



## BioHealth Myco

**Quadruple combination** 

Mycorrhiza is plant friendly Humic, fulvic, mycorrhiza and seaweed extract



#### **Introduction:**

It is a water-soluble mixture of mycorrhiza strains, humic and fulvic acids, and seaweed extract. To stimulate and increase the growth and reproduction of beneficial microorganisms in the soil and around the root zone. It also enhances and increases the percentage of seed germination and increases the soil's ability to retain water and nutrients.





#### What is mycorrhiza and its benefits to plants and soil:

The word mycorrhiza consists of two parts (myco) meaning fungus and (raiza) meaning roots (fungi roots). It can be described as a highly developed beneficial exchange relationship between soil fungi and plant roots. The first to put this designation was the Dutch scientist Frank in 1885, then the concept of this term developed to describe The common symbiotic relationship that occurs between the roots of higher plants with non-pathogenic soil fungi, because in this relationship there is an exchange between the fungus and the plant for some compounds and elements that are used in the growth and reproduction of both partners in an unparalleled exchange of benefit.

Mycorrhiza fungi spread in all types of soils and in a wide range of the ecosystem that extends to include desert and tropical environments, forest environments and aquatic environments. Mycorrhiza fungi are often found in soils rich in mineral elements and organic matter. Hydroponic farms and swampy soils.

Mycorrhiza is divided into internal and external types, parasitizing on the roots of plants.

Mycorrhiza fungus has several important functions for the plant, the soil, the environment, and other beneficial microorganisms that live with it in the soil. Mycorrhiza hyphae attached to soil particles. It was also found that there are other compounds secreted by mycorrhiza that improve soil composition, such as a polysaccharide compound that helps stick soil particles together, which increases the ability of the soil to retain water and food.

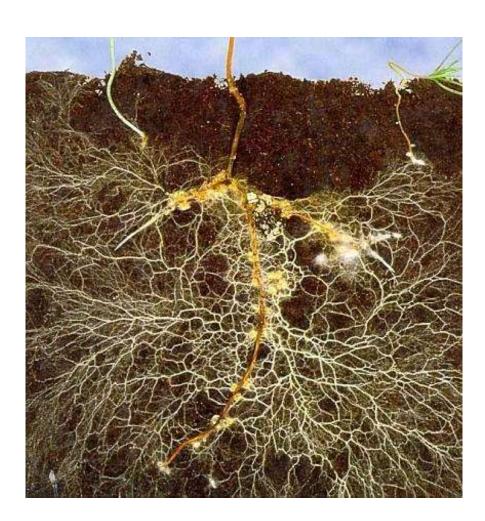




#### Follow mycorrhiza and its benefits to plants and soil:

The mycorrhizal hyphae intertwine with the roots of the plant and form a network that works to hold the soil granules, and the fine soil granules are collected by the action of organic compounds secreted by the fungal hyphae and roots, as these compounds work to stick the fine soil particles among themselves forming coarse granules, and on the one hand they make the soil A suitable environment for the growth of other microorganisms. Mycorrhiza also has an important and significant role in supplying plants with macronutrients such as phosphorus, nitrogen, sulfur and some minor elements such as copper and zinc. It also has a positive role in many physiological activities of the plant, especially those related to the absorption and use of phosphorus and microelements, as it enables these Plants absorb phosphorus twice as much as plants not treated with mycorrhiza fungus.

The absorption of phosphorus by mushrooms takes place through several mechanisms, including the secretion of the enzyme phosphatase from the mushroom filaments, which works to dissolve the organic phosphorus and convert it into forms ready for absorption by the plant, as well as the secretion of hydroxyl acid, which works to hold the elements of calcium, iron and aluminum, leaving the element of phosphorus dissolved in the soil solution and mycorrhizal fungi act It also increases the activity of phosphate-dissolving bacteria as a result of the mutual benefit relationship, and this in turn leads to an increase in the concentration of soluble phosphorus in the soil solution.





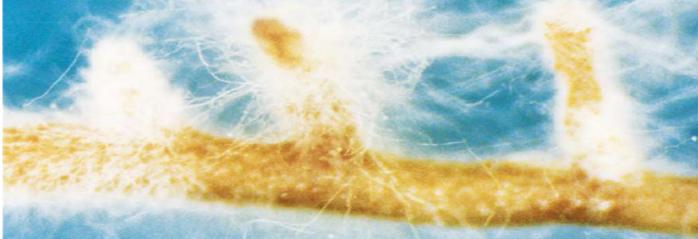


#### Follow mycorrhiza and its benefits to plants and soil:

Mycorrhiza fungus has a major and important role in reducing infection with pathogens that spread in the soil, by causing competition between it and the pathogens that spread with it in the soil. During the competition for infection sites in the roots of the host plant, where the competition comes as a result of the high density of the fungus hyphae that colonize a large proportion of the root system compared to other diseased organisms.

