RhizoVital® P45

The next generation bacterial inoculant for increased phosphorus mobilization and healthy plant growth

* Further Brand: AmyBac P45, Phosbac45

Application methods
- Seed treatment or in-furrow spray
- Watering or spraying on soil surface
- Injection into fertigation or hydroponic systems
- Root dipping
- Mixing into soils and substrates
- In combination with plant protection products or fertilizers

RhizoVital P45
- ✔ Increases nutrient mobilization
- ✔ Improves root growth and stress tolerance
- ✔ Increases profit and marketable yield
- ✔ Well mixable with fertilizers and plant protection products
- ✔ Easy to store and apply
- ✔ Fully compatible with organic and residue-free production

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Application rates

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<tr>
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<th>Application rate*</th>
<th>Application method</th>
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<td>Tomato, cucumber, others</td>
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<td>Cereals (maize, grains, rice)</td>
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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 P45 can also be provided in different powder formulations or as raw material e.g. for the formulation with fertilizers and seed coating.

PRODUCT FACTS
- Further Brand: AmyBac P45, Phosbac4S
RhizoVital P45 – naturally increasing P-availability

RhizoVital P45 is a biostimulant containing spores of the soil bacterium *Bacillus velezensis* (synonym *B. amyloliquefaciens* spp. *plantarum*) FZB45 (> $2.5 \times 10^{10}$ cfu/ml). After application, the spores germinate and colonize the young growing roots. The bacteria release enzymes and further compounds which stimulate plant growth and mobilize plant nutrients.

Ensures that your plants grow strong and healthy!

RhizoVital P45 has been specifically selected for increased phytase production, favoring phosphorus mobilization. This results in RhizoVital P45 helping the plant to build a healthy and strong root system and to improve its tolerance towards abiotic stress, such as water deficiency, salinity, etc. Consequently, application of RhizoVital P45 can result in increased plant growth and higher yields. **RhizoVital P45 is your insurance** to overcome and cope better with unfavorable conditions and therefore has to be applied as early as possible.

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**Bacillus velezensis FZB45**
- **High concentration**: $2.5 \times 10^{10}$ cfu/ml
- **Easy storage**: 2 years at < 25 °C
- **Highly compatible with plant protection products and fertilizers**

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Adapted from Mahanty et al., 2017 & Sharma et al., 2013
**Application**

RhizoVital P45 can be applied together with almost all plant protection products and fertilizers and through a wide range of application methods. The residue free, well-storable and highly concentrated liquid formulation provides a user-friendly solution for integrated and organic production strategies. Treatments in an early plant development stage are essential to ensure an effective colonization of the rhizosphere and consequent mobilization of nutrients. A first application at sowing or planting is highly recommended for any crop. In combination with fertilizers, fungicides or conventional seed treatments, synergistic yield effects can be achieved.

**Horticulture**

RhizoVital P45 can be applied as a seed treatment, by watering or spraying before or just after planting or sowing. RhizoVital P45 can also be directly injected into fertigation or hydoponic systems.

**Tomatoes**

Yield increase after directed band treatment at sowing with RhizoVital P45 compared to untreated control.
(Source: UEPG, Brazil, 2017)
Potatoes
Apply RhizoVital P45 on seed potatoes by dipping, spraying, or directly as an in-furrow application during planting.
- Improved nutrient mobilization and plant emergence
- Improved root development and tuber formation
- Increased yield

Potatoes

Yield increase after directed band treatment at sowing with RhizoVital P45 compared to untreated control. Average of 4 trials. (Source: UEPG, Paraná, Brasil, 2017)
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RhizoVital P45

✓ Increases nutrient mobilization
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