LEAD THE WAY
BIOLOGICAL ACTIVE INGREDIENTS

MYCORRHIZAE & RHIZOBIIUM INOCULANTS
### MYCORRHIZAE & RHIZOBIUM INOCULANTS

#### PULSES (peas, lentils & faba beans)

<table>
<thead>
<tr>
<th>AGTIV®</th>
<th>Formulation</th>
<th>Size</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PULSES</td>
<td>Powder</td>
<td>4.7 kg</td>
<td>16 ha (40 acres)</td>
</tr>
<tr>
<td></td>
<td>Granular</td>
<td>18.2 kg</td>
<td>60 ha (200 acres)</td>
</tr>
</tbody>
</table>

#### AGTIV® PULSES
- **AGTIV® PULSES**
  - **Powder**
  - **Granular**

#### AGTIV® RHIZO
- **AGTIV® RHIZO**
  - **Granular for PULSES**

#### AGTIV® RHIZO
- **AGTIV® RHIZO**
  - **Liquid for PULSES**

#### SOYBEAN

<table>
<thead>
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<th>AGTIV®</th>
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</thead>
<tbody>
<tr>
<td>SOYBEAN</td>
<td>Powder</td>
<td>4.7 kg</td>
<td>16 ha (40 acres)</td>
</tr>
<tr>
<td></td>
<td>Granular</td>
<td>18.2 kg</td>
<td>60 ha (200 acres)</td>
</tr>
</tbody>
</table>

#### AGTIV® SOYBEAN
- **AGTIV® SOYBEAN**
  - **Powder**
  - **Granular**

#### AGTIV® BRADY
- **AGTIV® BRADY**
  - **Granular for SOYBEAN**

#### AGTIV® BRADY
- **AGTIV® BRADY**
  - **Liquid for SOYBEAN**

#### CHICKPEA

<table>
<thead>
<tr>
<th>AGTIV®</th>
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<th>Size</th>
<th>Coverage</th>
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</thead>
<tbody>
<tr>
<td>CHICKPEA</td>
<td>Granular</td>
<td>18.2 kg</td>
<td>64 ha (160 acres)</td>
</tr>
</tbody>
</table>

#### AGTIV® CHICKPEA
- **AGTIV® CHICKPEA**
  - **Granular**

#### AGTIV® FORAGES

<table>
<thead>
<tr>
<th>AGTIV®</th>
<th>Formulation</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>FORAGES</td>
<td>Powder</td>
<td>2 kg</td>
<td>32 ha (80 acres) per case</td>
</tr>
<tr>
<td></td>
<td>Granular</td>
<td>18.2 kg</td>
<td>80 ha (200 acres) per case</td>
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#### AGTIV® FIELD CROPS

<table>
<thead>
<tr>
<th>AGTIV®</th>
<th>Formulation</th>
<th>Size</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD CROPS</td>
<td>Powder</td>
<td>1.6 kg</td>
<td>16 ha (40 acres) per case</td>
</tr>
<tr>
<td></td>
<td>Granular</td>
<td>3.2 ha (8 acres) – 64 ha (160 acres)</td>
<td></td>
</tr>
</tbody>
</table>

#### AGTIV® FIELD CROPS
- **AGTIV® FIELD CROPS**
  - **Powder**
  - **Granular**

#### AGTIV® FIELD CROPS
- **AGTIV® FIELD CROPS**
  - **Liquid**

#### POTATO

<table>
<thead>
<tr>
<th>AGTIV®</th>
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<th>Size</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTATO</td>
<td>Liquid</td>
<td>8 L (8 kg) bag-in-box</td>
<td>32 ha (80 acres)</td>
</tr>
</tbody>
</table>

#### AGTIV® POTATO
- **AGTIV® POTATO**
  - **Liquid**

### AGTIV® PRODUCTS

- Products also available for specialty crops.

### AGTIV® HIGHLY EFFECTIVE INOCULANTS

AGTIV® highly effective inoculants make a difference in the field by pushing crops’ yield potential and increasing growers’ net returns. Lead the way with Premier Tech’s expertise for AGTIVated acres.

