
AGTIV®
SOYBEAN | GUIDE 2023
Yield details available upon request.

CONTENTS

Since entering the agriculture market 15 years ago, we are constantly widening our AGTIV® inoculant offering to suit and benefit more crops.

While staying true to the AGTIV® brand's three pillars: **NATURE**, **SCIENCE** and **PERFORMANCE**, we are introducing new product names reflecting the actions of our inoculants for plants.

AGTIV FUEL

Single action rhizobium products FUEL legumes by fixing nitrogen for better growth.

AGTIV THRIVE

Dual action mycorrhizae and **rhizobium** products make plants THRIVE by increasing nutrient uptake.

AGTIV ENRICH

Dual action rhizobium and ***Bacillus*** collaborate to ENRICH the plant's nitrogen fixation with a healthy root system.

AGTIV STIMULATE

Single action *Bacillus* products STIMULATE the plant to grow more efficiently with a healthy root zone.

AGTIV IGNITE

Single action Serendipita products IGNITE plant growth and chlorophyll content for better yields.

AGTIV REACH

Single action mycorrhizae products REACH into the soil and help uptake more nutrients and water.

AGTIV®

DESIGNED BY NATURE. PERFECTED BY SCIENCE.

Born from **nature** and perfected by **science**, AGTIV® is an innovative technology brand made of high-quality and proven natural active ingredients that deliver superior **performance** for agricultural producers.

