



**AGTIV**®

**POTATO | GUIDE 2025**

# AGTIV<sup>®</sup>

DESIGNED BY NATURE. PERFECTED BY SCIENCE.



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# 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



Quebec (Canada)



Ontario (Canada)



Quebec (Canada)



Quebec (Canada)



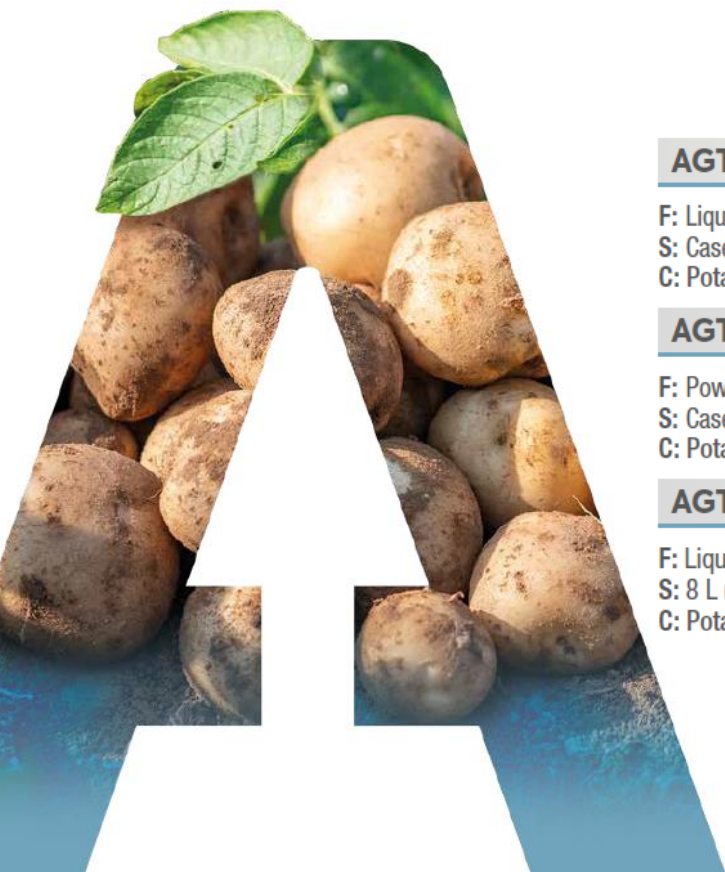
Pays de la Loire (France)



Artois (France)



# AGTIV® REACH™ and AGTIV® STIMULATE™



ACTIVE INGREDIENT(S)	ORGANIC	APPLICATION MODE			FORMULATION
		GRANULAR IN-FURROW	MIXING WITH SEEDS	LIQUID IN-FURROW	

## 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

<b>M</b>	✓			●	●	💧
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## 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

<b>M</b>	*			●	●	⦿
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## AGTIV® STIMULATE™ L POTATO

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

<b>B</b>	✓			●	●	💧
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F: Formulation  
 S: Size  
 C: Coverage

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

[PTAGTIV.COM](http://PTAGTIV.COM)

# AGTIV® REACH™ and AGTIV® STIMULATE™

IN-FURROW APPLICATION OR SEED-PIECE TREATMENT

## AGTIV® REACH™ L POTATO



ACTIVE INGREDIENT:

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

**COVERS**  
**20**  
**acres**

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](http://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  
*Rhizophagus irregularis*: 67 000 viable spores/g

**COVERS**  
**40**  
**acres**

INERT INGREDIENT: Diatomaceous earth

PARTICLE SIZE: < 0.2 mm (70 mesh)

SIZE	COVERS	CODE (case)
2 x 300 g (2 x 10.5 oz) – pouches	16 ha (40 acres)	711104

### DIRECTIONS FOR USE

Pour the content of a 300 g pouch 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 10<sup>9</sup> viable spores/g

**COVERS**  
**20**  
**acres**

INERT INGREDIENT: Water

PARTICLE SIZE: < 0.1 mm (150 mesh)

Contains non-soluble particles

SIZE	COVERS	CODE
8 L (8 kg) – bag-in-box	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](https://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](https://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](https://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<sup>®</sup>



-  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.



