

HEALTH & HUSBANDRY

Greener pastures signal a caution

by Brad White, Kansas State University, Beef Cattle Institute



Green grass as far as the eye can see. Nothing beats the sight of a lush pasture greening up in the spring, especially after a long winter. Ranchers and cattle welcome the prospect of new grazing.

During this critical time, it is important to keep an eye out for health syndromes that can affect cattle, including grass tetany. If treated early, the case outcomes can be good, and several techniques are available to help prevent this disease on your ranch.

What is grass tetany?

Grass tetany, sometimes referred to as grass staggers, is a metabolic disorder of cattle resulting from low magnesium (Mg) and calcium (Ca) levels. Cattle exhibiting symptoms may appear nervous, have muscle twitching, display poor coordination (staggering), or eventually recumbency (lying with an inability to stand).

In the early stages of the disease, cattle may be restless or separated from the herd, but these signs are very subtle.

Magnesium and calcium are both important components of the musculoskeletal system, and deficiency leads to poor muscle and nervous system function.

Be careful when approaching the cow if you have a potential case. These metabolic imbalances can change mentation, and a normally docile cow can become aggressive.

Accurate, early diagnosis is important. If you see cattle with clinical signs, this is a great time to contact your veterinarian.

This disease progresses rapidly and can lead to

death if untreated, so early intervention is key.

Your veterinarian may confirm the diagnosis by taking a blood sample to measure magnesium levels. Treatment consists of supplementing the magnesium and calcium for the cow. This may take the form of oral pastes, injections or intravenous (IV) administration in severe cases.

Prevention is key

The ideal way to manage grass tetany is to avoid this syndrome when possible. This metabolic imbalance is most likely to affect

cows relatively early in lactation, because they are excreting a large amount of calcium through milk. When these cows are grazing new growth in pastures, this new growth is often low in magnesium and high in potassium. The combination of these risk factors can lead to the onset of grass tetany.

Grasses range in the level of magnesium, and grass tetany can occur when grazing cereal crops (wheat, oats, rye) or cool-season grasses (tall fescue, annual ryegrass). The magnesium levels are lowest with the new growth early in the season.

As the plants become 6-12 inches high, the mineral levels equilibrate and become less of a problem. Mixed stands of forage, including legumes, may have higher levels of magnesium. A long-term plan of incorporating legumes into cool-

season pastures can help minimize the risk of grass tetany.

Another approach is grazing animals



PHOTO BY SHAUNA HERMEL

Cattle exhibiting symptoms of grass tetany may appear nervous and/or display muscle twitching, poor coordination or recumbency.

meals can improve palatability. Strategic placement of mineral feeders

less susceptible to disease on pastures at high-risk times. Stocker cattle and nonlactating replacement heifers are less likely to suffer metabolic disorders and can typically be grazed on pastures that may be higher risk for lactating cows. Select the correct animals to graze the pasture at times of high growth early in the season.

In addition to grazing timing, supplementation with high-magnesium mineral prior to the onset of grazing is a useful prevention technique.

Magnesium tastes bitter, and one concern is ensuring adequate mineral consumption by the herd.

Work with your nutritionist or feed supplier to determine the adequate intake to expect from your herd. Then track the amount of mineral provided and how frequently the mineral areas need to be filled. From this you can calculate the estimated intake per head and determine if intake is adequate to meet mineral needs.

If cattle are not consuming an adequate quantity of mineral, the addition of molasses or protein

near areas of congregation or water can also be important to encourage consumption. Check the mineral feeder frequently to ensure that loose mineral has not become caked or damaged by the elements.

Begin supplementing the mineral prior to and during high-risk times.

Conclusions

Grass tetany is a metabolic disorder causing muscle tremors and difficulty moving in cattle grazing lush, rapidly growing pastures. Rapid diagnosis and prompt treatment can lead to good outcomes, and prevention is focused on providing supplemental magnesium in addition to a strategic grazing plan.

Keep an eye out for this important disease in your herd this spring. |

Editor's note: "Health & Husbandry" is a regular *Angus Beef Bulletin* column devoted to the care and well-being of the herd. Author Brad White is on faculty at Kansas State University College of Veterinary medicine and serves as director of the Beef Cattle Institute. To learn more on this and other beef herd health topics, tune in to the weekly Beef Cattle Institute *Cattle Chat* podcast available on iTunes, GooglePlay or directly from KSUBCI.org.

