



Higher yields are available with K-Mag[®] fertilizer



K-Mag benefits *Supplies essential nutrients often overlooked by traditional NPK programs*

Virtually 100% water-soluble – K, Mg and S are immediately available to crops

No risk of fertilizer burn thanks to low chloride levels and a low salt index

Helps boost yields without affecting soil pH

Typical broadcast rates are 150-300 lbs/A, but soil analysis should direct usage. Additional K may be required.

Why K-Mag?

The shortage of just one essential nutrient can shortchange vegetable yields and quality. Growers can optimize yields and maximize profits by providing a balanced soil fertility program that ensures all 17 essential nutrients are available to plants.

K-Mag fertilizer provides three essential nutrients in the highly available sulfate form. Available in PREMIUM, GRANULAR and STANDARD grades, K-Mag provides 21-22% potassium (K_2O), 10.5-11% magnesium (Mg) and 21-22% sulfur (S).

Also known as langbeinite, potassium magnesium sulfate, or double sulfate of potash, K-Mag is sourced from ore beds deep beneath the earth's surface, where an isolated lake of ocean water once existed. Langbeinite, an evaporite mineral, is one of the most soluble salts in the ocean.

Increase vegetable yields

Progressive vegetable producers know that quality, in addition to quantity, is key to profit potential. Weight, color and aroma are subjective measures, but central in judging the merit and worth of a vegetable crop. Numerous field trials have shown that a balanced fertilization program that provides nutrition beyond NPK increases both the total and marketable yields of vegetables.

K-Mag supplies three essential nutrients, without affecting soil pH.

Potassium (K)

A high-yielding, high-quality vegetable crop requires large amounts of K (see chart below). K increases root growth and enhances a plant's ability to defend against disease and cold. K also promotes the formation and translocation of sugars, starches, and proteins that promote quality produce. In tomatoes, K additions can help prevent uneven ripening and irregularly shaped fruit, and improve color quality.

K₂O removal by vegetables

Uptake	Crop Yield (cwt/A)	K ₂ O (lb/A)
Lettuce	400	185
Potatoes	500	546
Table Beets	500	580
Tomatoes	600	336
Onions	600	160
Cabbage	700	249

Magnesium (Mg)

Increased K rates can inhibit Mg uptake by the plant. Without Mg, photosynthesis is inhibited, and plants may mature late, have a less-efficient root system and produce inferior fruit. In Mg-deficient vegetable plants, leaves can develop a loss of normal green color, and cease to function. Supplying adequate Mg, and in the proper balance with K, can greatly enhance vegetable yield and quality. A UC-Davis study found that managing K, and the ratio of K to Mg, helped reduce color disorders in tomatoes. K-Mag provides a readily available soluble source of Mg, and it supplies K and Mg in the proper balance.

Sulfur (S)

S helps build proteins in plants and is a key component of many unique vegetable traits. S puts the "green and leafy" traits into crops like spinach, while giving garlic and asparagus their distinctive flavors. Without adequate S, "hot" mustard or horseradish would not exist. And, in virtually every S deficiency situation, the appearance of the vegetables is somehow affected.

Ensure your vegetable crop has all the nutrients it needs to thrive. Contact us today to learn about adding K-Mag to your balanced soil fertility program!

kmag.com



The Mosaic Company, 3033 Campus Drive, Plymouth, Mn. 55441

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