



---

**For Immediate Release**

**For more information, please contact:**

Randy Groff

The Mosaic Company

763-577-2765

[randy.groff@mosaicco.com](mailto:randy.groff@mosaicco.com)

## **Prepare Soils To Ensure Optimum Alfalfa Grazing Quality**

Producing a superior alfalfa crop that's high in crude protein and that will satisfy your herd's energy intake needs means working from the ground up. Preparing soils with a balanced fertility program provides livestock with a quality feed that includes essential nutrients at optimum levels.

Soil fertility management is vitally important for a quality-grazing program, says Dr. Cliff Snyder, Midsouth director of the Potash & Phosphate Institute.

"Well-fertilized soils will deliver alfalfa with more protein and essential minerals for livestock," he says. "Since nutrients are basic components of high-quality alfalfa, there is no way to produce optimum yields or quality with sub-optimum nutrient supplies."

Snyder suggests keeping the following points in mind when preparing soils for high quality alfalfa:

- Maintain an optimum pH level above 6.2 to 6.5 for alfalfa. If soil pH falls below 6.0, other nutrients such as phosphorus, calcium and magnesium become less available to the plant. Acidic soils can severely limit nitrogen fixation by alfalfa, clovers and other legumes.
- Establish and maintain optimum phosphorous concentrations. This nutrient is essential for plant growth.
- Maintain proper soil potassium levels for alfalfa establishment and year-to-year productivity.
- Maintain sufficient levels of magnesium. Plants take up more potassium than magnesium, but these two nutrients need to be kept in proportionate balance. A potassium to magnesium uptake ratio ranging from about 10:1 to 12:1 is common for alfalfa. If magnesium levels are low in relation to optimum potassium levels, the plant will tend to take up potassium in disproportion to magnesium.
- Watch for sulfur deficiencies. Sulfur is an important constituent of plant proteins. Deficiencies tend to occur, in sandy soils with very low organic-matter content.

Snyder says that for the best alfalfa production results broadcast and incorporate fertilizer before establishment.

"If essential nutrients for optimum production were not applied this past fall, be sure to fertilize immediately before, or just after, the first spring growth occurs," he says. "The key is to maximize nutrient use efficiency and minimize potential environmental loss."

As part of the fertilizer mix, producers can provide forages with several necessary crop nutrients in the form of potassium-magnesium sulfate (K-Mag<sup>®</sup>, formerly known as Sul-Po-Mag<sup>®</sup>), according to Ray Hoyum, vice president of market development and communications at IMC Global.

"A K-Mag program delivers potash, magnesium and sulfur in a sulfate form that's readily available to the alfalfa crop," he says. "These nutrients work immediately to help improve nitrogen and phosphorus efficiency."

Mined and processed by IMC Global, K-Mag is a 3-in-1 fertilizer combination that consists of 21-22 percent potash, 10.5-11 percent magnesium and 21-22 percent sulfur.

"Since K-Mag contains potassium, magnesium and sulfur, producers can reduce the amount of these nutrients from other fertilizer sources in an overall mix," Hoyum says. "K-Mag can help deliver the quantity of low-cost, quality feed that alfalfa producers need after every harvest."

As appeared in the January 2003 issue of *The Stockman Grass Farmer*.  
For more information, please call 1-800-748-9808.



The Mosaic Company, 3033 Campus Drive Suite E-490, Plymouth, Mn. 55441, Phone 763-577-2700

© 2009 The Mosaic Company. All Rights Reserved. K-Mag is a registered trademark of The Mosaic Company