

MYCORRHIZAL INOCULANT





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 hectares.





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TOOLS

EQUIPMENT & PROGRAM

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. To ensure performance through efficient and precise application of its inoculants, Premier Tech recommends the use of approved equipment, endorsed by a pay-back program on selected AGTIV[®] products.

EASY TO USE

For an easy integration in your farming practices, access:

- ✓ Labels, SDS, organic certificates
- \checkmark Application videos, charts and rate calculators

PTAGTIV.COM**/en/toolbox**

EFFECTIVE

For the compatibility lists of our biological 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 $\mbox{AGTIV}^{\mbox{\tiny B}}$ products:

- S 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

Sequipment progam

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 program is available for the AGTIV[®] Liquid Injection Kit.







PTAGTIV.COM**/en/equipment**

ΡΟΤΑΤΟ



TOX more area for water uptake with mycorrhizae than root hairs

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

¹Jones, C. E. 2009. Mycorrhizal fungi - powerhouse of the soil. Evergreen Farming 8:4-5.

AGTIV[®] POTATO • Liquid

ACTIVE INGREDIENT:

ENDOMYCORRHIZAL INOCULUM – PTB297 Technology *Glomus intraradices:* 10 500 viable spores/g in liquid suspension

Registered name: AGTIV POTATO LIQUID - AMM N°1150023 Suitable for organic farming in accordance with regulation (CE) 834/2007

INGRÉDIENT INERTE : Water PARTICLE SIZE: < 0.2 mm (70 n Contains non-so	nesh) pluble particles	4
SIZE	COVERS	CODE
950 ml bottle	4 hectares	711000EU
240 ml bottle	1 hectare	711020FU

RECOMMENDATIONS

- The insulated box has been designed to allow the product to be kept outside of the fridge for 12 hours at 15°C. Refrigerate upon receipt.
- Product must be refrigerated (2-8°C). 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.
- 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 close to the seed pieces into furrow. Do not divide the bottle. Refer to the list of compatible pesticides and liquid fertilizers at PTAGTIV.COM/en/compatibility.

See recommendations below based on the application mode:

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 residues.
- On the planter, remove all cylinder screens by the nozzles or use filters with openings of at least 0.28 mm (≤ 50 mesh).
- 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 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 0.28 mm (≤ 50 mesh).
- Use a diaphragm pump for product application (or peristaltic pump).
- Up and down agitation at all times in the tank.
- Spray band width should be limited to 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 (roller table, Mafex type, Oscar,...)

DIRECTIONS FOR USE

In a clean tank, pour the contents of **one** 950 ml bottle in the volume of liquid required to treat the amount of seed pieces for 4 hectares of seedbed. Do not divide the bottle.

1 bottle of 950 ml = covers 4 hectares (110.000 - 170.000 seed pieces) 1 bottle of 240 ml = covers 1 hectare (27.000 - 42.000 seed pieces)

Do not treat seed pieces more than 48 hours before seeding. Treat the seed pieces in one passage (usual treatments + AGTIV® POTATO • Liquid). Refer to the complete list of compatible pesticides on PTAGTIV.COM/en/compatibility.

RECOMMENDATIONS

- · 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 0.28 mm (≤ 50 mesh).
- Use a diaphragm pump for product application (or peristaltic pump).
- Up and down agitation at all times in the tank.





PTAGTIV.COM/en/water

Untreated







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®.

UNTREATED



WITH AGTIV®



between a mycorrhizal fungus and roots. The mycorrhizal spores germinate in the soil and produce filaments (hyphae) which will enter into root cells. This association will allow the formation of an intra and extra-radical network of filaments that will explore the soil



FIELD CROPS Cereals, flax and forages



BO% of plants can be colonized with the collaborative' species Glomus intraradices

"G. intraradices has turned out to be a "wonder fungus" in several surveys, and field trials so far has shown it to be equal or superior to mixtures of other fungi." 2

¹Kiers et. al. 2011. Reciprocal Rewards Stabilize Cooparation in the Mycorrhizal Symbiosis. Science 333:80-882.

²Tivedi et. al. 2007. Organic farming and mycorrhizae in agriculture.I.K. International Publishing House Ltd. New Delhi, pp.290.

ON-FARM MIXING WITH SEEDS

AGTIV® FIELD CROPS • Powder

ACTIVE INGREDIENT:

ENDOMYCORRHIZAL INOCULUM – PTB297 Technology Glomus intraradices: 6 400 viable spores/g	
Registered name: AGTIV FIELD CROPS POWDER - AMM N°1170380	
IINERT INGREDIENT: Diatomaceous earth PARTICLE SIZE: < 1 mm (18 mesh) BULK DENSITY: 275 g/L	and a

	COVERS		
SIZE	Cereals and flax	Forages	CODE
2 kg pail	16 ha	8 ha	712313EU
300 g bag	2.4 ha	1.2 ha	712311EU

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. See table below for application rate. Refer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.

Application rate by crop		
Cereals and flax: Oleaginous flax, textile flax, protein peas & cereals	125 g/ha	
Forages: Alfalfa, mix forages & grass	250 g/ha	

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 35°C.
- Store the product at constant temperature at all times.
- When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant.