# 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.



# POTATO YIELD RESULTS

AGTIV®



**POTATO**

 **31.6** cwt/ac **9.1%**

**AGTIV® REACH™ POTATO**  
1197 sites over 13 years, North America and Europe

**+**  **+11.3** cwt/ac

**AGTIV® REACH™ + AGTIV® STIMULATE™**  
14 third-party trials over 3 years, North America



[CLICK HERE FOR DETAILS](#)



# EFFICACY REPORT

## SUMMARY – MYCORRHIZAL INOCULANT

### ► GROWER SPLIT FIELDS AND TRIALS

**Research sites:**

- Belgium;
- Canada;
- France;
- Germany;
- Mexico;
- Switzerland;
- United States.

**Treatments:**

- Untreated;
- AGTIV® REACH™ L POTATO\*.

\*Products applied according to manufacturers recommended rate.

**Experimental design:**

1197 split fields

Table 1. Average increase of marketable yield\* with AGTIV® REACH™ L POTATO

Territory	Number of sites	Yield increase (t/ha)	Yield increase (cwt/ac)	Yield increase (%)
Canada	598	3.1	27.6	9.9
United States	67	3.3	29.8	10.8
Mexico	4	2.3	20.0	8.6
Belgium, France & Switzerland	496	4.1	36.3	9.9
Germany	32	4.2	37.4	10.0
<b>Total</b>	<b>1197 sites</b>	<b>3.5 t/ha*</b>	<b>31.6 cwt/ac**</b>	<b>9.1%</b>

Table 2. Average increase of marketable yield\* with AGTIV® REACH™ L POTATO

Year	Number of sites	Yield increase (t/ha)	Yield increase (cwt/ac)	Yield increase (%)
2011	32	2.6	23.3	6.6
2012	33	3.2	28.5	9.0
2013	70	3.6	31.9	11.2
2014	116	4.5	40.3	12.8
2015	145	4.0	35.3	10.7
2016	243	3.9	34.8	10.5
2017	213	2.7	24.0	7.7
2018	113	3.4	30.2	11.2
2019	117	3.5	31.1	8.6
2020	49	2.9	25.6	9.8
2021	41	4.1	36.4	10.2
2022	12	3.4	29.2	7.8
2023	13	2.7	23.9	8
<b>Total</b>	<b>1197 sites</b>	<b>3.5 t/ha*</b>	<b>31.6 cwt/ac**</b>	<b>9.1%</b>

\* Statistically significant at p<0.001 following a T test.

\*\*cwt/ac = 100 lb/ac

# EFFICACY REPORT

## SUMMARY – MYCORRHIZAL & BACILLUS INOCULANT



### ► PLOT TRIALS

- Research partners:**
- AgriTech Inc
  - Atlantic Agri Tech;
  - New Marc Research;
  - Prairie Ag Research;
  - Progest inc.;
  - Tall Pines Agricultural Research Ltd.;
  - Wellington Agricultural Research Ltd.

- Research sites:**
- Alberta;
  - Ontario;
  - Prince-Edward Island;
  - Quebec.

- Treatments:**
- AGTIV® REACH™ L POTATO\*;
  - AGTIV® REACH™ L POTATO + AGTIV® STIMULATE™ POTATO\*.

\*Products applied according to manufacturers recommended rate.

- Experimental design:**
- Latin square:
- 13 trials of 6 repetitions;
  - 1 trial of 5 repetitions.

