# **REDOX SOLUTIONS:**



YIELD

# THE CHALLENGE:

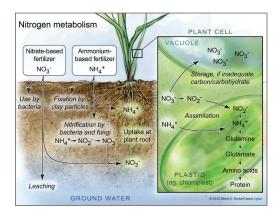
Producing high yielding crop is critical to a healthy return on investment.

# THE SCIENCE:

The factors that influence crop yield are too numerous to name. This solution will focus on optimization of a key nutrient macronutrient factor – nitrogen.

Nitrogen may be the most important nutrient because it's a component of literally every cell in the plant. Nitrogen applied to the soil readily converts to highly plant-available forms. These plant-available forms are highly susceptible to leaching out of the root zone. When excessive leaching of nitrogen occurs, nitrogen efficiency is reduced.

While plants readily assimilate nitrogen, key metabolic processes in the plant must occur efficiently in order for the plant to optimize the value of the nitrogen content. It is not difficult to promote assimilation of nitrogen in the plant, but proper nitrogen metabolism is often a key limiting factor.



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# THE REDOX SOLUTION:

### YIELD & NITROGEN EFFICIENCY

Increase microbial activity in the root zone in order to incorporate nitrogen into biological cycles, which helps retain nitrogen in the root zone. Improve plant nitrogen metabolism to facilitate amino acid conversion in the plant. This correlates to improved crop yields. Redox has three tools that may be beneficial for improving yield through improved nitrogen efficiency:

### **SUPREME**

A reacted plant nutrient product containing key plant nutrients as well as key soluble carbon compounds derived from a proprietary fermentation process. Supreme improves nitrogen metabolism due to key soluble carbon compounds. Use of Supreme, when applied during crop set, is beneficial for improving the quantity of crop and fruit set. Apply I to 4 pounds per acre via foliar application or as required during crop set.

### H-85

A reacted plant nutrient product high in potassium and soluble carbon. H-85 improves soil microbial activity due to the short, medium, and long-chain soluble carbon content. Apply 3 to 5 pounds to the soil per acre per crop cycle, or I pound for every 40 to 80 units of nitrogen applied.

#### diKaP

A reacted plant nutrient product high in potassium and phosphorus. diKaP is unique in its ability to promote the production of phenolic compounds. Use of diKaP is a compliment to efficient nitrogen metabolism. Apply I to 4 pounds per acre via foliar or fertigation application every I tov 4 weeks or as required during periods of high plant nitrogen use.