Mycorrhiza also competes with pathogenic microbes for the photosynthetic products secreted by the roots in the rhizosphere, and the competition is great when more than one type of mycorrhizal fungus is present in the rhizosphere. On the other hand, mycorrhiza fungi increase the thickness of the cell wall by increasing lignin and polysaccharides as a result of stimulating plant defenses, which reduce the incidence of pathogens that affect the roots. Mycorrhiza also works to increase polyphenol oxidase and cellulose peroxidase enzymes, which are also important in plant defenses.

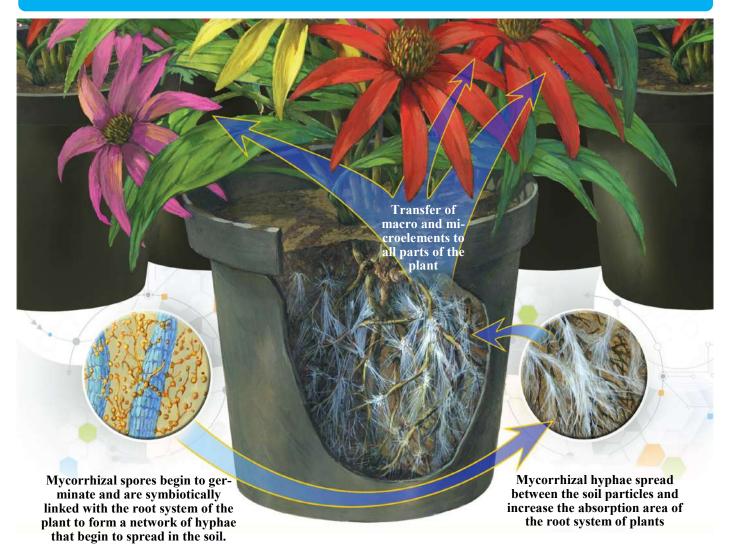








### Explanation showing the benefits of mycorrhiza for plants and soil



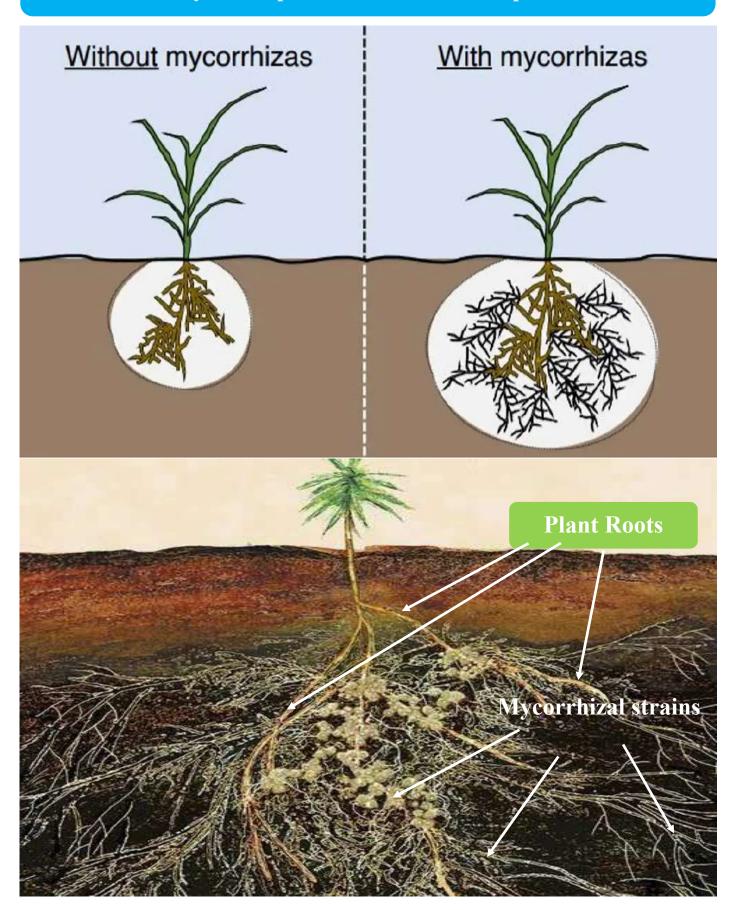
#### **Benefits of Bio health Myco:**

- 1) It increases the resistance of plant roots to stress (drought, disease, high or low temperature and salt stress).
- 2) It stimulates the growth of beneficial microorganisms in the root zone and thus increases soil fertility.
- 3) Promotes seed germination and increases their growth and vitality.
- 4) It increases the soil's ability to hold water.
- 5) It increases the buffering capacity of the soil and neutralizes the pH, thus enhancing nutrient uptake.
- 6) It binds salt in the soil and thus reduces salinity.
- 7) It enhances soil quality and increases its aeration.
- 8) It increases the quality and vitality of fruits and raises productivity.



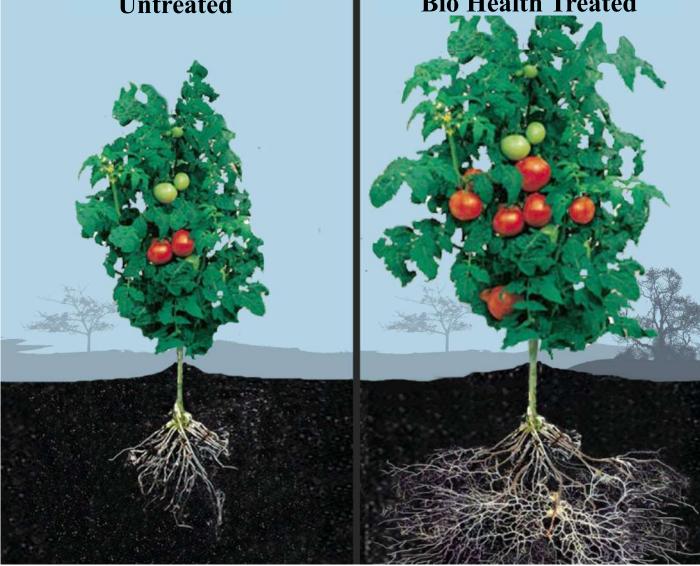


Increasing the root total area of the plant treated with Bio health Myco compared to the untreated plant





# Increased productivity in mycorrhizal treatment over non-treatment Untreated Bio Health Treated



The difference in the radical sum between treated and untreated







#### **Composition:**

Seaweed extract	Mycorrhizal strains (Fam environment)	potassium (potassium humate)	Fulvic acid (leonhardite rock)	Potassium Humate (Leonhardites)
