally, consider limiting feeds that are high in potassium. The high potassium levels aggravate low magnesium, so balancing these minerals in the ration better can help.

Tetany in the winter isn't a problem that jumps right to a producer's mind, but is a risk we need to be aware of. Properly testing hay and adjusting mineral and diets to balance out magnesium, calcium, and potassium can keep this nutritional problem at bay.

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