Discover more at

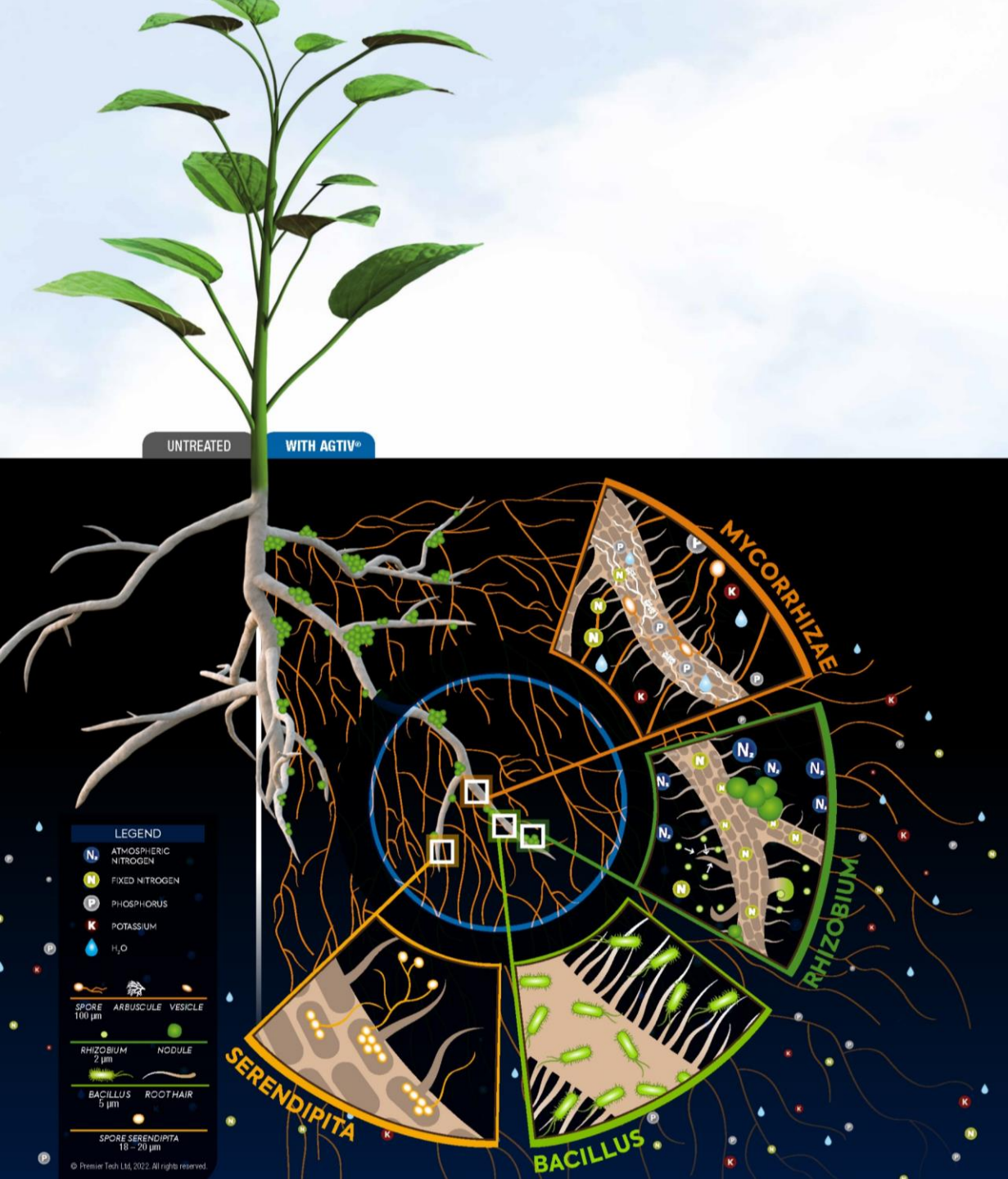
PTAGTIV.COM/brand

AGTIV® BIOLOGICAL ACTIVE INGREDIENTS

For nearly 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 B*acillus*, 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



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.

- EXPAND ROOT SYSTEM GROWTH
- ENHANCE NUTRIENT & WATER UPTAKE
- INCREASE TOLERANCE TO STRESSES
- IMPROVE SOIL STRUCTURE

R

RHIZOBIUM

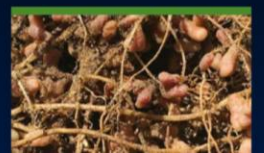
PTB160 Technology (pulses), *Rhizobium leguminosarum* biovar *viciae*

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.

- FIX NITROGEN & MAKE IT AVAILABLE TO THE PLANT



B

BACILLUS

PTB180 Technology, *Bacillus pumilus*

B*acillus* is a bacteria that provides a healthy root zone which leads to better yields. As a root colonizer, it stimulates the plant to grow more efficiently. Selected for its 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 CHLOROPHYLL CONTENT
- BETTER PLANT ESTABLISHMENT, GROWTH AND YIELD

BENEFITS FOR SOYBEAN

AGTIV® FUEL™ brings the **power of nitrogen** to the plant for **faster** and **stronger growth**. **AGTIV® FUEL™** gives the plant the push it needs to achieve its **potential**.

AGTIV® THRIVE™ helps plants flourish by improving the fixation and **uptake** of **nitrogen**, **nutrients** and **water**, while **protecting** against stressors like drought and soil compaction. **AGTIV® THRIVE™** contributes to better growth, thus increasing crop **yield** and **quality**.

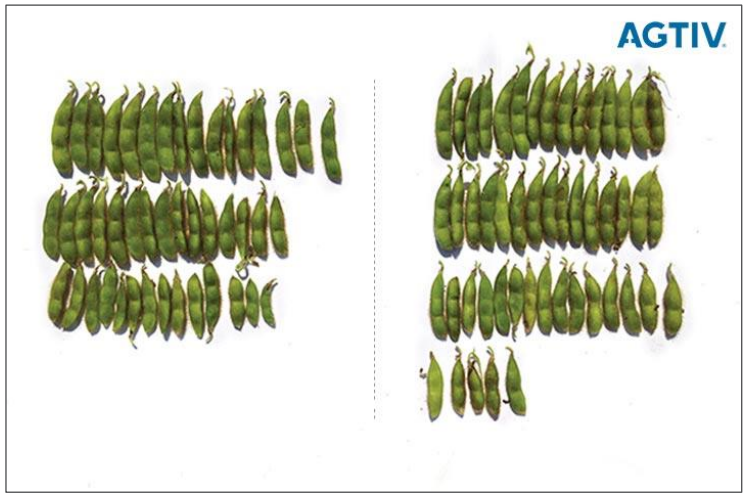
AGTIV® ENRICH™ helps plants uptake **more nitrogen** for **stronger growth**. The result: **healthier plants** with more **consistent yields**.

