PREMIER TECH

2022

AGTIV®

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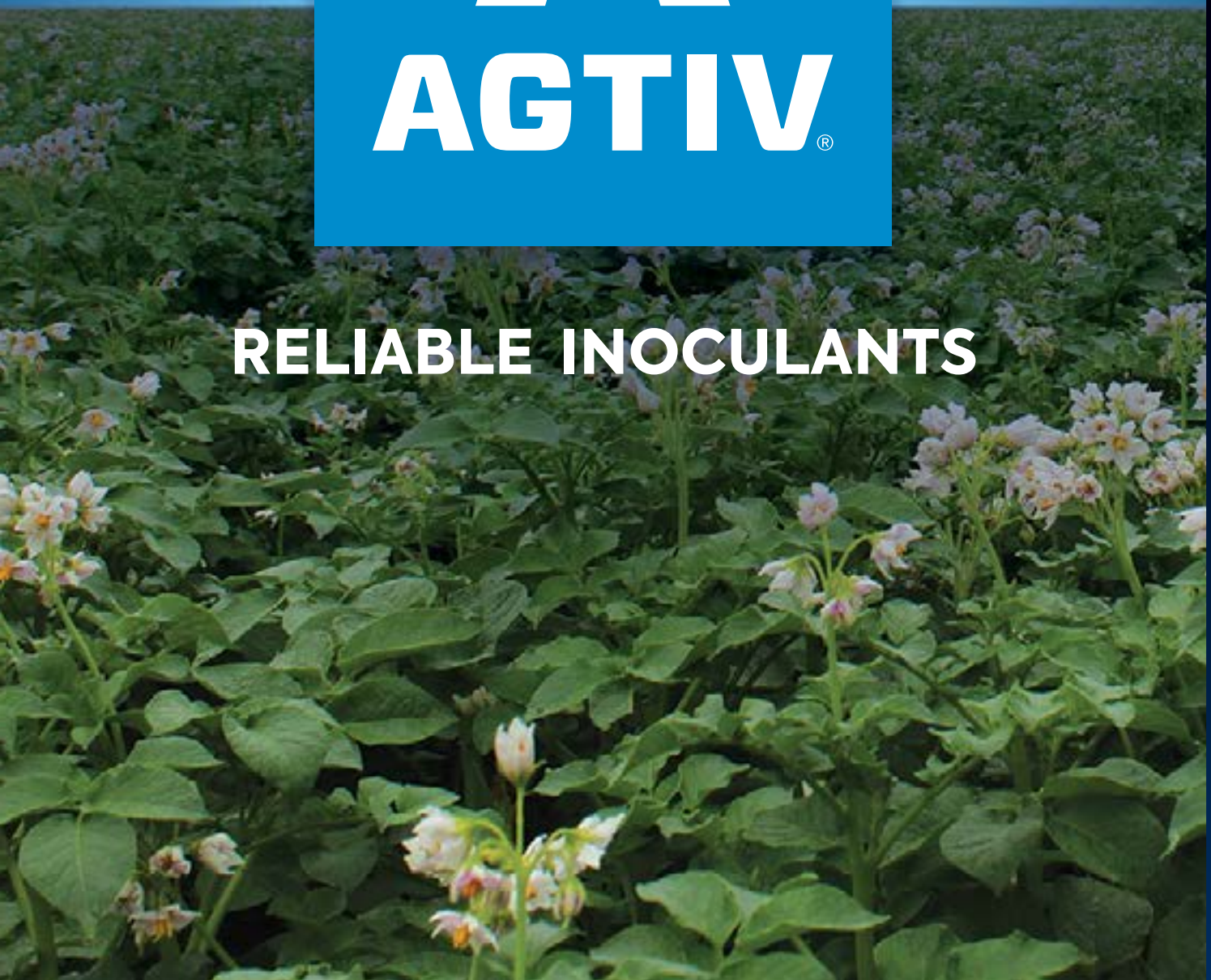
RELIABLE INOCULANTS



Backed by more than 35 years of expertise in biological active ingredients, you can count on AGTIV® reliable inoculants: the only brand on the market to have the powerful combination of MYCORRHIZAE, BACILLUS and RHIZOBIUM. Available in different formulations, use them on the farm with confidence to push crops' yield potential thanks to increased nutrient and water uptake.

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CLICK ON PRODUCTS
to learn more

	ACTIVE INGREDIENT	ORGANIC	APPLICATION MODE: GRANULAR IN-FURROW	APPLICATION MODE: MIXING WITH SEEDS	APPLICATION MODE: LIQUID IN-FURROW	APPLICATION MODE: LIQUID ON SEED	FORMULATION
SOYBEAN							
AGTIV® SOYBEAN • Powder **F:** Powder (peat) **S:** 4.7 kg (10.3 lb) pail **C: Soybean: 16 ha (40 acres)**	M R	✓			●		
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® 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)**	C R	✓				●	●
AGTIV® BB COMBO • Liquid for SOYBEAN ✱ **F:** Liquid **S:** 8 L (8 kg) (*Bradyrhizobium*) bag-in-box - 300 ml (*Bacillus*) bottle **C: Soybean: 16 ha (40 acres)** or **5 680 kg of seeds (250 units)**	N B R	✓				●	●
FORAGES							
AGTIV® FORAGES • Powder **F:** Powder (diatomaceous earth) **S:** 1.6 kg (3.5 lb) pail **C: Alfalfa, mix forages & grass: 8 ha (20 acres)**	M	*		●			
PULSES (peas, lentils & faba beans)							
AGTIV® PULSES • Granular **F:** Granules (peat) **S:** 18.2 kg (40 lb) bag – 364 kg (800 lb) tote bag **C: Peas, lentils & faba beans:** Bag: **4 ha (10 acres)** – Tote bag: **80 ha (200 acres)**	M R	✓	●				
AGTIV® RHIZO • Liquid for PULSES ✱ **F:** Liquid **S:** 8 L (8 kg) bag-in-box **C: Peas, lentils & faba beans: 32 ha (80 acres)** or **6530 kg of seeds (240 bu)**	C R	✓				●	●
FIELD CROPS (dry beans, cereals & flax)							
AGTIV® FIELD CROPS – ○ • Powder **F:** Powder (peat) **S:** Case of 4 x 800 g (4 x 1.75 lb) pails **C: Dry beans, cereals & flax: 32 ha (80 acres)** per case **Alfalfa, mix forages & grass: 16 ha (40 acres)** per case	M	✓			●		
AGTIV® FIELD CROPS • Powder **F:** Powder (diatomaceous earth) **S:** 2 kg (4.4 lb) pail **C: Dry beans, cereals & flax: 16 ha (40 acres)**	M	*			●		
AGTIV® FIELD CROPS • Granular **F:** Granules (zeolite) **S:** 18.2 kg (40 lb) bag – 364 kg (800 lb) tote bag **C: Dry beans, cereals & flax:** Bag: **3.2 ha (8 acres)** – Tote bag: **64 ha (160 acres)**	M	✓	●				
AGTIV® FIELD CROPS • Liquid **F:** Liquid (spores in suspension) **S:** Case of 2 x 950 ml (2 x 32 fl. oz) bottles **C: Beans, cereals & flax: 16 ha (40 acres)** per case	M C	✓				●	

