2017 FIELD CROPS

AGTIV™

LEAD THE WAY

BIOLOGICAL ACTIVE INGREDIENTS

MYCORRHIZAE & RHIZOBIUM INOCULANTS

PREMIER TECH AGRICULTURE

HIGH-QUALITY INOCULANTS

LEAD THE WAY

The rising worldwide demand for food requires that we all find ways to increase crop productivity, while thinking of the next generation.

Premier Tech Agriculture helps you lead the way and puts its expertise at the service of agriculture. Our goal is to offer a wide range of biological active ingredients providing sustainable results in the field and better return on your investment.

Technology and science are key elements to consider in agriculture. Premier Tech has been working on mycorrhizae and its unique and proprietary mycorrhizal manufacturing process for over three decades, and continues to invest in the production of mycorrhizae, rhizobium and other active ingredients in order to meet market needs in high-quality inoculants.

EFFECTIVE

AGTIV™ delivers stronger growth through better plant resistance to stresses and diseases, higher yields and superior crop quality you can count on.

EASY TO USE

Each **AGTIV**™ product integrates easily into your farming practices allowing you to fully benefit of the power of our biological active ingredients.

PROVEN RESULTS

Since 2010, growers have increased their profitability with our inoculants for many crops such as peas, lentils and soybeans.

THE FUTURE OF SUSTAINABLE AGRICULTURE IS NOW AND **THIS IS YOUR TIME!**

AGTIV™ products also available for potato and specialty crops.

PULSES

Peas, lentils and faba beans

HIGHER YIELDS THROUGH BETTER PHOSPHORUS UPTAKE AND NITROGEN FIXATION

" Legumes associated with N-fixing rhizobia also require more P [...]. Tripartate associations of host plants with both rhizobia and mycorrhizae benefit the host plant because of increased P uptake from the mycorrhizal association balancing the high input of N through rhizobial N-fixation."

Koele et al, VFRC Report 2014/1.

Increase your productivity with AGTIV™, the only brand on the market to offer the **powerful combination** of rhizobium and **mycorrhizae in one application**. With a peat-based formulation, these products are designed for peas, lentils and faba beans.

ON-FARM MIXING WITH SEEDS

AGTIV™ PULSES • Powder

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** - GHA297 Technology
Glomus intraradices: 2 750 viable spores/g

R **RHIZOBIAL INOCULUM** - GHA160 Technology
Rhizobium leguminosarum biovar *viceae*: 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
4.7 kg (10.3 lb) – pail	**Peas & faba beans:** 16 ha (40 acres) **Lentils:** 24 ha (60 acres)	710303

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. **Peas & faba beans:** apply at 300 g/ha (120 g or 4.2 oz/acre). **Lentils:** apply at 200 g/ha (80 g or 2.8 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.

Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- 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 mycorrhizal inoculant. Seed within 4 hours after coating.

IN-FURROW APPLICATION

AGTIV™ PULSES • Granular

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** - GHA297 Technology
Glomus intraradices: 142 viable spores/g

R **RHIZOBIAL INOCULUM** - GHA160 Technology
Rhizobium leguminosarum biovar *viceae*: 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/ft³)

SIZE	COVERS	CODE
18.2 kg (40 lb) – bag	3.2 ha (8 acres)	710101
364 kg (800 lb) – tote bag	64 ha (160 acres)	710102

DIRECTIONS FOR USE

This product should be placed in the seed row. Apply at a rate of 5.7 kg/ha (5 lb/acre). Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- 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.

PROVEN RESULTS

Since 2010, growers have increased their profitability with our inoculants. Want to see the yield results?

Visit our "Crops" section at PT**AGTIV**.COM

BIOLOGICAL ACTIVE INGREDIENTS

FROM OUR LABS TO YOUR FIELDS

Backed by more than **30 years of expertise** in biological active ingredients, Premier Tech masters a unique **large-scale manufacturing process** that meets the **highest quality control levels**, allowing you to fully benefit from the highly effective inoculants of the **AGTIV™** agricultural product line.

