

A wide-angle photograph of a potato field in bloom. The foreground and middle ground are filled with rows of green potato plants, each topped with clusters of small, light-colored flowers. The field extends to a flat horizon under a pale, overcast sky. In the far distance, some low hills and utility poles are visible.

AGTIV[®]

POTATO | GUIDE 2023

AGTIV[®]

DESIGNED BY NATURE. PERFECTED BY SCIENCE.

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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.

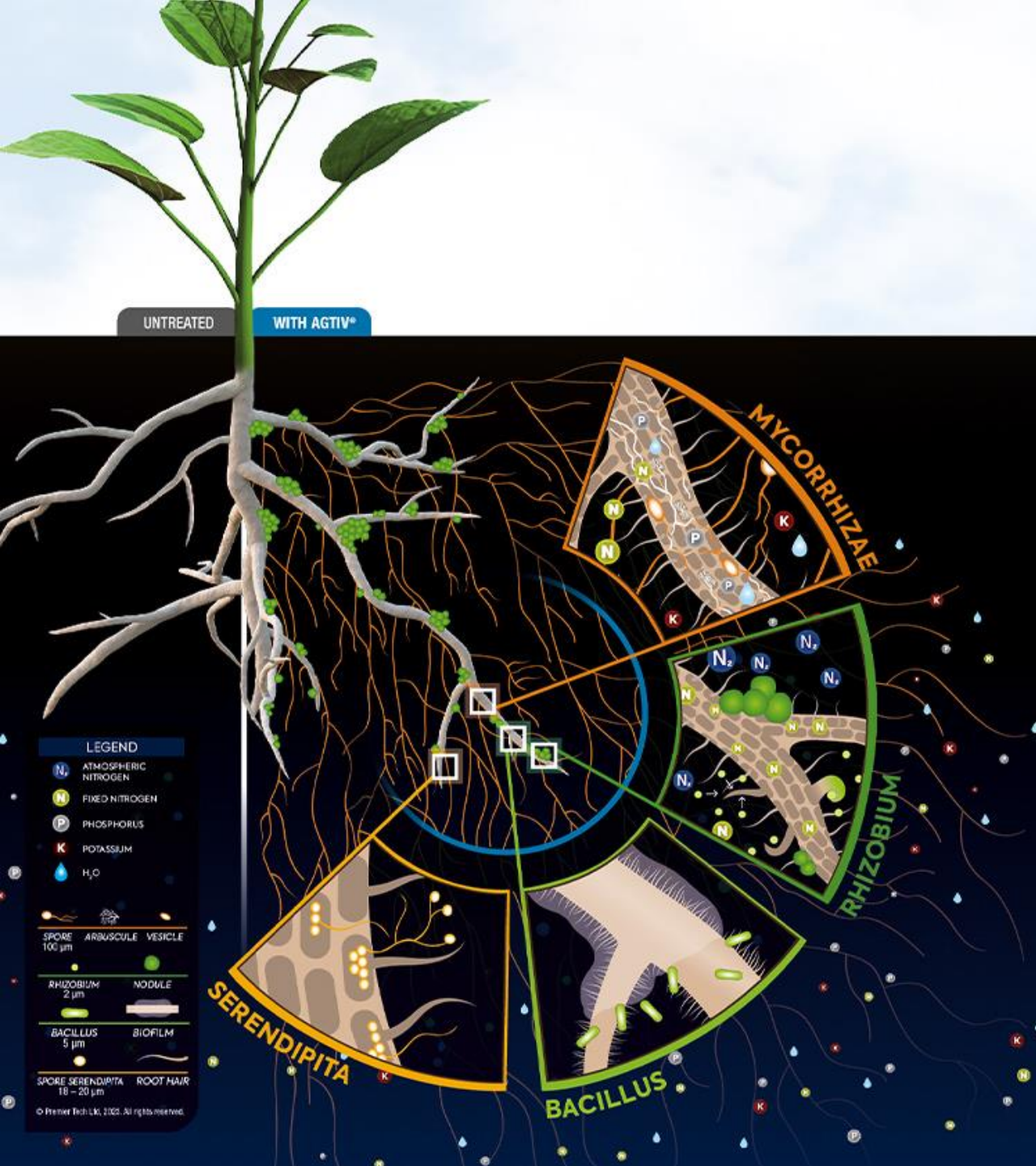
AGTIV®

**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

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



BENEFITS FOR POTATO

AGTIV® REACH™ creates the expansion of the root network by hyphae to reach further and uptake more nutrients and water, increasing resistance to stresses. **AGTIV® REACH™** ensures your plants are **stronger, healthier** and **more vigorous**.

