Eco-T® (L6938)

Reg. No. L6938, Act No. 36 of 1947 | *Eco-T Ezi-Flo*® Reg. No. L9276, Act No. 36 of 1947

Backed by Science. Loved by Nature.

BioManagement

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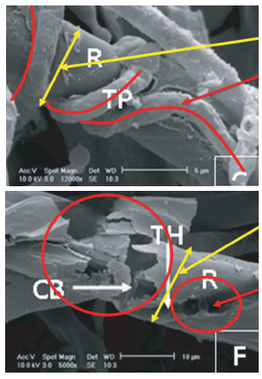
Trichoderma asperellum formulations for larger, healthier and more effective root systems. *Eco-T* ® and *Eco-T Ezi-Flo*®are the essential first step to integrated management of root diseases.

Why use *Eco-T* ® and *Eco-T Ezi-Flo*® ?

Features	Beneÿts
Control of Root rot disease caused by e.g. *Fusarium* spp. *Pythium* spp. *Rhizoctonia* spp. and *Phytophthora* spp.	Strengthens disease control program and compliments chemical fungicides in an 1PM approach. Ideal product to apply after soil sterilization
Increased root growth due to increased auxin availability	Treated root systems are denser, well developed and more extensive. Larger root system ensures more efficient contact with nutrients
Increased nutrient mobilisation due to mineralisation of nutrients	Maximises the nutrient uptake efficiency and therefore helps to ensure the biggest return for the money spent on fertilizer
Reduces plant stress due to activation of Systemic Acquired Resistance (SAR) Refer to 'How does *Eco-T*® work'for detail on SAR	Increases tolerance levels of abiotic (e.g. drought) and biotic (e.g. disease) stress conditions
Versatile	These formulations enable the grower to apply the product as a seed treatment, in furrow, or as a soil drench on a wide range of crops
Ease of use	User friendly 250 g or 1 kg (*Eco-T*®) and 1 kg or 4 kg (*Eco-T Ezi-Flo*®) containers with relevant measuring scoop included
Additional beneÿts	
The Ezi-Flo® formulation consists of talc and graphite at an optimal ratio specifically for use in both mechanical and air assisted planters. Eco-T Ezi-Flo® regulates the flow of seed ensuring correct spacing and planting of single seeds due to lubricant effect of the talc and graphite. This ensures uniform planting density which can contribute to reaching optimum plant potential.	

How does *Eco-T* ®and *Eco-T Ezi-Flo*® work?

Trichoderma asperellum, the active ingredient in *Eco-T*®, is a beneficial fungus that forms a symbiotic relationship with plant root systems offering the plant numerous benefits. *T. asperellum* is aggressive, fast growing and quickly colonises a root system, out growing fungal pathogens and out competing these pathogens for space and nutrients in the root zone. *T. asperellum* parasitizes other pathogenic fungi by coiling around the pathogen hyphae, constricting and penetrating (via enzymatic secretion) eventually destroying it. *T. asperellum* activates SAR, a state of enhanced immunity to infection demonstrated by plants following an initial localized injury or presence of inducer organisims like *T. asperellum*. In response the plant produces certain substances that, over time, evoke resistance throughout the plant.



The electron micrographs above visually illustrate the mode of action of *T. asperellum.*

Trial data:

The germination and early growth results of soybean seed under different scenarios:

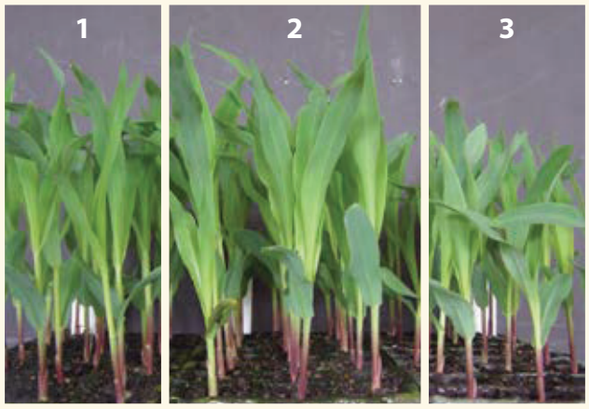
1.
Soybean growth in a vermiculite growth medium - untreated (No product or disease added).

2.
Soybean growth after the growing medium was inoculated with a disease (*Sclerotinia* sp.). Seedling in process of dying.

