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**For Immediate Release**

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## **Magnesium Management Tips to Minimize Grass Tetany**

**Magnesium is essential** for both plants and animals. A shortage can reduce photosynthesis in plants and can increase risk of serious health problems from grass tetany in certain animals under stress, such as brood cows about to calf.

Grass tetany is a metabolic disorder associated with magnesium deficiency in ruminant animals such as cattle, sheep and goats. It occurs most often in the spring as animals graze the first flush of grass forage. Cases have been reported in the fall and winter when animals are under stress, Mg levels in the diet are inadequate and/or Mg absorption from forage in the rumen is reduced.

The first flush of early spring growth in fescue grass pasture is often very low in magnesium. The Mg level can be so low in the fescue forage that the animal's blood Mg level drops to a critical level and symptoms of grass tetany appear. A Mg level of about 0.2 percent in forage is believed to be needed to provide for animal needs.

Early spring growth of fescue can be low in Mg for several reasons. Some include soils that are naturally low in Mg, soils with very high levels of calcium and potassium, reduced Mg absorption due to slow root growth in cool and moist soils, and/or where pastures have received heavy applications of nitrogen prior to the first flush of fescue growth.

The Mg concentration of fescue grass can often be improved by fertilizing with a soluble source of Mg, such as sulfate of potash magnesia (K-Mag). This provides Mg easily absorbed by fescue plus a reasonable level of potassium and sulfur needed for efficient protein development in both legume and grass plants.

For optimum protection against grass tetany provide brood cows with (1) forage containing optimum levels of Mg for plant growth (2) a supplemental source of Mg in a mineral mix and (3) supplemental hay or silage while animals graze winter and early spring forage grasses.

Research shows that nutrient balance is key to high yield and quality forage. Nitrogen, P and K are each involved with good Mg nutrition of a forage crop, and vice versa. Soil and plant analysis can help to monitor Mg need and use by forage crops. Without a soil test, K-Mag applied to forage fields in the amount of 200 to 300 pounds per acre can help to "winterize" both legume and grass plants and to insure nutrients are in place for use by early spring growth plants such as fescue.

K-Mag is a key ingredient in a forage management program. Grass tetany is an early season challenge needing special attention. However, growth of legumes and warm season grasses kick into high gear as soil temperature increases. A readily available supply of Mg, such as that provided from K-Mag, can help plants to efficiently utilize all inputs needed for high yield, high quality forage feed for livestock.

K-Mag is an excellent provider of Mg (10.5-11%), K (21-22%) and S (21-22%) for fescue grass pastures and for other grass and legume forages. As a granular product it blends well with other nutrient sources of nitrogen, phosphorus and potassium to insure a uniform application of nutrients to the field.

Plant and animal nutrition are totally under farm management control. A balanced fertilization program for forages utilized in animal rations is essential for optimum profitability in livestock operations.



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