

ROOTELLA®

Soil applied
Mycorrhizae product

GENERAL INFORMATION

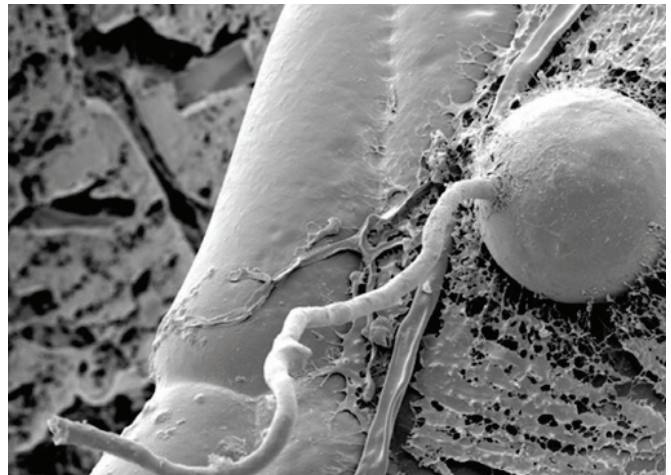
Mycorrhizae are a beneficial fungus that developed on earth a millennia ago in association with plants, forming a symbiotic relationship with the roots of most plant species. The term Mycorrhiza literally means “fungus root”. It is estimated that 95% of all plant species belong to the genera that form Mycorrhizae. Crops respond positively to colonisation by Mycorrhizal fungi, and may also suffer in their absence, providing natural biotic and abiotic protection, assisting plant establishment.

Several kilometres of filaments are estimated to be present in less than a thimbleful of healthy soil associated with growing plants.

Rootella® contains endo mycorrhizae fungi that can enter the root system to help increase the flow of nutrients and water from the soil, whilst also providing protection from the harshness of soil micro fauna and flora.

ADVANTAGES + BENEFITS

- Mycorrhizae improve root architecture increasing the absorbing area of roots 10 to 1000 times, greatly improving the ability of the plants to properly utilise the soil resource.
- The fungi in **Rootella®** are able to absorb and transfer fifteen (15) major macro and micro nutrients required for plant growth. Mycorrhizal fungi release powerful chemicals into the soil that dissolve hard to capture nutrients and in particular Phosphorus.
- The Mycorrhizal fungi in Rootella improves soil structure through their intricate web of hyphae. The organisms produce Humic compounds and Glomalin, which is a soil glue, binding soil aggregates and improving soil porosity. The Glomalin produced is fundamentally involved in carbon sequestration and long-term storage assisting with improved environmental outcomes for soil and atmosphere.
- Plants and trees establish much faster and are less likely to suffer water stress. Mycorrhizae act as a physical barrier to detrimental organisms, increasing strike rate and reducing plant loss.
- Mycorrhizae reduce Nematodes through a variety of mechanisms; competition, altered secretions, induced plant immunity and general nutrient support.



PRODUCT COMPOSITION

ROOTELLA® G & P

Guaranteed Analysis:

Soil Amending Ingredient	9%
Glomus intraradices	2,500 propagules/gr
Total Other Inert Ingredient (Vermiculite)	91%

ROOTELLA® F

Guaranteed Analysis:

Soil Amending Ingredients	12%
Glomus intraradices	20,800 propagules/gr
Total Other Inert Ingredients	
Clay	88%

ROOTELLA® T

Guaranteed Analysis:

Soil Amending Ingredient	5%
Glomus intraradices	2,000 propagules/gr
Glomus mosseae	500 propagules/gr
Total Other Inert Ingredients (Vermiculite)	95%

ROOTELLA® X

Guaranteed Analysis:

Active Ingredient	30%
Glomus intraradices	133,600 propagules/gr
Glomus mosseae	33,400 propagules/gr
Total Other Inert Ingredient	
Diatomaceous Earth	70%



APPLICATION GUIDELINES

ROOTELLA® G & P

PRODUCT APPLICATION

When Applying in Growing Media (best in nursery)

1. Mix **Rootella® G** with horticulture growing media. Media rates vary based on container/cell volume. Application rates increase as the cell/container volume decreases, to ensure adequate inoculation for even the smallest seedlings. Start with small amount, add more and blend until uniform.

