

Microbial inoculant for soil and plant enhancement

OVERVIEW

PowerPac™ is a microbial inoculant containing bioactives of PGPR – Plant Growth Promoting Rhizobacteria – that optimizes nutrient utilization, promotes root growth and improves plant vigor. It is a dry soluble that can be tank-mixed with pesticides and nutrient solutions.

FEATURES & BENEFITS

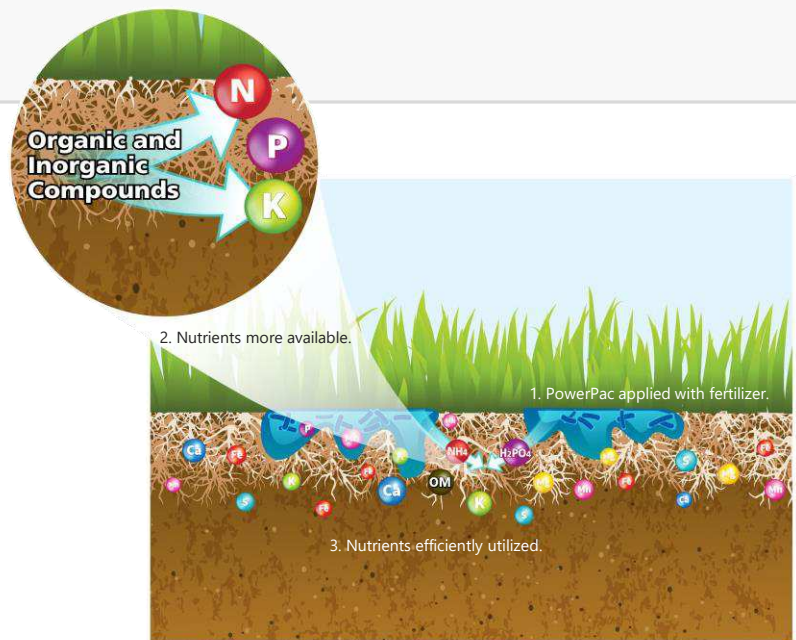
### Benefits of Using PowerPac™:

- Improved nutrient use efficiency – solubilization, uptake and utilization of applied fertilizer and nutrients in the soil bank
- Enhanced root growth and plant vigor via production of growth promoting metabolites
- Improved organic matter management
- Ease of application – no special storage conditions and flexibility with application

TECHNOLOGY AT WORK

### How PowerPac™ Works:

1. PowerPac applied with fertilizer to turfgrass or ornamental plants.
2. The bioactives in PowerPac – *Bacillus spp.* – produce enzymes and organic acids that improve the solubilization of fertilizer into plant available forms, and release bound nutrients.
3. These bioactives also produce growth metabolites that promote a more robust root system, improving nutrient and water uptake which optimizes plant growth.





TECHNICAL INFORMATION

## Product Profile

Mode of Action	<ul style="list-style-type: none"> <li>Nutrient solubilization and cycling improving nutrient availability – macronutrients and micronutrients.</li> <li>Root growth promotion – improved production of root hairs and root tips for increased water and nutrient uptake.</li> </ul>
Compatibility	<ul style="list-style-type: none"> <li>Tank-mix compatible with nutrient solutions and pesticides. Contact a Pathway representative for a complete list of compatible products.</li> </ul>
Active Ingredients – Proprietary PGPR strains	<ul style="list-style-type: none"> <li>Bacillus subtilis (1 x 10<sup>8</sup> cfu/g)</li> <li>Bacillus methylotrophicus (1 x 10<sup>8</sup> cfu/g)</li> <li>Bacillus licheniformis (1 x 10<sup>8</sup> cfu/g)</li> <li>Bacillus amyloliquefaciens (1 x 10<sup>8</sup> cfu/g)</li> <li>Bacillus laterosporus (1 x 10<sup>8</sup> cfu/g)</li> </ul>
Formulation	<ul style="list-style-type: none"> <li>Soluble powder</li> </ul>
Packaging	<ul style="list-style-type: none"> <li>12 x 3 lb bag, 36 lb case</li> </ul>
Shelf life	<ul style="list-style-type: none"> <li>18 months from date of manufacture</li> </ul>

## Application

Greens	16 oz per acre biweekly, or 8 oz per acre weekly
Fairways	4 oz per acre monthly
Lawn	4 to 8 oz per acre every 4 to 8 weeks
Sports Turf	8 oz per acre monthly
Flowers & Bedding Plants	8 oz per 50 gallons water, apply 2 to 3 gallons finished product per 1000 sq. ft
Transplants	8 oz in 50 gallons water, apply as a drench

**Important: Always read and follow label directions.** Pathway BioLogic and PowerPac are trademarks of Pathway BioLogic, LLC. ©2018 Pathway BioLogic, LLC. All rights reserved.

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