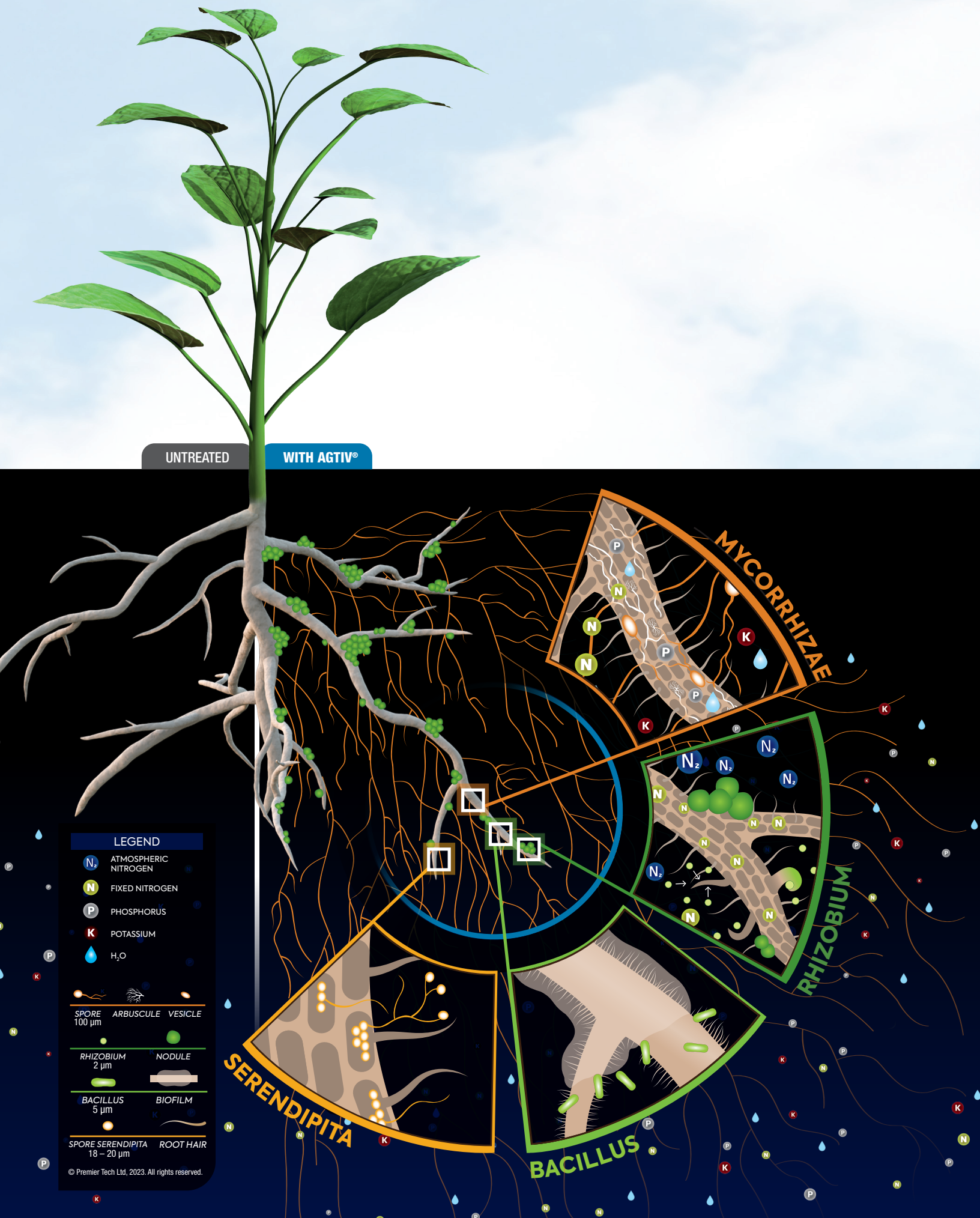


# AGTIV<sup>®</sup> BIOLOGICAL ACTIVE INGREDIENTS

For 100 years, Premier Tech has been growing along with producers. Being a world leader in the industrial production of mycorrhizal inoculants has inspired us to go further in our search for natural technologies. Since then, we have introduced the benefits of *Bacillus*, rhizobium, and Serendipita to the agricultural market. Furthermore, we have combined these powerful technologies to improve the quality and the yield of crops for the benefit of our clients.

