



ALL-IN-ONE PLANTER BOX SEED TREATMENT



Multi-year, on-farm trials yield increases:
+5.7 bu./ac. average in corn
+2.9 bu./ac. average in soybean

On-farm trials stand count increases:
+2000 plants/ac. average in corn
+9000 plants/ac. average in soybean

About Complete Start Bio™

Complete Start Bio is an all-in-one planter box seed treatment that places biologicals, nutrition, and flowability agents directly on the seed to aid in singulation and improve seedling growth and vigor. It contains 10 species of plant-beneficial bacteria and fungi. The nutritional load contains nitrogen, phosphorus, sulfur, calcium, magnesium, iron, manganese, and zinc. It also contains an 80/20 blend of talc/graphite.

Key Benefits

- Enhanced root development.
- Improved germination rates.
- Nitrogen-fixing bacteria to supplement applied nitrogen.
- Improves soil fertility.
- Improves the soil environment for beneficial microbes.
- Improved seed singulation.

Microbial Components

- Blend of naturally occurring plant-beneficial bacteria and fungi that work together to convert resources already present in the soil and atmosphere into useable plant nutrition.
- **Rhizosphere Competent** – Sourced from agricultural soils.
- **Quality Assured** – Professionally fermented and backed by Certificate of Analysis documenting the CFU/g counts.
- **Prolific Enzyme Producers** – shown to produce a wide range of plant-beneficial enzymes and bio-active compounds.



Untreated

Complete Start Bio

GUARANTEED ANALYSIS

| | |
|---|-------|
| Total Nitrogen (N) | 1.0% |
| 1% Ammoniacal Nitrogen | |
| Available Phosphate (P ₂ O ₅)..... | 5.0% |
| Calcium (Ca)..... | 1.0% |
| Magnesium (Mg)..... | 0.5% |
| Sulfur (S)..... | 2.0% |
| 4% Combined Sulfur | |
| Iron (Fe)..... | 0.25% |
| 0.0% Water Soluble Iron | |
| Manganese (Mn)..... | 2.0% |
| 2.0% Water Soluble Manganese | |
| Zinc (Zn)..... | 8.0% |
| 1.5% Water Soluble Zinc | |

Derived from: Monoammonium Phosphate, Dolomitic Limestone, Iron Oxide, Manganese Sulfate, Zinc Sulfate, Zinc Oxide.

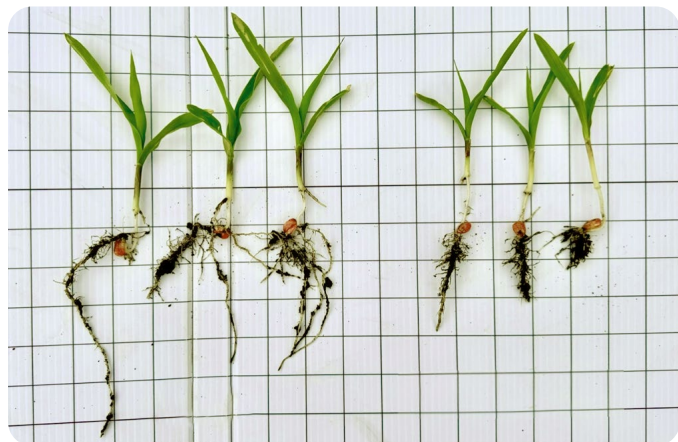
ALSO CONTAINS NON-PLANT FOOD INGREDIENTS:
 Talc and Graphite in an 80/20 ratio.
 L-amino acids (from soy protein hydrolysate).

SOIL AMENDING INGREDIENTS:
 5% Humic Acids derived from Leonardite.
 2% Sucrose.

BENEFICIAL MICROBIAL STRAINS:

| | |
|--|--|
| <i>Bacillus amyloliquefaciens</i> | 3.75 X 10 ⁷ CFU/g |
| <i>Bacillus licheniformis</i> | 3.13 X 10 ⁷ CFU/g |
| <i>Bacillus megaterium</i> | 2.50 X 10 ⁷ CFU/g |
| <i>Bacillus pumilus</i> | 1.25 X 10 ⁸ CFU/g |
| <i>Bacillus subtilis</i> | 1.88 X 10 ⁷ CFU/g |
| <i>Azospirillum brasilense</i> | 4.38 X 10 ⁷ CFU/g |
| <i>Azotobacter chroococcum</i> | 1.88 X 10 ⁷ CFU/g |
| <i>Trichoderma harzianum</i> | 2.50 X 10 ⁶ CFU/g |
| <i>Trichoderma virens</i> | 2.50 X 10 ⁶ CFU/g |
| <i>Trichoderma atroviride</i> | 2.50 X 10 ⁶ CFU/g |
| Total: | 3.08 X 10⁸ CFU/g |
| Total CFU count/acre (1.25 oz. rate): | 1.09 X 10¹⁰ CFU per gram |

Plant-beneficial bacteria and fungi species ensure quick, uniform germination and emergence.



Complete Start Bio

Untreated



Application Instructions

1 scoop = 3 oz.

DIRECTIONS FOR USE / MIXING INSTRUCTIONS

For use as a seed coating. Apply **Complete Start Bio** directly to seeds in the hopper box and mix to ensure even coverage. **Complete Start Bio** may also be applied to center fill planters.

CORN: Two pouches of Complete Start Bio will treat 1 box of corn at a 3 oz./unit rate

SOYBEAN: One pouch of Complete Start Bio will treat 1 box of soybeans at a 1.5 oz./unit rate

| Crop | Use Rate (oz / unit of seed) | Units/ Pouch |
|--|---------------------------------|-----------------|
| Corn | 3 oz./unit rate | 25 |
| Soybean | 1.5 oz./unit rate | 50 |
| Small Grains | 0.5-1.5 oz./unit rate | 150 |
| Cotton | 12 oz/cwt unit rate | 12 |
| All other crops including alfalfa, canola, sugar beets, turfgrass, sunflowers, peas, chickpeas, lentils, rice, and peanuts | 2 oz./unit rate | 75 |

RATE CHART

CORN INFORMATION

Use Rate: 3 oz./unit

| Population | Complete Start Bio oz. / acre | Acres / Pouch | Units / Pouch |
|------------|----------------------------------|---------------|---------------|
| 24,000 | 0.90 | 83 | 25 |
| 26,000 | 0.98 | 77 | 25 |
| 28,000 | 1.05 | 71 | 25 |
| 30,000 | 1.13 | 67 | 25 |
| 32,000 | 1.20 | 62 | 25 |
| 34,000 | 1.28 | 59 | 25 |
| 36,000 | 1.35 | 55 | 25 |
| 38,000 | 1.43 | 53 | 25 |
| 40,000 | 1.50 | 50 | 25 |
| 42,000 | 1.58 | 48 | 25 |

SOYBEAN INFORMATION

Use Rate: 1.5 oz./unit

| Population | Complete Start Bio oz. / acre | Acres / Pouch | Units / Pouch |
|------------|----------------------------------|---------------|---------------|
| 90,000 | 0.96 | 78 | 50 |
| 100,000 | 1.07 | 70 | 50 |
| 110,000 | 1.18 | 64 | 50 |
| 120,000 | 1.29 | 58 | 50 |
| 130,000 | 1.39 | 54 | 50 |
| 140,000 | 1.50 | 50 | 50 |
| 150,000 | 1.61 | 47 | 50 |
| 160,000 | 1.71 | 44 | 50 |
| 170,000 | 1.82 | 41 | 50 |
| 180,000 | 1.93 | 39 | 50 |