

GRASS TETANY OF CATTLE

By

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Grass tetany, sometimes called grass staggers or wheat poisoning, is a fatal disease of cattle that are on lush, succulent, rapidly growing pasture. The mortality is high and death may result within an hour. It may occur on pastures of wheat or other small grains and on Dallis and Bermuda grass.

The underlying cause of this condition is not known. In affected animals, the blood usually contains less than the normal amount of calcium. (This is why the disease occasionally resembles "milk fever" in the recently freshened dairy cow.) There is no proof of what pulls the calcium out of the blood stream. Some investigators believe that a high intake of potassium upsets the necessary calcium-phosphorus balance, resulting in a lowering of the calcium in the blood stream.

Symptoms of this disease range from the highly "nervous type" to that of a mild partial paralysis with no other visible symptoms. This range of symptoms, in various combinations, include:

- (A) An expression that is anxious or wild in the nervous cases, dull and listless in other cases and normal in some.
- (B) Grinding of the teeth.
- (C) Spasms or twitching of isolated muscle groups.
- (D) Paralysis, of varying degrees, is the most constant symptom. It usually appears as a weakness of the hind quarters, with the accompanying staggering and incoordination, and progresses to prostration, general convulsions, and/or coma and death, if untreated.
- (E) The appetite usually decreases but most cases will drink water.
- (F) There is no bloating unless the animal has been down on its side for some time. This distinguishes the condition from the bloating often seen in cattle on wheat that has frost or heavy dew on it; also from that bloat caused by Johnson grass, sudan, cane, and other plants.
- (G) The temperature is near normal depending on weather conditions and exertion of the animal. This helps in differentiating the disease from one due to infection.

This disease is most often seen in lactating and/or pregnant cows. Another common occurrence is in animals that are shipped, driven, or otherwise exercised immediately after being taken off lush grasses.

Treatment is successful if administered in the early stages of the disease. All forms of the disease seem to respond to large amounts (250-500 cc) of a solution of calcium injected into a vein. This treatment should be administered by a veterinarian as it may also be necessary to administer a heart stimulant before, after, or during the injection of the calcium to prevent stoppage of heart action. One injection of calcium is usually sufficient.

The addition of roughage and mineral supplements to the diets of cattle grazing on succulent pasture has been advocated by some as a preventive of grass staggers. This has not proved to be of any great value; however, it does tend to lessen the danger of bloat on this type grazing.

Fundamental causes or prevention of grass tetany is not known. Continued research is being conducted at the Pan Tech Field Laboratory by the Texas Agricultural Experiment Station and United States Department of Agriculture on the fundamental causes and methods of prevention.

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