

XTRA Root is a humic extract with high concentration of quality humic and fulvic acids, with water-soluble phosphorus and amino acids to help the formation of structural aggregates, improving the physico-chemical and agronomical characteristics of the soil:

- ACTIVATES THE SOIL BIOLOGICAL ACTIVITY
- INCREASES SOIL FERTILITY
- IMPROVES WATER RETENTION AND NUTRIENT USE
- **ENHANCES TOLERANCE TO STRESS RELATED TO PLOUGHING AND TRANSPLANTING**
- HELPS IN ROOT INITIATION, ROOT GROWTH, EXPANSION AND ELONGATION

## Radical expansion and plant growth promotion







## **USE** | Fertiliser for agriculture

**Xtra Root:** mutualistic symbioses between roots, the substrate and the nutrients to generate active, bigger and healthier root systems.

| COMPOSITION   | CONCENTRATION |
|---|---------------|
| Total Nitrogen (N)  | 5%            |
| Organic Nitrogen (N)  | 2.5%          |
| Ammoniacal Nitrogen (N)   | 2.5%          |
| Phosphorus Pentoxide ( $P_2O_5$ ) soluble in neutral ammonium citrate and water | 9%            |
| Water-soluble Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> )             | 9%            |
| Water-soluble Zinc (Zn)   | 13 ppm        |
| Organic Carbon (C)  | 7%            |
| Total Amino Acids   | >15%          |
| C/N Ratio   | 1.4           |
| рН  | 6.5           |
| Colour  | Dark Brown    |

## **FACTS**

|          | HUMIC AND FULVIC ACIDS                      | Formation of structural aggregates, improvement of physico-chemical and agronomical characteristics of the soil                   |  |
|----------|---|---|--|
|          | ORGANIC CARBON (OC)                         | main source of energy for soil microorganisms   |  |
| <b>2</b> | LOW C/N RATIO                               | determines carbon quality and availability (mineralised and ready for uptake), and regulates decomposition and fertility in soils |  |
| <b>2</b> | WATER-SOLUBLE P <sub>2</sub> O <sub>5</sub> | Increased energy-transforming processes of the crop   |  |
| <b>2</b> | WATER-SOLUBLE ZINC                          | Integral component of enzyme structures, it plays a catalytic and structural role in enzyme reactions                             |  |



EFFECT OF HUMIC EXTRACTS ON THE ROOT GROWTH AND EXPANSION OF CROP: CROP TREATED WITH HUMIC EXTRACT (LEFT) SHOWS A DEVELOPED ROOT SYSTEM WITH HIGHER DENSITY OF ROOT HAIRS COMPARED TO THE CONTROL (RIGHT).

**APPLICATION** | XTRA Root is ideally used by fertigation (2-3 applications), on all crops and at the first growth stages. A distance of 10-15 days is recommended between applications. If needed, it could also be used by foliar (2-3 applications), but it is recommended to discuss the case-specific conditions with an agronomist.

| CROP   | FERTIGATION                   | FOLIAR*            | GROWTH STAGE   |
|--|-------------------------------|--------------------|--|
| Field Crops  | 3 - 6 L/ha                    | 200 - 300 mL/100 L | Transplanting, seedlings or bedding till establishment |
| Vegetables   | 4 - 8 L/ha                    | 250 - 400 mL/100 L | Transplanting, seedlings or bedding till establishment |
| Fruit Trees  | 5 - 10 L/ha                   | 250 - 500 mL/100 L | Swollen bud and petal fall                             |
| Protected agriculture<br>(greenhouse,<br>glasshouse, etc.) | 0.5 - 2 L/1000 m <sup>2</sup> | 100 - 500 mL/100 L | Transplanting, seedlings or bedding till establishment |

<sup>\*</sup> The rates are calculated considering a volume of 500-600 L of mixed solution per hectare, for foliar use.