PREMIER TECH

EFFECTIVE ON SOYBEAN

AGTIV®

Ontario (Canada)



Ontario (Canada)

Ontario (Canada)

Quebec (Canada)

AGTIV® FUEL™

AGTIV®

	ACTIVE INGREDIENT(S)	ORGANIC	APPLICATION MODE: GRANULAR IN-FURROW	APPLICATION MODE: MIXING WITH SEEDS	APPLICATION MODE: LIQUID IN-FURROW	APPLICATION MODE: LIQUID ON SEED	FORMULATION
AGTIV® FUEL™ G SOYBEAN (previously named AGTIV® BRADY • Granular for SOYBEAN) **F:** Granules (peat) **S:** 18.2 kg (40 lb) bag – 364 kg (800 lb) tote bag **C:** Soybean: Bag: **4 ha (10 acres)** – Tote bag: **80 ha (200 acres)**	R	*	●				⁂
AGTIV® FUEL™ L SOYBEAN ✪ (previously named AGTIV® BRADY • Liquid for SOYBEAN) **F:** Liquid **S:** 8 L (8 kg) bag-in-box **C:** Soybean: **16 ha (40 acres)** or **5680 kg of seeds (250 units)**	R	✓			●	●	💧

PREMIER TECH

F: Formulation
S: Size
C: Coverage

✓ For organic use
* Non eligible for organic use. Contact us for more details.

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AGTIV® FUEL™

AGTIV®

GRANULAR IN-FURROW

AGTIV® FUEL™ G
SOYBEAN

ACTIVE INGREDIENT:

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 1.9 x 10^8 viable cells/g

INERT INGREDIENT: Peat
PARTICLE SIZE: 0.3 mm to 2 mm (10 - 50 mesh)
BULK DENSITY: 650 g/L (41 lb/ft³)

SIZE	COVERS	CODE
18.2 kg (40 lb) – bag	4 ha (10 acres)	710511
364 kg (800 lb) – tote bag	80 ha (200 acres)	710512

DIRECTIONS FOR USE
Apply in the seed row at a rate of 4.5 kg/ha (4 lb/acre).

LIQUID FOR IN-FURROW OR ON SEED

AGTIV® FUEL™ L
SOYBEAN

ACTIVE INGREDIENT:

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 8 x 10^9 viable cells/g

PARTICLE SIZE: < 0.1 mm (150 mesh)
Contains non-soluble particles

SIZE	COVERS	CODE
8 L (8 kg) – bag-in-box	In-furrow: 16 ha (40 acres) On seed: 5680 kg of seeds (250 units)	710604

DIRECTIONS FOR USE
LIQUID IN-FURROW — Apply directly in the seed row at a rate of 500 ml/ha (200 ml/acre). This product should be applied using the **AGTIV® Liquid Injection Kit**. To apply, prepare the product mixture and adjust the Dosatron® injection rate following the application chart and video at PTAGTIV.COM/en/liquid-injection-kit.

LIQUID ON SEED — Shake well before use and apply directly to the seed. Apply 64 ml per 45.5 kg of seeds, ensure full coverage. Optimum on-seed viability for 30 days when treated seeds are stored below 12°C (54°F).

★ Use EXTENDER™ L for AGTIV® inoculants for longer shelf life.

PREMIER TECH

F: Formulation
S: Size
C: Coverage

For organic use
* Non eligible for organic use. Contact us for more details.

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AGTIV® ENRICH™

AGTIV®

ACTIVE INGREDIENT(S)	ORGANIC	APPLICATION MODE: GRANULAR IN-FURROW	APPLICATION MODE: MIXING WITH SEEDS	APPLICATION MODE: LIQUID IN-FURROW	APPLICATION MODE: LIQUID ON SEED	FORMULATION
AGTIV® ENRICH™ SOYBEAN ✪ (previously named AGTIV® BB COMBO • Liquid for SOYBEAN) **F:** Liquid **S:** Combo box: 8 L (8 kg) (*Bradyrhizobium*) bag-in-box + 300 ml (*Bacillus*) bottle **C:** Soybean: **16 ha (40 acres)** or **5680 kg of seeds (250 units)**	R B	✓			●	●	💧

PREMIER TECH

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AGTIV® ENRICH™

AGTIV®

COMBO LIQUID FOR IN-FURROW OR ON SEED

AGTIV® ENRICH™
SOYBEAN

ACTIVE INGREDIENTS:

B **BACILLUS** – PTB180 Technology
Bacillus pumilus: 3 x 10^9 viable spores/ml

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 8 x 10^9 viable cells/g

INERT INGREDIENT: Water
PARTICLE SIZE: < 0.1 mm (150 mesh)
Contains non-soluble particles

