











THE ANDERSONS, INC | TECHNICAL BULLETIN 11

THE SALT INDEX OF FERTILIZER IS MORE IMPORTANT THAN EVER

Growers are discovering the fertility benefits and convenience of placing starter fertilizer as close to the seed-row as possible to maximize efficiency. This requires liquid starter with a low salt index.

Accurate fertilizer placement and management is a cost effective way to attain high yields. This is especially desirable on rented land where neither the landowner nor the tenant wishes to spend sums of money over many years for the fertilizer needed to build to high soil test levels. The best yield results are obtained when the starter fertilizer is placed in-furrow. This requires the starter fertilizer to have a low salt index.

Fertilizer salt index is a measure of the salt concentration that fertilizer induces in the soil solution. When placed in-furrow, fertilizers with low osmotic pressures (low salt content) are necessary to insure safety to the germinating seed and the young, developing root system.

Starter fertilizers intended for in-furrow placement use potassium phosphate for the potassium (K) source. PureGrade® low-salt fertilizers are made with potassium phosphate. PureGrade offers seed safe fertilizers in the Diamond, GoldStart®, and Premium grades. They are intended for in-furrow placement in corn, grain sorghum, wheat and certain other crops. Other formulations may use potassium chloride (KCI) for the potassium source, but they are not recommended for in-furrow placement.

Seed row placement of low-salt fertilizers is an excellent starter program. It easily fits all row spacings including narrow row corn. Equipment for in-furrow placement is available for all planters and drills.

Fertilizers best suited for in-furrow application have a low salt index, a relatively high phosphorus content, minimize content of compounds that liberate NH3, and use potassium phosphate instead of potassium chloride as the K source.

TABLE 1. SALT INDEX COMPARISON OF PUREGRADE® LIQUID STARTER WITH OTHER TRADITIONAL STARTERS.

Formulation	Salt Index	Salt Index per unit of plant nutrient (20 lb)	Recommendation for in-furrow
3-18-18 GoldStart 6-24-6 GoldStart 9-18-9 GoldStart	8.5 11.5 16.7	0.22 0.32 0.48	Yes. Corn, Milo, Wheat on Sandy Soils
10-34-0	20.2	0.45	Use caution for in-furrow placement with the above listed crops. Do not use for in-furrow placement on other crops.
7-21-7 4-10-10 28% UAN	27.8 27.5 63.0	0.79 1.18 2.25	No