Table 1. Average increase of marketable yield\* in cwt/ac per trial

Year	Sites	AGTIV® REACH™	AGTIV® REACH™ and AGTIV® STIMULATE™	Yield increase*
2021	Sainte-Croix	320.3	319.3	-1
2021	Saint-Marc	107.8	112.8	5
2021	New Glasgow	242.1	247.4	5.3
2021	Rockwood	279.7	322.3	42.6
2021	Elmira	320.7	343.9	23.2
2022	Saint-Marc	145.4	142.2	-3.2
2022	Newton	235.9	237.8	1.9
2022	Newton	92.5	109.3	16.8
2022	Rockwood	402.5	429	26.5
2023	New Glasgow	413.1	425.6	12.5
2023	Raymond	138.5	141.1	2.6
2023	Underhills Farm	361.8	360	-1.8
2023	Newton	282.4	291.2	8.8
2023	Newton	482.7	502.3	19.6
<b>Average</b>	<b>14 sites</b>	<b>273.2</b>	<b>284.5</b>	<b>11.3 cwt/ac</b>

\*Comparison of the double inoculation vs AGTIV® REACH™ L POTATO

Before 2022:  
AGTIV® REACH™ L POTATO was formerly known as AGTIV® POTATO



# 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.

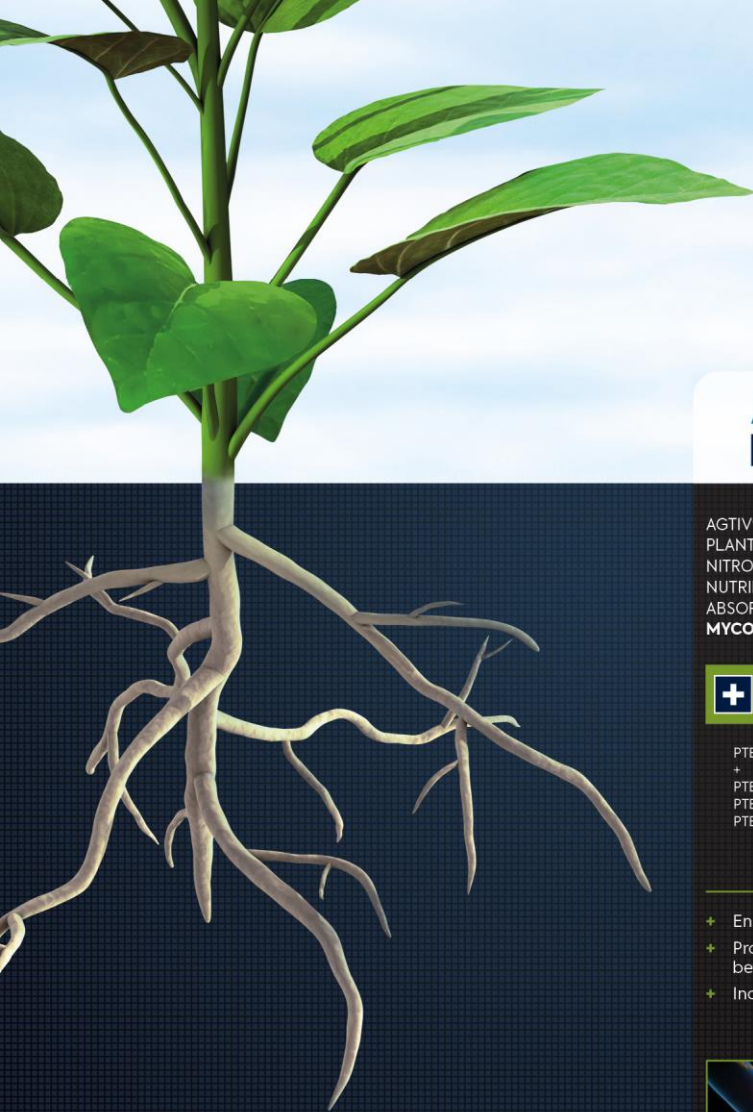
**CLICK BELOW FOR ALL DETAILS**

**PESTICIDES**

**LIQUID  
FERTILIZER  
IN-FURROW**

**LIQUID  
FERTILIZER  
ON SEED**





# AGTIV.

## BIOLOGICAL ACTIVE INGREDIENTS

For more than 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.