### APPLICATION MODE

- **PULSES** (cereals, flax & dry beans)
- **SOYBEAN**
- **CHICKPEA**
- **FORAGES**
- **FIELD CROPS** (cereals, flax & dry beans)
- **POTATO**

### ACTIVE INGREDIENTS:

- **MYCORRHIZAE**
- **RHIZOBIUM**

- **Mesorhizobium ciceri** (chickpea)
- **PTB297 Technology**
- **PTB160 Technology** (pulses)
- **PTB162 Technology** (soybean)

### ORGANIC:

- For organic use
- Non eligible for organic use

**CONTACT US FOR MORE DETAILS.**
Dedicated to offer technical support for product application, field demonstration, equipment and input compatibility, and to promote educational agronomic knowledge, Premier Tech provides various tools on PTAGTIV.COM.

**EASY TO USE**
For an easy integration in your farming practices, access:
- Labels, SDS, organic certificates
- Application videos, charts and rate calculators
PTAGTIV.COM/en/toolbox

**EFFECTIVE**
For the compatibility lists of our active ingredients with various agricultural inputs, such as:
- Pesticides
- Liquid fertilizers
PTAGTIV.COM/en/compatibility

**PROVEN RESULTS**
Discover the third-party results proving the effectiveness of the active ingredients contained in AGTIV® products:
- Efficacy report
- Field observations
PTAGTIV.COM/en/results

**AGRONOMIC KNOWLEDGE**
Access blog articles on various agronomic topics:
- Soil biology
- Plant health
- Active ingredients, etc.
PTAGTIV.COM/en/blog

**LIQUID**
- **EQUIPMENT PROGRAM**
The AGTIV® Liquid Injection Kit, integrating a Dosatron® pump, is a customized equipment designed and recommended by Premier Tech. Easy to install on your existing in-furrow application system, it operates off the main solution flow for precise application of AGTIV® liquid products. End-of-season pay-back programs are available for the AGTIV® Liquid Injection Kit and the Upgrade Kit.

- **RETAILER FRIDGE PROGRAM**
Premier Tech recommends 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/equipment
ON-FARM MIXING WITH SEEDS

AGTIV® PULSES • Powder

- **ACTIVE INGREDIENTS:**
  - Rhizobium leguminosarum
  - Glomus intraradices
  - Trichoderma harzianum

- **INERT INGREDIENT:**
  - Peat

- **SIZE:**
  - 4.7 kg (10.3 lb) – pail

- **COVERS CODE:**
  - 710303

**DIRECTIONS FOR USE**
- **PULSES**
  - Peas, lentils and fava beans: apply at 200 g/ha (80 g or 2.8 oz/acre).
  - Lentils: apply at 300 g/ha (120 g or 4.2 oz/acre).
  - Peas & faba beans: apply at 240 g/ha (96 g or 3.4 oz/acre).

- **PARTICLE SIZE:**
  - 0.3 mm to 2 mm (10 - 50 mesh)

- **BULK DENSITY:**
  - 650 g/L (41 lb/ft³)

**RECOMMENDATIONS**
- Avoid using the product with wet equipment.
- Calibrate the seeder before applying the product.
- Flowability may be affected by conditions of high humidity.
- To avoid flow problems, do not fill tank or seed cart completely.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- Do not blend with fertilizers.

**LIQUID IN-FURROW**

AGTIV® PULSES • Liquid for PULSES

- **ACTIVE INGREDIENTS:**
  - Rhizobium leguminosarum
  - Glomus intraradices
  - Trichoderma harzianum

- **INERT INGREDIENT:**
  - Peat

- **SIZE:**
  - 8 L (8 kg) – bag-in-box

- **COVERS CODE:**
  - 710204

**DIRECTIONS FOR USE**
- **Apply in the seed row at a rate of 4.5 kg/ha (4 lb/acre),**
- **or in-furrow.**
- **Refrer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.**

**RECOMMENDATIONS**
- Avoid using the product with wet equipment.
- Calibrate the seeder before applying the product.
- Flowability may be affected by conditions of high humidity.
- To avoid flow problems, do not fill tank or seed cart completely.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- Do not blend with fertilizers.