	ACTIVE INGREDIENT	ORGANIC	APPLICATION MODE: IN-FURROW	APPLICATION MODE: SEED-PIECE TREATMENT AT THE WAREHOUSE	APPLICATION MODE: MIXING WITH SEEDS	APPLICATION MODE: INCORPORATION INTO GROWING MEDIA	APPLICATION MODE: TRANSPLANTING	APPLICATION MODE: SEED TREATMENT	FORMULATION
POTATO									
AGTIV® POTATO • Liquid **F:** Liquid (spores in suspension) **S:** Case of 2 x 950 ml (2 x 32 fl. oz) bottles **C: Potato: 8 ha (20 acres)** per case	M	✓	●	●					
GREEN PEAS									
AGTIV® SPECIALTY CROPS — PEA • Powder **F:** Powder (peat) **S:** 2.4 kg (5.3 lb) pail **C: Green peas: 8 ha (20 acres)**	M R	✓				●			
SPECIALTY CROPS									
AGTIV® SPECIALTY CROPS • Powder **F:** Powder (diatomaceous earth) **S:** Case of 4 x 500 g (4 x 1.1 lb) pails **C: Vegetables, berries & garlic**	M	**				●	●	●	
AGTIV® SPECIALTY CROPS • Granular **F:** Granules (peat) **S:** 10 kg (22 lb) pail **C: Vegetables, herbs, berries & fruit trees**	M	✓	●				●	●	
AGTIV® ON SEED™ **F:** Treated seeds **C:** Vegetables and fruits Ask your representative for more details.	M B	*						●	

See last page for complete product recommendations.

F: Formulation
S: Size
C: Crop/ Coverage

ACTIVE INGREDIENTS:
- **M MYCORRHIZAE** PTB297 Technology
- **B BACILLUS** PTB180 Technology
- **R RHIZOBIUM** PTB160 Technology (pulses) PTB162 Technology (soybean)

- N New product
- C Combo available
- ✱ Eligible with AGTIV® Extender

ORGANIC:
- ✓ For organic use
- * Non eligible for organic use.
- ** Eligibility may vary depending on the territory. Contact us for more details.

TOOLS

Premier Tech offers technical support for product application, field demonstration, equipment and input compatibility, and promotes educational agronomic knowledge.

- Labels, SDS, organic certificates
- Application videos, charts and rate calculators

PTAGTIV.COM/**en/toolbox**

- Pesticide compatibility lists
- Liquid fertilizer compatibility lists

PTAGTIV.COM/**en/compatibility**

- Efficacy report
- Field observations

PTAGTIV.COM/**en/results**

- Agronomic articles
- Case studies

PTAGTIV.COM/**en/blog**

EQUIPMENT & PROGRAMS

To ensure performance through efficient and precise application of its inoculants, Premier Tech recommends the use of approved equipment, supported by pay-back programs on selected AGTIV® products.

LIQUID

EQUIPMENT PROGRAM

The **AGTIV® Liquid Injection Kit**, integrating a Dosatron® Injection System, is easy to install on your existing in-furrow application system, it operates off the main solution flow for precise application of AGTIV® liquid products.

RETAILER FRIDGE PROGRAM

Premier Tech recommends to its retailer network the purchase of a fridge that can effectively store AGTIV® liquid products. Contact your representative to learn more.

PTAGTIV.COM/**en/program**

POWDER

Premier Tech has a list of recommended applicators to use with AGTIV® powder products. Ask your representative to learn more about the applicators and the pay-back program offered.

PTAGTIV.COM/**en/blog**

AVERAGE YIELD INCREASE BY CROP

POTATO

31.5 cwt/ac

AVERAGE YIELD INCREASE
1131 sites over 10 years, North America and Europe **10%**

FORAGES

577 kg/ha

AVERAGE YIELD INCREASE
47 sites over 2 years, Canada **16.1 %**

SOYBEAN

3.5 bu/ac

AVERAGE YIELD INCREASE
85 sites over 7 years, Canada and Europe **7.8%**

DRY BEANS

235 lb/ac

AVERAGE YIELD INCREASE
11 sites over 4 years, Canada **8.9%**

GREEN PEAS

11.1 %

AVERAGE YIELD INCREASE
13 sitesover 4 years, Canada

BARLEY

7.3 bu/ac

AVERAGE YIELD INCREASE
28 sites over 6 years, Canada and Europe **10.5%**

ONIONS

8.1 %

AVERAGE YIELD INCREASE
16 sites over 7 years, Canada and Europe

CARROTS

9.8 %

AVERAGE YIELD INCREASE
11 sites over 7 years, Canada and Europe

SOYBEAN

CLICK HERE
to know more

P uptake and transfer to the plant with mycorrhizae

Cavagnaro et al. (2005) established that *Glomus intraradices* was found to be one of the arbuscular mycorrhizal fungi that was able to control nutrient uptake amounts by individual hyphae depending on differing phosphorus levels in the surrounding soils.[1]

[1] Cavagnaro, T; F. Smith; S. Smith; I. Jakobsen (2005) Functional diversity in arbuscular mycorrhizas: exploitation of soil patches with different phosphate enrichment differs among fungal species. Plant, Cell et Environment 28: 642 – 650.

