



## Higher yields are available with K-Mag<sup>®</sup> 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 canola yields and quality. Growers can optimize canola 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<sub>2</sub>O), 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 canola yields**

K-Mag is the ideal nutrient source for canola. A popular oil-seed crop, canola requires high levels of available S to produce quality oil and meal. Unlike elemental S, K-Mag supplies S in the sulfate form, so nutrients are immediately available during spring applications. Canola also can benefit from the low-salt index of K-Mag. Extremely sensitive to salt effects of other fertilizers, canola can thrive with seed-placed K-Mag, because K-Mag is a neutral salt.

## **Each of the three essential nutrients in K-Mag contributes to increased canola productivity:**

### *Potassium (K)*

As with all small grains, canola requires adequate K levels to produce high-quality oil and high-protein meal. K plays a valuable role in enzyme activation, photosynthesis and sugar translocation. Helping to increase water-use efficiency, K improves frost and drought resistance. K also boosts disease and insect tolerance, promotes healing of wounds from insects, hail and wind, and prevents lodging.

### *Magnesium (Mg)*

Mg lies at the heart of the sunlight-trapping chlorophyll molecule. As rates of photosynthesis decline, so do quality and yield. In plants, Mg also influences the uptake of other nutrients. For example, it acts as a phosphorous (P) carrier, such that P uptake is impossible without adequate Mg. K-Mag provides a readily available soluble source of Mg.

### *Sulfur (S)*

Canola's S requirement cannot be overstated. A 2,000 lb/A canola crop contains 12 lb S/A in the straw and 15 lb S/A in the seed, more than twice that of wheat. S applications can dramatically impact yield (see chart below), and deficiencies can devastate a crop. Visual deficiency symptoms include delayed flowering; erect leaves on the upper parts of the plant; cupping, purpling young

## **Canola response to sulfur, Manitoba**

(adapted from Canadian canola recommendations, 1994)

Fertilizer Applied	Yield, lb/A
Check (residual fertility)	900
NPK	250
PK + 20lb S/A	1,250
NPK + 20lb AS/A	1,800

Ensure your canola 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](http://kmag.com)**



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