

The background of the image is a landscape split vertically. The left side shows a field of golden wheat, and the right side shows a field of blue flowers. The sky is blue with white and grey clouds. The AGTIV logo is centered in the upper half of the image.

AGTIV[®]

FIELD CROPS | GUIDE 2024

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.

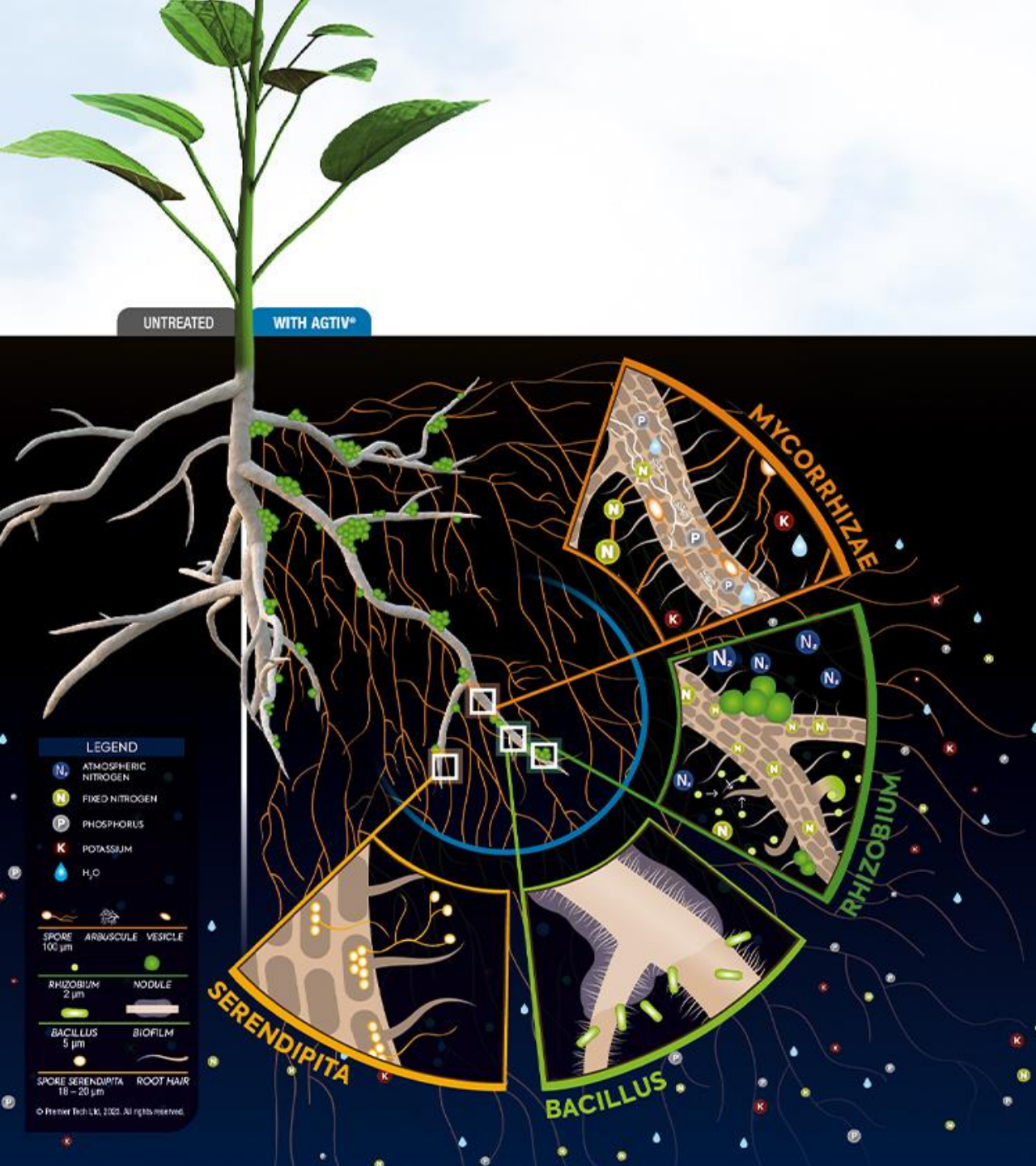
AGTIV[®]

**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](https://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 FIELD CROPS

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**.