AGTIV® STIMULATE™ provides a **healthy root zone** which leads to better yield. As a root colonizer, it stimulates the plant to **grow more efficiently**.



EFFECTIVE ON POTATO

AGTIV[®]



Quebec (Canada)



Ontario (Canada)



Quebec (Canada)



Quebec (Canada)



Pays de la Loire (France)



Artois (France)

AGTIV® REACH™ and AGTIV® STIMULATE™



AGTIV® REACH™ L POTATO

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

AGTIV® REACH™ P POTATO

F: Powder
S: Case of 2 x 300 g (2 x 10.5 oz) bag
C: Potato: 16 ha (40 acres) per case

AGTIV® STIMULATE™ L POTATO

F: Liquid
S: 8 L (8 kg) bag-in-box
C: Potato: 8 ha (20 acres)

ACTIVE INGREDIENT(S)	ORGANIC	APPLICATION MODE					FORMULATION
		GRANULAR IN-FURROW	MIXING WITH SEEDS	LIQUID IN-FURROW	LIQUID ON SEED		
M	✓			●	●	💧	
M	*			●	●	🔴	
B	✓			●	●	💧	

AGTIV® REACH™ and AGTIV® STIMULATE™

IN-FURROW APPLICATION OR SEED-PIECE TREATMENT

AGTIV® REACH™ L POTATO



ACTIVE INGREDIENT:

M MYCORRHIZAE – PTB297 Technology
Rhizopagus irregularis: 10 500 viable spores/g

INERT INGREDIENT: Water

PARTICLE SIZE: < 0.2 mm (70 mesh)

Contains non-soluble particles

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

DIRECTIONS FOR USE

IN-FURROW APPLICATION — 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.

SEED-PIECE TREATMENT — 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).

IN-FURROW APPLICATION OR SEED-PIECE TREATMENT

AGTIV® REACH™ P POTATO



ACTIVE INGREDIENT:

M MYCORRHIZAE – PTB297 Technology
Rhizopagus irregularis: 67 000 viable spores/g

INERT INGREDIENT: Diatomaceous earth

PARTICLE SIZE: < 0.2 mm (70 mesh)

SIZE	COVERS	CODE (case)
2 x 300 g (2 x 10.5 oz) – bags	Potato: 16 ha (40 acres)	711101

DIRECTIONS FOR USE

Pour the content of a 300 g pouch of the product into 5.7 liters of clean and non-chlorinated water. **Mix well and maintain under agitation during application.** Apply directly on seed pieces into furrow.

IN-FURROW APPLICATION

AGTIV® STIMULATE™ L POTATO



ACTIVE INGREDIENT:

B BACILLUS – PTB185 Technology
Bacillus inaquosorum: 2 x 10⁹ viable spores/g

INERT INGREDIENT: Water

PARTICLE SIZE: < 0.1 mm (150 mesh)

Contains non-soluble particles

SIZE	COVERS (1 case)	CODE (case)
8 L (8 kg) – bag-in-box	Potato: 8 ha (20 acres)	711021

DIRECTIONS FOR USE

Apply inoculant in the furrow, directly on the seed pieces, at a rate of 1000 ml/ha (400 ml/acre).

AGTIV® REACH™ and AGTIV® STIMULATE™

IN-FURROW APPLICATION

RECOMMENDATIONS

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

RECOMMENDATIONS

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.

8 RULES TO SUCCESS

AGTIV[®]



-  Product must be refrigerated (2-8 °C, 36-46 °F). Store the product at constant temperature at all times. Do not freeze product.
-  Use filters with openings of at least 0.28 mm (50 mesh).
-  Use diaphragm pump for product application (or peristaltic pump).
-  Shake the bottle well before use and maintain a constant and effective agitation in the tank during application.
-  Band width should be limited to 7 in (18 cm) or less.
-  Do not treat seed pieces more than 48 hours before seeding.
-  Apply within 6 hours after mixing into the liquid tank.
-  Do not use after the best before date indicated on the label.

POTATO YIELD RESULTS

AGTIV®



POTATO



31.6 cwt/ac
9.1%

AGTIV® REACH™ POTATO

1184 sites over 12 years, North America and Europe



20.8 cwt/ac
9%

AGTIV® REACH™ + AGTIV® STIMULATE™

9 third-party trials over 2 years, North America



[CLICK HERE FOR DETAILS](#)

AGTIV® REACH™ COMPATIBILITY

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

Mycorrhizal inoculant is compatible with most pesticides and liquid fertilizers.

[CLICK BELOW FOR ALL DETAILS](#)

PESTICIDES

**LIQUID
FERTILIZER
IN-FURROW**

**LIQUID
FERTILIZER
ON SEED**

PROGRAM

AGTIV®

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](#)

