Free Root is a liquid product especially designed to unblock root operation in degraded soils because of high Sodium ions (Na+) concentration. **Free Root** is mainly applied in the following cases:

- In soils irrigated with high conductivity water, because of NaCl salt content.
- In soils with Sodium salts accumulation on the surface, because of constant irrigation with high conductivity water and evaporation of irrigation water
- In soils in regions affected by drought
- In soils of limited draining which are not sufficiently irrigated
- In cleared soils
- In soils that have been degraded because of imprudent use of fertilizers

In all the above cases high concentration of toxic Sodium ions (Na+) in the soil has the following consequences:

- Deterioration of ground fertility
- Plants growth impeding (reduction of cellular proliferation which results in shoots, leaves and root growth reduction)
- Deficiencies occurence
- Reduction of culture productivity
- Enhancement of plants senescence
- Death of plant cells and loss of plants

PROPERTIES

Free Root functions at many levels in order to allow the operation of root and, as a consequence, of plant under conditions of salinity stress.

At ground level

- It decreases the levels of toxic Sodium (Na+) in the soil
- It accelerates the drainage rate of Sodium salts
- It improves the chemical structure of the soil
- It restores the natural microflora of the soil
- It increases the plasticity of the soil
- It facilitates water filtering and draining

At plant level

- It decreases the ionic and osmotic stress caused by high salinity
- It allows the absorption, intake and transport of nutritional elements in plant tissues under conditions of high salinity
- It reduces deficiencies occurrence (especially of Nitrogen, Potassium and Calcium)
- It prevents plant cells senescence
- It increases the fotosynthetic capability of plants
- It enhances the proteinic synthesis and enzymes activity inside the plant cells

Soil salinity adjuster - Root activator

Free Root

Powered by BSM*

* BSM: Beneficial Soil Microorganisms

Net Content

- 1 L ☐
- 5 L ☐
- 12 L ☐
- 25 L ☐
- 200 L ☐
- 1000 L ☐

Produced by

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APPLICATION METHOD

Free Root is applied by root irrigation via irrigation/fertilization system or foliarly after being diluted in an appropriate quantity of water. The number of required applications and the dosage are determined by soil conditions, irrigation water conductivity, climatic conditions and fertilization of cultures.

DOSAGES-APPLICATION FREQUENCY

Applications by root irrigation

Greenhouse cultures (Tomato, Pepper, Aubergine, Cucumber, Courgette, Melon): 50-100 lt per hectare. Application every 7-10 days from planting until harvest.

Open field horticultural crops and vegetables: 10-40 lt per hectare. Application every 7-10 days from planting until harvest.

Strawberry: 100-200 lt per hectare. Application every 7-10 days from planting until harvest.

Ornamental: 50-100 lt per hectare. Application every 10-15 days.

Fruit cultures, Vines: 50-100 lt per hectare. Application every 7-10 days during irrigation period.

Citrus: 30-50 lt per hectare. Application every 7-10 days during irrigation period.

Foliar applications

Dilution rate 0,5 liter per 100 liters of water

Note: The above rates are applied when the conductivity of irrigation water is maximum 2 mS/cm, because of NaCl salt content. If the irrigation water conductivity is higher because of NaCl presence, then the application rate should be increased or applications should be performed more frequently. In any case, the conductivity of irrigation water should be checked at a regular basis and the application method should be appropriety adapted.

COMPATIBILITY

Do not combine with alcalic and oily products. Follow the instructions of pesticides manufacturers before mixing them with **Free Root**. In any case it is recommended to perform a compatibility test before mixing in the tank.

HANDLING & STORAGE

Apply only during the cool hours of the day. The product should be stored away of high temperatures and direct radiation, at a place where ice formation is not possible. The packing should be tightly closed in case there is product left in the container.

KEEP IT OUT OF THE REACH OF CHILDREN

SHAKE WELL BEFORE EACH USE