PTAGTIV.COM/en/glomus



SPECIALTY CROPS



Up to **3** weeks early to get marketable size with mycorrhizae

"In a controlled study, onion (Allium cepa) plants inoculated with AMF [Arbuscular Mycorrhizal Fungi] had a higher biomass [...] and reached marketable size (> 25 mm bulb diameter) 2-3 weeks earlier than [non-inoculated plants], and [AMF] caused firmer bulb formation of onions."1

¹Vege review. C. Baum et al. / Scientia Horticulturae 187 (2015) 131-141

AGTIV[®] SPECIALTY CROPS • Powder

ACTIVE INGREDIENT:

ENDOMYCORRHIZAL INOCULUM – PTB297 Technology Glomus intraradices: 12 000 viable spores/g

Registered name: AGTIV SPECIALTY CROPS POWDER - AMM N°1170379

INERT INGREDIENT: Diatomaceous earth PARTICLE SIZE: < 1 mm (18 mesh) BULK DENSITY: 275 g/L		s earth n)
	SIZE	CODE
	500 g pail	711903EU

This product is compatible with legume inoculants.

RECOMMENDATIONS

- Seed within 8 hours after coating.
- Do not freeze or expose to temperatures above 35°C.
- Store the product at constant temperature at all times.
- At seeding time, avoid using AGTIV[®] with wet equipment.
- When seeding, ensure full seed-soil contact to minimize any desiccation of the inoculant.
- · Refer to the list of compatible pesticides at PTAGTIV.COM/en/compatibility.

The following plant families cannot be colonized (no effect on plant) by the fungus contained in AGTIV®: Brassicaceae (broccoli, cabbages, cauliflower, radish, rutabaga, watercress), Chenopodiaceae (beets, spinach), Ericaceae (blueberries, cranberries).

MIXING WITH SEEDS

DIRECTION FOR USE

At planting time, mix evenly with seeds (**Table 1**). Ensure uniform seed coverage is obtained. The product formulation may "bulk up" seeds. It is important to calibrate the planter to ensure correct planting rate is attained.

Table 1 – Quantity of AGTIV [®] to use per 1 000 seeds		
Type of seed	g	ml
Baby carrot	0.083	0.303
Nantes carrot	0.245	0.895
Market carrot	0.245	0.889
Yellow onion, leek	0.253	0.921
Baby onion	0.018	0.065
Pea for cannery	0.250	0.909
Fresh bean	0.253	0.921
Dry bean	0.246	0.895
Sweet corn	1.280	4.655
Lettuce	0.400	1.456

GARLIC

Just before planting, coat the cloves with the product at a rate of 25 g (90 ml) per 1 000 cloves.

OTHER SEEDS

(artichoke, eggplant, cucumber, zucchini, melon, pepper, tomato) Mix evenly with seeds with the appropriate amount of product. It is recommended to apply 0.5 g or 1.82 ml of mycorrhizal inoculant per 1 000 seeds.

INCORPORATION INTO GROWING MEDIA

DIRECTION FOR USE

Mix the quantity of product (Table 2) into the growing media. For a better homogeneity, it is preferable to premix the recommended quantity of product to a part of the growing media (or one of the dry ingredient used in its composition). The suggested rate for the premix is 60 ml (15 g) of product with 10 liters of growing media (or one of the dry ingredient). Add into the final mix. Mix well until homogeneity before filling the trays.

Table 2 – Quantity of AGTIV [®] to use per volume of growing media		
Cell or container volume	Qty of product to add/m ³ of media	
14 ml and less	640 ml (175 g)	
14-40 ml	320 ml (88 g)	
40-200 ml	180 ml (50 g)	
200-500 ml	120 ml (33 g)	
500 ml and more	60 ml (17 g)	

For application onto tray surface, contact your local representative for application details depending on your practices.





PTAGTIV.COM/en/onions



TRANSPLANTING

DIRECTION FOR USE

VEGETABLE TRANSPLANTS (eggplant, cucumber, zucchini, melon, pepper, leek, pepper, tomato)

BARE-ROOT BERRIES (strawberries, raspberries, vines)

Right before planting, coat the root plugs or the bare roots with the product. A 500 g pail of product can treat up to 111 000 transplants or 20 000 bare roots (according to plant size).

ASPERGE

Right before planting, coat the bottom of the crown with the product. The recommended quantity is 25 g (90 ml) for 1 000 crowns.





CELEBRATING DECADES OF INNOVATION AND VALUE

OF EXPERTISE IN ACTIVE **INGREDIENTS**

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.





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PRODUCTION

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 mycorrhizae, rhizobium and other active ingredients:

- ✓ 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

FORMULATION

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:

- ✓ Carrier compatible with the active ingredients
- ✓ Formulations that guarantee active ingredient viability until use
- Quality control at several key points ensuring the performance of active ingredients
- ✓ Various formulations also tailored for organic production

APPLICATION

Caring about our clients' performance, each recommendation for product use takes into consideration validation by our field experts and by farmers themselves, which ensures:

Seffective application rates, at the right time and place, with the right inoculant

CLICK HERE

- ✓ Products adapted to growers' equipment
- S Easy integration into farming practices
- ✓ Validation of compatibility

with other agricultural inputs



SERVICE

The AGTIV[®] experience combines highly effective value-added products and the access to a team of field experts dedicated to supporting your growth. From our management team and research project managers to our field specialists, our multidisciplinary team is listening to growers' needs to continuously improve our products and level of service:

- Technical support for product application, equipment compatibility and field demonstration
- ✓ Proud promoter of science education and knowledge sharing
- Partnership with agriculture retailers throughout Canada, the United States and Europe



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, integrating mycorrhizae, making a difference for you.

CONTACT OUR DEDICATED TEAM TODAY. WE CARE ABOUT YOUR SUCCESS!



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.







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