AGTIV®

CORN GUIDE 2026

AGTIV®

DESIGNED BY NATURE. PERFECTED BY SCIENCE.

CONTENTS

SERENDIPITA

PTB299 Technology, *Serendipita indica* (formerly known as Piriformospora indica)

The beneficial fungus Serendipita indica, a natural microorganism, forms an association with roots of plants from the Brassicacea family, such as canola. It induces some of the plant gene expression and promotes phytohormone production.

IMPROVE CHLOROPHYLL **CONTENT** AND PHOTOSYNTHESIS

- Increases the biosynthesis of chlorophyll[1]
- Upregulates antioxidant system and aids in the maintenance of grana in chloroplasts and thus protects the photosynthetic machinery
- Improves Calvin cycle enzymes and prevents the disintegration of photosynthetic pigments and the structural components of chloroplasts[2] under stress.

BRANCHES AND FLOWERING

- Significantly increases the number of tillers and second branches of the aerial part[10]
- Consistently accelerates host bolting and flowering with several days in advance[11].

ABIOTIC STRESS TOLERANCE

- Mitigates detrimental effects of water stress by improving stomatal conductance, photosynthesis, antioxidative potential, redox-homeostasis, osmotic adjustment, water conservation, sugar and N metabolism, wax and suberin biosynthesis[3].
- Enhances drought tolerance via modulating stomatal closure[4].
- Improves biochemical pathways of plant partner which includes biosynthesis of prolines, organic acids and sugars, that serve as osmolytes facilitating osmotic adjustment or osmoregulation in the cell[5]. This aids plants to maintain water potential gradient for the flow of water from soil into root and further to aerial parts under water deficit conditions[6] .

NUTRITIONAL ASPECTS

Phosphorus:

- Enhances absorption of P by increasing expression of plant phosphate transporter[6]
- Promotes P uptake into the roots by solubilizing inorganic soil P via the production of organic acids as well as the stimulation of plants transport genes[7].

Nitrogen

- Enhances plant N use efficiency by increasing expression of nitrate reductase, the first enzyme used by the plant to transform the absorbed mineral nitrogen to organic nitrogen[8].

Sulphur

- Increases sulfur absorption by producing high affinity sulphur transporters[9].

SEED QUALITY

- Consistently improves quality of oilseed, with a higher oil content and lower erucic acid and glucosinolates under filed condition[12].
- Improves **N, K, P, S, B** and **Zn** levels in the seeds[13]

AGTIV IGNITE® L

AGTIV®

CANOLA
CORN & CEREAL

AGTIV IGNITE® L

F: Liquid
S: 11 L (11 kg) bag-in-box
C: Canola: **454 kg (1000 lb) of seeds or 81 ha (200 acres)**
Cereal: **9165 kg (20 205 lb) of seeds or 81 ha (200 acres)**
Corn: **3000 kg (6 614 lb) of seeds or 121 ha (300 acres)**

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

PREMIER TECH

F: Formulation
S: Size
C: Coverage

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

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AGTIV IGNITE® L

AGTIV®

LIQUID ON SEED

AGTIV IGNITE® L

COVERS 200/300 acres

ACTIVE INGREDIENT:

S **SERENDIPITA** – PTB299 Technology
Serendipita indica (formerly known as *Piriformospora indica*)
2 x10^6 viable spores/g

INERT INGREDIENT: Water
PARTICLE SIZE: < 1 mm (18 mesh)
Contains non-soluble particles

SIZE	COVERS	CODE
11 L (11 kg) bag-in-box	**Canola & brassicaceas:** 454 kg (1000 lb) of seeds or 81 ha (200 acres) **Wheat & cereals:** 9165 kg (20 205 lb) of seeds or 81 ha (200 acres) **Corn:** 3000 kg (6 614 lb) of seeds or 121 ha (300 acres)	714114

DIRECTIONS FOR USE

Ensure the seed treating equipment has been properly cleaned and calibrated and that applicator's tank is clean. Remove any filters on the treating system that are smaller than 1 mm (18 mesh) to prevent clogging. **Shake thoroughly the 11 liters bladder and add it completely to the applicator's tank.**

For wheat and other cereals, it is recommended to dilute in non-chlorinated water to reach a total volume of liquid to add between 12 to 20 ml/kg of seeds.

