



# *Consortium BIOPack*

## 20 Strain Soil Probiotic

### Soil Microbial Supplement

Formulated with 20 strains of specific bacteria known to provide benefits to plants and soil, including several species of Free Living Nitrogen Fixing bacteria

#### Naturally helps:

- Replenish beneficial plant root rhizosphere bacteria\*
- Promotes & Supports a Healthy Soil Food Web\*
- Improves the solubilization of locked up mineral nutrients in the soil, improving the chance of plant nutrient uptake.
- Increases the concentration of soil nitrogen.
- Increase the mineral nutrient uptake by plants, potentially improving the food nutrient density of the crop grown with this Soil Microbial Supplement\*

\*These statements have not been evaluated by the FDA, the USDA, or the label regulating agency of each state. This product is not intended to diagnose, cure, or prevent any plant disease.

**Application:** 6 Tablespoons (50 grams) of BIOPack can treat 1 acre of land. 37 cups will treat 100 acres. Product can be mixed with irrigation water, sprayed directly on crops or soil using conventional spray equipment, or injected into drip irrigation lines. Hydroseeding contractors can also add to hydroseeding tanks along with the mycorrhizal spores of **EndoMaxima**, the carbon matrix soil activator **Commercial TerraPro**, seed, mulch and tackier. This product will facilitate nutrient mineral uptake caused by high or low pH soils, saline soils, or sodic soils.

### Soil Secrets LLC

A New Mexico Biomimetic Soil Ecology Company  
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# BIOPack™ - Soil Probiotic Consortium

Minimum Guarantee  
Contents Certified by ATCC

<u>Genus/Species</u>	<u>Solubility</u>	<u>cfu/gm</u>	<u>Summary of Mode of Action</u>
Arthrobacter globiformis	Water Miscible Powder	1x10 <sup>8</sup>	N-fixer, degradation of organophosphates
Aspergillus oryzae	Water Miscible Powder	1x10 <sup>8</sup>	N-fixer, in grasses (monocotyledons)
Azospirillum brasilense	Water Miscible Powder	1x10 <sup>8</sup>	N-fixer, produces cytochromes, tolerant of HIGH SALT, produces hormone EDA
Azospirillum lipoferum	Water Miscible Powder	1x10 <sup>8</sup>	N-fixer, produces photohormone gibberallic Acid
Azotobacter chroococum	Water Miscible Powder	1x10 <sup>8</sup>	N-fixer
Azotobacter vinelandii	Water Miscible Powder	2x10 <sup>8</sup>	N-fixer, produces nitrogenase, auxins, bioremediates aromatic compounds
Bacillus cerus	Water Miscible Powder	1x10 <sup>8</sup>	produces zwittermycin, performs nitrate respiration
Bacillus subtilis	Water Miscible Powder	1x10 <sup>8</sup>	A naturally occurring protein of soil
Micrococcus luteus	Water Miscible Powder	1x10 <sup>8</sup>	Degrades aspartic acid, produces L-threonin, Drought Tolerant
Streptomyces venezuelae	Water Miscible Powder	1x10 <sup>8</sup>	Produces cysteine (SH Bridges), Solute in biosynthesis of sulphur
Streptomyces griseus	Water Miscible Powder	1x10 <sup>8</sup>	Bio synthesis of Sulphur continuing amino acids, produces vitamins B12
Paenibacillus polymyxa	Water Miscible Powder	1x10 <sup>8</sup>	Produces hormones, cytokinins, auxins, gibberellins
Phanerochaete chrysosporium	Water Miscible Powder	1x10 <sup>6</sup>	Produces MN peroxidase
Pimelobacter simplex	Water Miscible Powder	1x10 <sup>8</sup>	Produces IAA, Binds Fe
Trichoderma reesei	Water Miscible Powder	1x10 <sup>6</sup>	Essential for rhizosphere
Mrakia frigida	Water Miscible Powder	1x10 <sup>8</sup>	Cold temperature tolerant
Cellulomonas	Water Miscible Powder	1x10 <sup>6</sup>	Essential for rhizosphere
Bacillus megaterium	Water Miscible Powder	1x10 <sup>8</sup>	Essential for rhizosphere
Pseudomonas fluorescens	Water Miscible Powder	1x10 <sup>6</sup>	Scavenger of Fe
Thiobacillus thiooxidans	Water Miscible Powder	1x10 <sup>5</sup>	Trace mineral uptake

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