K-Mag® Insight

SUGAR BEETS



Higher Yields are Available With K-Mag® Fertilizer

The K-Mag Advantage

Provides a balance of naturally combined potassium (K), magnesium (Mg) and sulfur (S) — all in one granule.

FEATURES

- 3-in-1 nutrient source
- Low chloride
- Water solubility
- pH neutral

BENEFIT

- Higher yield and profitability

Why K-Mag?

The shortage of just one essential nutrient can shortchange sugar beet yields and profits. 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 a highly available and soluble 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 or potassium magnesium sulfate, K-Mag is sourced from ore beds deep beneath the earth's surface, where an isolated lake of ocean water once existed. Langbeinite is an evaporite mineral but becomes soluble upon soil application.

Increase Sugar Beets Yields

Research reveals that optimum sugar beet and sucrose production relies on a balanced fertilization program. Nitrogen (N), phosphorus and K requirements have received intense study. Optimum performance of these nutrients also requires a readily available supply of other essential elements, such as S and Mg, to ensure rapid plant growth for early canopy closure and for optimum photosynthesis efficiency for sucrose development.

International Minerals Carlsbad

Field studies evaluating sugar beet response to applied fertilizer Mg and or S are limited. Many production field soils are believed to be adequate providers of these essential plant nutrients. However, for high-yielding fields of sugar beets, large quantities of nutrients are removed in the roots and also in the shoots when harvested for livestock feed.

The high levels of N and K needed for high-yield, high-quality sugar beet production support the importance of a balanced fertility program. Both S and K are essential for optimum N use efficiency by sugar beets. In addition, Mg is essential for optimum photosynthesis and sucrose formation.

Potassium (K)

Potassium helps to regulate the amount of carbon dioxide that enters leaves for use in photosynthesis (sugar formation). Potassium improves N use effectiveness since both are essential for protein formation. A shortage of K teamed with high night-time temperatures can cause an increase in plant respiration, resulting in less sugar for storage in the roots. In addition, a balance of N and K is essential for improvement of yield and feed quality of sugar beet forage used for livestock feed.

Magnesium (Mg)

Magnesium is a component of chlorophyll, which is essential for photosynthesis (sugar formation). It teams with phosphorus to help provide energy for rapid early-season plant growth. Virtually all of the energy-storage phosphate ATP and ADP molecules in cells exist in complexes with Mg ions.

Also, Mg is needed for plant cell respiration for optimum synthesis of protein, fats and sugars. Thus, Mg is essential for photosynthesis, sucrose production, and for balance with K and calcium to improve root absorption of nutrients. K-Mag also provides a balanced supply of soluble Mg, S, and K for maximum nutrient uptake.

Sulfur (S)

Sulfur is closely related to efficient use of N by crops. Both are components of essential amino acids required for protein synthesis. Plant use effectiveness of one is dependent upon the availability of the other. Also, S influences sugar quality. An adequate supply of S is reported to help decrease the alpha amino nitrogen content of sugar.

Ensure your sugar beet 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

1-877-BUY-KMAG (1-877-289-5624)

International Minerals Carlsbad

©2026 International Minerals Carlsbad, Inc. All rights reserved. K-Mag® is a registered trademark of International Minerals Carlsbad, Inc.