Spray on seeds and ensure full coverage.

PREMIER TECH

F: Formulation
S: Size
C: Coverage

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

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EFFICACY SUMMARY

GRAIN CORN

7.2 bu/ac

4.2%

AGTIV® IGNITE™

18 sites over 4 years, Canada

EFFICACY REPORT

SUMMARY – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIALS

Research partners:

- BlackCreek Research;
- Integrated Crop Management Services (ICMS);
- New-Marc Research;
- Pleine Terre;
- Tall Pines Agricultural Research Ltd;
- Wellington Agricultural Research Ltd.

Research sites:

- Manitoba;
- Ontario;
- Quebec.

Treatments*:

a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design:

- 78 replicated plots in complete randomized block design:
  - 9 trials of 6;
  - 3 trials of 8.
- 36 split plots:
  - 6 trials of 6.

Table 1. **Summary of yield trials for different sites**

Year	Sites	Variety	Untreated check yield (bu/ac)	AGTIV IGNITE® L yield (bu/ac)	Yield increase (bu/ac)
2021	Saint Marc	NK8618-5122A	157.9	158.9	1
2021	Sherrington	Dekalb 46-17	158.7	163.9	5.2
2021	Bright	DKB48-56RIB	245.4	251.7	6.3
2021	Carlisle	DKC 35-37 RIB	183.1	197.9	14.8
2022	Rockwood	Pionner 7527 PM	128.8	134.8	6
2022	Bright	Maizex 3120	158.9	167.1	8.2
2022	Elm Creek	PV 62181SRIB	152.8	153.5	0.7
2023	Portage la Prairie	CP2123VT2P/RIB	152.6	159.3	6.7
2023	Saint Marc	NK8519-DV	107.3	113.7	6.4
2023	Alma	Pioneer P7005	91.2	99.8	8.6
2023	Rockwood	Pioneer 8922AM	196.4	220.9	24.5
2023	Bright	DL 4555	227.5	232.1	4.6
2023	Sherrington	DKC 4640	163.8	170.2	6.4
2024	Sherrington	Dekalb 56-40	218.2	219.3	1.1
2024	Saint Marc	DK 44-13	109.9	116.1	6.2
2024	Bright	MZ3505 BDR RIB	229.5	236	6.5
2024	Bright	P9466 AML	227.2	235.6	8.4
2024	Carlisle	DKC 30-63 RIB	201.2	209.3	8.1
Total	**18 sites**		**172.8**	**180**	**7.2 bu/ac***

* Yields are statistically different according to an ANOVA & a Tukey HSD test (p≤05).

EFFICACY REPORT

2024 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Pleine terre

Research site: Sherrington, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 30 m^2 plots

Variety: Dekalb 56-40 treated with Acceleron

Previous crop: Soybean

Seeding details: Seeded on May 20 with a four-row planter at a rate of 10.5 kg/ac in a loam soil (pH: 7.3, OM: 3.4%). Emergence on May 29.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 17.7-17.7-10.6-1.1Ca-0.7Mg-4.1S (335 kg/ha) applied at seeding; 46-0-0 (326 kg/ha) applied post emergence.

Pesticides: Roundup (1 l/ha): May 20

Harvesting: October 18, 2024

Month	Precipitation (mm)
May	28.7
June	128.2
July	211.8
August	186.6
September	67.1
October	31.3
TOTAL	**653.7**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	218.2	-
AGTIV IGNITE® L	219.3	1.1

Table 2. **Summary of grain starch content per treatment**

Treatment	Starch (%)	Starch increase (%)
Untreated check	68.7	
AGTIV IGNITE®	69.8	1.1

EFFICACY REPORT

2024 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Wellington Agricultural Research Ltd

Research site: Carlisle, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plot, 6 repetitions,18 m^2 plots.