% Seaweeds	Mycorrhiza CFU/g	% K <sub>2</sub> O	% Fulvic Acid	% Potassium Humate
6 - 5	1x10 <sup>3</sup>	12 - 10	11 - 10	46 - 43

#### How to use and doses:

Crop	Doses	Usage	Notes
All crops	3 - 4 Kg / Hectare	Divide into several doses (1 - 2 kg / ha).	Envishing the
Protected and field vegetables and fruit trees	4 - 5 Kg / Hectare	Divide into several doses (1 - 2 kg / ha) during the season or immerse the seedlings before planting	Enriching the agricultural soil with beneficial microorganisms and improving
Potatoes, legumes and cereals	3 - 4 Kg / Hectare	Divided into several doses (1-2 kg/ha) before and during the season	the physical, chemical and bi- ological proper-
Nurseries, ornamen- tal plants, trees and herbs	3 - 4 Kg / Hectare	Or 1 kg / m <sup>3</sup> during the preparation	ties of the soil
Seeds Treatment	1 - 2 Kg / 100 Kg seeds		Seed protection, early pollination, stimulation of seed germination and root growth

#### **Usage recommendations:**

- 1) It can be used alone in the form of a mixture with compound fertilizers, as it is used in sprinkler irrigation devices and drip and immersion irrigation systems.
- 2) It does not accept mixing with all acidic fertilizers in which the pH is less than 4. It is also not acceptable to mix with acids such as phosphoric, nitric and citric acid.
- 3) It is preferable to mix the required amount of it in at least 5 liters of water, then add it to the mixing tank. It is advised to test its ability to mix with other materials before use and circulation.
- 4) Store in a dry place, away from sunlight, and the temperature should not exceed 30°C.
- 5) It is safe for health and the environment and is non-flammable, as it is extracted from an organic substance.

#### **Packings:**

Bio Health Myco is available in 1 kg.