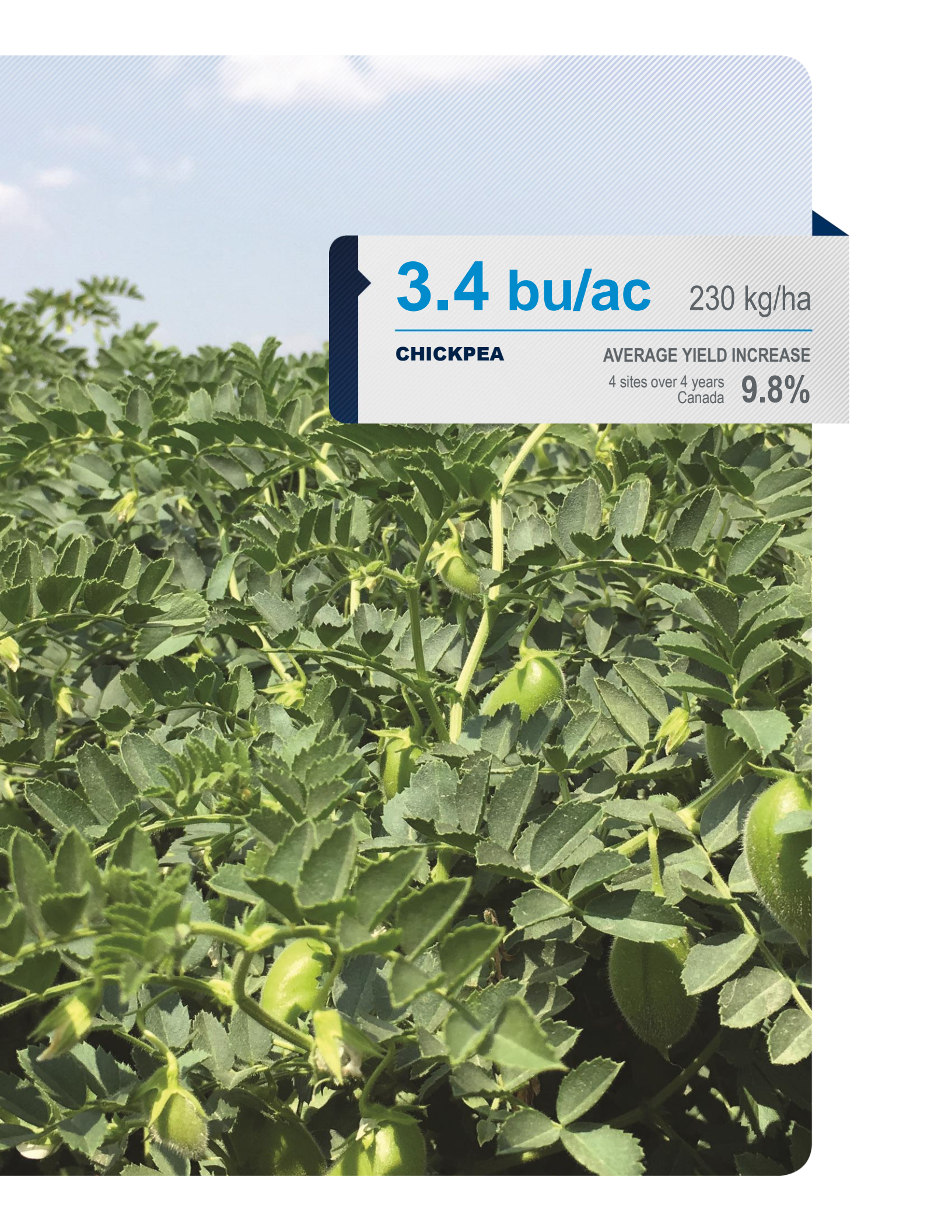


AGTIV[®]

EFFICACY REPORT

CHICKPEA





3.4 bu/ac

230 kg/ha

CHICKPEA

AVERAGE YIELD INCREASE

4 sites over 4 years
Canada

9.8%

EFFICACY REPORT

SUMMARY – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIALS

Research partners: Prairie Ag Research, Wheatland Conservation Area and Ag Quest inc.

Research sites: Alberta and Saskatchewan

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

*Products applied according to manufacturers recommended rate.

Experimental design: Total of 24 replicated plots per treatment in randomized complete block design.



CHICKPEA

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

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

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

EFFICACY REPORT

2022 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIAL

Research partner: Prairie Ag Research

Research site: Lethbridge, AB

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

* Granular inoculant applied according to manufacturer's 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, 2022, 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.



CHICKPEA

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

Plot operational notes and rain fall.

- No fertilization
- Pesticides:
 - May 20, Glyphosate (pre seeding burn off)
 - June 30, Odyssey and Merge (broadleaf weeds)
- Harvested on 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

EFFICACY REPORT

2022 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIAL

Research partner: Ag-Quest inc.

Research site: Taber, AB

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

* Granular inoculant applied according to manufacturer's 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, 2022, 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.



CHICKPEA

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).

Plot operational notes and rain fall.

- Fertilization of P₂O₅ pre seeding (36 kg/ha)
- Pesticides:
 - May 28, Authority + Roundup Transorb (pre-emergence burn off)
 - June 27, Select + AMIGO (post emergence weed control)
 - June 28, Solo + Merge post emergence weed control)
 - July 2, TOUGH (broadleaf weeds control)
- Harvested on September 23, 2022

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 TRIAL

Research partner: Wheatland Conservation Area

Research site: Swift Current (SK), Canada

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*.

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

Chickpea 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.

*Granular products applied according to manufacturers recommended rate.



CHICKPEA

Table 1. Summary of Chickpea 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

Plot operational notes and rain fall.

- Fertilized with 96 lb/ac of 11-52-0
- Pre-seeding burn off: Authority at 118 ml/ac on May 14
- Combined on August 16 2018.

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

EFFICACY REPORT

2018 – MYCORRHIZAL & RHIZOBIAL INOCULANT

► PLOT TRIAL

Research partner: Prairie Ag Research

Research site: Lethbridge (AB), Canada

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*.

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

Chickpea variety: Alma

Previous crop: Canola stubble

Seeding details: Seeded with cone seeder May 22, 2018, in 2 X 8 m plots

*Granular products applied according to manufacturers recommended rate.



CHICKPEA

Table 1. Summary of Chickpea 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

Plot operational notes and rain fall.

- No fertilization
- Pre-seeding burnoff with Aim, Agral 90, and Glyphosate applied on May 15. Odyssey and Merge were applied June 5 to control weeds during the trial
- Combined on 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 2023

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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.



PT Growers and Consumers
1, avenue Premier
Campus Premier Tech
Rivière-du-Loup (Québec)
G5R 6C1 CANADA



PTAGTIV.COM
1 866 454-5867
info@ptagtiv.com

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