



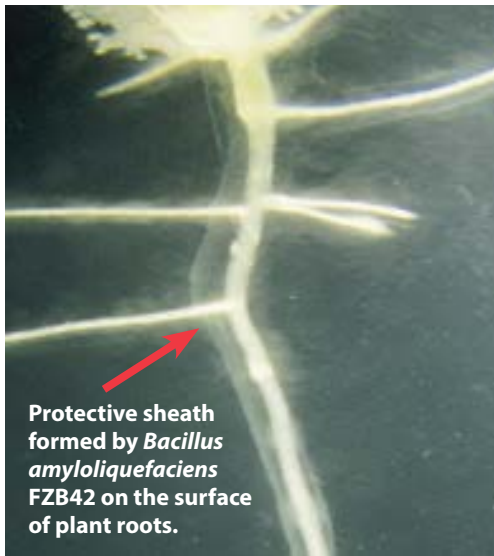
RhizoVital[®] 42 (B4201)

Reg. No. B4201, Act No. 36 of 1947

Biostimulant



Andermatt
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A concentrated liquid formulation of the bacteria *Bacillus amyloliquefaciens* – strain FZB42, a non-pathogenic micro-organism occurring naturally in the soil. The symbiotic soil bacteria stimulate and protect plant roots, resulting in larger, healthier plants.

Why use RhizoVital® 42?

Features	Benefits
Root growth stimulation	Improve general root health and development
	Increase plant vigour and vitality
	Aid mobilisation and absorption of soil nutrients, notably Phosphate, Zinc and Manganese
Root colonisation	Insurance against root disease
Induced Systemic Resistance (ISR)	Reduction in disease intensity and frequency when used as a preventative measure
Easy to use	Versatile application strategies. Compatible with most crop protection products and fertilisers
Highly concentrated liquid formulation	Cost effective solution with economical application rates
One of the most thoroughly researched bacterial products available in South Africa	Proven history of performance and efficacy
Effective on a wide range of crops	Ideal for use as part of an IPM strategy
Non-toxic, non-GMO and no withholding period. OMRI Listed.	Suitable for use in organic agriculture

How does RhizoVital® 42 work?

Bacillus amyloliquefaciens forms a close symbiotic relationship with plant roots. It quickly colonises the root system, forming a protective sheath making it difficult for root pathogens to penetrate. It produces plant beneficial exudates, including plant growth regulators and antibiotics, in the root zone, stimulating root growth and providing protection from disease. The bacterium also aids with the activation of Induced Systemic Resistance (ISR).

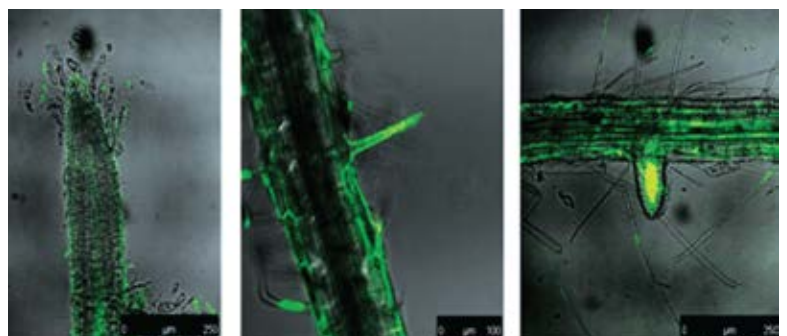
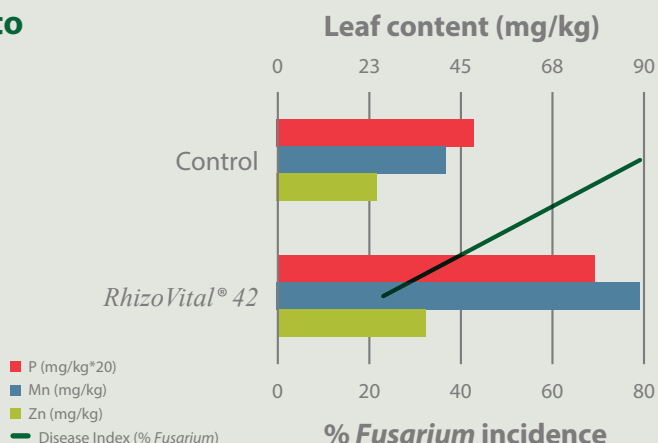


Image above: Colonization of Arabidopsis roots by *Bacillus amyloliquefaciens* FZB42 illuminated under fluorescence microscopy. Root growth tips, root hair and lateral roots are colonised by *B. amyloliquefaciens* FZB42.

Trial data:

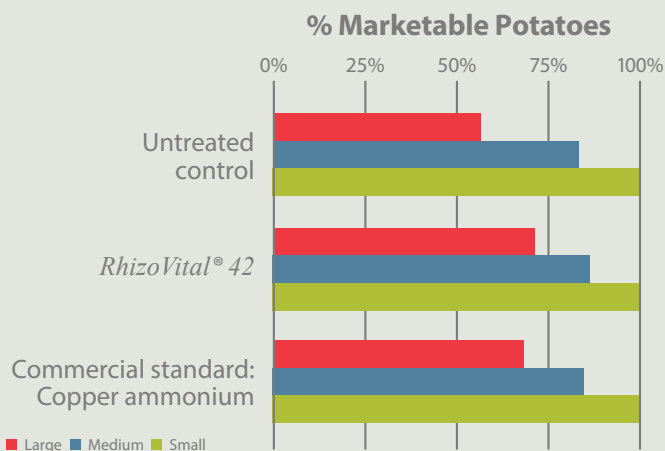
Effects of *RhizoVital*[®] 42 treatment on tomato plants compared with untreated control

Figures right: Effect of *RhizoVital*[®] 42 on nutrient content and *Fusarium* incidence of tomatoes. Leaf samples from treated plants contained significantly more P, Mn and Zn than the control. *Fusarium* incidence is lower in the *RhizoVital*[®] 42 treated plants compared with the untreated control.



