

Grass Tetany

What, when, and why?

Grass Tetany or Hypomagnesemic Tetany, is the lack of adequate magnesium in the blood of animals. This low concentration of plasma magnesium leads to muscle spasms, convulsions (seizures), respiratory distress, collapse and eventually, death. Grass Tetany is caused by inadequate amounts of plasma magnesium in the blood of animals. This dietary requirement of absorbed magnesium is stored and utilized in the animal's bones and muscles for movement and lactation. Grass Tetany occurs when the magnesium requirement for these actions is not met. Animals constantly lose magnesium through their urine, feces, and milk. To make up for this loss, the animals require a daily ingestion requirement. Grass Tetany occurs when animals have grazed on lush green pastures, which are low in magnesium. It can also occur when high levels of potassium and nitrogen are ingested, such as when fields have been recently fertilized with nitrogen or potassium fertilizers.

What animals are affected?

Grass Tetany can affect any animal. It is most commonly seen in adult lactating small and/or large ruminant animals (Cattle, Goats, Sheep). These animals can also be affected with they have reduced feed intake due to being malnourished, ill, or under stress. Young animals that are primarily fed milk can be affected if any of the above occurs.

What are the symptoms?

Animals that are affected by Grass Tetany may appear to be grazing normally, but will suddenly start bellowing and galloping around the field blindly. Animals will then begin seizure-like activity. Death usually follows within a few hours after convulsions begin. In most instances, producers will find animals dead in the field with no knowledge of a previous sickness.

How can we treat it?

Treatment of Grass Tetany includes a licensed veterinarian giving combined solutions of the proper amounts of calcium and magnesium. If this is administered improperly, death can occur.

How can we prevent it?

Pastures in mountainous areas are high-risk pastures due to the common swings in temperature and weather, making grass grow in short spurts. A daily oral supplement of magnesium oxide can be offered, and is highly suggested during the danger period (early Spring). Most commonly, the oral supplement comes in the form of a "High Mag" (high magnesium) loose mineral that is given through free choice. It is suggested that producers provide an unlimited amount of quality hay with the mineral for proper digestion.

Who should I contact if I have questions, think my pastures are at risk, or have animals that are presenting signs of Grass Tetany?

If you have any questions or concerns about your animals or pasture, please feel free to contact Michelle South, Area Extension Agent; Agriculture-Livestock, at (828) 733-8270. If an animal is presenting signs of Grass Tetany, contact your local veterinarian immediately and seek treatment.

The effects of Grass Tetany advance quickly, the best way to keep your animals healthy is to take preventative measures, and provide a "High Mag" free-choice mineral.

Other things to keep in mind.

Minerals are very essential to the healthy production of livestock. Keep your mineral feeders full of free choice minerals year-round; this will help prevent any deficiencies. It has been proven in many studies that animals that are provided proper nutrition and access to unlimited minerals are more productive than animals that do not meet their nutritional requirements.

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For more information, please contact Michelle South, Area Agent at (828) 733-8270 or by email at mcsouth@ncsu.edu.