



## Tobacco

### Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in tobacco 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 prior to transplant, at transplant, or consider split applications on high leaching soils.

#### Nutrient removal for tobacco (3,000 lbs/ac crop)

	N lb/ac	P <sub>2</sub> O <sub>5</sub> lb/ac	K <sub>2</sub> O lb/ac	Mg lb/ac	S lb/ac
Flue-Cured (Leaves)	85	15	155	15	12
Burley (Leaves)	145	17	150	18	24

(Source: Univ. of North Carolina)



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





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

Tobacco removes more potassium than any other nutrient with 90 lbs/K per acre considered the minimum annual application needed and most growers using anywhere between 90 and 150 lb/ac. Potassium serves as a regulator nutrient that aids in photosynthesis, improves water use efficiency of the plant through regulation of stomatal openings, and helps the plants resist disease and pests.

Chloride toxicity is a major problem in tobacco with fertilizer rates of higher than 30 lbs/ac of Cl causing toxicity to the plant. Tobacco as a result of Cl toxicity will have poor smoke flavor along with a decrease in leaf yields and quality. As an example, muriate of potash applied at 90 lbs/ac would supply 50 lbs K and 41 lbs Cl which is above the Cl limit. Soil fumigants that are commonly used in tobacco production can also add anywhere from 10-15 lbs/Cl per acre.

Intrepid Trio is the perfect source of K fertilizer as it contains less than 1.0-3.0% of chloride and can be safely used for production of high quality tobacco.

### What effect does magnesium (Mg) have on tobacco?

Magnesium plays an important role in photosynthesis as the center of the chlorophyll molecule and acts in enzyme reactions forming proteins, and aiding the plant in the manufacture of energy.

Deficiencies of magnesium in tobacco are most common on sandy, acidic soils but can also occur on soils where pH is neutral but soils are deep and sandy which can increase the apt to leach. Additionally, high rates of K fertilizer without an Mg source can induce a deficiency so applying a balanced fertilizer like Intrepid Trio that has K, Mg, and S in each granule will keep your tobacco field balanced with the nutrients it needs to continue to produce high quality leaves.

### Annual Magnesium and Sulfur Fertilizer Recommendations

Magnesium	15-20 lbs/ac
Sulfur	20-30 lbs/ac*

\*S deficiency before lay-by can be addressed with banding Langbeinite or sulfate of potash magna at 100-150 lbs/ac.

(Source: Univ. of North Carolina)

### How does the sulfur (S) included in Intrepid Trio® benefit tobacco?

Sulfur is an essential part of vitamins, hormones, and proteins within a plant. Sulfur and nitrogen uptake work hand in hand and adequate sulfur levels increase the efficiency of N fertilizers. Deficiency in the tobacco plant appears first as yellowing in the buds and pales leaves from the top to bottom. Intrepid Trio provides sulfur in the sulfate form which is immediately available to the plant and pH neutral causing no acidifying effect to the soil.

### When will Intrepid Trio® be available to the tobacco?

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.



- 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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