Variety: DKC 30-63 RIB

Previous crop: Soybean

Seeding details: Seeded on June 5 with a cone planter at a rate of 32 000 seeds/ac in a loam soil (pH: 7.3, OM: 3.4%). Emergence on June 12.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 46-0-0 (326 lb/ac) and 5-27-27 (227 lb/ac): June 4

Pesticides: Roundup WeatherMax (2 l/ha): June 18 and July 8

Harvesting: October 31, 2024

Month	Precipitation (mm)
June	103.6
July	176.4
August	67.6
September	2.6
October	14.7
TOTAL	**362.9**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	201.2	-
AGTIV IGNITE® L	209.3	8.1

EFFICACY REPORT

2024 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: BlackCreek Research

Research site: Bright, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plots, 6 repetitions, 24 m^2 plots

Variety: MZ3505 BDR RIB treated with Vibrance Cinco

Previous crop: Soybean

Seeding details: Seeded on May 17 with a four-row planter at a rate of 9.6 kg/ac in a sandy loam soil (pH: 7, OM: 2.8%). Emergence on May 24.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	229.5	-
AGTIV IGNITE® L	236	6.5

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 180-67-75-22 kg/ha actual NPKS

Pesticides:
- Primextra II Magnum (4l/ha): May 23
- Eragon LQ (300ml/ha): May 23
- Roundup WeatherMax (1.67 l/ha): July 7
- Delaro Complete (586ml/ac): July 29
- Proline (210ml/ac): July 29

Harvesting: October 28, 2024

Month	Precipitation (mm)
May	104.8
June	112.8
July	216.6
August	99.8
September	21.8
October	43
TOTAL	**598.8**

EFFICACY REPORT

2024 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: BlackCreek Research

Research site: Bright, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plot, 6 repetitions, 24 m^2 plots

Variety: P9466 AML treated with Lumigen

Previous crop: Winter wheat

Seeding details: Seeded on May 16 with a four-row planter at a rate of 9.6 kg/ac in a clay loam soil (pH: 7.8, OM: 4.1%). Emergence on May 23.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 180-67-75-22 kg/ha actual NPKS

Pesticides:
- Roundup WeatherMax (1.67 l/ha): May 7
- Primextra II Magnum (4 l/ha): May 20
- Eragon LQ (300 ml/ha): May 20
- Delaro Complete (586 ml/ac): August 6

Harvesting: October 27, 2024

Month	Precipitation (mm)
May	104.8
June	112.8
July	216.6
August	99.8
September	21.8
October	43
TOTAL	**598.8**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	227.2	-
AGTIV IGNITE® L	235.6	8.4

Table 2. **Summary of grain starch content per treatment**

Treatment	Starch (%)	Starch increase (%)
Untreated check	55.3	
AGTIV IGNITE® L	59.1	3.8

EFFICACY REPORT

2024 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: New-Marc Research

Research site: Saint-Marc-sur-Richelieu, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plot, 6 repetitions, 18 m^2 plots

Variety: DK 44-13

Previous crop: Soybean

Seeding details: Seeded on May 24 with a cone planter at a rate of 9.7 kg/ac in a clay soil (pH: 6.1, OM: 5.1%).
Emergence on June 1.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 14.6-21.8-12.8 (335 kg/ha) and 46-0-0 (217 kg/ha): June 21

Pesticides: Credit Xtreme (2.5 l/ha): June 22

Harvesting: October 21, 2024

Month	Precipitation (mm)
May	61.1
June	176.3
July	130.8
August	232.6
TOTAL	**600.6**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	109.9	-
AGTIV IGNITE® L	116.1	6.2

