

you are here: [home](#) → [columns](#) → [beeftalk](#) → [beeftalk: urgent: obtain a well-balanced mineral program with magnesium now!](#)

navigation

Links

- [News Home](#)
- [Columns](#)
- [Archives](#)

Feeds

- All News
- BeefTalk
- Dairy Focus
- Prairie Fare
- Economics
- Renewable Accounts
- Small-business Savvy

Twitter

- On Twitter follow [NDSU Ag News](#)

BeefTalk: Urgent: Obtain a Well-balanced Mineral Program With Magnesium Now!



Grass tetany is difficult to detect early, so make sure cows have sufficient supplementation.

By Kris Ringwall, Beef Specialist

NDSU Extension Service

Are the alarms going off? They should be! Dead cows are no fun, and they can happen if a producer is not prepared.

The recent moisture and heat has the grass growing; these are happy notes but with a dark side. Fast-growing, lush grass may not have enough magnesium (Mg) within its rapidly growing stems and leaves to meet the daily requirement for Mg in the lactating cow. Physiologically, the cows are coming in to peak milk production, which certainly is an additional strain on the cows'

Images

Grass Tetany

"In the most acute form, affected cows, which may appear to be grazing normally, suddenly throw up their heads, bellow, gallop in a blind frenzy, fall, and exhibit severe paddling convulsions. These convulsive episodes may be repeated at short intervals, and death usually occurs within a few hours."

— www.merckmanuals.com/vet/

Grass Tetany

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system, and any metabolic shortfall can have quick, disastrous consequences.

Because grass tetany is so difficult to detect early, the real answer is to make sure the cows are supplemented adequately with a proper pasture mineral. Visit your local cattle nutritionist and obtain a spring pasture mineral that provides a well-balanced mineral program specifically with supplemental Mg for spring pasture grazing.

Stay alert. The cow initially responds to these metabolic challenges (lack of Mg) with nervousness and irritability generally not apparent to the typical watchful eye. But due to the rapid onset in well-managed cows, quick response and treatment is critical, particularly because beef herds have been selected for more growth and, in many cases, heavier-milking cows.

Some would ask, "Why all the excitement?" I would say, "Because we know the situation and managerial intervention through correct supplementation will prevent dead cows."

Let's take a closer look at grass tetany. The Merck Veterinary Manual website at <http://www.merckmanuals.com/vet/index.html> has a good description in the section on "Metabolic Disorders." Look up hypomagnesemic tetany in cattle and sheep.

The clinical findings state that "in the most acute form, affected cows, which may appear to be

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grazing normally, suddenly throw up their heads, bellow, gallop in a blind frenzy, fall, and exhibit severe paddling convulsions. These convulsive episodes may be repeated at short intervals, and death usually occurs within a few hours. ... in many instances, animals at pasture are found dead without observed illness”

Further observation would note the cattle had convulsions prior to death as indicated by the straddle marks on the ground. Pay attention and observe cattle acting unusually as is noted on the Merck website, which says “... the cow is obviously ill at ease, walks stiffly, is hypersensitive to touch and sound, urinates frequently, and may progress to the acute convulsive stage after a period as long as 2–3 days. This period may be shortened if the cow is transported or driven to a fresh pasture.”

In a typical situation, cattle are worked in early June and sent to summer pasture. The next day, two cows go down. Veterinary intervention was obtained; one cow lived and one cow died. The cows were not noticed to be demonstrating the early signs of grass tetany, but the extra activity brought on by moving the cows triggered the clinical onset.

An important point to keep in mind is to check with your local veterinarian to make sure appropriate treatment protocols are available and people are around to administer the treatment. This is truly an

emergency situation in the life of a cow. Losing a cow is not the experience a producer wants.

The truth being said, good spring pasture mineral supplementation that has Mg included can minimize the development of grass tetany. Grass tetany also is associated with low blood calcium, thus the connection to higher-milking cows, and any indication of instability in a nursing cow is an emergency situation.

Ketosis (sometimes confused with milk fever at calving) and hypomagnesaemia tetany (commonly called grass tetany or grass staggers) are serious metabolic disturbances in cattle, and given the setting and time, often are fatal without veterinary intervention. Ketosis generally is associated with reduced intake of carbohydrates or, more simply put, inadequate feed to support the nutritional requirements of a lactating cow.

But like many problems, the root cause is a combination of issues expressed as a crisis. Serious outbreaks can occur if cattle are borderline deficient on calcium, stressed while producers are working calves and moved from the calving pasture to a lush pasture where dietary Mg absorption cannot meet the daily maintenance of Mg plus the daily lactation requirement for Mg.

The cow does not have a good way to store Mg, so daily intake is critical. The result of a lack of Mg is dead cows in the morning. Critical response is

imperative. Contact your local cattle nutritionist and veterinarian in advance, be prepared and offer a well-balanced spring mineral program.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (<https://www.ag.ndsu.edu/extension/directory>) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or [✉kris.ringwall@ndsu.edu](mailto:kris.ringwall@ndsu.edu).

NDSU Agriculture Communication - May 5, 2016

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Attachments



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