

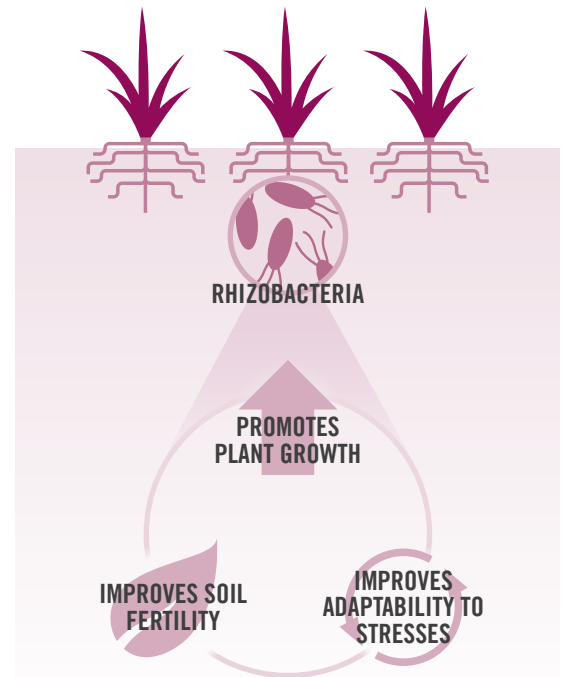
# HOW IT WORKS

**SYNTHOS®**

The bioactives in SYNTHOS® nutrient enhancer — *Bacillus* spp. — produce enzymes and organic acids that improve the solubilization of phosphorus fertilizer into plant-available forms and release bound nutrients. These bioactives also produce growth metabolites that promote a more robust root system, improving nutrient and water uptake, which optimizes crop growth and yield potential.

## PGPR

SYNTHOS is a plant growth-promoting rhizobacteria (PGPR) product that helps improve a plant's adaptability to abiotic or biological stresses. PGPRs are free-living soil microorganisms that inhabit the rhizosphere or plant roots during plant growth and development. SYNTHOS contains live microorganisms, which when applied to plant surfaces, seeds, roots or soil, colonize the rhizosphere or the interior of plants, and help to improve soil fertility. They also stimulate plant growth by increasing the availability of plant nutrients and growth substances to the host crops.



## SOIL & PLANT PHOSPHORUS

Phosphorus (P) is the second-most widely deficient nutrient in soils. Minerals comprising the parent material of many soils are low in phosphorus and require special fertilizers to help release nutrients. Phosphorus also forms compounds of very low solubility in the soil, and is contained in smaller amounts compared to nitrogen (N) and potassium (K).

Phosphorus plays a critical role in plants, as it forms organic compounds and is also mobile within the plant itself. It's used for energy storage and transfer and is critical for early vigorous growth. This element also stimulates root and tiller development, assists in disease resistance, promotes reproduction (maturity and seed formation), and accumulates in the seed for future use.

## THE CONFIDENT CHOICE IN PHOSPHORUS EFFICIENCY.

For more information and to learn how SYNTHOS can help boost your operation's nutrient use efficiency, visit [SYNTHOSBiological.ca](https://www.SYNTHOSBiological.ca).