PTAGTIV.COM/**en/rotation**

ON-FARM MIXING WITH SEEDS — ELIGIBLE FOR ORGANIC USE

AGTIV® SOYBEAN • Powder

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 2 750 viable spores/g

R **RHIZOBIAL INOCULUM** – 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® SOYBEAN • Granular

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 178 viable spores/g

R **RHIZOBIAL INOCULUM** – 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).

LIQUID FOR IN-FURROW OR ON SEED — ELIGIBLE FOR ORGANIC USE

AGTIV® BRADY • Liquid for SOYBEAN

ACTIVE INGREDIENT:

R **RHIZOBIAL INOCULUM** – 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: 5 680 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).

C COMBO AVAILABLE WITH MYCORRHIZAE

NEW — LIQUID FOR IN-FURROW OR ON SEED — ELIGIBLE FOR ORGANIC USE

AGTIV® BB COMBO • Liquid for SOYBEAN

ACTIVE INGREDIENTS:

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

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

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

SIZE	COVERS	CODE
8 L (8 kg) – bag-in-box 300 ml – bottle	In-furrow: 16 ha (40 acres) On seed: 5 680 kg of seeds (250 units)	710814

DIRECTIONS FOR USE

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

IN-FURROW: A bladder of 8 liters covers 16 ha (40 acres). Apply inoculant in the furrow, directly on the seed, at a rate of 500 ml/ha (200 ml/acre). Dilute the inoculant in the required volume of clean, non-chlorinated water. Refer to the chart on label.

FORAGES

ON-FARM MIXING WITH SEEDS

AGTIV® FORAGES • Powder

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 8 000 viable spores/g

INERT INGREDIENT: Diatomaceous earth
PARTICLE SIZE: < 1 mm (18 mesh)
BULK DENSITY: 275 g/L (0.7 lb/US dry qt)

SIZE	COVERS	CODE
1.6 kg (3.5 lb) – pail	8 ha (20 acres)	712703

DIRECTIONS FOR USE

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 200 g/ha (80 g or 2.8 oz/acre).

PULSES

Peas, lentils and faba beans

GRANULAR IN-FURROW — ELIGIBLE FOR ORGANIC USE

AGTIV® PULSES • Granular

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 178 viable spores/g

R **RHIZOBIAL INOCULUM** – PTB160 Technology
Rhizobium leguminosarum biovar *viciae:* 1.3 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)	710101, Organic: 710121
364 kg (800 lb) – tote bag	80 ha (200 acres)	710102, Organic: 710122

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 — ELIGIBLE FOR ORGANIC USE

AGTIV® RHIZO • Liquid for PULSES

ACTIVE INGREDIENT:

R **RHIZOBIAL INOCULUM** – PTB160 Technology
Rhizobium leguminosarum biovar *viciae:* 6 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: 32 ha (80 acres) On seed: 6530 kg of seeds (240 bu)	710204

DIRECTIONS FOR USE

LIQUID IN-FURROW — Apply directly in the seed row at a rate of 250 ml/ha (100 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 33 ml per 27 kg seeds, ensure full coverage. Optimum on-seed viability for 30 days when treated seeds are stored below 12°C (54°F).

C COMBO AVAILABLE WITH MYCORRHIZAE

FIELD CROPS

Dry beans, cereals and flax

CLICK HERE to know more

80% of plants can be colonized with the collaborative[1] species *Glomus intraradices*

"*G. intraradices* has turned out to be a "wonder fungus" in several surveys, and field trials so far has shown it to be equal or superior to mixtures of other fungi." [2]

[1] Kiers et. al. 2011. Reciprocal Rewards Stabilize Cooparation in the Mycorrhizal Symbiosis. Science 333:80-882.

[2] Trivedi et. al. 2007. Organic farming and mycorrhizae in agriculture.I.K. International Publishing House Ltd. New Delhi, pp.290.

PTAGTIV.COM/**en/glomus**

ON-FARM MIXING WITH SEEDS

ELIGIBLE FOR ORGANIC USE

AGTIV® FIELD CROPS – ○ • Powder

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 8 000 viable spores/g

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

SIZE (case)	COVERS (1 case)	CODE (case)
4 x 800 g (4 x 1.75 lb) – pails	**Cereals, flax & dry beans:** 32 ha (80 acres) **Alfalfa, mix forages & grass:** 16 ha (40 acres)	712324

DIRECTIONS FOR USE

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.
Cereals, flax & dry beans: apply at 100 g/ha (40 g or 1.4 oz/acre).
Alfalfa, mix forages & grass: apply at 200 g/ha (80 g or 2.8 oz/acre).
Refer to the list of compatible pesticides at PTAGTIV.COM/**en/compatibility**.

ON-FARM MIXING WITH SEEDS

AGTIV® FIELD CROPS • Powder

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 6 400 viable spores/g

INERT INGREDIENT: Diatomaceous earth
PARTICLE SIZE: < 1 mm (18 mesh)
BULK DENSITY: 275 g/L (0.7 lb/US dry qt)

SIZE	COVERS	CODE
2 kg (4.4 lb) – pail	16 ha (40 acres)	712313

DIRECTIONS FOR USE

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 125 g/ha (50 g or 1.8 oz/acre) for cereals, flax & dry beans.

