



AGTIV[®]

EFFICACY REPORT 2024

CHICKPEA





CHICKPEA

AVERAGE YIELD INCREASE

AGTIV
THRIVE

2.9 bu/ac
8.1%

195 kg/ha
5 sites over 6 years
Canada



EFFICACY REPORT
SUMMARY – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partners:

- Ag-Quest inc;
- Prairie Ag Research;
- Small Plot Inc;
- Wheatland Conservation Area.

Research sites:

- Alberta;
- Saskatchewan.

Treatments:

- a) AGTIV® THRIVE™ CHICKPEA*;
- b) Competitor inoculant A*;
- c) Competitor inoculant B*;
- d) Competitor inoculant D*.

*Products applied according to manufacturers recommended rate.

Experimental design:

Total of 32 replicated plots per treatment in randomized complete block design.

Table 1. Summary of yields (bu/ac) per trial¹

Location	Year	Seed variety	AGTIV® THRIVE™ CHICKPEA	Competitor inoculant		
				A	B	D
Lethbridge	2018	Alma	73.0	71.3	71.0	
Swift Current	2018	Leader	28.0	28.8	26.1	
Lethbridge	2022	Clearfield Kabuli	43.1		41.2	
Taber	2022	CDC Pearl	41.7 ^b		39.4 ^{ab}	
Vulcan	2023	CDC Orion	6.3			6.0

¹ Yields with the same letter are not statistically different according to a LSD test (p≤0.05).

Before 2022:
AGTIV® THRIVE™ was formerly known as AGTIV® CHICKPEA
AGTIV® REACH™ was formerly known as AGTIV® FIELD CROPS

► PLOT TRIAL

Research partners:	Small Plot Inc
Research sites:	Vulcan, AB
Treatments:	a) Untreated check; b) AGTIV® THRIVE™ G CHICKPEA; c) Competitor inoculant D.
	*Products applied according to manufacturers recommended rate.
Experimental design:	Randomized Complete Block (RCB), 8 repetitions, 32.0 m ² plots
Variety:	CDC Orion
Previous crop:	Lentil
Seeding details:	Seeded on May 11 with a plot drilling machine at a rate of 215 lb/ac in a loam soil (pH: 7.9, OM: 3.3%). Emergence on May 30.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:	19-40-10-12 kg/ha : May 11
Pesticides:	Assure II (0.75 l/ha): July 5
Harvesting:	September 2, 2023

Month	Precipitation (mm)
May	4.3
June	43.4
July	37.8
August	31.5
TOTAL	117.0

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	6.1	-
AGTIV® THRIVE™ G CHICKPEA	6.3	0.2
Competitor inoculant D	6.0	-

EFFICACY REPORT
2022 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partner: Prairie Ag Research

Research site: Lethbridge, AB

Treatments: a) Untreated check;
b) AGTIV® THRIVE™ CHICKPEA*;
c) Competitor inoculant B*.

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 12 m² plots.

Variety: Alma Clearfield Kabuli

Previous crop: Fallow

Seeding details: Seeded on May 23, with a cone seeder at a rate of 150 kg/ha in a clay loam soil (pH: 7.4, OM: 4%).
Emergence on June 3.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides: • Glyphosate: May 20
• Odyssey and Merge: June 30

Harvesting: September 14, 2022

Month	Precipitation (mm)
May	35.8
June	114.5*
July	57.4
August	31.7*
TOTAL	239.4

*Plots were irrigated during those months.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	36.1	-
AGTIV® THRIVE™ CHICKPEA	43.2	7.1
Competitor inoculant B	41.2	5.1

EFFICACY REPORT

2022 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partner: Ag-Quest inc.

Research site: Taber, AB

Treatments: a) Untreated check;
b) AGTIV® THRIVE™ CHICKPEA*;
c) Competitor inoculant B*.

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 10 m² plots.

Variety: CDC Pearl

Previous crop: Rye

Seeding details: Seeded on May 27, with a cone seeder at a rate of 150 kg/ha in a sandy loam soil (pH: 7.9, OM: 2.1%).
Emergence on June 13.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: P₂O₅ (36 kg/ha): preseeding

Pesticides:

- Authority: May 28
- Roundup Transorb: May 28
- Select: June 27
- AMIGO: June 27
- Solo: June 28
- Merge: June 28
- TOUGH: July 2

Harvesting: September 23, 2022

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac) ¹	Yield increase (bu/ac)
Untreated check	37.2 ^a	-
AGTIV® THRIVE™ CHICKPEA	41.7 ^b	4.5
Competitor inoculant B	39.4 ^{ab}	2.2

¹ Yields with the same letter are not statistically different according to a LSD test (p≤0.05).

Month	Precipitation (mm)
May	17.5
June	140.5*
July	204.3*
August	84.9*
September	9.7
TOTAL	456.9

*Plots were irrigated during those months.

EFFICACY REPORT
2018 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partner: Wheatland Conservation Area

Research site: Swift Current, SK

Treatments: a) AGTIV® THRIVE™ CHICKPEA applied at 5 lb/ac*;
b) AGTIV® FIELD CROPS • Granular applied at 5 lb/ac*;
c) Competitor inoculant A applied at 5 lb/ac*;
d) Competitor inoculant B applied at 3.6 lb/ac*.

*Products applied according to manufacturers recommended rate.

Experimental design: 6 replicated plots per treatment in randomized complete block design.

Variety: Leader

Previous crop: Canola stubble

Seeding details: Seeded with cone seeder May 14, 2018, at 40 plants/m² with 22.8 cm row spacing.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 11-52-0 (96 lb/ac)

Pesticides: Authority (118 ml/ac): May 14

Harvesting: Combined on August 16, 2018.

Month	Precipitation (mm)
May	13
June	28
July	48
August	19
TOTAL	108

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield (kg/ha)
AGTIV® THRIVE™ CHICKPEA	28.0	1882
AGTIV® FIELD CROPS • Granular	26.0	1747
Competitor inoculant A	28.8	1935
Competitor inoculant B	26.1	1754

EFFICACY REPORT
2018 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partner: Prairie Ag Research

Research site: Lethbridge, AB

Treatments: a) AGTIV® THRIVE™ CHICKPEA applied at 5 lb/ac*;
b) AGTIV® FIELD CROPS • Granular applied at 5 lb/ac*;
c) Competitor inoculant A applied at 5 lb/ac*;
d) Competitor inoculant B applied at 3.6 lb/ac*.

*Products applied according to manufacturers recommended rate.

Experimental design: 6 replicated plots per treatment in randomized complete block design.

Variety: Alma

Previous crop: Canola stubble

Seeding details: Seeded with cone seeder May 22, in 2 X 8 m plots.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield (kg/ha)
AGTIV® THRIVE™ CHICKPEA	73.0	4906
AGTIV® FIELD CROPS • Granular	71.5	4805
Competitor inoculant A	71.3	4791
Competitor inoculant B	71.0	4771

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides: • Agral 90: May 15
• Aim: May 15
• Glyphosate: May 15
• Merge: June 5
• Odyssey: June 5

Harvesting: September 17, 2018

Month	Precipitation (mm)
May	25.1
June	45.8
July	13.6
August	21.5
September	19.1
TOTAL	125.1

EFFICACY REPORT 2024

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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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