

BLACK BIOLOGICS

STERLING'S MILK BASED AMENDMENTS, SUPPLEMENTS AND MICROBES FOR PASTURES AND ABOVE GROUND CROPS

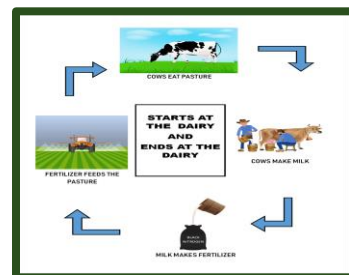


KEY BENEFITS

- Chelates macro and micro nutrients into plant available forms
- Augments the efficacy and efficiency of fertilizers
- Improves mineral content of soils
- Increases protein content of crops
- Optimizes seed germination, plant development and resilience
- Introduces, feeds and stimulates beneficial soil microbes
- Enhances soil structure, aeration and water retention

APPLICATION RECOMMENDATIONS

- 1 to 5 pounds per acre
- Dilute in 10-25 gallons of water per acre for wet applications
- Specific recommendations are crop and site dependent
- Sterling Agriculture, Inc. consultation is recommended





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TECHNICAL INFORMATION

Black Biologics is a patent pending blend of the following: Certified organic milk, Humic acid, Fulvic acid, Kelp, L-Amino acids (milk and plant sources), Silica powder, Yucca plant powder, Sterling beneficial soil microbes

Additional details:

Milk has Urea Nitrogen in it and L-AMINO ACIDS to create available Nitrogen

Humic and Fulvic acids are chelators. They combine minerals to make them into organic compounds that can be ingested by plants more easily. They also enable the soil to hold more water and can increase the water infiltration of the soil. Additionally, Humic and Fulvic acids restrict toxins present in the soil, reducing the amount of harmful substances that reach the crop's roots.

Seaweed provides a range of benefits favorable for the growth of plants. They aid in the formation of roots, provide better resistance, and enhance the yield and shelf life of harvested crops.

L-Amino Acids from milk and plants supplement your crops and pastures so that they do not need to work as hard to generate growth from oxygen, carbon, nitrogen, hydrogen and sulfur. Your plant has much more available energy. This helps it maintain not only vigorous growth but pest and disease resistance, greater yields with higher BRIX AND RFQ.

Silica-The proven benefits of Si in plants include; Improved cell structure and strength; Improved resistance to pathogens and insect attack; Improved photosynthetic activity. The improved structure of the plant has been shown to enhance its ability to capture light; Reduced drought and heat stress. The deposition of Si in the plant tissues reduces transpiration rates; Reduced salt stress by inhibiting sodium absorption; Improved utilization of applied fertilizers, particularly nitrogen, phosphorus and potassium and; alleviates toxicity of iron, manganese, cadmium, aluminum and zinc. Too much iron is known from using lactating cow manure over time.

Yucca plants will get an extra boost of plant protection to help them deal with adverse conditions, especially in the heat of summer. It is also a saponin, making it a natural water wetter/surfactant.

Sterling beneficial soil microbes with 2-BILLION CFU/# consist of:

Bacillus Licheniformis – facultative anaerobe, releases soil bound nutrients

Bacillus Subtilis – facultative anaerobe, releases soil bound nutrients, very good enzyme producer

Bacillus Pumilus – releases soil bound nutrients, growth promoter

Bacillus Amyloliquefaciens – facultative anaerobe, releases soil bound nutrients, very good enzyme producer

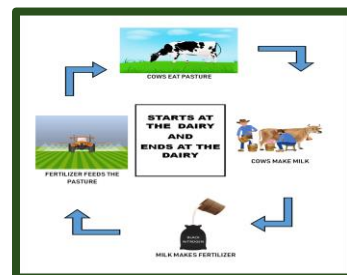
Bacillus Megaterium – very fast grower, releases soil bound nutrients (especially phosphorous)

Bacillus Simplex-Bacillus Simplex has a plant growth promoting rhizobacterium shown to synthesize anti-fungal peptides. This ability has led to the use of B. Simplex in biocontrol. B. Simplex has been shown to increase crop yields.

Pseudomonas Putida-Induces plant growth and protects the plants from pathogens.

Streptomyces Lydicus-It belongs to the largest antibiotic-producing genus in the microbial world. Root colonizing bacteria that protects and mobilizes nutrients, especially iron.

Trichoderma Harzianum-is a fungus that is also used as a fungicide.



Sterling Agriculture, Inc. 5780 S. 200th. E. Lebanon, IN 46052

Phone: (765) 541-1404 – www.sterlingagriculture.com