

BIO-CELL

IMPROVE NUTRIENT AVAILABILITY

Bio-Cell is a unique plant fertilizer produced enzymatically without the use of animal by-products. Derived from soy protein with a guaranteed minimum of 5.62% plant available nitrogen ideal for nitrogen deficient crops and with a high plant extracted amino acid content of 80%. Not slow release but readily available for nutrient uptake and absorption. Bio-Cell is a non-toxic, non-polluting, and vegan plant nutrient. Recommended for organic agriculture use and as a chemical-free fertilizer perfect for environmentally friendly practices. Compatible with conventional nitrogen sources and most fertilizers.



Bio-Cell FEATURES & BENEFITS

- No tip burn as customary with synthetic nitrates or ammonia N sources.
- Supplies organic plant nitrogen, peptides and amino acids.
- Highly improves the transportation of minerals.
- Natural product with no environmental impact.
- Handling does not require special equipment or gear.
- Enzyme hydrolysis produces a smaller particle size giving Bio-Cell its highly soluble nitrogen.

BIO-CELL CONTAINS NITROGEN SUITABLE FOR HYDROPONICS AND FOLIAR FEEDING

This is suitable for plants especially when only the amount of nitrogen (N) is to be added to the plants. Among Bio-Cell nutrients, nitrogen is in the form of nitrate (N-NO₃) suitable for hydroponics, enabling plants to utilize nitrogen directly from water.

* Nitrate nitrogen (N-NO₃) 5%

Plant photosynthesis needs nitrogen and its role is vital for plant growth and well-being. There is usually a narrow green area around the leaf veins. Redness may also appear at the edges of the leaves. Nitrogen allows the plant press to grow strongly and becomes dark green, strong and vibrant.

BIO-CELL GUARANTEED ANALYSIS

Total Nitrogen (N).....5.62%
 Phosphate (p205).....<0.1%
 Potash (k2o).....1%

Derived from: molasses and soybean protein hydrolysate*
 Soybean protein hydrolysate is the material obtained by the hydrolysis of proteins to their constituent amino acids and short polypeptides. They are a source of nitrogen.

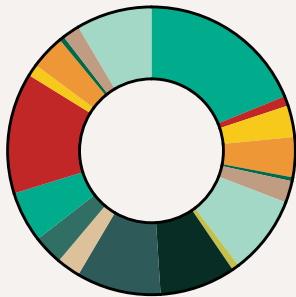
BIO-CELL APPLICATION RATES

(amount per gallon of water):
 Root Drench: 10mL - 20mL (2-4 tsp)
 Foliar: 10mL - 20mL (2-4 tsp)
 Frequency: 1x every 1 - 3 weeks

FIELD (amount per acre per application):
 Root Drench: 0.5 - 4.0 liters (1-8 pints)
 Foliar: 0.5 - 4.0 liters (1-8 pints)
 Frequency: 1x every 1 - 3 weeks

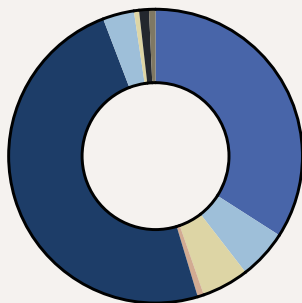
WHAT'S INSIDE?

Amino Acids



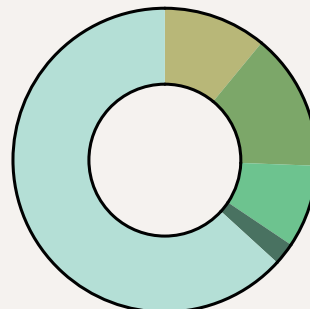
- Alanine
- Arginine
- Asparagine
- Aspartic acid
- Cystine
- Glutamic acid
- Glycine
- Histidine
- Isoleucine
- Leucine
- Lysine
- Methionine
- Phenylalanine
- Proline
- Serine
- Threonine
- Tryptophan
- Tyrosine
- Valine

Macronutrients



- Crude Protein
- Nitrogen
- Potassium
- Phosphorus
- Carbon
- Calcium
- Magnesium
- Sulfur
- Sodium

Micronutrients



- Manganese
- Zinc
- Copper
- Boron
- Iron

USING BIO-CELL WITH BIOACTIV

BioActiv and Bio-Cell are compatible and can be used together for a 'compound' effect. The bacteria in BioActiv are responsible for producing extracellular enzymes such as protease, lipase, tannase which breakdown the lipids, proteins, and carbohydrates found in Bio-Cell for plant uptake. In turn, the carbon content found in Nano-Cell can act as a food source for the bacteria found in BioActiv which may help with colony formation in areas outside of the rhizosphere. Together, BioActiv and Bio-Cell will substantially enhance root mass, yield, and flower quality by providing the plant with superior nutrition and microorganisms.