**PULSES**

Peas, lentils and faba beans

51% more photosynthesis with the tripartite symbiosis

SOYBEAN

AGTIV® SOYBEAN • Powder

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. Desiccate the inoculant. Seed within 4 hours after coating.

RECOMMENDATIONS

- Do not blend with fertilizers.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Avoid using the product with wet equipment.


AGTIV® SOYBEAN • Granular

DIRECTIONS FOR USE

Apply in the seed row at a rate of 300 g/ha (120 g or 4.2 oz/acre). Apply at 300 g/ha (120 g or 4.2 oz/acre).

RECOMMENDATIONS

- Do not blend with fertilizers.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant. Seed within 4 hours after coating.


AGTIV® BRADY • Granular for SOYBEAN

DIRECTIONS FOR USE

Apply in the seed row at a rate of 4.5 kg/ha (4 lb/acre). Calibrate the seeder before applying the product. Flowability may be affected by conditions of high humidity. To avoid flow problems, do not fill tank or seed cart completely.

RECOMMENDATIONS

- Avoid using the product with wet equipment.
- Calibrate the seeder before applying the product.
- Flowability may be affected by conditions of high humidity.
- To avoid flow problems, do not fill tank or seed cart completely.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- Do not blend with fertilizers.

AGTIV® BRADY • Liquid for SOYBEAN

DIRECTIONS FOR USE

Apply directly in the seed row at a rate of 690 ml/ha (275 ml/acre). Refer to the list of compatible pesticides and liquid fertilizers at PTAGTIV.COM/Man/compatibility. This product should be applied using the AGTIV® Liquid Injection Kit, integrating a Dosatron® pump. It is easy to install on your existing in-furrow application system and operates off the main solution flow. To apply, prepare the product mixture and adjust the Dosatron® injection rate following the calculation chart and application video at PTAGTIV.COM/en/liquid-injection-kit.

RECOMMENDATIONS

- Ensure the tank and the liquid application system are clean and free of chemical residues.
- Shake well before use and maintain a constant agitation in the tank during application.
- Calibrate the application system to deliver the correct amount of inoculant.
- Ensure the temperature of the diluted tank mix doesn’t exceed 22°C (72°F).
- Apply within 6 hours after mixing into the tank.

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 soil.⁴

Nutrients and water are essential components for effective plant growth. By adding biological active ingredients, such as beneficial mycorrhizae and rhizobium, an earlier and efficient use of water and nutrients will help 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®.

**Tripartite Symbiosis** is the biological interaction between Mycorrhizae, Rhizobium and the Plant.

By enhancing root system growth and creating a network of filaments, mycorrhizae help plants to uptake more nutrients, such as phosphorus, and increase the nodulation process for the rhizobium.

- **EXPAND ROOT SYSTEM GROWTH**
- **ENHANCE NUTRIENT & WATER UPTAKE**
- **INCREASE TOLERANCE TO STRESSES**
- **IMPROVE SOIL STRUCTURE**
- **FIX NITROGEN & MAKE IT AVAILABLE TO THE PLANT**
- **INCREASE PROPAGATION OF RHIZOBIUM TO OTHER ROOTS**
- **HELP FEED THE PLANT**
- **ENHANCE PHOTOSYNTHESIS**

To learn more about the tripartite symbiosis PTAGTIV.COM/en/tripartite
FORAGES

AGTIV® FORAGES • Powder

ACTIVE INGREDIENT:
ENDOMYCORRHIZAL INOCULUM – PTB297 Technology
Glomus intraradices: 1.3 x 10¹⁰ viable cells/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) 712901
364 kg (800 lb) – tote bag 64 ha (160 acres) 712902

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). Refer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.

RECOMMENDATIONS
- Avoid using the product with wet equipment.
- At seeding time, calibrate the seeder with the treated seeds.
- Seed within 8 hours after coating.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant.

