



For Immediate Release

For more information, please contact:

Randy Groff
The Mosaic Company
763-577-2765
randy.groff@mosaicco.com

K-Mag Demo Plot Results - MN

K-Mag: A Proven Yield and Quality Booster

Time and time again, research shows that K-Mag contributes to increased alfalfa yields, a better quality crop and bigger profits. Alfalfa demands high levels of nutrients, particularly as alfalfa management intensifies, so balanced fertilization is critical. The balanced nutrition in K-Mag helps growers achieve yield goals, as well as superior quality.

K-Mag is a naturally occurring source of three essential nutrients - potassium (21-22%), sulfur (21-22%) and magnesium (10-11%). K-Mag helps supply potassium and magnesium in the right balance. In addition, K-Mag provides sulfur, an often neglected nutrient in alfalfa fertility programs that contributes greatly to yield and quality.

Other benefits:

- **Readily Available Nutrients** - K-Mag is 100% water-soluble, so it keeps working throughout the growing season.
- **Doesn't Affect Soil pH** - K-Mag is a neutral salt and does not affect the soil pH, regardless of the amount applied.

K-Mag Boosts ROI by 77% on Minnesota Demo Plot

In 2001, United Agri Products (UAP) coordinated a demonstration plot for K-Mag on two alfalfa sites in Big Lake, Minn., to test the premium fertilizer's impact on yields and return on investment.

According to Spike Toth, an agronomist for UAP, the results were impressive. "K-Mag provided nutrients in the appropriate balance, and its solubility and slow-release time contributed to a healthy crop," he says. "Other blends that contained sources of elemental sulfur have not provided the same level of response."

The demonstration plots included an established stand, and a second-year alfalfa crop. In the year 2000, one year before the demonstration plots were established, 5,000 pounds per acre of dolomitic lime (1220 ENT, approx. 5% Mg) were applied. In 2001, both plots received the growers' standard fertilizer practice, which included 250 pounds of muriate of potash (MOP) per acre. In addition, test areas received 150 and 300 pounds per acre of K-Mag, while control areas received no K-Mag applications. The ROI results below were based on a \$75 per ton selling price for hay, and an \$11.50 per cwt retail price for K-Mag.

FIRST PLOT: Mixture of alfalfa, timothy and bromegrass. Established for 6 years.

	0 lbs K-Mag	150 lbs K-Mag	300 lbs K-Mag
1st Cutting	1.50 tons	2.25 tons	2.50 tons
2nd Cutting	1.00 tons	1.50 tons	2.00 tons
3rd Cutting	.60 tons	1.00 tons	1.50 tons
TOTALS	3.10 tons	4.75 tons	6.00 tons

SECOND PLOT: Second-year new alfalfa.

	0 lbs K-Mag	150 lbs K-Mag	300 lbs K-Mag
1st Cutting	1.75 tons	2.25 tons	2.75 tons
2nd Cutting	1.00 tons	1.75 tons	2.25 tons
3rd Cutting	.80 tons	1.00 tons	1.75 tons
TOTALS	3.55 tons	5.00 tons	6.75 tons

AVERAGES

	3.325 tons X \$75/ton \$250.00	4.875 tons X \$75/ton \$365.00	6.375 tons X \$75/ton \$478.00
Cost of K-Mag (Retail)	-0.00	-17.25	-34.50
Return per acre	\$250.00	\$347.75	\$443.50
Per acre %		+ 39%	+ 77%

In just one growing season, a 300 pound per acre application of K-Mag boosted returns per acre up to \$443.50 - a 77% increase! It is also interesting to note that even with the dolomitic lime application in the prior year, alfalfa still showed a response to the extra magnesium provided from K-Mag. The K-Mag application clearly proved to be a wise investment.

Sandy Soils? K-Mag Keeps Nutrients within Roots' Reach

According to Ray Novak, IMC Global regional manager of market development, who helped coordinate the demonstration plot with UAP, the key is identifying the situations in which growers can achieve a positive response to K-Mag.

"We think that there are certain soils and certain crops that will definitely show a positive response to an application of K-Mag," he says. "It's up to us to find out where those situations are. If K-Mag is part of what has been missing in a balanced soil fertility program, there could be tremendous quality or yield responses."

Novak says it is almost always ideal to target sandy soils with K-Mag, which was the case in the Minnesota demonstration plot. "Sandy soils have a hard time holding nutrients," he says. "K-Mag in the water soluble form is readily taken up by plants, and it doesn't have a chance to tie up in the soil. Therefore, an application of K-Mag in this type of setting almost always has a positive response."

Alfalfa takes up large amounts of potassium from the soil, he adds, so it is important to ensure that nutrients are available during a crop's critical growth stages.

Novak says fertilizer recommendations should be based on soil tests, historical data and research. "Most growers want to see a lot of data before they try a new practice," he says. "We are so confident in K-Mag that we're providing complimentary product to farmers and dealers who are willing to coordinate their own demonstration plots. With the incredible results we're seeing, growers can't always afford to wait for research."



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