APPLICATION GUIDELINES

- Bio-Cell can be used as a root drench or during foliar applications; Your plants will benefit from Bio-Cell however you choose to apply it. Bio-Cell contains a bioavailable nutrient content of 0.5 - 0 - 0.5, so absorbing through the foliage is the least energy-intensive way for the plant to use the nutrients in Bio-Cell for leafy growth. However, Bio-Cell will complex nutrients in your usual feed program, making them easier for the plant to uptake which is the primary benefit of root drenches. For best results, consider using Bio-Cell as a root drench AND during foliar applications.
- Bio-Cell can be tank-mixed with nutrients or water for ease of application, or applied via overhead irrigation, drip irrigation, hand-watering, in hydroponic systems, in backpack sprayers, or through any other foliar applying mechanism.
- Bio-Cell can be mixed with most fertilizers, pesticides, herbicides, and fungicides--always test compatibility first.
- Flush drip irrigation lines with clean water after injecting Bio-Cell.
- Can be mixed with tap or reverse osmosis (RO) water.
- Intended to be used as a Plant Growth Promoting Biostimulant.
- Mix well before use!

Without Bio-Cell

With Bio-Cell



03

Enhances root and stem architecture.

02

Supports crop nutrition and microbes.

01

Results in superior flower yield & quality.

BIO-CELL FEED CHART

For use on clone stock, and during vegetative + flowering growth to enhance plant performance and build the critical structure. All rates are for foliar and root drench applications.

Greenhouse & Container Application Rates

VEGETATIVE GROWTH (18H PHOTOPERIOD)

Week	Seedling/Clone	1	2-4	+4
Growth Stage	Vegetative	Vegetative	Vegetative	Vegetative
Lite Applications	1 mL/Gal of water	2 mL/Gal of water	3 mL/Gal of water	3 mL/Gal of water
Recommended Applications	2 mL/Gal of water	4 mL/Gal of water	6 mL/Gal of water	6 mL/Gal of water
Heavy Applications	3 mL/Gal of water	6 mL/Gal of water	9 mL/Gal of water	12 mL/Gal of water
Frequency (# of applications per week)	1	1	1	1

FRUIT & FLOWER GROWTH (12H PHOTOPERIOD)

Week	1	2	3	4	5	6	7	8
Growth Stage	Early flower	Early flower	Mid flower	Mid flower	Mid flower	Late flower	Late flower	Ripen
Lite Applications	4 mL/Gal of water	4 mL/Gal of water	6 mL/Gal of water	6 mL/Gal of water	4 mL/Gal of water	4 mL/Gal of water	4 mL/Gal of water	-
Recommended Applications	8 mL/Gal of water	8 mL/Gal of water	12 mL/Gal of water	12 mL/Gal of water	8 mL/Gal of water	8 mL/Gal of water	8 mL/Gal of water	-
Heavy Applications	12 mL/Gal of water	12 mL/Gal of water	18 mL/Gal of water	18 mL/Gal of water	12 mL/Gal of water	12 mL/Gal of water	12 mL/Gal of water	-
Frequency (# of applications per week)	1	1	1	1	1	1	1	-

Product Notes: Bio-Cell is a bioavailable source of plant nutrients that can promote plant vigor and nutrition. Bio-Cell can improve plant growth and nutrition in most crops and cultivation systems. Bio-Cell will improve plant tolerance to abiotic stresses like drought while improving overall crop nutrition and may be used in conjunction with beneficial microbes. Bio-Cell can be used to correct some nutrient deficiency-based plant disorders and to improve growth. By promoting plant nutrition and vigor, Bio-Cell boosts plant performance and can enhance crop quality and yields.



8301 W. 125TH STREET SUITE. 100 OVERLAND PARK, KS 66213

www.fsibiosciences.com