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Integrated Crop Management Services (ICMS)

Research site: Portage la Praire, MB

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized complete block (RCB), 6 repetitions, 18 m^2 plots

Variety: CP2123VT2P/RIB treated with Acceleron and Nutriseed Zn

Previous crop: Potato

Seeding details: Seeded on June 1 with a cone planter at a rate of 33.8 lb/ac in a fine loam soil (pH: 7.9, OM: 3.5%). Emergence on June 8.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	152.6	
AGTIV IGNITE® L	159.3	6.7

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Blend at rate of 138, 84, 33.6 and 22.4 kg/ha N-P-K-S: May 19

Pesticides: Roundup WeatherMAX (1.67 l/ha): June 16 & August 3

Harvesting: November 13, 2023

Month	Precipitation (mm)
June	23.3
July	23.4
August	24.1
September	24.1
October	65.3
November	8.8
TOTAL	**169**

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Tall Pines Agricultural Research Ltd

Research site: Rockwood, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 18 m^2 plots

Variety: Pioneer 8922AM

Previous crop: Winter wheat

Seeding details: Seeded on June 2 with a finger pickup planter at a rate of 33 500 seeds/ac in a sandy loam (pH: 7.2, OM: 3.4%). Emergence on June 10.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	196.4	
AGTIV IGNITE® L	220.9	24.5

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 120 - 52 - 60 (516 kg/ha): May 15

Pesticides:
- Acuron (4.91 l/ha): June 13
- Roundup WeatherMAX (2.47 l/ha): June 13 & July 10

Harvesting: November 26, 2023

Month	Precipitation (mm)
June	75.6
July	162.8
August	86.5
September	16.2
October	45.9
November	28
TOTAL	**415**

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: BlackCreek Research

Research site: Bright, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plot with 6 repetitions, 24 m^2 plots

Variety: DL 4555

Previous crop: Winter wheat

Seeding details: Seeded on May 29 with a cone planter at a rate of 27 lb/ac in a sandy loam soil (pH: 7.5, OM: 3.1%). Emergence on June 6.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	227.5	
AGTIV IGNITE® L	232.1	4.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 24.3-10.8-14.6-2.2S-1Mg (725 lb/ac): May 29

Pesticides:
- Primextra II Magnum (4l/ha): May 29
- Eragon LQ (0.3 l/ha): May 29

Harvesting: November 11, 2023

Month	Precipitation (mm)
May	47
June	92.8
July	227
August	130.2
TOTAL	**497**

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Pleine Terre

Research site: Saint-Patrice-de-Sherrington, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Split plot with 6 repetitions, 30 m^2 plots

Variety: DKC 4640 treated with Acceleron

Previous crop: Soybean

Seeding details: Seeded on May 11 with a four- row planter at a rate of 35 000 seeds/ac in a soil sandy loam (pH: 7, OM: 5%). Emergence on May 23.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	163.8	
AGTIV IGNITE® L	170.2	6.4

Table 2. **Summary of grain starch content per treatment**

Treatment	Starch (%)	Starch increase (%)
Untreated check	70.8	
AGTIV IGNITE® L	71.8	1

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:
- 40 -48 - 24 - 9.1S (230 kg/ha): May 10
- 46-0-0 (245 kg/ha): June 6

Pesticides: Glyphosate (1.4 l/ac): May 18

Harvesting: October 20, 2023

Month	Precipitation (mm)
May	40.9
June	92.6
July	199.2
August	132.8
September	20.9
October	148.7
TOTAL	**635.1**

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Wellington Agricultural Research Ltd

Research site: Alma, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 18 m^2 plots

Variety: Pioneer P7005

Previous crop: Soybean

Seeding details: Seeded on May 26 with a cone planter at a rate of 37 000 seeds/ac in a loam soil (pH: 7.6, OM: 2.6%).