SIZE	COVERS	CODE
Combo box: 8 L (8 kg) – bag-in-box 300 ml – bottle	In-furrow: 16 ha (40 acres) On seed: 5680 kg of seeds (250 units)	710814

DIRECTIONS FOR USE

ON SEED: Mix the bladder of *Bradyrhizobium* and the bottle of B*acillus* in the application tank.
Bradyrhizobium: A bladder of 8 liters can treat up to 5680 kg of soybean seeds. Apply at a rate of 64 ml/45.5 kg of seeds.
B*acillus*: Apply at a rate of 2.4 ml/45.5 kg of soybean seeds.
Total volume applied for the combo is 66.4 ml/45.5 kg of seeds.
Agitate constantly during application to keep bacteria in suspension.
Optimum on-seed viability for 30 days when treated seeds are stored below 12°C (54°F).

IN-FURROW: A bladder of 8 liters and a bottle of 300 ml covers 16 ha (40 acres). Apply inoculant in the furrow, directly on the seed, at a rate of 500 ml/ha (200 ml/acre) for the *Bradyrhizobium* and 18.75 ml/ha (7.5 ml/acre) for the B*acillus*, to reach a total of 518.75 ml/ha (207.5 ml/acre). Dilute the inoculant in the required volume of clean, non-chlorinated water.

★ Use EXTENDER™ L for AGTIV® inoculants for longer shelf life.

PREMIER TECH

F: Formulation
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For organic use
* Non eligible for organic use. Contact us for more details.

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EXTENDER™ L FOR AGTIV®

AGTIV®

LIQUID ADDITIVE FOR SEED APPLICATION

EXTENDER™ L for AGTIV® inoculants is a liquid additive designed for on seed application of AGTIV® inoculants, in order to prevent desiccation.

DIRECTIONS FOR USE

A bag of EXTENDER™ L for AGTIV® inoculants can treat up to 250 units of soybean or 240 bushels of pulses. Apply to seeds at a rate of 12.8 ml / 45 kg of seeds for soybean and 6.6 ml / 27 kg of seeds for pulses.

RECOMMENDATIONS

- Open package only when ready to use.
- Shake well before use and maintain a constant and effective agitation in the tank during application.
- Calibrate the application system to deliver the correct amount of mixture of AGTIV® inoculant and EXTENDER™ L for AGTIV® inoculants.
- Ensure the tank and the liquid application system are clean and free of chemical residues.
- Ensure the temperature of the diluted tank mix does not exceed 22°C (72°F).
- Prepare only as much of mixture as will be used that day.
- Ensure full seed coverage.
- Apply within 6 hours following mix into the tank.
- Respect the best before date on the label.

PREMIER TECH

F: Formulation
S: Size
C: Coverage

For organic use
* Non eligible for organic use. Contact us for more details.

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AGTIV® THRIVE™

AGTIV®

	ACTIVE INGREDIENT(S)	ORGANIC	APPLICATION MODE: GRANULAR IN-FURROW	APPLICATION MODE: MIXING WITH SEEDS	APPLICATION MODE: LIQUID IN-FURROW	APPLICATION MODE: LIQUID ON SEED	FORMULATION
AGTIV® THRIVE™ P SOYBEAN (previously named AGTIV® SOYBEAN • Powder) **F:** Powder (peat) **S:** 4.7 kg (10.3 lb) pail **C:** Soybean: **16 ha (40 acres)**	M R	✓		●			⁘
AGTIV® THRIVE™ G SOYBEAN (previously named AGTIV® SOYBEAN • Granular) **F:** Granules (peat) **S:** 18.2 kg (40 lb) bag – 364 kg (800 lb) tote bag **C:** Soybean: Bag: **4 ha (10 acres)** – Tote bag: **80 ha (200 acres)**	M R	*	●				⁘
AGTIV® THRIVE™ SOYBEAN (previously named AGTIV® COMBO • Liquid for SOYBEAN) **F:** Liquid **S:** Combo box: 8 L (8 kg) bag-in-box + 2 x 950 ml (2 x 32 fl. oz) bottles **C:** Soybean: **16 ha (40 acres)**	M R	✓			●		💧

PREMIER TECH

F: Formulation
S: Size
C: Coverage

✓ For organic use
* Non eligible for organic use. Contact us for more details.

