



Corn

Naturally Balanced Nutrition in Every Granule

Experience higher yields and balanced fertility in corn 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.

When should Intrepid Trio® be applied?

Apply Intrepid Trio as part of a pre-plant fertilizer blend in preparation for corn seeding in the spring. Application in the fall is appropriate on fine textured soils with a CEC greater than 6 while Trio applications on coarse textured, organic soils with CEC's less than 6 should be deferred to spring just ahead of seeding of the crop.

Nutrient removal for corn

Yield bu/ac	N lb/ac	P ₂ O ₅ lb/ac	K ₂ O lb/ac	Mg lb/ac	S lb/ac
200	140	76	54	18	16
250	175	95	68	23	23

(Source: IPNI)



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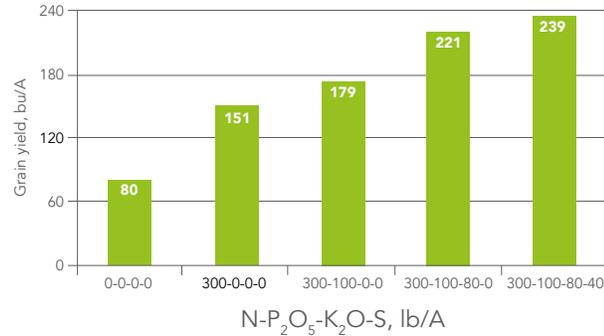


How does potassium (K₂O) affect corn?

Corn takes up more potassium than any other nutrient. The majority of this remains in the stover but almost 70 lbs K₂O/ac are removed in the grain portion of a 250 bu/ac crop. 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. Additionally K promotes strong stems and stalks which reduce the incidence of lodging.

Deficiency symptoms first appear on the older leaves as K is mobile within the plant. There will be a yellowing or scorching along the leaf margin.

Irrigated Corn Response to Balanced Fertilization



(Source: Gordon 2005)

- K₂O 22%
- Mg 11%
- S 22%



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

What effect does magnesium (Mg) have on corn?

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. Uptake in the corn plant is greatest at the V5 growth stage.

Deficiencies of magnesium in corn can cause reduction in growth and are most common on sandy, acidic soils. The symptoms will appear first on the older leaves. 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 corn field balanced with the nutrients it needs to continue to produce high quality grain.

How does the sulfur (S) in Intrepid Trio® benefit corn?

Sulfur is an essential part of vitamins, hormones, and proteins within a plant. Sulfur and nitrogen uptake work hand in hand as it is key to the process of converting nitrate into ammonium within the plant. As a result, nitrogen use efficiency is a key benefit of sulfur application to a corn crop. 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 corn 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.



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