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	91.2	
AGTIV IGNITE® L	99.8	8.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 46-0-0 (330 lb/ac) and 5-27-27 (2220 lb/ac): May 15

Pesticides: Roundup WeatherMAX (1.67 l/ha): June 8

Harvesting: October 28, 2023

Month	Precipitation (mm)
May	38.7
June	79.3
July	168.6
August	115.8
September	40.3
TOTAL	**442.7**

EFFICACY REPORT

2023 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: New-Marc Research

Research site: St-Marc-sur-Richelieu, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 24 m^2 plots

Variety: NK8519-DV

Previous crop: Soybean

Seeding details: Seeded on May 29 with a plot planter at a rate of 80 000 seeds/ha in a clay soil (pH: 6.1, OM: 3.2%). Emergence on June 5.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	107.3	-
AGTIV IGNITE® L	113.7	6.4

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:
- 14.5-21.7-12.7 (345 kg/ha): May 29
- 46-0-0 (217 kg/ha): June 21

Pesticides: Roundup WeatherMAX (2.5 l/ha): June 22

Harvesting: November 5, 2023

Month	Precipitation (mm)
May	51.6
June	111.5
July	218.9
August	126.8
September	42.8
October	222.8
TOTAL	**774.4**

EFFICACY REPORT

2022 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: BlackCreek Research

Research site: Bright, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 24 m^2 plots

Variety: MZ 3120 SMX

Previous crop: Soybean

Seeding details: Seeded on May 24 with a cone planter at a rate of 9.7 kg/ac in a sandy loam soil (pH: 7.5, OM: 3.2%).
Emergence on June 2.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 24.5-10.8-14.6-2.2S-1Mg (725 lb/ac): May 17

Pesticides:
- Primextra II Magnum (4 l/ha): May 29
- Roundup Transorb (1.67 l/ha): June 24

Harvesting: November 11, 2022

Month	Precipitation (mm)
May	82
June	56.8
July	48.2
August	83.6
September	52.6
October	54.6
TOTAL	**377.8**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	158.9	-
AGTIV IGNITE® L	167.1	8.2

EFFICACY REPORT

2022 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Tall Pines Agricultural Research

Research site: Rockwood, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 18 m^2 plots

Variety: Pioneer 7527 AM treated with Lumivia

Previous crop: Soybean

Seeding details: Seeded on June 20 with a cone planter at a rate of 10.2 kg/ac in a sandy loam soil (pH: 7.2, OM: 3.4%). Emergence on June 28.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 120-70-90 (610 kg/ha): May 5

Pesticides:
- Acuron (4.91 l/ha): July 18
- Roundup WeatherMax (2.47 l/ha): July 18

Harvesting: December 7, 2022

Month	Precipitation (mm)
June	42.8
July	24
August	90
TOTAL	**156.8**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	128.8	-
AGTIV IGNITE® L	134.8	6

EFFICACY REPORT

2022 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Ag-Quest Inc

Research site: Elm Creek, MB

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 22.5 m^2 plots

Variety: PV 62181SRIB treated with Acceleron

Previous crop: Oats

Seeding details: Seeded on May 26 with a two-row plot planter at a rate of 23.7 kg/ha in a sandy loam soil (pH: 8.2, OM: 3%). Emergence on June 9.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 59-39-62 kg/ha actual NPK sidebanded at seeding

Pesticides: Roundup WeatherMax (1.67 l/ha): June 24

Harvesting: October 18, 2022

Month	Precipitation (mm)
May	121.2
June	65.8
July	93.6
August	59.4
September	27.6
October	1.4
TOTAL	**369**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	152.8	-
AGTIV IGNITE® L	153.5	0.7

EFFICACY REPORT

2021 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: BlackCreek Research

Research site: Bright, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 8 repetitions, 24 m^2 plots