EFFECTIVE ON FIELD CROPS

AGTIV®

DRY BEANS

Ontario (Canada)



Ontario (Canada)



FORAGES

Quebec (Canada)



Quebec (Canada)



Quebec (Canada)



Quebec (Canada)



AGTIV® REACH™

AGTIV®



AGTIV® REACH™ P

F: Powder (peat)
S: Case of 4 x 800 g (4 x 1.75 lb) pails
C: Cereal, flax & dry bean: **32 ha (80 acres)** per case
 Alfalfa, mix forages & grass: **16 ha (40 acres)** per case
 Vegetables, berries & garlic: see page "Specialty Crops" for details.



AGTIV® REACH™ G

F: Granules (peat)
S: 6 kg (13.2 lb) pail – 18.2 kg (40 lb) bag – 364 kg (800 lb) tote bag
C: Cereal, flax & dry bean: Bag: **4 ha (10 acres)** – Tote bag: **80 ha (200 acres)**
 Alfalfa, mix forages & grass: Bag: **45 kg of seeds (99 lb)** – Tote bag: **720 kg of seeds (1584 lb)**
 Vegetables, herbs, berries & fruit trees: see page "Specialty Crops" for details.



AGTIV® REACH™ L

F: Liquid (spores in suspension)
S: Case of 2 x 950 ml (2 x 32 fl. oz) bottles
C: Cereal, flax & bean: **16 ha (40 acres)** per case

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

ON-FARM MIXING WITH SEEDS

AGTIV® REACH™ P



ACTIVE INGREDIENT:

M MYCORRHIZAE – PTB297 Technology
Rhizophagus irregularis: 8000 viable spores/g

INERT INGREDIENT: Peat

PARTICLE SIZE: < 1 mm (18 mesh)

BULK DENSITY: 400 g/L (1 lb/US dry qt)

SIZE	COVERS	CODE
4 x 800 g (4 x 1.75 lb) – pails	Cereal, flax & dry bean: 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).

GRANULAR IN-FURROW

AGTIV® REACH™ G



ACTIVE INGREDIENT:

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

INERT INGREDIENT: Peat

PARTICLE SIZE: 0.5 mm to 2.5 mm (8 - 30 mesh)

BULK DENSITY: 600 g/L (37.4 lb/ft³)

SIZE	COVERS	CODE
18.2 kg (40 lb) – bag	4 ha (10 acres)	712101
364 kg (800 lb) – tote bag	80 ha (200 acres)	712102

DIRECTIONS FOR USE

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

LIQUID FOR IN-FURROW

AGTIV® REACH™ L



ACTIVE INGREDIENT:

M MYCORRHIZAE – PTB297 Technology
Rhizophagus irregularis: 6400 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	16 ha (40 acres)	712204

DIRECTIONS FOR USE

One 950 ml bottle covers 8 ha (20 acres). Dilute the product in the required volume of clean, non-chlorinated water, according to the product label. 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/REACH-L for application details.

YIELD INCREASE

AGTIV®



DURUM WHEAT



3.8 bu/ac
6.0%

AGTIV® REACH™
12 sites over 7 years, North America



BARLEY



7.3 bu/ac
10.5%

AGTIV® REACH™
28 sites over 6 years
Canada and Europe



DRY BEAN



252 lb/ac
8.7%

AGTIV® REACH™
12 sites over 7 years, North America



FORAGE



576 kg/ha
16.0%

AGTIV® REACH™ P
47 sites over 2 years, Canada



[CLICK HERE FOR DETAILS](#)

AGTIV® REACH™ COMPATIBILITY

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

Mycorrhizae 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® LIQUID INJECTION KIT

AGTIV®

- 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](#)

