RizoMyc

BIOACTIVE MICROBIAL ROOT STIMULANT

bio
Suitable for organic agriculture

RizoMyc is a bioactive microbial solution which contains spores and hyphae of endomycorrhizal fungi of the genus *Glomus* sp., that enhance root growth and elongation, facilitating this way nutrients and water uptake by the plant. In addition, it contains beneficial rhizosphere bacteria and soil fungi which excrete substances that contribute to the formation of new rootlets, to the growth of the plant and the acquisition of resistance against various environmental and biotic factors.

SYNTHESIS

Endomycorrhizae (*Glomus intraradices, G. clarum, G. mosseae*) ...	1 x 10^5 cfu/lt
Beneficial bacteria (*Bacillus megaterium, Azotobacter sp.*).....	1 x 10^{11} cfu/lt
Beneficial fungi (*Trichoderma harzianum*).....	1 x 10^{11} cfu/lt

*cfu: collony forming units

Mycorrhizae is the symbiotic association formed between beneficial fungi and roots. They are divided in endomycorrhizae and ectomycorrhizae. Endomycorrhizae grow in the root cortical parenchyma, where they form arbuscules and coils, which are modified hyphae that serve resources exchange between fungus and plant. Endomycorrhizae uptake photosynthesis products (sugars) from roots, since they mostly rely on plants in order to satisfy their requirements in energy. In return, they enhance the capability of plant to absorb phosphorus, nitrogen, trace elements and water from soil: they function as a root extension, they increase the root surface which is available for resources exchange and they can explore soil niches and resources that root hairs cannot reach. Mycorrhizae also form mutualistic relations with rhizobacteria. Thus, a three-party association is created mycorrhizae - rhizobacteria - roots, which performs under a dynamic balance. In precision, they promote rhizosphere colonization by nitrogen-fixing and phosphorus-solubilizing bacteria, nodulation and nitrogen fixation, as well as phosphorus solubilization. Moreover, they contribute considerably to soil structure improvement and especially to its aggregation. In addition, they stimulate the production of antibiotic compounds and signaling molecules for the induction of systemic plant resistance and they provoke physiological alterations in root structure and excretions, decreasing considerably pathogens infection rate.

Biotechnology product by

HUMOFERT

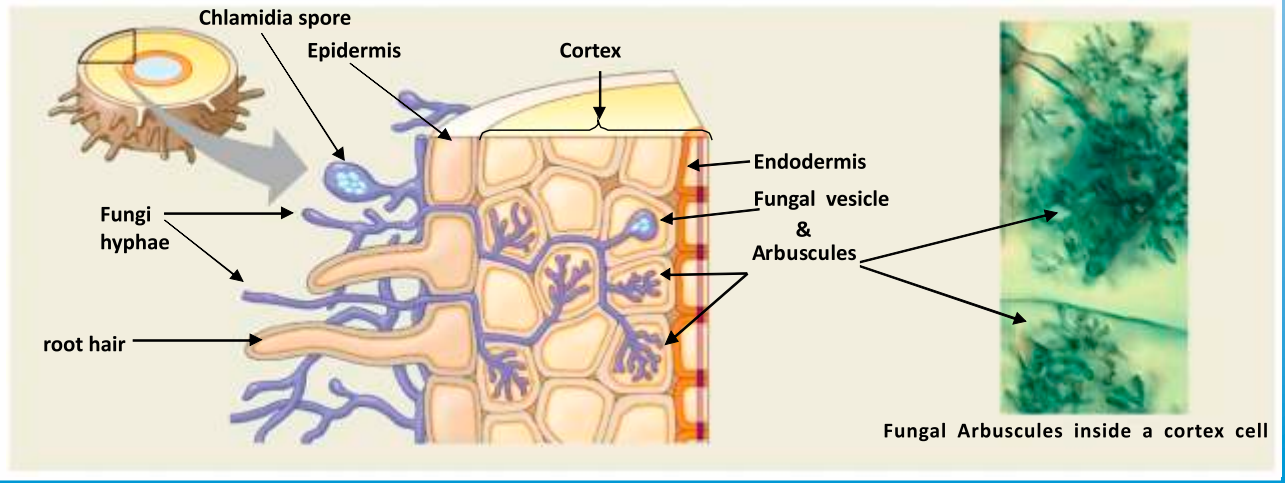
1 Ermou & Theotokopoulou str., 14452 Metamorphosis, Greece
Tel. +30 210 284 5891, Fax. +30 210 281 7971
E-mail: info@humofert.gr, Web Site: www.humofert.gr

RizoMyc

PROPERTIES - BENEFITS

- It elicits root growth and promotes its penetration into the soil.
- It increases water absorption by plants root system.
- It increases plants tolerance to drought.
- It increases nutrients uptake by the root.
- It supplements plants nutrition in nitrogen, phosphorus and trace elements.
- It improves soil structure and architecture.
- It provides for a better soil aeration.
- It increases the beneficial microbial population of the soil and it improves its biological structure.
- It enhances plants vigor.
- It limits root rots.
- It accelerates plants growth rate.
- It increases yields.
- It is an environment-friendly product which does not disturb the balance of the ecosystem.
- It does not contain plant pathogens, since it is produced under sterile conditions.

ENDOMYCORRHIZA



APPLICATION METHOD-RATES

It is applied by irrigation or soil spraying before planting or directly after transplanting. Moreover, it can be applied by dipping plantlets, cuttings, bare root nursery trees before they are transplanted. It is essential for ***RizoMyc*** to be applied close to the roots area in order for the mycorrhiza to be successfully established on the root.

Tomato, Aubergine, Pepper, Cucumber: Greenhouse 10-20 L/he. Open field: 5-10 L/he. Apply after the basic organic fertilization, a bit before planting or directly after transplanting. Repeat 1-2 weeks later.

Watermelon, Melon, Leaf vegetables, Legumes, Aromatic plants: 5-10 L/he after the basic organic fertilization, a bit before sowing or transplanting or directly after transplanting. There can be a repetition 1-2 weeks later.

Tobacco: 10-20 L/he. Apply during transplanting in the transplanting water or directly after it. There can be a repetition 1-2 weeks later.

Strawberry: 10-20 L/he. Apply during transplanting or at the initiation of growing season in case of parennial plants.

Trees, Vine: 10-20 L/he. Once or twice a year by watering around the trunk. In case of young plantlets, apply by dipping in a proportion of 1 L/50-100 liters of water.

Seedbeds: 250-500 ml/100 L water.

Plantlets: 1-2 L/1000 L water. Apply via irrigation water.

Lawn: 10-20 L/he. Apply directly after sowing or the installation of premade lawn. Repeat 1-2 weeks later.

Hydroponics: 1 L/1000 L of water via the hydroponic system. Replenish by adding 500ml/1000 L of water each time water is added to the system.

Note: In order to maximize the benefits of micorrhizae, it is essential to apply agricultural practices such as minimum tillage, reduced use of chemical fertilizers, crop rotation with minimal fallow, rational pesticide application and adequate organic substance presence in the soil.