Variety: DBB48-56 RIB treated with Acceleron

Previous crop: Soybean stubble

Seeding details: Seeded on May 20 with a four-row cone seeder at a rate of 9.7 kg/ac in a sandy loam soil (pH: 7.5, OM: 3.2%). Emergence on May 30.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	245.4	-
AGTIV IGNITE® L	251.7	6.3

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides:
- Primextra II Magnum (4 l/ha): May 19
- Eragon LQ (200 ml/ha): May 19
- Roundup Transorb (1.67 l/ha): June 23

Harvesting: November 3, 2021

Month	Precipitation (mm)
May	26.4
June	86.3
July	84.6
August	23.2
September	148.8
TOTAL	**369.3**

EFFICACY REPORT

2021 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Wellington Agricultural Research Ltd

Research site: Carlisle, ON

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 8 repetitions, 24 m^2 plots

Variety: DKC 35-37 RIB treated with Acceleron

Previous crop: Soybean

Seeding details: Seeded on May 23 with a cone planter at a rate of 9.6 kg/ac in a loam soil (pH: 7.7, OM: 1.7%).
Emergence on May 30.

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	183.1	-
AGTIV IGNITE® L	197.9	14.8

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 46-0-0 (330 lb/ac) and 5-27-27 (220 lb/ac): May 21

Pesticides: Roundup WeatherMax (2 l/ha): June 13 and July 14

Harvesting: October 11, 2021

Month	Precipitation (mm)
May	34.8
June	98.8
July	99.1
August	60.9
September	183.8
TOTAL	**477.4**

EFFICACY REPORT

2021 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: New-Marc Research Inc

Research site: Saint-Marc-sur-Richelieu, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 8 repetitions, 15 m^2 plots

Variety: NK8618-5122A treated with Fortenza Maxim Quatro and Vibrance 500 FS

Previous crop: Soybean

Seeding details: Seeded on May 15 with a cone planter at a rate of 24 kg/ha in a clay soil (pH: 6.6, OM: 3.7%). Emergence on May 22.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 16.9-22-12.7 (360 kg/ha) sidebanded at seeding and 46-0-0 (240 kg/ha): June 18

Pesticides: Roundup Transorb (2.5 l/ha): June 9

Harvesting: October 12, 2021

Month	Precipitation (mm)
May	15.9
June	56.3
July	47.4
August	49.2
September	55
TOTAL	**223**

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	157.9	-
AGTIV IGNITE® L	158.9	1

EFFICACY REPORT

2021 – SERENDIPITA INOCULANT

CORN AGTIV IGNITE

▶ PLOT TRIAL

Research partner: Pleine terre

Research site: Sherrington, QC

Treatments*: a) Untreated check;
b) AGTIV IGNITE® L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 30 m^2 plots

Variety: DKC 46-17RIB treated with Acceleron

Previous crop: Soybean

Seeding details: Seeded on May 13 with a four-row planter at a rate of 25.9 kg/ha in a sandy loam soil (pH: 6.3, OM: 5.1%).

Table 1. **Summary of yields per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	158.7	-
AGTIV IGNITE® L	163.9	5.2

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 17.4-20.4-11.2 (295 kg/ha) at seeding plus 46-0-0 (325 kg/ha): June 11

