

# **Tree Fruit**

## Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in tree fruit 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 ( $K_2$ 0), 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 banded under the tree dripline in early Spring for maximum benefit of potassium, magnesium, and sulfur in the growing season.

### Nutrient requirements for Gala apple trees

| Yield bu/ac | N lb/ac | P <sub>2</sub> O <sub>5</sub> lb/ac | K <sub>2</sub> O lb/ac | Ca lb/ac | Mg lb/ac | S lb/ac |
|-------------|---------|-------------------------------------|------------------------|----------|----------|---------|
| 750         | 33      | 13                                  | 72                     | 24       | 7        | 3       |
| 1000        | 44      | 17                                  | 96                     | 32       | 10       | 4       |
| 1250        | 55      | 21                                  | 120                    | 40       | 12       | 5       |

(Source: Cheng and Raba 2009)



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











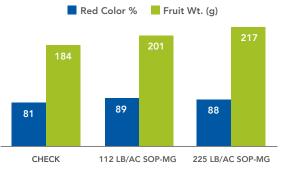
#### How does potassium (K<sub>2</sub>O) affect tree fruit?

Potassium plays an important role in the health of tree fruit crops through enhancing photosynthesis, transporting sugars, and activating enzymes that aid in a number of chemical reactions. Adequate K in fruit trees positively affects size and color of fruit. The adequate levels of potassium in apple, prune, cherry, and pears trees should be 1.3 - 1.6%.

Potassium deficiency in fruit trees can cause...

- Poor color
- Greater risk to cold and drought damage
- Overall reduction of tree growth
- Small fruit

#### Apple Fruit Quality Effect of SOP-Mg Fertilization in British Columbia



(Source: Neilsen and Neilsen 2004)

#### What effect does magnesium (Mg) have on tree fruit?

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

Deficiencies of magnesium on tree fruit can cause small fruit, premature fruit drop, and early ripening. The deficiency symptoms show up first on basal leaves with a yellowing between leaf veins. Magnesium deficiencies are becoming more noted in fruit orchards because of high MOP rates that is causing not only magnesium deficiencies in the plant, but calcium as well. Applying a balanced fertilizer like Intrepid Trio that has K, Mg, and S in each granule will keep your fruit orchard balanced with the nutrients it needs to continue to produce high quality fruit.

#### <sup>11%</sup> How does the sulfur (S) in Intrepid Trio<sup>®</sup> benefit tree fruit?

Sulfur is an essential part of vitamins, hormones, and proteins within a plant. Sulfur and nitrogen uptake work hand in hand and high N fertilizer rates without sulfur will create an S deficiency. Intrepid Trio provides sulfur in the sulfate form which is immediately available to the tree and pH neutral causing no acidifying effect to the soil.

### When will Intrepid Trio® be available to the tree fruit?

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.







