



## Sugarcane

### Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in sugarcane by providing the right nutrients at the right rate, right time, and right place for maximum return. Intrepid Trio is natural langbeinite, a unique mineral with three essential nutrients comprised of 21.5-22% potassium (K<sub>2</sub>O), 10.5-10.8% magnesium (Mg) and 21-22% sulfur (S) as sulfates, depending on grade.

Intrepid Trio, also known as Sulfate of Potash Magnesia, allows growers to apply an extremely low chloride potassium (less than 1.5-3.0% Cl depending on grade) and neutral pH fertilizer with the benefit of sulfur and magnesium in the same ratio in each granule. Intrepid Trio is also OMRI Listed and approved for organic farming.



Available in premium, granular and standard grades, Intrepid Trio blends well with other fertilizer materials for an even distribution of nutrients.

**Figure 1. Sugarcane productivity in India as influenced by balanced fertilization**

Treatment	2003-04	2004-05
	Tons/ha	
N	61.4	61.1
N + P	79.9	72.7
N + P + K	92.2	85.1
N + P + K + S	101.0	96.9
N + P + K + S + Mg	110.6	111.4
<b>N + P + K + S + Mg*</b>	<b>111.7</b>	<b>112.8</b>

\*Includes Sulfate of Potash Magnesia as potassium, sulfur and magnesium source.

(Source: Singh et al., 2008)



### When should Intrepid Trio® be applied?

Apply Intrepid Trio pre-plant in sugarcane establishment or after harvest in established crops. This will ensure that all three nutrients are available when the plant needs them.

### How does potassium (K<sub>2</sub>O) affect sugarcane?

Potassium plays a vital role in the development of sugarcane. Plants use a great deal of potassium, thus rapidly depleting the nutrient from the soil. Insufficient levels of potassium may cause sugar sap to remain in the leaves instead of transporting it to the stalks where it can be harvested and processed as raw sugar.

The application of Intrepid Trio ensures the plant has access to the exact level of potassium needed, when it is critically necessary for maximum productivity.

### How does magnesium (Mg) help the sugarcane plant?

Magnesium is an essential nutrient for photosynthesis, the process that allows plants to convert sunlight to energy. That energy motivates the plant to grow and produce. Magnesium also supports plant growth and function through enzyme activation and acting as a phosphorous carrier, aiding in the plant's ability to take up phosphorous.

### Why is sulfur (S) also included in the Intrepid Trio® mixture?

Like potassium and magnesium, sulfur is an essential nutrient in the photosynthesis process. The sulfur in sulfate form as found in Intrepid Trio is the only form of sulfur readily available to plants. Sulfate-sulfur does not have to go through the oxidation process like elemental sulfur — thus pH is not decreased by the resulting release of hydrogen in the soil. By applying Intrepid Trio to sugarcane, the sulfate-sulfur is available when needed by the plant.

### When will Intrepid Trio® be available to the sugarcane stand?

Intrepid Trio readily dissolves in the soil slowly, reducing the risk of leaching and providing long-lasting nutrients that are immediately available to the plant.



*Intrepid Trio provides three essential minerals readily available as your crop needs them.*



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