Pesticides: None

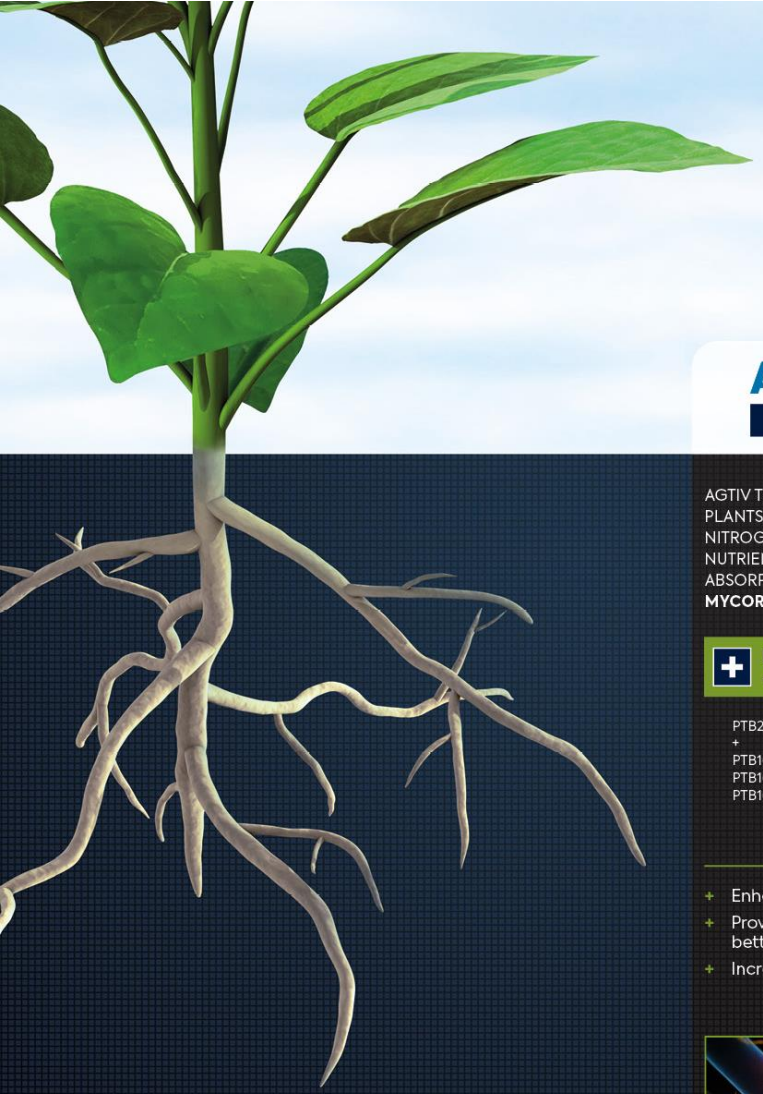
Harvesting: October 29, 2021

Month	Precipitation (mm)
May	3.5
June	26.2
July	48.8
August	62
September	65.3
October	154.5
TOTAL	**360.3**

PESTICIDES COMPATIBILITY

Single action Serendipita products **IGNITE** plant growth and chlorophyll content for better yields.
Our inoculants are compatible with most pesticides and liquid fertilizers.

PESTICIDES



AGTIV® TECHNOLOGIES

MORE THAN 40 years OF EXPERTISE IN ACTIVE INGREDIENTS

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

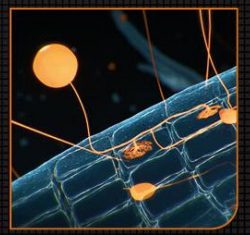
AGTIV. REACH.

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



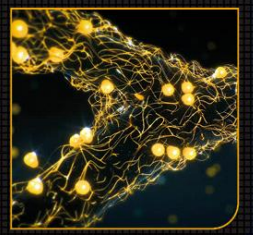
AGTIV. IGNITE.

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.

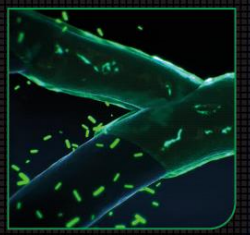
AGTIV STIMULATE® REINFORCES PLANTS WITH A HEALTHY ROOT ZONE THANKS TO **BACILLUS**

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

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 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

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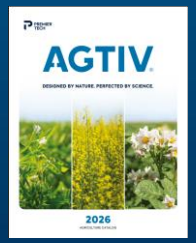
LABELS

EFFICACY REPORT

APPLICATION VIDEOS



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Safety data sheets, organic certificates

PREMIER TECH

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