Fifty percent should pass through a 50-mesh sieve and at least 35% a 100-mesh sieve. If you need dolomite, buy a good grade (actual Mg content of around 13%, Mg oxide equivalent of 20%, Mg carbonate equivalent of 45%) and apply enough to raise the soil Mg level to 200-250 lbs/a. If your soil pH is already 6.2-6.5 and no lime is called for, yet both K and Mg are needed you can use Sul-Po-Mag or K-Mag which contain about 11% Mg, as well as about 22% K_2O and 22% sulfur.

If you apply high rates of mixed fertilizers or manure (poultry or cattle) which contain high amounts of N and K, this may lead to an imbalance between K and Mg. This will affect Mg availability in the pasture grasses and in the grazing animal. If your soil test calls for potash, it is suggested that it be applied after the first cut. Alternatively, apply the potash in the fall. By soil testing in the fall, sites with potential Mg deficiency can be diagnosed early and corrective measures implemented.

In summary:

If your soil is low in Mg (less than 100 lbs/a) the potential for grass tetany (hypomagnesemic tetany) is increased. Prevention of grass tetany includes the application of high grade dolomite limestone, not calcitic limestone. Supplementation with Mg oxide is necessary to avoid clinical signs of hypomagnesemia in cattle fed forages from this soil.

If your soil is low in Mg and your soil test does not call for lime, Mg deficiency in cattle can be prevented by feed supplements. However, application of Mg oxide (60% Mg) at 250 lbs/a or 1200 lbs/a of dolomite (13% Mg) will add 150 lbs of Mg without adverse effect on soil pH.

In pasture with low soil Mg, do not apply heavy rates of nitrogen, potash or manure in early spring. Instead, make fall or late spring applications. Early spring applications of phosphorous will cause no problems on soils with normal Mg levels and phosphorous is needed to enable the plant to take up Mg.

If your soil is high in Mg (over 250 lbs/a) and your soil test calls for lime, the use of calcitic lime is appropriate. Monitor your nutrient balance by annual soil testing. For optimum crop production soil tests should indicate 70-80% Ca. 12-15% Mg and 3-5% K. Some legumes such as birdsfoot trefoil and soybeans benefit from higher levels of Mg up to twice as high.

Test hay meadow and pasture soils in the fall so preventative measures can be implemented.

It is highly recommended that regular forage samples are obtained for analysis. This simple procedure will provide valuable information for mineral supplementation to optimize livestock nutrition and production.