GRANULAR IN-FURROW

ELIGIBLE FOR ORGANIC USE

AGTIV® FIELD CROPS • Granular

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 142 viable spores/g

INERT INGREDIENT: Zeolite
PARTICLE SIZE: 0.4 mm to 1.4 mm (14 - 40 mesh)
BULK DENSITY: 920 g/L (57 lb/ft³)

SIZE	COVERS	CODE
18.2 kg (40 lb) – bag	3.2 ha (8 acres)	712101
364 kg (800 lb) – tote bag	64 ha (160 acres)	712102

DIRECTIONS FOR USE

Apply in the seed row at a rate of 5.7 kg/ha (5 lb/acre).

LIQUID IN-FURROW

ELIGIBLE FOR ORGANIC USE

AGTIV® FIELD CROPS • Liquid

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 6 400 viable spores/g in liquid suspension

INERT INGREDIENT: Water
PARTICLE SIZE: < 0.2 mm (70 mesh)
Contains non-soluble particles

SIZE (case)	COVERS (1 case)	CODE (case)
2 x 950 ml (2 x 32 fl. oz) – bottles	16 ha (40 acres)	712204

DIRECTIONS FOR USE

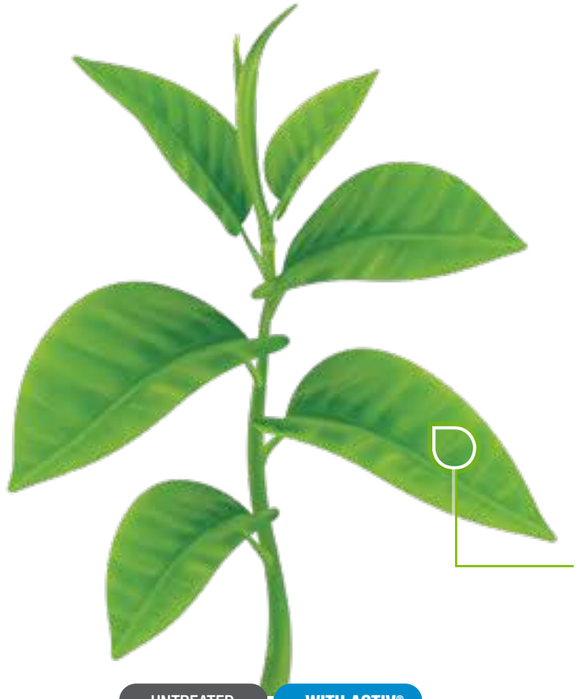
One 950 ml bottle covers 8 ha (20 ac). Dilute the product in the required volume of clean, non-chlorinated water, according to the application modes below. **Shake the bottle well before use and maintain a constant agitation in the tank during application to avoid settling and clogging.** Apply directly in the seed row.

LIQUID INJECTION: To apply using the **AGTIV® Liquid Injection Kit**, prepare the product mixture and adjust the Dosatron® injection rate following the application chart and video at PTAGTIV.COM/**en/liquid-injection-kit**. If the mixture does not contain pesticides or fertilizers, it can be emptied, refrigerated and used within 24 hours.

TANK MIX: Refer to PTAGTIV.COM/**en/FC-liquid** for application details.

C COMBO AVAILABLE WITH BRADYRHIZOBIUM FOR SOYBEAN OR LIQUID RHIZOBIUM FOR PULSES.

The following plant families cannot be colonized (no effect on plant) by the mycorrhizal fungi contained in AGTIV®:
Chenopodiaceae (spinach, beets), *Brassicaceae* (canola, turnip, radish, mustard), buckwheat.

