



## Coffee

### Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in coffee plants 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 ( $K_2O$ ), 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 1.0-3.0% 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.

#### When should Intrepid Trio® be applied?

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

#### How is potassium ( $K_2O$ ) beneficial to coffee plants?

Potassium is essential for coffee plants growth and development. The nutrient helps produce a more abundant yield by enabling plants to grow faster and ward off diseases and pests.

Too little potassium can be bad for plants, resulting in yellowed or wilted leaves. Intrepid Trio provides the right level of potassium at the right time for your plant.

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.



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



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### What effect does magnesium (Mg) have on the coffee plant?

Magnesium is necessary for the absorption of phosphorous, which in turn facilitates photosynthesis, or the conversion of sunlight into usable food for the plant. A phosphorous deficiency can result in stunted growth or plants that exhibit yellowed or necrotic (dead) spots on the leaves.

The correct amount of magnesium in the soil can lead to greater crop yields and quality. Intrepid Trio takes the guesswork out of fertilizing by always having the right nutrients available to go to work for the plant.

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

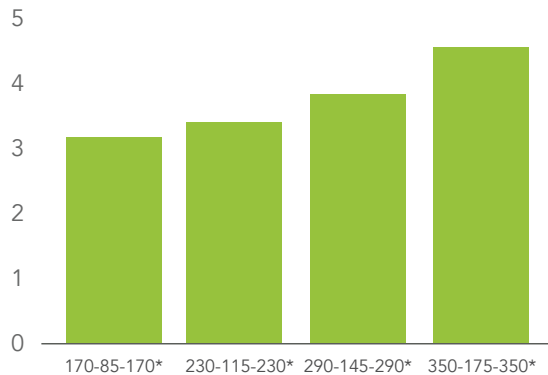
Like potassium and magnesium, sulfur is an essential nutrient in the photosynthesis process.

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 coffee, the sulfate-sulfur is available when needed by the plant.

### When will Intrepid Trio® be available to the coffee plant?

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.

### Dry bean yield (t/ha)



\*N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O (kg ha<sup>-1</sup>)

Figure 1: Effect of different fertilizer NPK application rates (N: P<sub>2</sub>O<sub>5</sub> : K<sub>2</sub>O = 2:1:2) on average dry bean yield of Coffea arabica (Var. Catimor) grown in Buon Ma Thuot, Daklak province, Vietnam 1993-1999

(Source: Ton Nu Tuan Nam et al., 2001)



● K<sub>2</sub>O 22%

● Mg 11%

● S 22%

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



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