RHIZOBIUM

Active Ingredients: **R** **RHIZOBIAL INOCULUM** – Technologies: GHA160 (pulses), GHA162 (soybean)
Rhizobium leguminosarum biovar *viceae, Bradyrhizobium japonicum*

Production: Premier Tech's rhizobia technologies include a specific production process in a sterilized environment as well as a highly-efficient quality control process for superior inoculum.

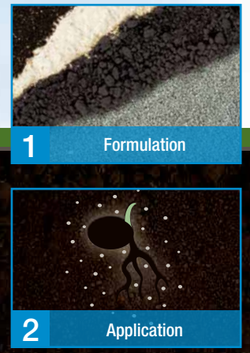
Mode of Action: The rhizobium allows the formation of nodules on the roots to increase nitrogen absorption.

MYCORRHIZAE

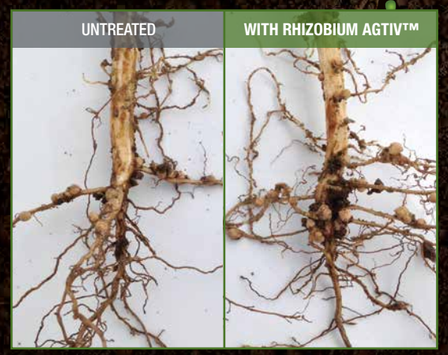
Active Ingredient: **M** **ENDOMYCORRHIZAL INOCULUM** – GHA297 Technology
Glomus intraradices

Production: An exclusive aseptic production process developed by Premier Tech using standards of the high-technology industry to obtain viable mycorrhizal spores of a consistent high quality.

Mode of Action: The mycorrhizae develop an intra and extra-radical network of filaments that will explore the soil to access more nutrients and water, and transfer them to the plant.



FIXES NITROGEN AND MAKES IT AVAILABLE TO THE PLANT

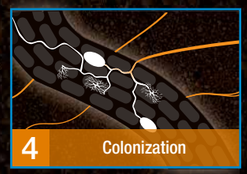


ENHANCE NUTRIENT AND WATER UPTAKE

INCREASE TOLERANCE TO STRESSES

EXPAND ROOT SYSTEM GROWTH

IMPROVE SOIL STRUCTURE



LEGEND

RHIZOBIUM · NODULE · SPORE · ARBUSCULE · VESICLE · ATMOSPHERIC NITROGEN (N_2) · FIXED NITROGEN (N) · PHOSPHORUS (P) · POTASSIUM (K) · H_2O

SOYBEAN

IMPROVES ROOT SYSTEM DEVELOPMENT & NODULATION TO INCREASE YOUR **CROP PRODUCTIVITY**

"Studies have clearly demonstrated that when legumes symbiose with both rhizobia and AM-fungi [Arbuscular Mycorrhizal Fungi], plant growth, yield, and nitrogen nutrition are generally much greater than plants inoculated either with rhizobia or AM fungi alone."

M.S. Khan et al. (eds.), Microbes for Legume Improvement,
DOI 10.1007/978-3-211-99753-6_17, # Springer-Verlag/Wien 2010

Stimulate your soybean yield with the AGTIV™ products. Combining *Bradyrhizobium* and **mycorrhizae**, these peat-based products are unique and allow you to fully benefit from the **power** of these two active ingredients.

ON-FARM MIXING WITH SEEDS

AGTIV™ SOYBEAN • Powder

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – GHA297 Technology
Glomus intraradices: 2 750 viable spores/g

R **RHIZOBIAL INOCULUM** – GHA162 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.

Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- Seed within 4 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 mycorrhizal inoculant. Seed within 4 hours after coating.

