

# Originate™ ST

## Ultimate Seed Treatment

Originate ST Seed Treatment is a brand new product that includes concentrated viable biological technologies, promoting a quick and sustained germination process. This microbial symphony plus organic acid food sources provide a host of benefits and capabilities for your seed that promotes positive growth from the moment of germination and sustains as the rhizosphere (root zone) develops. The microbes in Originate ST Seed Treatment possess capabilities that are extremely versatile and diverse. Specialist capabilities include, mineral nutrient enhancement (Nitrogen Fixation, Phosphate Solubilization), surfactant production, vitamin production, degradation capabilities, hormone production, and siderophore production, to name a few.

### Capability and Benefits of Originate ST Seed Treatment:

- Nodulating Bacteria - *Sinorhizobium fredii*, considered to be an improved modulator over original *Rhizobium* species
- Free-living nitrogen fixing microbes that bring atmospheric nitrogen into the rhizosphere, (root area) where it can become available to the plants
- Strains that can digest typically indigestible plant residue that can be put back into the rhizosphere to support the growth of the microbial community
- Strains that can solubilize insoluble forms of phosphorus, making them available to the plants
- Strains that facilitate plant growth stimulating hormones
- Strains that facilitate the release of vitamins that contribute to the root zone
- Strains that release compounds (Siderophores) that help capture iron that can then become available to the plants
- Strains that can reduce surface tension to free up more organic and inorganic nutrients to make them available to the entire microbial population

As the seedling grows, these “good guy” microbes inhabit the root area, feeding on the sugars given off by the young plant and help promote a more vigorous and healthy root system and stand. This beneficial microbial team helps guide your plant through the rough and rugged germination terrain that oftentimes results in loss of stand in challenging seasons. Biochemical signals (enzymes) are given off by the microbial team communicating with the plant, invoking a more robust root mass and vigorous plant, helping maintain its strength and endurance. The result is a much quicker and more consistent stand that you can be proud of and early plant growth that makes everyone take notice. The substantial increase in roots seen across many plant types provides a “forgiveness factor” for growing in diverse conditions.

### Product Application Details

2-3 ounces per 50 pounds of seed  
4-6 ounces per 100 pounds of seed

- \* Field Crops
- \* Vegetable Crops
- \* Tree and Vine Crops



  
**SummitGold™**  
Liquid Plant Food