K-Mag® Insight

SOYBEANS



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 soybean 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 Soybean Yields

Soil fertility often is overlooked on the production of soybeans, a crop known for its efficient use of residual nutrients. However, providing balanced nutrition, along with good soil pH, is critical to achieving proper nodule formation and yield. Adequete soil fertility helps reduce risks from weather stresses, diseases and nematodes. Soybeans require large amounts of crop nutrients, especially phosphorus (P) and K. A 70-bushel yield removes 51 lbs P_2O_5, 84 lbs K_2O, 13 lbs Mg and 13 lbs S on a per acre basis. Regular soil testing will help determine the level of needed nutrients.

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Potassium (K)

Proper K Levels are critical to successful pod formation. Potassium helps increase the total number of pods, and helps the plant retain pods until harvest. Added K also benefits a plant's water balance, making it better able to withstand periods of drought. As K concentrations increase, transpiration loss of water from leaves decreases.

Magnesium (Mg)

High K rates can inhibit a plant's uptake of Mg, essential to photosynthesis. If Mg is deficient, the shortage of chlorophyll can result in poor and stunted plant growth. The loss of a healthy green color is an indicator of Mg deficiency. K-Mag provides a balanced supply of soluble Mg, S, and K for maximum nutrient uptake.

Sulfur (S)

The demand for S in soybean has increased significantly in recent decades. Research suggests that more S is needed to support newer varieties. Furthermore, plants must accumulate more S through the root system as producers target higher yields (see table). Sulfur is essential because it helps ensure optimal nodule formation on legume roots for nitrogen fixation. As a backbone of three amino acids, S is a key constituent of plant proteins, an important contributor to crop quality. Due to increasing soybean yields and new genetics, soybean has become responsive to S across a range of soil types and environmental conditions. Application rates of 50-100 lbs K-Mag/ac will provide the sulfur, magnesium, and potassium nutrition your plants need.

	Yield Level		
Parameter	**Low**	**Medium**	**High**
Yield (bu/ac)	54	66	82
S Uptake (lbs/ac)	13.3	15.8	19.0
S Removal (lbs/ac)	9.1	10.9	13.4
Root Uptake (%)	50	54	58
Remobilization (%)	50	46	42
100	6	6	6

Adapted from Gasper et al., 2018

Ensure your soybean 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)

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