

Pathway® BioLogic

- Frequently Asked Questions -

What is in Pathway products?

Pathway's inoculants are formulated with Plant Growth Promoting Rhizobacteria - PGPR. PGPR are beneficial bacteria that competitively colonize plant roots and exert positive plant growth, live within the root in intracellular spaces, or in the rhizosphere.

What is the difference in Pathway and other bio-based products or compost?

Short answer ... Pathway utilizes specific strains of PGPR with known plant growth promotion traits versus a kitchen sink approach. The diversity of Pathway's PGPR introduced to the rhizosphere, their colonization ability, and mechanism of actions makes a reliable component of traditional and organic agricultural systems. That makes Pathway unique and different from other bio-based products.

Pathway uses pure cultures of beneficial rhizobacterial strains. Pathway products are formulated as polymicrobials – minimum of two strains of PGPR providing multiple modes of action. This provides back ups for each task in the soil no matter what variable conditions are present ... pH and soil temperature variances, different soil types, plant species, cultural practices, or weather extremes.

Are the microbes in Pathway's products alive?

The microbes in Pathway's inoculants are in spore form. Think of them as a seed with a protective shell. If introduced into an environment with adverse conditions, Pathway's microbes simply stay dormant in the spore form until conditions are favorable for propagation.

How do I know if the microbes move from spore form to a propagating form?

When environmental conditions are conducive for a specific microbe to propagate it will naturally do so. This is the most important factor that dictates whether or not a microbial product will perform Can the product survive in the environment that it is introduced into until conditions are favorable for it to propagate, reproduce and colonize, and then produce the essential metabolites and enzymes needed for the soil to be healthy and productive? Pathway products can.

What is Pathway's impact on the plant?

Pathway products increase nutrient cycling and solubility (fertilizer efficiency), improve root architecture, plant vigor, early stand, and crop uniformity, and decrease effects of stress that will negatively affect crop yields.

How do Pathway's microbes work in the soil and for the plant?

In simplest terms, Pathway works as a probiotic for the plant, in a way that will benefit the plant host. Balancing the beneficial microbial populations and metabolite concentrations in the rhizosphere providing a properly functioning soil. Working as a bio-fertilizer to increase nutrient availability and as a bio-stimulant to withstand stresses. The result is a more uniform plant with improved yield potential and quality.

What is the shelf life?

Pathway's PGPR inoculants have a shelf life of 18 to 24 months under normal storage conditions.

- Frequently Asked Questions cont. -

How long before I see results?

Depending on what variable you are measuring, results can be obtained in as little as one application, although most programs recommend 2 to 5 applications per growing cycle for best results, or monthly depending on crop. An increase in nutrient solubility and uptake can be immediately noticeable if certain nutrients are tied-up in your soil. Pathway believes in a program-based philosophy. Programs are tailored to be plant or crop specific.

What is the best Pathway program for me to consider?

Pathway is unique in that you have the opportunity to develop a site-specific program dependent on crop and cultural practices. Pathway's technology and formulation capabilities allow for product incorporation into fertilizer, pesticides, stand-alone applications, or through various forms of irrigation. Pathway bases its success on your success with Pathway products . . . our primary goal is to help you obtain the results you are seeking, as efficiently as possible.

Are you able to quantify viability or establishment post application?

Unfortunately not – there are not any easy/reliable/fast/ assays for viability or establishment of bacterial-based products post application. That said, there has been extensive research in technology specific to DNA markers for use in Research and Development, but not for scaled production...

Focus on Plant response (emergence, roots, shoots, quality, improved plant vigor, and yield).



- Frequently Asked Questions cont. -

What can Pathway PGPR inoculants be applied with?

Pathway inoculants can be tank-mixed and applied with liquid fertilizers, fungicides, insecticides, herbicides, and nematicides. Pathway has gone to great lengths to identify strains that are compatible with, and can be stored in fertilizer, using fertilizer as the carrier. However we don't recommend tank-mix or injection with water treatment / acid products.

What are the application rates for Pathway's inoculants?

Application rate and frequency are crop and plant specific. In most cases each application is between 16 to 32 oz. per acre for crops, and 32 to 128 oz. per acre for turf. Soluble applications range from 4 to 10 oz. per application for most crops.

Are all Pathway PGPR inoculants the same?

The active ingredients in each product are similar, all contain PGPR that perform the same functions in the soil. But formulations can vary depending on the application – Impregnating granular fertilizer, blending with bulk liquid fertilizer, tank-mixing for field level incorporation, or organic use.

Can Pathway be used for organic production?

Pathway's soluble inoculant Manage is OMRI listed for organic use. We have additional “next gen” products in our pipeline that will allow for organic use as well.

Are Pathway inoculants GMO?

No. All of Pathway's microbial strains are soil-borne, non pathogenic, non GMO. Each strain is identified and isolated from the soil, then characterized for specific growth traits.

How should Pathway inoculants be stored?

Out of direct sunlight in normal storage conditions.

**FOR MORE INFORMATION ABOUT OUR
MICROBIAL SOLUTIONS CONTACT
YOUR LOCAL DISTRIBUTOR OR
PATHWAY BIOLOGIC:**

813-719-7284 | www.PathwayBioLogic.com



©2017 PATHWAY BioLogic, LLC. All Rights Reserved.

