

# K-MAG BRIEFS™

Brought to you by IMC Global – Producers of Quality Crop Nutrients

## For High Yielding, High Quality Wheat

*An excellent 3-in-1 source of K, Mg and S*

*All nutrients are in the readily-available, water-soluble sulfate form*

*Does not affect soil pH*

*Low salt index*

Wheat is the primary cereal consumed by the United States and the world consistently one of the top five most valued crops. High-yielding wheat requires large amounts of potassium and sulfur for top-quality, high-protein grain.

A product of mineral earth extracted from deep below the New Mexico soil surface, K-Mag is a naturally occurring source of potassium (22% K<sub>2</sub>O), magnesium (11% Mg) and sulfur (22% S) essential nutrients for wheat production. All the nutrients in K-Mag are in the highly available, water-soluble sulfate form.

### Each nutrient in K-Mag plays a critical role in wheat production:

#### Potassium (K)

K is essential for proper wheat development and health. In fact, wheat requires as much K as nitrogen (N). On average, roughly 180 pounds of K are removed by one 80-bushel crop. Although it's important for a variety of plant functions, K is key to maintaining water balance and disease resistance. K applications consistently reduced the incidence of leaf rust an average of 27%. And, as K concentrations increase, transpiration losses decrease, and plants are better able to withstand drought.

#### Magnesium (Mg)

Mg is the heart of the chlorophyll molecule, which is essential for photosynthesis. Low levels of Mg in wheat not only inhibit this fundamental process, but also deplete developing kernels of carbohydrates. Mg nutrition is hampered by a number of factors. Low spring temperatures can depress Mg absorption in the rooting zone during key growth stages. Also, supplying wheat with its high K requirements can induce Mg deficiencies in low-Mg soils. Balanced

nutrition, in which all the essential nutrients are supplied to the plant, is key to quality wheat development.

#### Sulfur (S)

S fertilization can dramatically increase wheat proteins levels, making it an important component of high-quality wheat. A component of several amino acids, S is integral to wheat protein formation. S recommendations for wheat are generally 20-30 lb S/A. At these rates, wheat yields have been shown to better than double.

### K Increases Yield and Disease Resistance in Wheat, Kansas

K <sub>2</sub> O Rate (lb/A)	Yield (bu/A)	Kernel Weight (Mg)	Disease Rating %
0	65.3	29.6	30
40	72.9	31.4	22
80	72.5	31.7	22

### Summary of Benefits

*K-Mag is a premium fertilizer choice that supplies critical nutrients, like Mg and S, often overlooked by traditional N-P-K programs. All nutrients are in the highly-available sulfate form.*

*Unlike other fertilizers, K-Mag is virtually 100% water soluble, so nutrients are immediately available to plant roots. Yet, K-Mag Granular dissolves slowly.*

*K-Mag eliminates any chance of fertilizer burn from its nutrients since its unique traits include low chloride levels and a low salt index.*

*As a neutral salt, K-Mag boosts yields without decreasing soil pH.*

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

**If your crop needs a boost in yield and quality, it may be time to incorporate the benefits of K-Mag into your fertilization program. Contact us today to learn more about K-Mag.**