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AGTIV® THRIVE™

AGTIV®

ON-FARM MIXING WITH SEEDS

AGTIV® THRIVE™ P
SOYBEAN

ACTIVE INGREDIENTS:

M **MYCORRHIZAE** – PTB297 Technology
Rhizophagus irregularis: 2 750 viable spores/g

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 2.5 x 10^9 viable cells/g

INERT INGREDIENT: Peat
PARTICLE SIZE: < 1 mm (18 mesh)
BULK DENSITY: 400 g/L (1 lb/US dry qt)

SIZE	COVERS	CODE
4.7 kg (10.3 lb) – pail	16 ha (40 acres)	710703

DIRECTIONS FOR USE

DRY APPLICATION — Mix evenly with seeds at the bottom of the grain auger while filling drill, or directly in the drill box. Ensure uniform seed coverage is obtained. Apply at 300 g/ha (120 g or 4.2 oz/acre).

SLURRY APPLICATION — Pour one 4.7 kg pail in a clean container. Gradually add 8 - 10 litres of clean, non-chlorinated water and stir well. Add more water if the slurry is too thick. Pour onto the seeds and mix thoroughly to ensure even coating.

GRANULAR IN-FURROW

AGTIV® THRIVE™ G
SOYBEAN

ACTIVE INGREDIENTS:

M **MYCORRHIZAE** – PTB297 Technology
Rhizophagus irregularis: 178 viable spores/g

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 1.1 x 10^8 viable cells/g

INERT INGREDIENT: Peat
PARTICLE SIZE: 0.3 mm to 2 mm (10 - 50 mesh)
BULK DENSITY: 650 g/L (41 lb/ft^3)

SIZE	COVERS	CODE
18.2 kg (40 lb) – bag	4 ha (10 acres)	710501
364 kg (800 lb) – tote bag	80 ha (200 acres)	710502

DIRECTIONS FOR USE

Apply in the seed row at a rate of 4.5 kg/ha (4 lb/acre).

COMBO LIQUID FOR IN-FURROW

AGTIV® THRIVE™
SOYBEAN

ACTIVE INGREDIENTS:

M **MYCORRHIZAE** – PTB297 Technology
Rhizophagus irregularis: 6400 viable spores/g in liquid suspension

R **RHIZOBIUM** – PTB162 Technology
Bradyrhizobium japonicum: 8 x 10^9 viable cells/g

INERT INGREDIENT: Water
PARTICLE SIZE: < 0.2 mm (70 mesh) – PTB297 Technology
< 0.1 mm (150 mesh) – PTB162 Technology
Contains non-soluble particles

SIZE	COVERS	CODE
Combo box: 2 x 950 ml (2 x 32 fl. oz) – bottles 8 L (8 kg) – bag-in-box	16 ha (40 acres)	710614

DIRECTIONS FOR USE

This product should be applied using the AGTIV® Liquid Injection Kit. To apply, pour 2 x 950 ml bottles of Mycorrhizae and one 8 L bladder of Rhizobium in the tank and adjust the Dosatron® injection rate following the application chart and video at PTAGTIV.COM/en/liquid-injection-kit.

Apply directly in the seed row at a rate of 118.75 ml/ha (47.5 ml/acre) for Mycorrhizae and 500 ml/ha (200 ml/acre) for Rhizobium, for a total of 618.75 ml/ha (247.5 ml/acre). If the mixture does not contain pesticides or fertilizers, it can be emptied, refrigerated and used within 24 hours.

PREMIER TECH

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C: Coverage

For organic use
* Non eligible for organic use. Contact us for more details.