Learn more at

[PTAGTIV.COM/en/technologies](https://PTAGTIV.COM/en/technologies)



## M

### MYCORRHIZAE

**PTB297** Technology, *Rhizophagus irregularis* (formerly known as *Glomus intraradices*)

**Mycorrhizae are beneficial associations between a mycorrhizal fungus and roots.** The mycorrhizal spores germinate in the soil and produce filaments (hyphae) which enter into root cells. This association allows the formation of an intra and extra-radical network of filaments that explore the soil and access more nutrients and water, and transfer them to the plant.

- ✓ EXPANDS ROOT SYSTEM GROWTH
- ✓ ENHANCES NUTRIENT & WATER UPTAKE
- ✓ INCREASES TOLERANCE TO ABIOTIC STRESSES
- ✓ IMPROVES SOIL STRUCTURE



## R

### RHIZOBIUM

**PTB160** Technology (pulses), *Rhizobium leguminosarum* biovar *viciae*

**PTB162** Technology (soybean), *Bradyrhizobium japonicum*  
*Mesorhizobium ciceri* (chickpea)

**Rhizobium bacteria live and thrive in symbiosis in root nodules produced by the plant.** They are responsible for fixing the atmospheric nitrogen and making it available for the plant.

- ✓ INCREASES NODULATION
- ✓ FIXES NITROGEN
- ✓ PROVIDES NUTRIENTS TO LEGUMES



## B

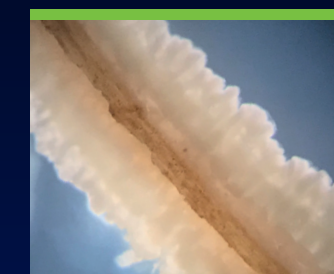
### BACILLUS

**PTB180** Technology, *Bacillus pumilus*

**PTB185** Technology, *Bacillus inaquosorum*

**Bacillus are bacteria that provide a healthy root zone which leads to better yields. As root colonizers, they stimulate the plant to grow more efficiently.** Selected for their beneficial action of growth stimulation.

- ✓ IMPROVES ROOTING ENVIRONMENT & PLANT ESTABLISHMENT
- ✓ INCREASES PLANT VIGOR & PERFORMANCE



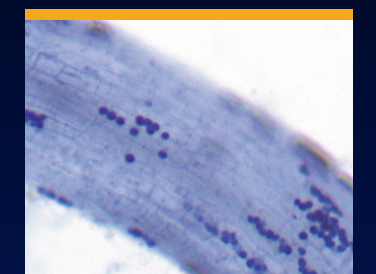
## S

### SERENDIPITA

**PTB299** Technology, *Serendipita indica* (formerly known as *Piriformospora indica*)

**The beneficial fungus Serendipita indica, a natural microorganism, forms an association with roots of many plants such as canola and cereals.** It induces some of the plant gene expression and promotes phytohormone production.

- ✓ MITIGATES ABIOTIC STRESSES
- ✓ INCREASES PHOTOSYNTHESIS RATE
- ✓ ENHANCES PLANT ESTABLISHMENT, GROWTH AND YIELD



#### LEGEND

- N<sub>2</sub> ATMOSPHERIC NITROGEN
- N FIXED NITROGEN
- P PHOSPHORUS
- K POTASSIUM
- H<sub>2</sub>O
- SPORE 100 µm
- ARBUSCULE
- VESICLE
- RHIZOBIUM 2 µm
- NODULE
- BACILLUS 5 µm
- BIOFILM
- SPORE SERENDIPITA 18 - 20 µm
- ROOT HAIR

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