

Start Prevention of Grass Tetany and Other Problems Early this Year

W. Warren Gill
Professor
Animal Science

Grass Tetany is often considered a Spring problem, but there is danger of significant losses in the winter, if conditions are right.

For example, many cows calve in the fall and winter, and Grass Tetany generally strikes cows in early to mid-lactation. Cows are more likely to have Grass Tetany if they are grazing high-quality pastures, such as stockpiled fescue or wheat. In recent years, cows with Grass Tetany were reported to have been in unusually poor condition, and many cows are still in poor flesh this year.

Unusually high concentrations of Brown Stomach worms (*Ostertagia*) were have also been observed in Grass Tetany cases in some years.

The Tennessee Forage Mineral Survey revealed unusually high levels of Potassium (K). High potassium (>3.0%) makes magnesium less available, and is often a factor in grass tetany.

These findings have led to several conclusions that have implications for cattle farmers across the state. The first line of defense is to be certain to provide a complete mineral containing magnesium. In "problem" situations, work closely with your veterinarian and county Extension agent to develop a grass tetany prevention/treatment strategy.

Much of the 2003 hay crop was either "rained on" or "cut late." This hay is routinely testing below 8 percent crude protein and less than 47 percent total digestible nutrients

(TDN). Lactating cows will lose a large amount of weight and condition on hay of this quality unless they are provided with several pounds of supplementary grain.

Cattle which are nutritionally deprived are more susceptible to metabolic diseases such as Grass Tetany and Milk Fever. Susceptibility is further increased by an internal parasite burden and advanced age. The combination of poor stored forage, old cows, worms and poor supplementation is potentially lethal.

There is another potential problem. Most producers will not lose significant numbers of cows, but if the herd is nutritionally deprived, the cows may not rebreed. The calf herd in 2005 may be significantly reduced if corrective measures are not implemented.

What can be done? Step one is to provide a complete mineral supplement containing adequate amounts of magnesium, calcium and phosphorus (also copper, selenium and other trace minerals). A number of commercial mineral mixtures are available which provide the desired combinations. See our web site for more information:

<http://animalscience.ag.utk.edu/forageminerals/Default.htm>

Other steps to prevent losses include:

- Use the highest quality hay available for lactating cows.
- Provide grain supplementation. A supplement containing a high percentage of cereal grains (corn is often best) will provide the energy that cattle need to overcome energy deficits. Three to six pounds of a supplement containing a high percentage of corn will assist cows in maintaining body condition that is necessary for lactation and successful rebreeding.
- Deworm cattle with an anthelmintic (dewormer) that controls the Brown Stomach worm (*Ostertagia*). Consult your Extension agent or veterinarian for

recommendations. If cattle are in a nutritionally stressed condition, make certain that the product selected for deworming will work against the Brown Stomach worm while adding minimal stress to the cattle.

- Pay special attention to first-calf heifers. These "first-time" calvers are most likely to not rebreed under nutritional stress. Provide extra supplementation to these cattle.

- Pay special attention to old cows. Old cows are more susceptible to worm burdens and are more likely to experience nutritional stress when forage quality is low. It may be time to cull cows with signs of old-age problems, such as poor teeth, structural infirmities and bad eyes.

- Avoid over-fertilizing with K. Use it when needed, as indicated by soil test, but do not add it if not called for. Higher soil levels invariably show up as high forage levels, which could easily kill cows due to grass tetany.

In summary, start managing now to prevent Grass Tetany and other nutritional problems. Attention should be given to supplement programs, particularly for first calf heifers and old cows.