In the world of liquid fertilizers, growers are looking for simplicity, flexibility, and improved crop yields. The J. R. Simplot Company offers it all through a unique and purely clear 3-18-18 (N-P₂O₅-K₂O) low salt liquid fertilizer designed to speed the delivery of nutrients to the plant as well as improving your bottom line.

**Agronomic Features**

3-18-18 is a low salt liquid fertilizer ideally formulated for ease of nutrient uptake as well as clear foliar application advantages. 3-18-18 delivers:

- Low Salt Index of 10 – ensures plant safety
- 100% Orthophosphate availability – near neutral pH
- Fast foliar uptake – immediate availability to the plant
- True water-white clarity providing the best physical and chemical properties available

**Benefits to the Grower**

Simplot’s 3-18-18 enables growers to capitalize on operational efficiencies by providing a base formulation to improve blending and productivity through:

- Ease of foliar application
- The capability to integrate multiple micro-nutrient packages for a single complete application
- Non-corrosive
- Ease of storage
Phosphorus and Potassium Benefit All Plants
Phosphorus (P) and potassium (K) are essential nutrients for plant health. These macro-nutrients focus on similar yet different benefits to the plant.

- Phosphorus is essential for all plant growth, especially in the initial stages of seed development. Phosphorus is the basic nutrient used by the plant to develop its structure through roots, stems, and leaves. It is taken up and used by the plant in the orthophosphate form, $\text{H}_2\text{PO}_4$. This phosphate ion is important in new tissue, especially seedling development. Simplot’s 3-18-18 (N-P$_2$O$_5$-K$_2$O) is already in the orthophosphate form, so it provides germinating, young seedlings the immediate phosphate they need to get a healthy start.

- Potassium is used by all plants for cell division, building plant strength, and combating disease. This macro-nutrient is beneficial to the plant both above and below the soil to provide solid support throughout the plant.

How Simplot’s 3-18-18 works for foliar applications?
Simplot’s 3-18-18 demonstrates its best use as a foliar solution by quickly and efficiently optimizing nutrient uptake without foliar damage. Orthophosphate is the only form of phosphorus that is rapidly available as it can be readily moved across cell membranes and quickly metabolized within the plant. In foliar applications, this delivers essential phosphorus that is immediately available upon application. Simplot’s 3-18-18 low salt liquid fertilizer delivers the needed potassium during the growing season with minimum tissue damage when used at labeled rates. Compatible micro-nutrients can also be blended with Simplot’s 3-18-18 enabling a remarkable delivery of a highly efficient and safe nutrient packages.

The Right Forms of Phosphorus and Potassium are delivered in a low salt liquid
Fertilizers contain salts which draw away moisture from plant tissues causing both seedling injury as well as foliar damage. The “Salt Index” is a comparative measure of the amount of salts in a fertilizer. The higher the “Salt Index” of a fertilizer, the more likely it is to damage plant tissue. Simplot’s 3-18-18 is intentionally formulated with a low salt index (10) to maximize plant safety. This allows the nitrogen and potassium to be immediately available and provides for a near neutral pH with 100% orthophosphate.