GRANULAR IN-FURROW

AGTIV® CHICKPEA • Granular

ACTIVE INGREDIENTS:
M E N D O M Y C O R R H I Z A L I N O C U L U M – PTB297 Technology
Glomus intraradices: 8 000 viable spores/g

R H Z O B I A L I N O C U L U M
Mesorhizobium ciceri: 1.3 x 10⁸ 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  3.2 ha (8 acres) 712501
364 kg (800 lb) – tote bag  64 ha (160 acres) 712502

DIRECTIONS FOR USE
Apply in the seed row at a rate of 5.7 kg/ha (5 lb/acre).
Refer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.

RECOMMENDATIONS
- Avoid using the product with wet equipment.
- Calibrate the seeder before applying the product.
- Flowability may be affected by conditions of high humidity. To avoid flow problems, do not fill tank or seed cart completely.
- Do not freeze or expose to temperatures above 25°C (77°F).
- Store the product at constant temperature at all times.
- Do not blend with fertilizers.
Cereals, flax and dry beans

**FIELD CROPS**

- When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant.
- Store the product at constant temperature at all times.
- Do not freeze or expose to temperatures above 35°C (95°F).
- Seed within 8 hours after coating.
- At seeding time, calibrate the seeder with the treated seeds.
- Avoid using the product with wet equipment.

Refer to the list of compatible pesticides at PTAGTIV.com

**RECOMMENDATIONS**

- Mix eveny 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. Refer to the list of compatible pesticides at PTAGTIV.COM/compatibility.
- Ensure the tank and the liquid injection system are clean and free of chemical residues.
- Ensure the temperature of the diluted tank mix doesn’t exceed 22°C (72°F).

**LIQUID IN-FURROW**

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. Apply directly in the seed row. Refer to the list of compatible pesticides and liquid fertilizers at PTAGTIV.COM/compatibility.

**RECOMMENDATIONS**

- Product must be refrigerated (2-8°C, 36-46°F). Do not freeze product.
- Ensure the tank and the liquid injection system are clean and free of chemical residues.
- On the planter or seeder, make sure to remove all cylinder screens by removing the orifices.
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


**ACTIVE INGREDIENT:**
- 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)**
- 2 x 950 ml (2 x 32 fl. oz) – bottles

**COVERS (1 case)**
- 8 ha (20 acres)

**CODE (case)**
- 711004

**RECOMMENDATIONS**
- The insulated box has been designed to allow the product to be kept outside of the fridge for 12 hours at 15°C (59°F). Refrigerate upon receipt.
- Product must be refrigerated (2-8°C, 36-46°F). Do not freeze product.
- Shake the bottle well before use and maintain a constant agitation in the tank during application.
- Ensure the temperature of the diluted tank mix doesn’t exceed 22°C (72°F).
- Do not use after the best before date indicated on the label.

**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.
- Apply directly on seed pieces into furrow. Refer to the list of compatible pesticides and liquid fertilizers at PTAGTIV.COM/en/compatibility.

**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.

**SEED-PIECE TREATMENT**

**DIRECTIONS FOR USE**
- In a clean tank, pour the contents 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). Apply directly on seed pieces. Do not treat seed pieces more than 48 hours before seeding (could activate seed-piece sprouting). Refer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.

**TANK MIX**
- Use filters with openings of at least 50 mesh (0.28 mm).
- Use a diaphragm pump for product application (or peristaltic pump).
- Up and down agitation at all times in the tank.
- Apply within 6 hours after mixing into the liquid tank.

**MILESTONE TREATER**
- Validate that the atomising 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 atomising 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 pump for product application (or peristaltic pump).
- Up and down agitation at all times in the tank.
- Apply within 6 hours after mixing into the liquid tank.

See recommendations below based on the application mode:
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.

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:

- 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

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 mycorrhizal, rhizobium and other active ingredients:

CELEBRATING DECADES OF INNOVATION AND VALUE
In agriculture, science-based technologies such as biological active ingredients play a key role in maximizing crop potential. Strongly embedded in our collective DNA, Premier Tech’s innovation program has supported the creation and continuous improvement of our high-quality product offer, with mycorrhizae and rhizobium inoculants, making a difference for you.

CONTACT OUR DEDICATED TEAM TODAY. WE CARE ABOUT YOUR SUCCESS!
1 866 454-5867 info@ptagtiv.com PTAGTIV.COM

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.