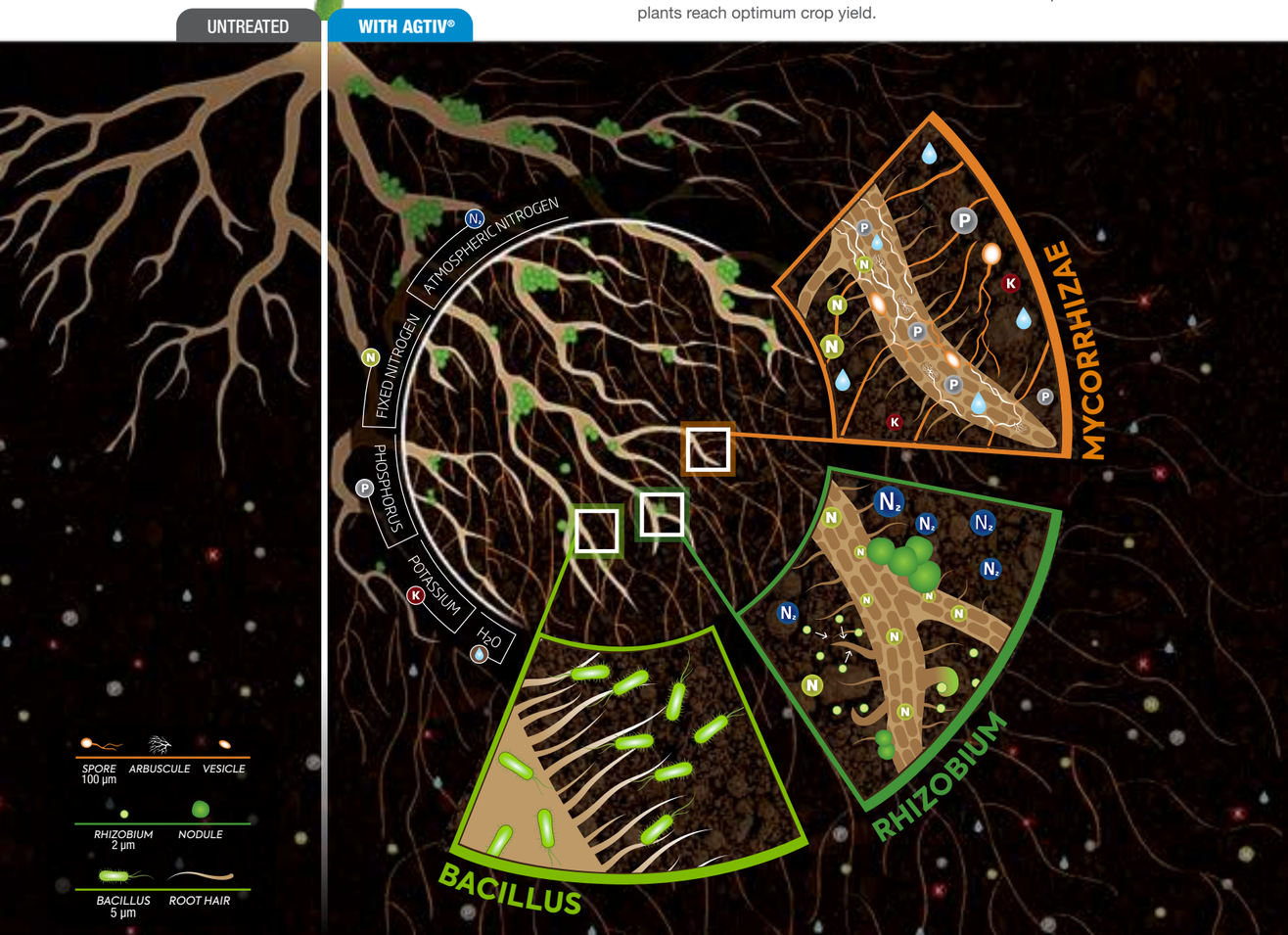


P PLANT

Nutrients and water are essential components for effective plant growth. Adding biological active ingredients, such as beneficial MYCORRHIZAE, RHIZOBIUM, and BACILLUS, allows an earlier and efficient use of water and nutrients and helps plants reach optimum crop yield.

BIOLOGICAL ACTIVE INGREDIENTS

Backed by more than 35 years of expertise in biological active ingredients, Premier Tech masters a unique large-scale manufacturing process that meets the highest quality control standards, allowing you to fully benefit from the highly effective inoculants of our AGTIV® agricultural product line. For stronger growth through better plant resistance to stresses, **higher yields** and superior **crop quality**, you can count on AGTIV®.



M MYCORRHIZAE

CLICK HERE to know more

PTB297 Technology, *Glomus intraradices*

Mycorrhizae are beneficial associations between a mycorrhizal fungus and roots. The mycorrhizal spores germinate in the soil and produce filaments (hyphae) which will enter into root cells. This association will allow the formation of an intra and extra-radical network of filaments that will 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

CLICK HERE to know more

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.

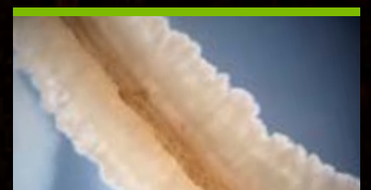
- FIX NITROGEN & MAKE IT AVAILABLE TO THE PLANT

B BACILLUS

PTB180 Technology, *Bacillus pumilus*

Bacillus stimulates the plant root system by inducing the proliferation of the root hairs, which favors the absorption of the nutrients. We have selected it for its beneficial action of growth stimulation.

- INCREASES NUMBER OF ROOT HAIRS FOR A BETTER NUTRIENTS' ABSORPTION
- ACCELERATES SEED GERMINATION
- INCREASES PLANT GROWTH



POTATO

CLICK HERE
to know more

10x more area for water uptake with mycorrhizae than root hairs

For an increased nutrient and water access, the plant can partner with mycorrhizae to expand its root system and reach more soil. "The absorptive area of mycorrhizal hyphae is approximately 10 times more efficient than that of root hairs and about 100 times more efficient than that of roots."[1]

[1] Jones, C. E. 2009. Mycorrhizal fungi - powerhouse of the soil. Evergreen Farming 8:4-5.

PTAGTIV.COM/**en/water**

AGTIV® POTATO • Liquid

ELIGIBLE FOR ORGANIC USE

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 10 500 viable spores/g in liquid suspension (315 000 viable spores/fl. oz)

INERT INGREDIENT: Water
PARTICLE SIZE: < 0.2 mm (70 mesh)
Contains non-soluble particles

SIZE (case)	COVERS (1 case)	CODE (case)
2 x 950 ml (2 x 32 fl. oz) – bottles	8 ha (20 acres)	711004

IN-FURROW APPLICATION

DIRECTIONS FOR USE

Dilute the product in the required volume of clean, non-chlorinated water. Refer to the application charts available at PTAGTIV.COM/**en/potato**. **Shake the bottle well before use and maintain a constant agitation in the tank during application to avoid settling and clogging.** Apply directly on seed pieces into furrow.

See recommendations below based on the application mode:

LIQUID INJECTION:

The **AGTIV® Liquid Injection Kit**, integrating a Dosatron® pump, is a customized equipment designed for the precise application of AGTIV® liquid products. Easy to install on your existing in-furrow application system, it operates off the main solution flow.

- Ensure the tank and the liquid injection system are clean and free of chemical residues, and agitation system is operational.
- On the planter, remove all cylinder screens by the nozzles or use filters with openings of at least 50 mesh (0.28 mm).
- Prepare your product mixture and adjust the Dosatron® injection rate following the calculation chart and application video at PTAGTIV.COM/**en/liquid-injection-kit**.
- Spray band width should be limited to 7 in (18 cm) or less.
- If the mixture does not contain pesticides or fertilizers, it can be emptied, refrigerated and used within 24 hours.

TANK MIX

- Use filters with openings of at least 50 mesh (0.28 mm).
- Use a diaphragm (or peristaltic) pump for product application.
- Up and down agitation at all times in the tank.
- Spray band width should be limited to 7 in (18 cm) or less.
- Apply within 6 hours after mixing into the liquid tank.
- See the application video at PTAGTIV.COM/**en/potato**.

SEED-PIECE TREATMENT

DIRECTIONS FOR USE

In a clean tank, pour the content of **one** 950 ml (32 fl. oz) bottle in the volume of liquid required to treat the amount of seed pieces for 4 hectares (10 acres) of seedbed (110 000 – 170 000 seed pieces). **Shake the bottle well before use and maintain a constant agitation in the tank during application to avoid settling and clogging.** Apply directly on seed pieces. Do not treat seed pieces more than 48 hours before seeding (could activate seed-piece sprouting).

