

Agricultural **Microbes**



What are **Biofertilizers** and **Microbial Biostimulants**?

How do **Biofertilizers** and **Microbial Biostimulants** work on crop?



Biofertilizers and microbial biostimulants are products containing living microorganisms that promote the growth of plants by increasing the supply or availability of primary nutrients to soil.

Benefits of **Biofertilizers** and **Microbial Biostimulants**?

- Harmless and eco-friendly
- Increase yields by 10-40%
- Cost-effective
- Reduce chemical fertilizer consumption by 50-75%
- Improve soil properties and sustainability

Biofertilizers add nutrients to soil through these biological processes:

-  Nitrogen **fixation**
-  **Solubilizing** phosphorus
-  **Mobilizing** potassium & trace elements
-  **Restoring** the soil's natural nutrient cycle and **building** soil organic matter
-  **Stimulating** plant growth through the synthesis of growth-promoting substances
-  **Enhancing** rooting and **increasing** yields

Our Products

BIO-ACTIVATE®

Natural Plant Growth Activator

Bio-Activate is a natural plant growth activator derived from microbial cultures and help to regulate plant growth.

*Not Available in California

BIO-ACTIVATE® PLUS 5-0-0

Fertilizer with Fermentation Substances

Bio-Activate Plus uses microbial cultures and seaweed extracts to increase plant production and reduce the effects of environmental stress.

BIOACT® SD

Biological Stubble Digester

Our latest in stubble composting, the BioAct SD microorganisms quickly breakdown crop residues and field stubble for improved soil properties, nutrient availability, and fertility.

FULZYME™ SP

Beneficial Bacteria Growth Promoter

Fulzyme Plus releases tied up nutrients within the soil, naturally increasing soil health and crop growth.

MYCORMAX™

Mycorrhizal Root Inoculant

Mycormax contains beneficial root colonizing (endo and ectomycorrhizal) fungi that helps plants absorb water and nutrients while restoring soil stabilization and optimizing growing environments.

PHOSGARD® BIO

Beneficial Bacteria Hybrid Fertilizer

Containing potassium, phosphite, and millions of microorganisms, Phosgard Bio combines nutritional supplements and the functional bacteria, *Bacillus subtilis* and *Bacillus licheniformis*, to vigorously promote plant growth and yields.

PROMOT® PLUS

Biological Starter Fertilizer

Promot Plus is a natural growth promoter contained *Trichoderma* spp. They multiply in the soil producing growth factors that stimulate seed germination and root growth.

PROMOT® MZM

Biological Starter Fertilizer with Specially Selected Micronutrients

Containing magnesium, zinc, and manganese, Promot MZM creates a rhizosphere dominated by beneficial micronutrients for increased transplant survival.

SEEDUP™

Biological Seed Treatment

A specially formulated seed treatment product for developing vigorous root systems, SeedUp optimizes early season growth rates and maintains high yield potential.

SUPERZYME® 1-0-4

A Biological Fertilizer

Superzyme contains extraordinary microorganisms that create an optimal plant environment while preventing pathogens and increasing phosphorus and trace element availability.

SOLUPHOS® SP

Biological Phosphorus Solubilizer

Soluphos SP releases locked-up phosphate into a plant available form, improving fertilizer efficiency allowing yields to flourish.

Misconceptions about **Biofertilizers** and **Microbial Biostimulants**

X Microbial products are a one time application.	✓ For maximum efficiency biologicals should be reapplied every two to four weeks.
X Biofertilizers only contain microorganisms.	✓ Biofertilizers contain both microorganisms and plant food sources to deliver full nutrition and enrich soil's vital nutrients levels.
X Biofertilizers and microbial biostimulants are not compatible with chemical fertilizers.	✓ Both are in fact compatible with chemical fertilizers. When combined with chemical fertilizers they are proven to cut down on chemical usage while improving product efficiency.
X Biofertilizers and microbial biostimulants can cause phytotoxicity.	✓ Safe for workers, animals, and all crops, biofertilizers and microbial biostimulants are environmentally positive products that will not cause phytotoxicity on any crops.
X Biofertilizers and microbial simulants are only effective on certain crops.	✓ Biofertilizers and biostimulants are effective on any crop looking for an improvement in yield, quality, and sustainability.

Commonly Asked Questions

Q How should I apply the products for the best efficiency?	A As closeness to the root systems are key to product efficiency, seed dipping or side dress applications are the best ways to apply biofertilizers and microbial biostimulants. With enough water, they also can be applied through irrigation systems.
Q Will any factors affect product success?	A Biological product success can be influenced by crop type, cell counts and microbes of the product, and the growing environment including soil type, weather conditions, and soil microbes.
Q Are biofertilizers and microbial biostimulants compatible with fungicides?	A For improved compatibility, it's recommended that the biological products be applied 7-10 days post pesticide application.