IN-FURROW APPLICATION

AGTIV™ SOYBEAN • Granular

ACTIVE INGREDIENTS:

M **ENDOMYCORRHIZAL INOCULUM** – GHA297 Technology
Glomus intraradices: 142 viable spores/g

R **RHIZOBIAL INOCULUM** – GHA162 Technology
Bradyrhizobium japonicum: 1.5 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	3.2 ha (8 acres)	710501
364 kg (800 lb) – tote bag	64 ha (160 acres)	710502

DIRECTIONS FOR USE

This product should be placed in the seed row. Apply at a rate of 5.7 kg/ha (5 lb/acre). Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- 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.

EFFECTIVE

Eager to see how these products can make a difference in your field?

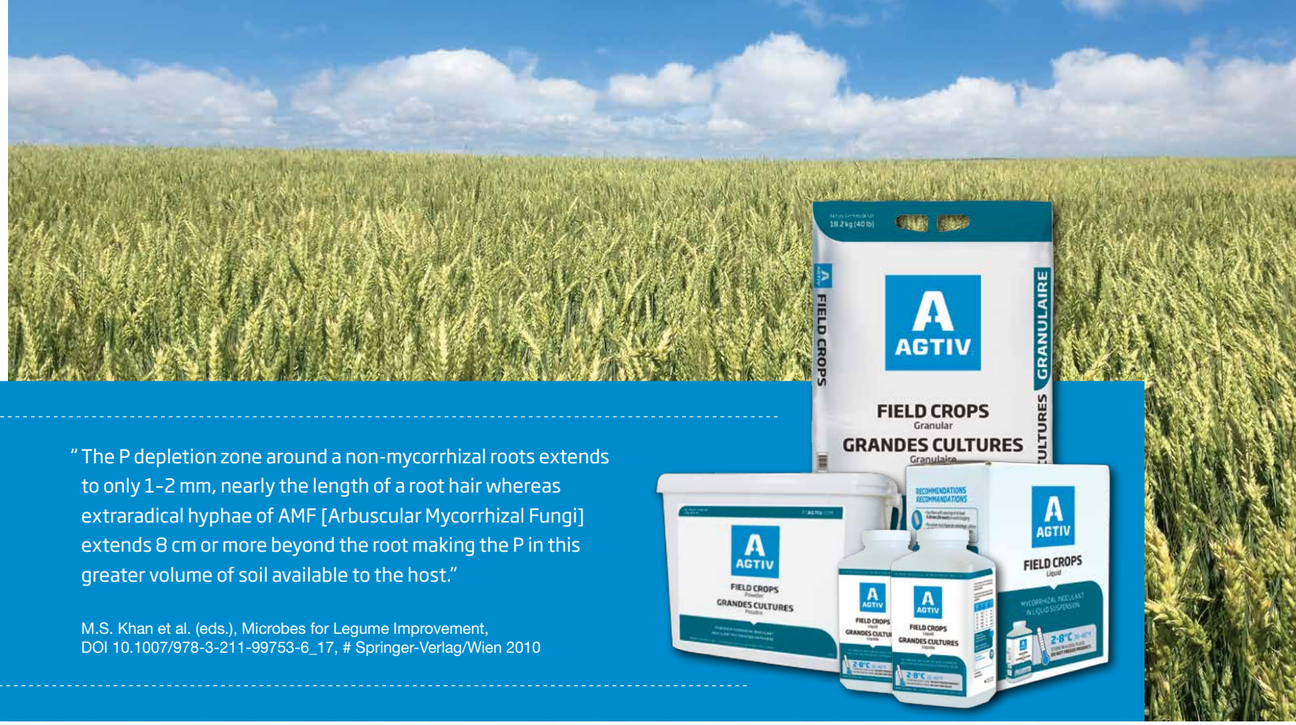
Visit our "Crops" section at PT**AGTIV**.COM

FIELD CROPS

BIGGER NUTRIENT ABSORPTION AREA USING THE MYCORRHIZAL NETWORK

" The P depletion zone around a non-mycorrhizal roots extends to only 1–2 mm, nearly the length of a root hair whereas extraradical hyphae of AMF [Arbuscular Mycorrhizal Fungi] extends 8 cm or more beyond the root making the P in this greater volume of soil available to the host."

