

Revolutionising farming with biostimulant products

ALL living organisms have the ability to improve themselves through natural means in order to adapt to changing environmental conditions. However, it takes some time before any detectable improvement is obtained. In crop farming, biostimulant products present an opportunity to improve plants more efficiently and effectively.

What is a biostimulant?

A plant biostimulant is any substance or microorganism which when applied to plants or seeds stimulates natural processes to enhance nutrient uptake, nutrient use efficiency, tolerance to abiotic stress, or crop quality and yield. By incorporating biostimulants into your agricultural practices, you can stimulate root development, increase crop resilience, improve soil fertility, boost seed germination, promote efficient water use, optimise nutrient availability, and manage plant stress. Biostimulants are not classified as fertilisers.

What are biostimulant products?

Plant biostimulants are derived from naturally occurring, diverse communities of microorganisms and the biochemical byproducts they produce (e.g., organic acids, proteins, enzymes). Biostimulant products typically include ingredients from one or more of the following general categories:

- Humic and fulvic acids occur naturally in soils as a result of the breakdown of organic matter.
- Protein hydrolysates like small peptides and amino acids, the building blocks of all proteins.
- Seaweed and plant extracts that contain minor nutrients and plant hormones such as cytokinin. Plant extracts may contain substances that can stimulate plant metabolism or natural defence systems.

- Chitosan and other biopolymers. Biopolymers are specific molecules derived from plant or animal sources; for instance, chitosan is derived from the shells of crustaceans.
- Inorganic compounds. These are mineral-based molecules such as phosphites, and minor elements such as silicon.
- Beneficial microbes. The action of these products is based on the activity of live fungi and/or bacteria.

Why go biostimulants?

Biostimulants offer a range of advantages for sustainable and high-yield crop production. With the soaring of fertiliser prices across the globe pressure is mounting on the farming communities to cut down on the amounts spent on synthetic inputs. Coupled with the

What is in the Exome product basket?

Below is a range of the Exome Life Sciences' products available for the Kenyan market:



Tetra power

- TETRAPOWER™ is an effective product for supplementing macro and micro elements in crops. • It has fine combination of Nitrogen fixing, Phosphorus solubilizing and Potassium mobilizing microorganisms.
- TETRAPOWER™ safeguards crops during their lifecycle from deficiencies of minerals when applied early in the cycle via drenching or foliar spray. Composition • Amino acids 7%; Sea weed extracts 4%; Humic acid 3.5%; Potassium 1%; Phosphorous 0.5%, Zinc 0.02%

Benefits

- It fixes the atmospheric nitrogen to the plant, supplies phosphorous to the plants & enhances potash up take in plants. • It improves plant vigor & health. • The product improves the organic content and microbial population of the soil hence better root penetration, Water holding capacity, and aeration. • Improved CEC of the soil

Application

- Foliar spray 2-3ml per Lit • Drip irrigation 2-3 lit per Acre

Target Crops

- Wheat/Canola • Horticulture • Banana • Sugarcane

tightened rules surrounding the use of synthetic crop protection products biostimulants become a fair prospect. With the world embracing regenerative agriculture practices, biostimulants sit perfectly in this space.

Why choose Exome's products?

Many companies are jostling to have a piece of the bioproducts pie. Exome Lifesciences, a company founded in 2017, is among the pioneers in manufacturing biotech products with specific focus on agriculture and a commitment to a vibrant life and sustainable future through safe effective eco-friendly farming solutions. With a current reach across 15 countries globally Exome has introduced top of the range biotechnology products that are revolutionising our traditional approach to farming. Exome's range of products cut across all crop growth spheres whether at planting, vegetative growth, flowering and fruiting stages.



Exome CalRatna

- EXOMEGAINUP® contains natural alkaloids bonded with organic carriers ensuring rapid absorption and translocation within the crop
- stimulates production of natural plant growth hormones and enhances soil friendly Microflora

Composition

- Amino acids 18%; Sea weed extracts 22%; Humic acid 4%; Organic Matter 24%; Iron 0.05%, Zinc 0.2%

Benefits

- More tillers hence more yield
- Rapid nutrient deficiency correction
- Stimulates growth and development of the crops
- Better root development and vegetative growth.

Application

- Foliar spray 2-3ml per Lit
- Drip irrigation 2-3 lit per Acre

Target crops

- Cereals
- Avocado/Mangoes/Macadamia



Secure

- A natural; residue free plant nutrition booster with fungicidal abilities.
- Contains natural plant extracts which induce systemic acquired resistance (SAR) in crops.
- Improves efficacy of fungicides when used in combination

Composition

- Amino acids 12%; Sea weed extracts 6%; Humic acid 6%; Plant extracts 9%; Phosphorous 5%

Benefits

- Improves plant vigor with less disease's infestation
- Rejuvenates crop growth soon after abiotic stress
- No residual effects when applied as foliar spray
- Non phytotoxic and full bio degradable.

Application

- 2-3lit drench

Target crop

- General horticulture
- Wheat/Maize/
- Floriculture.



SuperSoil

- SUPERSOIL is a soil conditioning/Cleansing product used across a number of crops.
- It is a mix of Humic acid, plant and sea weed extracts.
- These ingredients have the ability to transform soil properties and crop growth to the benefit of the environment and the farmer

Composition

- Sea weed extracts 12%; Humic acid 8%; Plant Extracts 15%; Copper 0.05%

Benefits

- The product improves the organic content and microbial population of the soil
- Improved root development
- Improve nutrient availability and uptake through permeation and chelation (Phosphorus solubilizing and Potassium mobilizing abilities)
- Improves nutrient uptake even in Saline conditions.

Application • 2-3lit drench **Target crop** • All crops



K-Bio

K-BIO® is a highly bioavailable biological potash and superior in every way for basal as well as foliar application. K-BIO® is more bioavailable even in lower dosages achieving excellent tissue nutritional values.

Benefits:

- Aids in higher degree of carbohydrates production, transportation and storage.
- Helps in cell wall synthesis and acts as a new cells precursor.
- Improves water retaining capacity and transpiration.
- Controls and optimizes opening and closing of stomata.
- Helps in digestion of high soil calcium compounds.
- Helps in absorption of higher amounts of nitrogen from the soil.
- Fights and helps the plants withstand dry soil conditions and limited drought.
- Helps safeguard the plants and the roots from the low temperature conditions.
- Completely biodegradable, does not harm the soil and environment.

Dosage:

0.5 ml to 2 ml per liter of water-basal/foliar application.