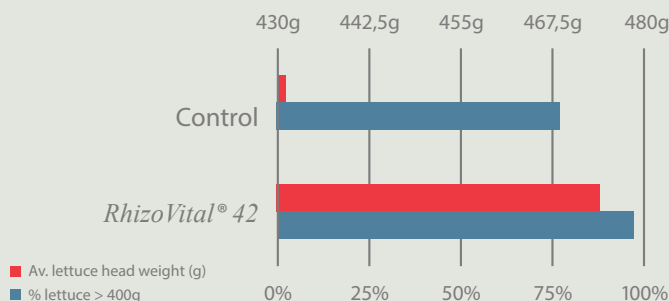
Effect of *RhizoVital*[®] 42 treatment on size distribution of marketable potato yields compared with a commercial standard and an untreated control – Pretoria, 2012

Figures right: *RhizoVital*[®] 42 stimulates plant growth and yield. The graph shows the stimulating effect of *RhizoVital*[®] 42 on potato size distribution in a trial done in 2012. *RhizoVital*[®] 42 treatment increased the percentage marketable large potatoes from 56% of the total yield in the untreated control and 68% in the commercial standard, to 72%.

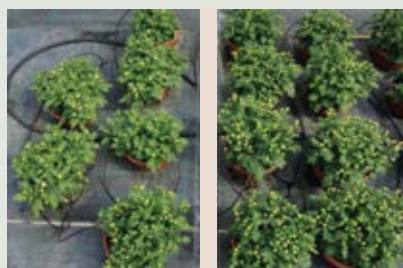


Effect of *RhizoVital*[®] 42 on lettuce yield

Figures right: *RhizoVital*[®] 42 increases lettuce yield compared with an untreated control. The graph shows the stimulating effect of *RhizoVital*[®] 42 on lettuce weights in a trial done in 2016. *RhizoVital*[®] 42 treatment consists of a seedling drench before transplant followed by a soil application 5 days after planting.



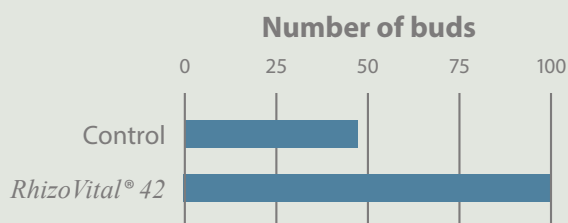
Effect of *RhizoVital*[®] 42 on chrysanthemum plants



Left: Chrysanthemum plants treated with *RhizoVital*[®] 42 (right) compared with the untreated control (left).



Left: Chrysanthemum plants 14 days after treatment (right) compared with untreated control (left).

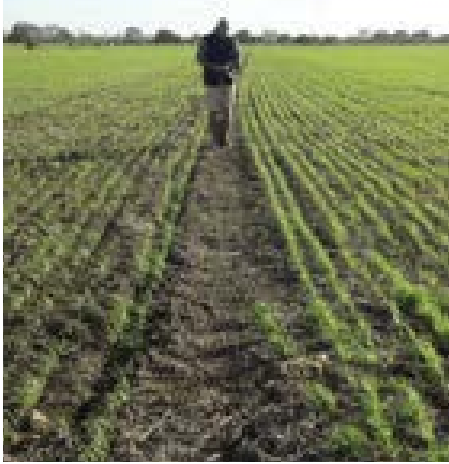


Figures above: *RhizoVital*[®] 42 increases the number of buds on chrysanthemum plants in tunnels compared with an untreated control. The graph shows the stimulating effect on *RhizoVital*[®] 42 on chrysanthemums in a trial done in 2015. *RhizoVital*[®] 42 treatment consisted of two soil drenches 7 days apart. The control treatment averaged 47 buds per plant compared with the *RhizoVital*[®] 42 treatment with an average of 99 per plant, an increase of 47% more buds.

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Images above: Wheat seedlings treated with *RhizoVital*[®] 42 (right) compared with a competitor product (left), showing uniform emergence and seedling development. Healthier seedlings and increased root development led to an increase in yield of 11% over the competitor product.

Application instructions:

Crop	Method	Rate	Remarks
Row crops (barley, maize, soya, sunflower, wheat.)	Seed treatment	0.5 ml/kg seed	Apply directly to seed prior to planting. Seed may be treated up to two weeks in advance. Allow seed to dry if storing prior to plant.
Vegetables, ornamentals and small fruit (Cucumber, leafy veg, tomatoes, strawberries & others)	Drench treatment	Seedling trays: 4 ml/10L water After transplant: 250-500 ml/Ha	Seedling trays: Drench 1-3L of solution per m ² shortly after sowing, germination and or prior to planting. After transplant: Apply as a drench to damp soil, irrigate after application to wash product into root zone. May be repeated monthly
Root and bulb vegetables (Carrots, onions, potatoes.)	In furrow or drench treatment	In furrow: 500 ml/80L water to treat 1 Ha. Drench: 500 ml/Ha	1st application: Applied in furrow during planting. May be mixed with fertiliser or pesticide application or via irrigation. 2nd application: Applied at week 4 as a soil drench. 3rd application: Applied at week 4 as a soil drench.
Trees and vines (apples, citrus, grapes and others)	Drench treatment	500 ml/Ha	Apply with first root flush of the growing season with sufficient water to wash product into the root zone.

Available in packs: 40ml and 500ml

Certified by:
(as AmyProtec 42)



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