



AGTIV®



EFFICACY REPORT 2025
CANOLA & CEREALS



CANOLA

AVERAGE YIELD INCREASE

AGTIV
IGNITE

2.4 **bu/ac**
6.5%

135 kg/ha
33 sites over 7 years
Canada



► PLOT & STRIP TRIALS

- Research partners:**
- Ag-Quest Inc.;
 - Integrated Crop Management Services;
 - New Era Ag Research and Technologies;
 - North Peace Applied Research Association;
 - Prairie Ag Research;
 - Small Plot Inc.;
 - South East Research Farm;
 - Wellington Agricultural Research;
 - Wheatland Conservation Area.
- Research sites:**
- Ontario;
 - Manitoba;
 - Saskatchewan;
 - Alberta.
- Treatments*:**
- a) Untreated check;
 - b) AGTIV® IGNITE™ L.
- *Products applied according to manufacturers recommended rate.
- Experimental design:**
- 158 replicated plots per treatment in complete randomized block design:
 - 13 of 6,
 - 10 of 8;
 - 5 split fields.

Table 1. Average increase of yield.

Year	Number of sites	Untreated check (bu/ac)	AGTIV® IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
2018	1	63.5	68	4.5
2019	6	44.6	47.1	2.5
2020	5	37.2	39.6	2.4
2021	8	32.5	35	2.5
2022	7	33.6	36.2	2.6
2023	5	36	37.7	1.7
2024	1	33.7	35.6	1.9
Total	33 sites	36.9 ^a	39.3 ^b	2.4 bu/ac *

*Summary of means are significantly different following a combined site ANOVA and a Tukey test (p<05) p < 001

Table 2. Average increase of canola oil content.

Year	Number of sites	Untreated check (oil %)	AGTIV® IGNITE™ L (oil %)	Oil increase (%)
2019	3	41.2	42.1	0.9
2020	4	39.2	40.6	1.4
2021	5	38.1	38.5	0.4
2022	7	35.3	36.1	0.8
Total	19 sites	37.8 ^a	38.7 ^b	0.9%**

** Summary of means are significantly different following a combined site ANOVA and a Tukey test (p<0.1) p=05

EFFICACY REPORT

SUMMARY OF YIELD – SERENDIPITA INOCULANT

Table 1. Summary of canola yield trials for different sites – Ontario

site	Year	Untreated check yield (bu/ac)	AGTIV [®] IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
Alma	2022	20	21.4	1.4

Table 2. Summary of canola yield trials for different sites – Manitoba

site	Year	Untreated check yield (bu/ac)	AGTIV [®] IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
Elm Creek	2021	36.2	37.2	1
	2022	46.1	48	1.9
Portage la Prairie	2019	78	78	0
	2021	36.3	38.9	2.6
	2022	29.3	32.8	3.5
Sandy Ridge Farms	2021	41.8	44.1	2.3
Swan River	2018	63.5	68	4.5
	2019	53.7	55.4	1.7
	2020	61.2	64	2.8
	2021	46.9	48.2	1.3
	2022	60	62.2	2.2
	2023	71	72.8	1.8

Table 3. Summary of canola yield trials for different sites – Saskatchewan

site	Year	Untreated check yield (bu/ac)	AGTIV [®] IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
Farm Beechy	2020	24.2	27.8	3.6
Moon Lake	2020	16.3	18.2	1.9
	2023	23.8	24.9	1.1
Redvers	2022	32.2	34.1	1.9
	2023	32.2	33.8	1.6
Saskatoon	2019	38.8	41.8	3
	2021	10.3	12.5	2.2
	2022	19.6	21	1.4
Swift Current	2019	25	27.1	2.1

Table 4. Summary of canola yield trials for different sites – Alberta

site	Year	Untreated check yield (bu/ac)	AGTIV [®] IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
Josephburg	2019	46.8	53.2	6.4
	2020	47.2	49.5	2.3
	2021	23.9	25	1.1
	2023	45.6	47.7	2.1
Lillico Farms	2021	26.4	31.5	5.1
Manning	2024	33.7	35.6	1.9
Taber	2019	25.4	27	1.6
	2020	37.3	38.5	1.2
	2022	28.2	32.7	4.5
Westline Farms	2021	29.7	32.5	2.8
Vulcan	2023	7.3	9.3	2

EFFICACY REPORT

SUMMARY OF OIL CONTENT – SERENDIPITA INOCULANT

Table 1. Summary of canola seed oil content trials for different sites – Ontario

site	Year	Untreated check oil	AGTIV [®] IGNITE [™] L (oil %)	oil increase (%)
Alma	2022	36.3	36.9	0.6

Table 2. Summary of canola seed oil content trials for different sites – Manitoba

site	Year	Untreated check oil	AGTIV [®] IGNITE [™] L (oil %)	oil increase (%)
Elm Creek	2021	35.1	37.1	2
	2022	37.7	37.3	-0.4
Portage la Prairie	2019	45.5	45.7	0.2
	2021	36.6	36	-0.6
	2022	30.6	35.2	4.6
Swan River	2019	49.9	52.1	2.2
	2020	38.7	40.5	1.8
	2021	37.8	37.8	0
	2022	37.3	37.7	0.4

Table 3. Summary of canola seed oil content trials for different sites – Saskatchewan

site	Year	Untreated check oil	AGTIV [®] IGNITE [™] L (oil %)	oil increase (%)
Moon Lake	2020	41.6	43.1	1.5
Redvers	2022	36.6	36.5	-0.1
Saskatoon	2021	41.8	42.1	0.3
	2022	36.6	36.3	-0.3

