

# K-MAG BRIEFS™

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

## For High-Yielding, High-Quality Small Grains

*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 chloride*

Wheat, barley, canola and other small grains demand high levels of nutrients, particularly as management intensifies. With proper nutrition, small grain yields are better equipped to reach their maximum genetic potential in yield and quality. K-Mag is part of a balanced fertilization program.

A product of mineral earth extracted from deep below the New Mexico soil surface, K-Mag is a naturally-occurring source of potassium (21-22% K<sub>2</sub>O), magnesium (10.5-11% Mg) and sulfur (21-22% S) — all essential nutrients for small grain production. All the nutrients in K-Mag are in the readily-available, water-soluble sulfate form.

Each nutrient in K-Mag plays a critical role:

### Potassium (K)

Small grains, like wheat, require high amounts of K, second only to the amount of N needed by the crop. K promotes carbohydrate production, and it helps maintain a normal balance between carbohydrates and proteins. Sufficient K results in stronger wheat straw and assists in grain fill. K also can help plants survive the stress of winter, the heat of summer and the threat of disease. Without adequate K, plants can be stunted or form small and compact heads.

### Magnesium (Mg)

As the central component of the chlorophyll molecule, Mg remains at the heart of a well-balanced fertility plan. Photosynthesis rates plummet without adequate chlorophyll.

Increased K application rates can inhibit Mg uptake by the plant. Therefore, a proper balance must be maintained between K and Mg. K-Mag supplies these nutrients in the correct balance.

### Sulfur (S)

Grain quality depends on S, especially for oil-seed crops like canola. S often is overlooked as an essential component of several protein-forming amino acids. In addition, many plants cannot use N efficiently without adequate S. S deficiencies can mimic the yellow, chlorotic symptoms of N deficiency.

### Nutrients Used by Small Grain Crops lb/A

Crop	Yield (bu/A)	K <sub>2</sub> O	Mg	S
Wheat	80	162	24	20
Barley	100	150	17	20
Oats	100	145	20	29

Source: PPI

### Summary of Benefits

*K-Mag is the fertilizer choice that supplies critical nutrients, like Mg and S, often overlooked by traditional N-P-K programs.*

*Unlike other fertilizers, K-Mag is virtually 100% water soluble, so it is immediately available to crops. Yet, K-Mag Granular dissolves gradually.*

*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 your fertilizer dealer today to learn more about K-Mag.**