See recommandations below based on the application mode:

MILESTONE TREATER:

- Validate that the atomizing head and the mixing paddles correspond to the approved specifications. Visit PTAGTIV.COM/**en/equipment** for more details or contact your representative.

OTHER MODELS:

- Validate that the atomizing head and the mixing paddles correspond to the approved specifications (ask your representative for more info).
- Use filters with openings of at least 50 mesh (0.28 mm).
- Use a diaphragm (or peristaltic) pump for product application.
- Up and down agitation at all times in the tank.

GREEN PEAS

51%[1] more photosynthesis with the tripartite symbiosis

"[…] the tripartite interactions between legumes, AMF [Arbuscular Mycorrhizal Fungi] and rhizobia cause increases in legume productivity, and the N:P:C supply ratio as influenced by the tripartite symbiotic associations plays a fundamental role in controlling the legume's photosynthetic rate and biomass productivity." [2]

[1] Kaschuk et al. 2009. Soil Biol. Biochem. 41:1233-1244
[2] Koele et al. 2014. VFRC Report 2014/1, pp. 1-57

PTAGTIV.COM/**en/tripartite**

ON-FARM MIXING WITH SEEDS

ELIGIBLE FOR ORGANIC USE

AGTIV® SPECIALTY CROPS – PEA • Powder

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 2 750 viable spores/g

R **RHIZOBIAL INOCULUM** – PTB160 Technology
Rhizobium leguminosarum biovar *viciae:* 1.6 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
2.4 kg (5.3 lb) – pail	8 ha (20 acres)	711913

DIRECTIONS FOR USE

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. The product formulation may "bulk up" seeds. It is important to calibrate the planter to ensure correct planting rate is attained. Apply at a rate of 300 g/ha (120 g or 4.2 oz/acre). This product can be used with peas, faba beans and broad beans.

SPECIALTY CROPS

CLICK HERE
to know more

Up to **3** weeks early to get marketable size with mycorrhizae

"In a controlled study, onion (*Allium cepa*) plants inoculated with AMF [Arbuscular Mycorrhizal Fungi] had a higher biomass [...] and reached marketable size (> 25 mm bulb diameter) 2-3 weeks earlier than [non-inoculated plants], and [AMF] caused firmer bulb formation of onions."[1]

[1] Vege review. C. Baum et al. / Scientia Horticulturae 187 (2015) 131–141

PTAGTIV.COM/**en/onions**

AGTIV® SPECIALTY CROPS • Powder

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 12 000 viable spores/g

INERT INGREDIENT: Diatomaceous earth
PARTICLE SIZE: < 1 mm (18 mesh)
BULK DENSITY: 275 g/L (0.7 lb/US dry qt)

SIZE (case)	CODE (case)
4 x 500 g (4 x 1.1 lb) – pails	711914

CANADA: For organic option, ask for this product: 712324

This product is compatible with legume inoculants.

TRANSPLANTING

DIRECTIONS FOR USE

VEGETABLE TRANSPLANTS OR BARE-ROOT BERRIES — Right before planting, coat the root plugs or the bare roots with the product. A 500 g pail of product can treat up to 111 000 transplants or 20 000 bare roots (according to plant size).

ASPARAGUS — Right before planting, coat the bottom of the crown with the product. The recommended quantity is 25 g (90 ml) for 1 000 crowns.

MIXING WITH SEEDS

DIRECTIONS FOR USE

At planting time, mix evenly with seeds (**Table 1**). Ensure uniform seed coverage is obtained. The product formulation may "bulk up" seeds. It is important to calibrate the planter to ensure correct planting rate is attained. Avoid using AGTIV® with wet equipment. When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant.

Table 1 – Quantity of AGTIV® to use per 1 000 seeds

Type of seed	g	oz	ml
Nantes carrot	0.225	0.0079	0.818
Market carrot	0.220	0.0077	0.800
Spanish onion	0.375	0.0132	1.364
Yellow onion	0.275	0.0097	1.000
Lettuce	0.280	0.0099	1.018
Pea/bean	0.250	0.0088	0.909
Cucumber	1.32	0.0465	4.8
Squash/pumpkin	3.3	0.1162	12
Garlic	25	0.8803	90.9

1 cup equals 240 ml (65 g) of product.

INCORPORATION INTO GROWING MEDIA

DIRECTIONS FOR USE

Mix the quantity of product into the growing media. For application chart, visit PTAGTIV.COM/**en/SC-powder**. For a better homogeneity, it is preferable to premix the recommended quantity of product to a part of the growing media (or one of the dry ingredient used in its composition). For **application onto tray surface**, contact your local representative for application details depending on your practices.

AGTIV® SPECIALTY CROPS • Granular

ELIGIBLE FOR ORGANIC USE

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices: 142 viable spores/g

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

SIZE	CODE
10 kg (22 lb) – pail	711703

IN-FURROW

DIRECTIONS FOR USE

Apply directly in furrow at a rate of 50 g (⅓ cup) per 100 m row length (0.33 lb/1000 ft).

INCORPORATION INTO GROWING MEDIA

DIRECTIONS FOR USE

Mix thoroughly into the growing media before filling the trays (**Table 2**).

Table 2 – Quantity of AGTIV® to use per volume of growing media

Cell or container volume	Qty of product to add/m³ of media	Qty of product to add/yd³ of media	Qty of inoculated media with AGTIV®/10 kg pail
40-200 ml	4.2 kg (6.5 L)	7 lb (20 ½ cups)	2.4 m³ (3.1 yd³)
200-500 ml	2.8 kg (4.3 L)	4.7 lb (14 cups)	3.6 m³ (4.7 yd³)
500 ml or more	1.4 kg (2.2 L)	2.4 lb (7 cups)	7.1 m³ (9.2 yd³)

This product is not recommended for cell sizes smaller than 40 ml.

TRANSPLANTING

DIRECTIONS FOR USE

Apply the product at the bottom and on the sides of the planting hole. Product must be in direct contact with roots.