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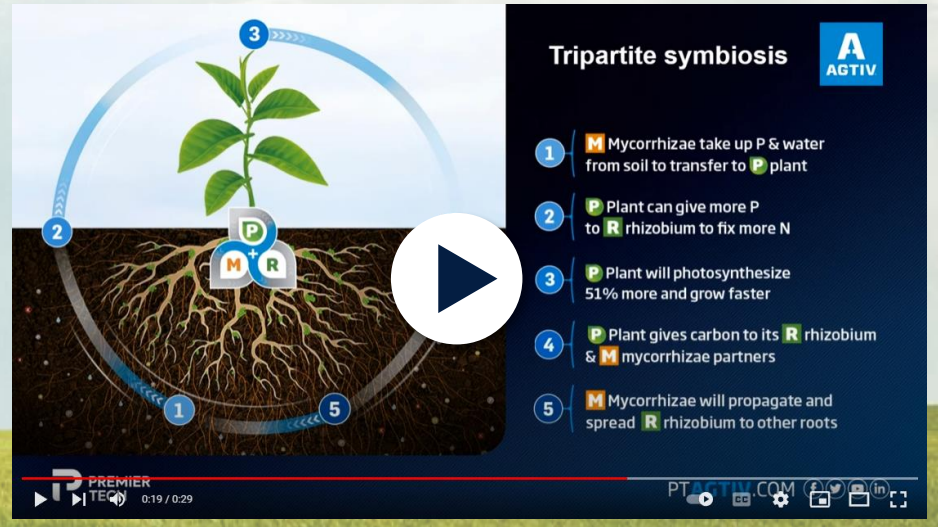
TRIPARTITE SYMBIOSIS



EXPLAINED BY OUR EXPERTS

PREMIER TECH

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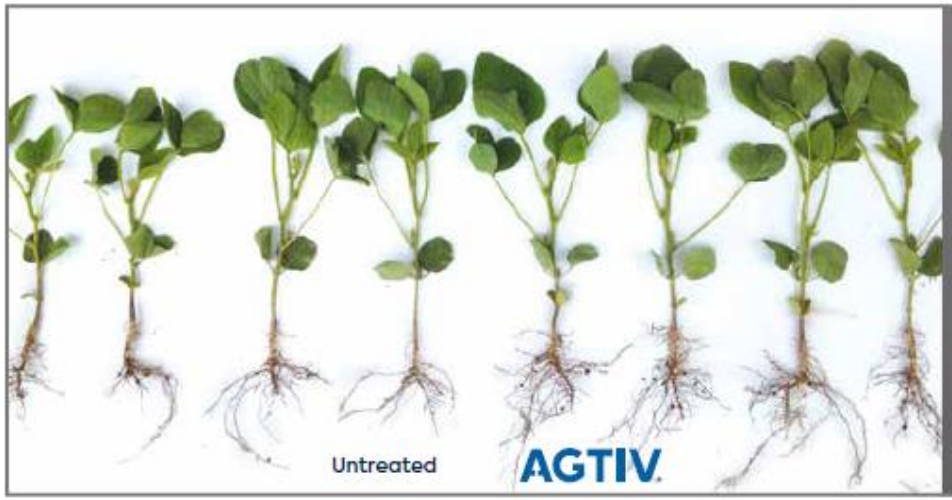
YIELD INCREASE

AGTIV®



7.7% **3.4 bu/ac**

Average yield increase
87 sites over 7 years, Canada and Europe

SOYBEAN

CLICK HERE FOR DETAILS

PREMIER TECH

PTAGTIV.COM

PESTICIDES AND FERTILIZERS COMPATIBILITY

Single action rhizobium products **FUEL** legumes by fixing nitrogen for better growth.

Dual action mycorrhizae and rhizobium products make plants **THRIVE** by increasing nutrient uptake.

Dual action rhizobium and Bacillus collaborate to **ENRICH** the plant's nitrogen fixation with a healthy root system.

Our inoculants are compatible with most pesticides and liquid fertilizers.

Mycorrhizae	PESTICIDES	LIQUID FERTILIZER IN-FURROW	LIQUID FERTILIZER ON SEED
Rhizobium	PESTICIDES	LIQUID FERTILIZER IN-FURROW	

PROGRAM

AGTIV® LIQUID INJECTION KIT

- The AGTIV® Liquid Injection Kit is designed to apply the AGTIV® liquid products.
- The kit must be installed on the existing in-furrow liquid system of the planter as shown in the application videos.
- The mycorrhizae must be injected directly in the furrow close to the seeds.
- GOAL: To facilitate the use and application of the AGTIV® with maximum accuracy and without affecting the mycorrhizae spores and in-furrow equipment.

ONLINE TOOLS

LABELS

EFFICACY REPORT

APPLICATION VIDEOS

BROCHURES

SOCIAL MEDIA

AND MUCH MORE:

Safety data sheets, organic certificates

PREMIER TECH

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