### AGTIV. THRIVE.

AGTIV® THRIVE™ POWERS PLANTS BY BOOSTING NITROGEN FIXATION, NUTRIENT AND WATER ABSORPTION THANKS TO **MYCORRHIZAE & RHIZOBIUM**

#### **+** MYCORRHIZAE + RHIZOBIUM

PTB297 Technology + PTB160 (pea & lentil) PTB162 (soybean) PTB161 (chickpea)

- + Enhances P uptake
- + Provides more energy for better nitrogen fixation
- + Increases photosynthesis



### AGTIV. ENRICH.

AGTIV® ENRICH™ STRENGTHENS LEGUME NITROGEN FIXATION AND PROVIDES A VIGOROUS ROOT SYSTEM THANKS TO **RHIZOBIUM & BACILLUS**

#### **+** RHIZOBIUM + BACILLUS

PTB162 Technology + PTB180 Technology

- + Increases nodulation and nitrogen fixation
- + Improves rooting environment
- + Enhances plant vigor and productivity



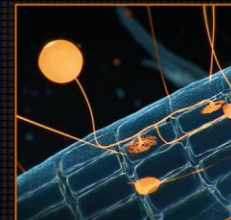
### AGTIV. REACH.

AGTIV® REACH™ HELPS PLANTS REACH AND ABSORB MORE NUTRIENTS AND WATER THANKS TO **MYCORRHIZAE**

#### **M** MYCORRHIZAE

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

- + Expands root system
- + Enhances nutrient and water uptake
- + Promotes plant robustness and vigor



### AGTIV. IGNITE.

AGTIV® IGNITE™ IMPROVES PHOTOSYNTHESIS AND MITIGATES IMPACT OF ENVIRONMENTAL STRESSES THANKS TO **SERENDIPITA**

#### **S** SERENDIPITA

PTB299 Technology, *Serendipita indica*

- + Mitigates abiotic stresses
- + Increases photosynthesis rate
- + Enhances plant establishment, growth and yield



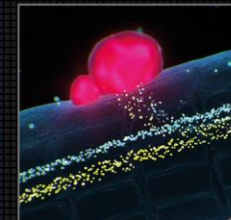
### AGTIV. FUEL.

AGTIV® FUEL™ FEEDS LEGUMES BY FIXING ATMOSPHERIC NITROGEN THANKS TO **RHIZOBIUM**

#### **R** RHIZOBIUM

PTB160 Technology (pea & lentil) *Rhizobium leguminosarum* biovar *viciae* PTB162 Technology (soybean) *Bradyrhizobium japonicum* PTB161 Technology (chickpea) *Mesorhizobium onobrychidis*

- + Increases nodulation
- + Fixes nitrogen
- + Provides nutrients to pulses



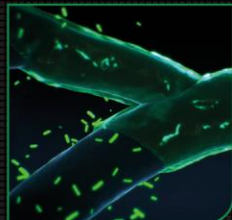
### AGTIV. STIMULATE.

AGTIV® STIMULATE™ REINFORCES PLANTS WITH A HEALTHY ROOT ZONE THANKS TO **BACILLUS**

#### **B** BACILLUS

PTB180 Technology, *Bacillus pumilus* PTB185 Technology, *Bacillus Inaquosorum*

- + Stimulates rooting environment
- + Improves plant establishment
- + Increases plant vigor and productivity



Learn more at

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

CLICK ON A PICTURE TO SEE THE TECHNOLOGY IN ACTION



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

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

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

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

**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](https://PTAGTIV.COM/brand)

# ONLINE TOOLS



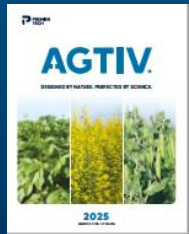
LABELS



EFFICACY REPORT



APPLICATION VIDEOS



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