BERRIES	FRUIT TREES
1.8 g (½ tsp)	10 g (1 tbsp)

AGTIV® ON SEED™

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – PTB297 Technology
Glomus intraradices

B **BACILLUS INOCULUM** – PTB180 Technology
Bacillus pumilus

ASK FOR **MYCORRHIZAE** & **BACILLUS** COMBINED M+B ON SEED

AGTIV® ON SEED™ is a specially designed seed treatment technology integrating active ingredients to promote healthy emergence and greater seedling vigor that increases: UNIFORMITY • YIELD • QUALITY.

With the AGTIV® ON SEED™ proven technology, you have access to a certified seed treatment backed by a close partnership with seed treaters for technology integration, compatibility with other inputs and quality control.

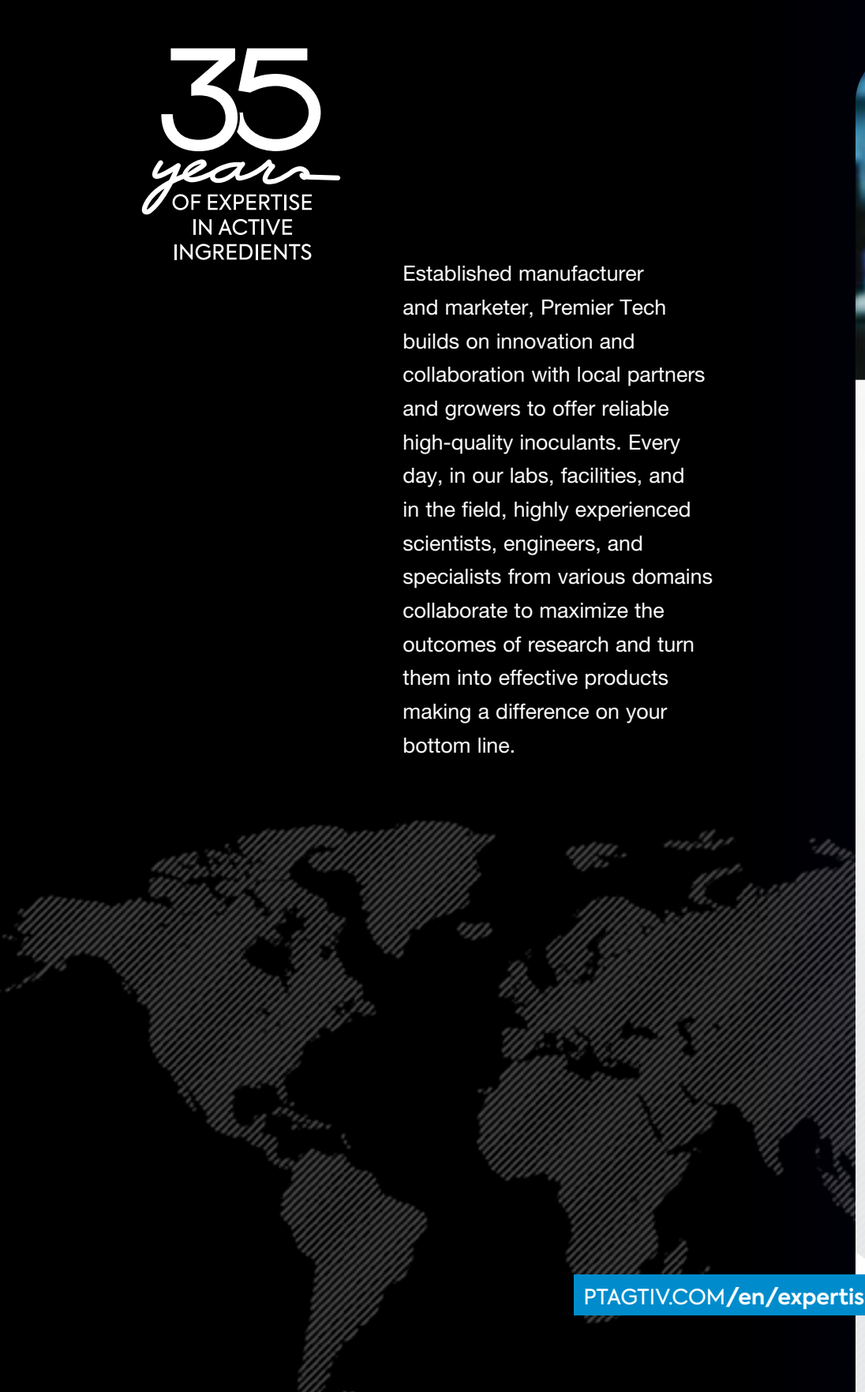
Validate with your representative which active ingredients are currently available for your specialty crops.

The following plant families cannot be colonized (no effect on plant) by the mycorrhizal fungi contained in AGTIV®: *Brassicaceae* (broccoli, cabbages, cauliflower, radish, rutabaga, watercress), *Chenopodiaceae* (beets, spinach), *Ericaceae* (blueberries, cranberries).

CELEBRATING DECADES OF **INNOVATION** AND **VALUE**

35 years OF EXPERTISE IN ACTIVE INGREDIENTS

Established manufacturer and marketer, Premier Tech builds on innovation and collaboration with local partners and growers to offer reliable high-quality inoculants. Every day, in our labs, facilities, and in the field, highly experienced scientists, engineers, and specialists from various domains collaborate to maximize the outcomes of research and turn them into effective products making a difference on your bottom line.