Cell or Container Volume	Approx. Quantity of Rootella per M ³ Media
500 ml or more	1kg
50 -200 ml	4kg
20 ml or less	10kg

2. Avoid adding fertilisers or compost to the growing media.
3. Fill seedling trays and continue according to standard growing protocol.
4. Contact Roots, Shoots & Fruits for precise application rate for your media and seedling size.

When Coating Bare Root or Root Ball (best upon transplantation)

1. Lightly coat root ball (or bare root) with **Rootella® G or P** granules on all sides to maximise root contact.
2. Rates range from 3-8g per plant depending on size.
3. Use moisture to stick or create a slurry.
4. Transplant seedlings and continue according to standard growing protocol.

Rootella® can be used on, but not limited to, the following crops: Wine grapes, table grapes, deciduous fruits, nuts, citrus, raspberries, cotton, vegetables, asparagus, corn, carrots, onions, garlic, capsicums, potatoes, tomatoes, melons, legumes, sorghum, turf grass, ornamental, horticultural, and nursery plants.

Rootella Mycorrhizal fungi products are excellent to apply to soil after fallow periods, including the fallow period of inoculation after brassica crops when replacing with new seed varieties.

For information on application rates and timing for crops not listed on this brochure, please contact your local distributor or visit the RSF website at www.rd2.co.nz.

For tree crops, it is advisable that applications are done annually in the spring when the root system begins to grow.

PLANT + ENVIRONMENTAL SAFETY

Rootella® is totally harmless to plants even when recommended rates are exceeded. Exceeding recommended rates is however unnecessary.

Rootella® is totally harmless to both humans and wildlife and is environmentally friendly.

ROOTELLA® F

PRODUCT APPLICATION

Applicable Crops

Suitable for dry, drip or spray application. May be mixed with seeds in a planter box or applied in furrow to row crops or broadacre.

Application Rate - Row Crops

- Planter box (dry): 120 g/ha
- In-furrow (dry, drip, in-line or drench): 200 g/ha.

Application Rate - Tubers, Bulbs and Vegetables

- In-furrow (dry, drip, in-line or drench): 300 g/ha

Application in liquid requires continuous agitation.

Minimum filter size: 500 µm. Mix each 1 kg of **Rootella® F** with at least 80 L of water. Not to be used in proportional dosing pumps.

ROOTELLA® T

Premium product presented in single planting grow packs that contain 8 grams each.

PRODUCT APPLICATION

Perfect for utilisation in difficult terrain or provide peace of mind with contractor planting. Simple to use, place **Rootella® T** grow packs in the planting holes under the seedling / sapling immediately prior to transplantation and cover.

ROOTELLA® X

Rootella® X is suitable for seed treatment to cereal crops, corn, wheat, vegetable tubers, most row crops, orchards, and vineyards **via a wide range of equipment including fertigation**. Mix with water and add to the mixing tank immediately prior to treatment.

PRODUCT APPLICATION

SEED COATING: Mix 15 gr per hectare of **Rootella® X** in agitated seed treatment tank, immediately prior to coating process. A 250 gram bag treats 16 ha.

Application Rate - Row Crops

- Seed treatment (in liquid): 15g/Ha
- In-Furrow (drip or Spray): 20g/Ha

Application Rate: Tubers, Bulbs, Fruit and Vegetables

- Seed pelleting: 0.36 mg/seed
- Drip irrigation: 30g/Ha
- In-Furrow (drip or spray): 40g/Ha

COMPATIBILITY

Rootella® may be rendered ineffective in the presence of high rates of phosphorus fertiliser. This biological product may be killed if combined with certain fungicides, soil fumigants, aqueous ammonia, phosphoric acid, or Sulphuric acid. If applied with large doses of fertilisers, there is a possibility of salt toxicity to the beneficial fungi.

Please check with our compatibility tool on website www.rd2.co.nz/rootella-compatibility-tool/

Imported and distributed exclusively in New Zealand
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Manufactured by Groundwork BioAg Ltd.