3.
Soybean growth after seed has been treated with *Trichoderma asperellum* and the growth medium inoculated with a disease (*Sclerotinia* sp.). Seedling unaffected by disease, growing healthy due to the protection afforded by *Trichoderma asperellum*.

The effect of various treatments on the germination and early growth of maize seed treatments:

All experimental parameters between treatments 1 to 3 were the same, except for the presence or absence of the chemical or biological seed treatment as explained below.

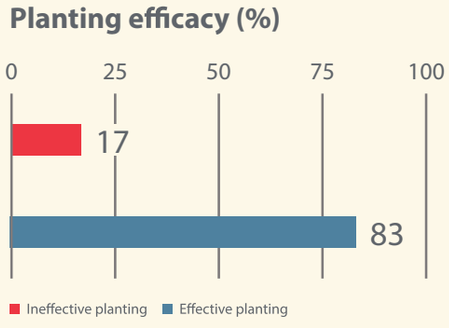


1. Maize seed treated with *T. asperellum* prior to seeding/sowing.
2. Maize seed treated with a standard chemical seed treatment fungicide as well as *T. asperellum*.
3. Maize seed treated with a standard chemical seed treatment fungicide.

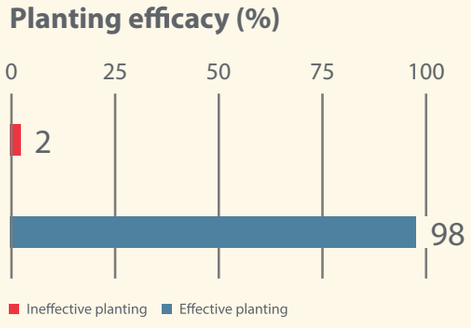
The graphs below show efficacy of the planting process as monitored with a precision planting monitor fitted to a commercial planter.

The data was generated during planting of maize on a commercial maize farm.

Effective planting is characterised by single seed consistently planted at the correct spacing.
Ineffective planting refers to incorrect spacing or more than one seed (clumping).



Planting WITHOUT *Eco-T Ezi-Flo®*



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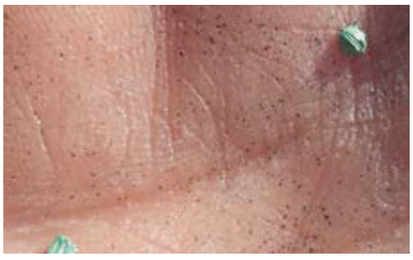
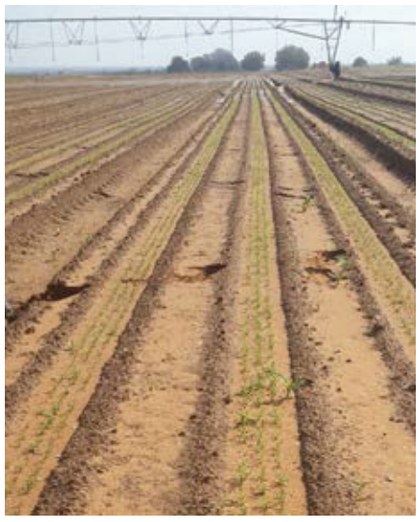


Carrot seed treated with *Eco-T Ezi-Flo*® during a commercial trial.

Grey/green dust is the talc and *Trichoderma asperellum* spores and dark specs are graphite.



Even spacing and germination of carrot seed after seed treatment with *Eco-T Ezi-Flo*® (Commercial carrot trial).

Registered uses:

Eco-T ®

Crop	Crop type	Dose rate
All crops	Such as vegetable, orchard crops, ornamentals and *Eucalyptus spp*.	General application: 1 g/4 L water or 250 g/Ha applied in furrow or as a root drench. 1 g/kg seed applied as a seed treatment. Refer to label for detailed application instructions.

Available in packs: 40 g, 250 g, 1 kg

Eco-T Ezi-Flo®

Crop	Crop type	Dose rate
Row crops	Such as maize, soya, dry beans	1 g/kg seed min. 25 g/Ha applied as a seed treatment. Refer to label for detailed application instructions.

Available in packs: 1 kg, 4 kg

Approved by ECOCERT INPUTS

Inspected by ECOCERT SA F-32600
Product suitable for use in organic agriculture complying to the annexes of the (EC) regulation n° 834/2007 and 889/2008 and NOP Regulation

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