

1. PRODUCT AND COMPANY IDENTIFICATION

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Product: BIORADIS SOL



2. COMPOSITION/INFORMATION ON INGREDIENTS

Powder product based on beneficial arbuscular mycorrhizal fungi and PGPR (Plant Growth Promoting Rhizobacteria) carried by organic and inorganic substrates. The microbial isolates are presented in the product as infective propagules (spores, vesicles, pieces of mycelium, colonized roots and colony forming unit).

Microbial strains contained:

Endomycorrhizal fungi: 750 total spores/g

Septoglomus deserticola (200 spores/g), *Funneliformis mosseae* (200 spores/g), *Rhizophagus irregularis* (200 spores/g), *Claroideogloium etunicatum* (75 spores/g) and *C. claroideum* (75 spores/g).

Plant Growth Promoting Rhizobacteria (PGPR): 550 million total cfu/g

Bacillus megaterium (100 million cfu/g), *Bacillus altitudinis* (150 million cfu/g), *Bacillus licheniformis* (150 million cfu/g) and *Bacillus subtilis* (150 million cfu/g).









Inert supports: mixture of clays, zeolites and dextrose.

3. CATEGORY FOR COMMERCIALIZATION

Special product based on microorganisms. Mixture of Microorganisms. Applicable Regulatory Law: Royal Decree 999/2017 that modifies RD 506/2013 on fertilizer products. Registration: F0003940/2029 (Spain). Certified product for use in organic farming (CAAE).

4. FEATURES AND MODE OF ACTION

BIORADIS SOL can benefit the plants through several mechanisms and provide several advantage:

-  Easy application
-  Rapid mycorrhizal colonization of the root
-  Improve the nutrient acquisition by plants (available and unavailable)
-  Induce the active metabolites production in the plant that stimulate their own growth and its subsequent productivity
-  help to reduce the stress caused by adverse environmental conditions and deleterious organisms
-  Promote proliferation of useful life in the rhizosphere
-  Increase proliferation of secondary roots
-  Increase resistance to nematode phytopathogens attack and other pathogenics microorganisms

5. COMPATIBLE PLANTS WITH BIORADIS SOL

Most of cultivated plants of agricultural interest are capable to form symbiosis with mycorrhizal fungi (horticultural, ornamental and orchards plants). The exceptions are the plants that formed another type of mycorrhiza or plants that are not able to form any mycorrhizal symbiosis. For example, most of forest species (pine, fir, chestnut, oak, hazel, oak, etc.; ornamentals such as azalea, orchid, rhododendron, camellia and heather; and horticultural species such as cabbage, broccoli, cauliflower, spinach, radish, turnip and mustard.

6. RECOMMENDATION FOR USE

The product is formulated for different modes of application; in a single application or distributing the indicated dose in two applications. It is suitable for fertirrigation systems. The product is recommended for use in horticultural and orchards plants: seedlings, nursery, and established plants (field).

Plants multiplication (horticultural nurseries, greenhouses and growing ornamentals in pots):

By mixing: with substrates: 1Kg (2,2 Lb) per m³ of substrate.

Multiplication of plants (nurseries and potted crops):

By irrigation: 1,75 gr (½ teaspoon) per 3,5 L (1 Gallon) of water.

Horticultural plants:

By irrigation: 1 kg (2,2lb) per acre

Orchards and Vineyards:

By irrigation: 1,75 gr (½ teaspoon) per 3,5 L (1 Gallon) of water.

Turf

Planting applying just after seed germination at 1 gr (1/4 teaspoon) per m² (10 sq feet).

For best inoculation is recommended:

Repeat the dose if required

Use a good volume of water and keep stirring the suspension during treatment.

Irrigate without excess to avoid drainage and consequent loss of infective propagules.

7. COMPATIBILITY WITH PESTICIDES AND FERTILIZERS

It is a live microbial product, so concomitant treatment with active pesticide substances (bactericides and fungicides) as they could be harmful to strains microbes contained in BIORADIS PLANT.

Most of the common fertilizers are compatible with the product, however, to achieve a rapid and effective mycorrhization of the treated plants, should not be applied in conjunction with a source phosphorus. For more information about compatible active substances, contact the Technical Service (tecnicoproducto@bioera.es, serviciotecnico@bioera.es).

8. STABILITY INFORMATION

Stable for a period of 12 months if stored in a cool, dry place, away from direct sunlight.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark grey powder
Granulometry:	Powder: <120µm; Pieces of roots: 200µm
pH in water (1:5):	6
Dry matter:	97%
Relative density (H ₂ O=1)	0,65Kg/L
Organic Matter:	30%
Humic Extracts:	15%

10. OTHER INFORMATION

The product is used as a natural biofertilizer for plants. The information reflected herein is referred to the product unaltered, and according to the manufacturer's specifications, being a guide to the handling, use, processing, storage, transportation and safe disposal and should not be considered a warranty or specification quality. Data expressed are based on product knowledge to date of revision of the document.