PTAGTIV.COM/en/expertise

PRODUCTION

In 2000, Premier Tech set up a world-first endomycorrhizal inoculum plant, developing a new mycoreactor process for industrial scale production. Backed by more than 35 years of expertise in active ingredients, Premier Tech constantly develops and innovates in terms of production of MYCORRHIZAE, RHIZOBIUM, BACILLUS, SERENDIPITA and other active ingredients:

- **No contamination through a strictly controlled and aseptic environment**
- **Large-scale manufacturing production**
- **Adapted quality control for each step of the production processes, ensuring consistent high-quality inoculum**

FORMULATION

Premier Tech's know-how makes it possible to adapt formulations with multiple active ingredients, concentrations and carriers tailored to different crops and application methods. Because a quality inoculant makes all the difference, our proven formulations are based on these important elements:

- **Carrier compatible with the active ingredients**
- **Formulations that guarantee active ingredient viability until use**
- **Quality control at several key points ensuring the performance of active ingredients**
- **Various formulations also tailored for organic production**

CLICK HERE
to know more

APPLICATION

Caring about our clients' performance, each recommendation for product use takes into consideration validation by our field experts and by farmers themselves, which ensures:

- **Effective application rates, at the right time and place, with the right inoculant**
- **Products adapted to growers' equipment**
- **Easy integration into farming practices**
- **Validation of compatibility with other agricultural inputs**

SERVICE

The AGTIV® experience combines highly effective value-added products and the access to a team of field experts dedicated to supporting your growth. From our management team and research project managers to our field specialists, our multidisciplinary team is listening to growers' needs to continuously improve our products and level of service:

- **Technical support for product application, equipment compatibility and field demonstration**
- **Proud promoter of science education and knowledge sharing**
- **Partnership with agriculture retailers throughout Canada, the United States and Europe**

RECOMMENDATIONS

CROPS	SOYBEAN					PULSES					CANOLA	POTATO	FIELD CROPS				FORAGES	SPECIALTY CROPS			PEAS	CHICKPEA	
	AGTIV® SOYBEAN Powder	AGTIV® SOYBEAN Granular	AGTIV® BRADY Granular for SOYBEAN	AGTIV® BRADY Liquid for SOYBEAN (*)	AGTIV® BB COMBO Liquid for SOYBEAN (*)	AGTIV® PULSES Granular	AGTIV® PULSES Powder	AGTIV® RHIZO Granular for PULSES	AGTIV® RHIZO Liquid for PULSES (*)	AGTIV® ON SEED™ - RHIZO Powder for PULSES	AGTIV® IGNITE Liquid	AGTIV® POTATO Liquid	AGTIV® FIELD CROPS Granular	AGTIV® FIELD CROPS Liquid	AGTIV® FIELD CROPS Powder	AGTIV® FIELD CROPS - O Powder	AGTIV® FORAGES Powder	AGTIV® ON SEED™ Specialty Crops	AGTIV® SPECIALTY CROPS Powder	AGTIV® SPECIALTY CROPS Granular	AGTIV® SPECIALTY CROPS - PEA Powder	AGTIV® CHICKPEA Powder	AGTIV® CHICKPEA Granular
APPLICATION																							
After coating, seed within	8h			30 days	30 days		8h		30 days	30 days	30 days	48h			8h	8h	8h		8h		8h	8h	
Apply within 6 hours after mixing into the tank				•	•				•		•	•		•									
Avoid using the product with wet equipment	•	•	•			•	•	•		•			•		•	•	•		•		•	•	•
Ensure full seed-soil contact when seeding	•						•			•					•	•	•		•		•	•	
To avoid flow problems, do not fill tank or seed cart completely		•	•			•		•					•										•
Ensure the tank and the liquid application system are clean and free of chemical residues				•	•				•		•	•		•									
Shake well before use and during the application				•	•				•		•	•		•									
Use diaphragm pump for product application (or peristaltic pump)												•		•									
Ensure the temperature of the diluted tank mix doesn't exceed				22°C (72°F)	22°C (72°F)				22°C (72°F)		22°C (72°F)	22°C (72°F)		22°C (72°F)									
CALIBRATION																							
Calibrate the application system to deliver the correct amount of product	•	•	•	•	•	•	•	•	•	•	•		•		•	•	•				•	•	•
Band width should be limited to 7 in (18 cm) or less												•		•									
On the planter or seeder, make sure to remove all cylinder screens by the orifices or use filters with openings of at least 50 mesh (0.28 mm)												•		•									
COMPATIBILITY																							
Do not mix with fertilizers	•	•	•	•	•	•	•	•			•		•		•	•	•			•	•	•	•
Refer to the list of compatible pesticides at PTAGTIV.com/en/compatibility	•			•	•		•		•	•	•	•		•	•	•	•		•	•	•	•	•
Refer to the list of compatible liquid fertilizers at PTAGTIV.com/en/compatibility				•	•				•			•		•									
STORAGE																							
Product must be refrigerated at											2-8°C (36-46°F)	2-8°C (36-46°F)		2-8°C (36-46°F)									
Do not freeze or expose to temperatures above	25°C (77°F)	25°C (77°F)	25°C (77°F)	20°C (68°F)	20°C (68°F)	25°C (77°F)	25°C (77°F)	25°C (77°F)	20°C (68°F)	25°C (77°F)	2-8°C (36-46°F)	2-8°C (36-46°F)	35°C (95°F)	2-8°C (36-46°F)	35°C (95°F)	35°C (95°F)	35°C (95°F)	35°C (95°F)	35°C (95°F)	35°C (95°F)	25°C (77°F)	25°C (77°F)	25°C (77°F)
Store the product at constant temperature	•	•	•			•	•	•		•	•	•	•	•	•	•	•		•	•	•	•	•
If the mixture does not contain pesticides or fertilizers, it can be emptied, refrigerated and used within 24 hours												•		•									

(*) Use AGTIV® **Extender** for longer shelf life

Complete AGTIV® product offer

PEOPLE AND TECHNOLOGIES MAKING A DIFFERENCE

Making a difference, this is what we are all about at Premier Tech. One team driven by a shared passion to deliver solutions that will better the lives of people, businesses and communities. At Premier Tech, People and Technologies connect in lasting, transformative ways, giving life to products and services that help feed, protect and improve our world. We are committed to creating sustainable solutions that help bring beautiful gardens to life, increase crop yields, improve the efficiency of manufacturing facilities, treat and recycle water, and much more as we keep innovating.

PREMIER TECH

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