### **GENERAL COMPOSITION DATA SHEET**



# **Product Description:**

Terra Ag Technologies Organic Plant & Soil Pro 2<sup>™</sup> is a plant nutrition system designed for organic production and conventional crop farming operations. Our proprietary Potent Micro-Activators and Soil Regenerative products (100% plant based), 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

#### **Secondary Nutrients**

**Organic Carbon** 

**Nanocatalysts** 

**Calcium** 

**Sulfur** 

**Ammonium** 

**Boron** 

**Cobalt** 

Copper

Iron

Magnesium

Molybdenum

Zinc & more

## **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.

