GENERAL COMPOSITION (DATA SHEET)

Terra Ag Technologies®

ORGANIC PLANT & SOIL PRO 2™

Product Description:

Terra Ag Technologies Organic Plant & Soil Pro 2™ is a plant nutrition system designed for organic production and conventional crop farming operations. The proprietary and patented formulation works by enhancing the natural activity of microbiota in the existing soil rhizosphere, producing Higher Yields, increased Soil Regeneration and Carbon Sequestration.

Mode of Action:

The ingredients of plant extracts deliver nutrients and compounds that are readily available and absorbed at the root level.

A plant 'priming' technology that produces a rhizosphere effect resulting in higher levels of plant growth efficiency and yield.

Naturally existing soil microbiota are intentionally nourished and activated in the process.

This supports and optimizes a naturally symbiotic soil system for nutrient transport into the plant.

Primary Nutrients

- Fulvic and Humic Acids
- 18 Essential Aminoacids
- 5 Essential Organic Sugars
- 6 Essential Organic Acids
- Organic Plant Extracts
- Organic Matter
- Organic N, P, K and Micro Elements
- Precursor Compounds
- Proteins and Organic Nanocatalysts

Secondary Nutrients

- Organic Carbon
- Calcium
- Sulfur
- Ammonium
- Boron
- Cobalt
- Copper
- Iron
- Magnesium
- Molybdenum
- Zinc & more

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Important Nutrients

Amino Acids

Tryptophan: Improves growth and photosynthetic capacity.

Threonine: Improves plant growth, development, seed development.

Serine: Plays a fundamental role in plant metabolism, plant development, and cell signaling.

Proline: Protects the plants from various stresses and helps plants to recover from stress more rapidly.

Glycine: Increase nitrogen status and concentration of mineral elements in plant tissues.

Alanine: Protecting plants from temperature extremes, hypoxia, drought, heavy metal shock, and some biotic stresses.

Valine: Increases carbon accumulation in plants and nitrogen nutrient content, increasing lignin content in plants.

Isoleucine: Enhances plant resistance against fungus.

Leucine: Resistance to a diverse range of pathogens, including nematodes, fungi, bacteria.

Tyrosine: Improves growth and photosynthetic capacity.

Phenylalanine: Crucial for plant reproduction, growth, development, and defense against different types of stresses.

Lysine: Regulates plant growth and responses to the environment.

Histidine: Protein synthesis, growth and development, nutrition, and stress responses in plants.

Aspartic acid: Increases tolerance to salinity stress.

Arginine: A major storage and transport form for organic nitrogen in plants in addition to its role as an amino acid for protein synthesis.

Methionine: Controls the level of several key metabolites, such as polyamines, effective regulator of growth and development of plants subjected to environmental cues including drought stress.

Cystine: A precursor for a huge number of essential biomolecules, such as many plant defense compounds formed in response to different environmental adverse conditions.

Glutamic Acid: Play a primary role in metabolism of the plants, essential for the nutritional process and function as a regulator for gene expression and productivity.

Organic Acids

Malic Acid: Promotes plant growth by increasing chlorophyll content and mitigating stress damage to photosynthetic structures.

Citric Acid: Enhances plant growth, photosynthesis.

Acetic Acid: Plays a key role in both root and shoot development.

Glutaric Acid: Important role in building protein structures.

Pyrrolidone Carboxylic Acid (PCA): Prevents the loss of moisture and prevents the growth of bacteria.

Lactic Acid: Enhances plant health.

Sugars

Glucose: Used for energy and to make other substances like cellulose and starch and used in building cell walls.

Fructose: Functions as a regulatory sugar metabolite and interacts with signaling by the plant hormones.

Lactose: For energy and various functions including the absorption of minerals.

Sucrose: Enhances plant growth and increases yield of crops.

Maltose: Used by plants to store glucose. After cellulose, starch is the most abundant polysaccharide (e.g., starch, cellulose,) in plant cells.

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