



# Potato

## Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in potatoes 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.



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

### Nutrient uptake for Russet potatoes in a 28 ton/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
Potato vines	139	25	330	25	12
Removed in tubers	214	66	288	15	22
Total Accumulation	353	91	618	40	34

(Source: Oregon State University, 2004)



**INTREPID**  
1001 17th Street, Suite 1050 | Denver, CO 80202  
[www.intrepidpotash.com](http://www.intrepidpotash.com)





Adequate potassium helps potatoes...

- Resist blackspot bruising and after-cooking discoloration
- Tolerate drought and frost
- Experience decreased moisture loss and disease during storage

### When should Intrepid Trio® be applied?

Apply Intrepid Trio prior to planting in the fall or spring and incorporate into the soil so all nutrients will be available to the potato plant as needed.

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

Potassium plays a vital role in the development and production of potatoes. Potatoes use a large amount of potassium to carry out metabolic functions such as moving sugars from the leaves to the tubers, and later, the transformation of those sugars into potato starch. Adequate potassium levels increase the specific gravity content which leads to better frying properties and flavor of the crop.

Potato roots require potassium nearby in the soil because soil potassium is relatively immobile. Since soil potassium levels do not change much during the growing season, nutrients used by the tubers and removed from the soil will cause soil potassium levels to steadily decline. Incorporating a readily available low chloride potassium fertilizer such as Intrepid Trio into a balanced fertility program will lead to higher potato yields and quality.

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

Adequate magnesium levels positively affect potato yield and quality. Magnesium is also essential for the chlorophyll molecule that aids in photosynthesis, enabling the plant to convert sunlight to energy. High rates of ammonium-nitrogen and potassium fertilizers in potato production can negatively affect magnesium uptake, with deficiency symptoms occurring first on older leaves near the base of the plant. Taking a balanced fertilization approach with a readily-available magnesium fertilizer such as Intrepid Trio is the right and profitable choice for potato production.

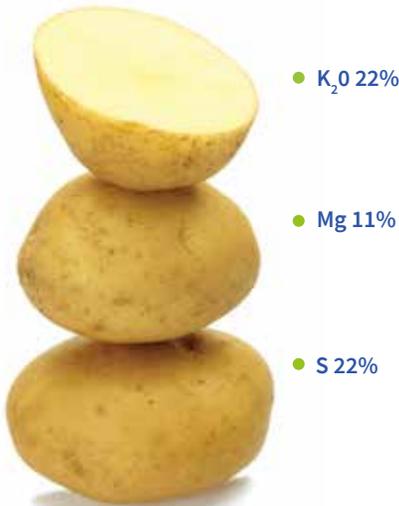
### Why is sulfur (S) also included in the Intrepid Trio® mixture?

Sulfur is an essential nutrient and aids in nitrogen recovery in the potato plant. In addition, sulfur use in potatoes potentially reduces tuber disease.

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. Using a readily-available sulfur fertilizer such as Intrepid Trio can help to boost yields and quality.

### When will Intrepid Trio® be available to the potato crop?

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.



**INTREPID**  
1001 17th Street, Suite 1050 | Denver, CO 80202  
[www.intrepidpotash.com](http://www.intrepidpotash.com)