M.S. Khan et al. (eds.), Microbes for Legume Improvement,
DOI 10.1007/978-3-211-99753-6_17, # Springer-Verlag/Wien 2010



Count on AGTIV™ **mycorrhizal inoculant** products offered in **three formulations** designed for your crop practices: powder, granular and liquid.

ON-FARM MIXING WITH SEEDS

AGTIV™ FIELD CROPS • Powder

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** - GHA297 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). Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- Seed within 8 hours after coating;
- Do not freeze or expose to temperatures above 35°C (95°F);
- Store the product at constant temperature at all times;
- When seeding, ensure full seed-soil contact to minimize any desiccation of the mycorrhizal inoculant.

GRANULAR IN-FURROW APPLICATION

AGTIV™ FIELD CROPS • Granular

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** - GHA297 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

This product should be placed in the seed row. Apply at a rate of 5.7 kg/ha (5 lb/acre). Refer to the complete list of compatible pesticides on PT**AGTIV**.COM.

RECOMMENDATIONS

- 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 35°C (95°F);
- Store the product at constant temperature at all times;
- Do not blend with fertilizers.

LIQUID IN-FURROW APPLICATION

AGTIV™ FIELD CROPS • Liquid

ACTIVE INGREDIENT:

M **ENDOMYCORRHIZAL INOCULUM** - GHA297 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
2 x 950 ml (2 x 32 fl. oz) – bottles	16 ha (40 acres)	712204

DIRECTIONS FOR USE

In the liquid tank, pour the contents of **one** 950 ml bottle in the volume of liquid required to treat 8 hectares (20 acres). Refer to this application chart. Only apply directly in furrow. **Follow the 7 rules to success.**

FLOW RATE (L/ha)	WATER (L)	FLOW RATE (gal/ac)	WATER (gal)
19	150	2	40
38	300	4	80
57	450	6	120
76	600	8	160
95	750	10	200

Refer to the complete list of compatible pesticides or liquid fertilizers on the website PT**AGTIV**.COM.

7 RULES TO SUCCESS

1. Product must be refrigerated **(2-8 °C, 36-46 °F).** Store the product at **constant temperature** at all times. **Do not freeze product.**
2. Use filters with openings of at least **0.28 mm (50 mesh).**
3. **Use diaphragm pump** for product application (or peristaltic pump).
4. **Shake the bottle well** before use and maintain a **constant and effective agitation** in the tank during application.
5. The product must be **applied directly in the bottom of the furrow.**
6. Apply within **6 hours** after mixing into the liquid tank.
7. Do not use after the **best before date** indicated on the label.

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.

LEAD THE WAY
with our highly effective product line.
Want to know more?

For yield results and product information visit PT**AGTIV**.COM

Premier Tech has been growing its leadership position globally for more than **90 years**, driven by the collective power of its **3 300 team** members in **24 countries**. Leveraging its human capital as well as a deeply rooted Culture revolving around innovation and excellence, Premier Tech focuses its efforts in three core industries: **Horticulture and Agriculture** – greenhouse production, agriculture, and lawn and garden; **Industrial Equipment** – rigid and flexible packaging, material handling, and palletizing; and **Environmental Technologies** – wastewater treatment and rainwater harvesting. Committed to the long-term success of its clients and backed by its **scientific** and **technical expertise** in the production and use of biological active ingredients, combined with ongoing investments in its **manufacturing capabilities**, Premier Tech develops and continually improves the **AGTIV**™ commercial offer for both **field crops** and **specialty crops** internationally.

PREMIER TECH AGRICULTURE

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