RhizoVital 42

Ensures that your plants grow strong and healthy

Application methods
• Seed treatment or in-furrow spray
• Watering or spraying on soil surface
• Injection into fertigation- or hydroponic systems
• In combination with pesticides or fertilisers
• Root dipping
• Mixing into soils

RhizoVital 42
✔ Increases crop yield
✔ Improves root growth and nutrient mobilisation
✔ Enhanced plant emergence
✔ Well mixable with fertilisers and plant protection products
✔ Easy to store and apply
✔ Fully compatible with organic and residue free production

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Application rates

<table>
<thead>
<tr>
<th>Crop</th>
<th>Application rate*</th>
<th>Application method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato</td>
<td>0.5 l / ha or 0.1 l / 500 kg tubers</td>
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<tr>
<td>Cereals (maize, grains, rice)</td>
<td>0.2 l / 100 kg seeds</td>
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<td>Cotton</td>
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<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td>1 l / ha 2 ×</td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td>0.5 l / ha</td>
<td></td>
</tr>
<tr>
<td>Tomatoes, cucumbers, others</td>
<td>1 – 2 l / ha 2 ×</td>
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</tr>
<tr>
<td>Carrots, turnip cabbage</td>
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</tr>
<tr>
<td>Ornamentals</td>
<td>1 – 2 l / ha 2 ×</td>
<td></td>
</tr>
<tr>
<td>Bulbs</td>
<td>1 – 2 l / ha</td>
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<td>Seeds (ornamentals, vegetables etc.)</td>
<td>0.2 – 0.5 l / 100 kg seeds</td>
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</tr>
<tr>
<td>Herbs</td>
<td>1 l / ha</td>
<td></td>
</tr>
<tr>
<td>Turf</td>
<td>1 l / ha 2 ×</td>
<td></td>
</tr>
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Depending on the crop, re-application is recommended after 4 to 6 weeks

seed treatment
dipping
watering
spraying
Hydroponics

* All indications given for liquid formulation

Formulation
The standard formulation is liquid, but RhizoVital 42 can also be provided as a powder formulation or as raw material e. g. for the formulation with fertilisers, seed coating etc.

Storage
RhizoVital 42 can be stored at room temperature for 2 years.
RhizoVital 42 – the good bacteria for the soil

RhizoVital 42 is a biostimulant containing spores of the soil bacterium *Bacillus amyloliquefaciens* FZB42 ($>2.5 \times 10^{10}$ CFU/ml). After application the spores germinate and colonise the young growing roots. The bacteria release enzymes and further compounds which stimulate plant growth and mobilise plant nutrients.

Ensures that your plants grow strong and healthy!

RhizoVital 42 helps the plant to build more and stronger roots and to improve its tolerance towards abiotic (water deficiency, salinity) stress. For this reason RhizoVital 42 increases plant growth and effects higher yields. **RhizoVital 42 is an insurance** to overcome unfavorable conditions (e.g. water stress) and therefore always has to be applied as early as possible. Use RhizoVital 42 as an integral part of a future oriented production strategy. The application is highly recommended in almost any crop.
**Application**

RhizoVital 42 increases yield and yield quality and can be flexibly mixed with other agrochemicals and plant nutrition products. In combination with fertilisers, fungicides or conventional seed treatments, synergistic effects can be achieved.

**Horticulture**

RhizoVital 42 can be applied as a seed treatment, by watering or spraying before or just after planting or sowing. RhizoVital 42 can also be directly injected into fertigation- or hydroponic systems.

**Lettuce**

![Lettuce]

<table>
<thead>
<tr>
<th></th>
<th>Marketable yield [%]</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Control</td>
<td>![Control Graph]</td>
</tr>
<tr>
<td>RhizoVital 42</td>
<td>![RhizoVital Graph]</td>
</tr>
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Marketable yield of lettuce after treatments RhizoVital 42 (after transplanting and before drenching). (Source Dr. Laun, LFP Rheinlandpfalz, Germany, 2006)

**Carrots**

![Carrots]

<table>
<thead>
<tr>
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<th>Increase of yield and emergence rate [%]</th>
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<tr>
<td></td>
<td>0</td>
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<tr>
<td>Emergence</td>
<td>![Emergence Graph]</td>
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<tr>
<td>Fresh material</td>
<td>![Fresh Material Graph]</td>
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Increase of yield and emergence rate [%] on carrot variety “Nanthya” after seed coating with RhizoVital 42, compared to untreated control. (Source I IGZ Großbeeren eV, Germany, 1997)
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### Horticulture
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### Carrots
- **Apply RhizoVital 42 on seed potatoes by dipping, spraying, or directly as an in-furrow application during planting.**
- Increased yield of 5 to 10% (average over several years)
- Improved tuber formation and plant emergence
- Increased marketable yield

### Cereals – Cotton
RhizoVital 42 seed treatments help to produce higher yields, especially in poor or dry soils. It can also be used in combination with conventional seed coatings or mineral fertilisers.

### Cotton

### Control
- **Increase of yield after seed treatment with RhizoVital 42 in combination with two different levels of mineral nitrogen fertilisers.**
  - (Source Cairo University, Faculty of Agriculture, Giza, Egypt, 2011)
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<td>1 l/ha</td>
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