Table 4. Summary of canola seed oil content trials for different sites – Alberta

site	Year	Untreated check oil	AGTIV [®] IGNITE [™] L (oil %)	Increase (%)
Josephburg	2019	28.1	28.6	0.5
	2020	34.7	36.6	1.9
	2021	39.1	39.7	0.6
Taber	2020	41.7	42.1	0.4
	2022	32.1	32.9	0.8

► PLOT TRIAL

Research partner: North Peace Applied Research Association

Research site: Manning, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 12.8 m² plots

Variety: CS2600 CR – T(RR) treated with Helix Saltro and Fortenza

Previous crop: Fallow

Seeding details: Seeded on May 28 with a cone planter at a rate of 7 kg/ha in a heavy clay soil (pH: 4.8, OM: 6.8%).
Emergence on June 14.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	33.7	-
AGTIV® IGNITE™ L	35.6	1.9

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 46-0-0 (120 lb/ac) and 13-33-0 -15 (80 lb/ac) sidebanded at seeding

Pesticides: Glyphosate (1 l/ac): May 28 and July 9

Harvesting: October 3, 2024

Month	Precipitation (mm)
May	51.5
June	75.3
July	103.2
August	45.4
September	26.6
October	18.1
TOTAL	320.2

► PLOT TRIAL

Research partners: Integrated Crop Management Services (ICMS)

Research sites: Moon Lake, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Latin Square (LS), 6 repetitions, 16.56 m² plots

Variety: InVigor L356PC treated with Helix Vibrance & Lumiderm

Previous crop: Spring wheat

Seeding details: Seeded on June 6 with a cone seeder of 7 kg/ha in a clay soil (pH: 7.9, OM: 7.2%).
Emergence on June 13.

Table 1. Summary of yields per treatment.

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	23.8	-
AGTIV® IGNITE™ L	24.9	1.1

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 80-30-10-20 actual kg/ha: May 29

Pesticides:

- Amigo (0.5 l/100l): June 28
- Centurion (0.075 l/ac): June 28
- Liberty 150 (1.62 l/ac): June 28
- Decis 5 EC (0.06 l/ac): August 14

Harvesting: September 25, 2023

Month	Precipitation (mm)
June	174.4
July	19.9
August	50.4
September	7.9
TOTAL	252.6

EFFICACY REPORT
2023 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partners: New Era Ag Technologies Inc

Research sites: Swan River, MB

Treatments: a) Untreated check;
b) AGTIV[®] IGNITE[™] L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 33.9 m² plots.

Variety: InVigor L234PC treated with Helix Vibrance and Lumiderm

Previous crop: Wheat

Seeding details: Seeded on May 22, at a rate of 6.2 kg/ha with a cone seeder in a loam soil (pH: 6.9, OM: 4.8%).
Emergence on May 31.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 102.5-0-0-20 (268 lbs/ac): May 21
5.3-25-0-0 (48 lbs/ac): May 22

Pesticides:

- Armory 240 (0.69 l/ac): September 12
- Arrow-All-In-One: (100 ml/ac) June 2, (150 ml/ac) June 8
- Cotegra (280 ml/ac): July 6
- Interline (1.35 l/ac): June 19
- Liberty 150 SN (1.35 l/ac) : June 8
- Pounce: (73 ml/ac) June 2, (100 ml/ac) June 8

Harvesting: September 19, 2023

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	71.0	-
AGTIV [®] IGNITE [™] L	72.8	1.8

Month	Precipitation (mm)
May	13.8
June	33.5
July	16.1
August	109.9
September	5.1
TOTAL	178.4



► PLOT TRIAL

Research partners: Integrated Crop Management Services (ICMS)

Research sites: Josephburg, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Latin Square (LS), 6 repetitions, 14.64 m² plots.

Variety: InVigor L343PC treated with Buteo Start and Helix Vibrance

Previous crop: Spring barley

Seeding details: Seeded on June 13 with a cone seeder of 7 kg/ha in loam soil (pH: 5.8, OM: 8%).
Emergence on July 4.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	45.6	-
AGTIV® IGNITE™ L	47.7	2.1

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Fertilizer blend of 33-8-0 actual kg/ha: June 5

Pesticides:

- Matador (0.83 l/ha): July 7
- Liberty 150 SN (3.33 l/ha): July 8
- Select (0.125 l/ha): July 8
- Amigo (0.1 l/100l): July 8
- Heat LQ (0.11 l/ha): October 5

Harvesting: October 13, 2023

Month	Precipitation (mm)
June	128.8
July	110.0
August	56.3
September	11.8
October	2.0
TOTAL	308.9

EFFICACY REPORT
2023 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partners: South East Research Farm

Research sites: Redvers, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 9.0m² plots.

Variety: L233P treated with Buteo Start & Helix Vibrance

Previous crop: Spring barley

Seeding details: Seeded on June 7 with a cone seeder of 4.2 lb/ac in loam soil (pH: 8.5, OM: 2.8%)

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	32.2	-
AGTIV® IGNITE™ L	33.8	1.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 89.31-32.82-3.16-14.29 actual kg/ha: June 7

Pesticides:

- RT 540 (0.75l/ac): May 19
- Liberty (1.35 l/ac): June 21

Harvesting: September 15, 2023

Month	Precipitation (mm)
May	70.0
June	25.0
July	11.0
August	49.4
September	22.0
TOTAL	177.4

► PLOT TRIAL

Research partner: Small Plot Inc

Research site: Vulcan, AB

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

Experimental design: Latin square (LS),6 repetitions, 32.0 m² plots

Variety: LL variety treated with Buteo Start

Previous crop: Wheat

Seeding details: Seeded on June 7 with a direct drill at a rate of 4.5 kg/ha in a loam soil (pH: 8.1, OM: 2.9%).
Emergence on June 22.

*Products applied according to manufacturers recommended rate.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 60-15-15-10 : June 7

Pesticides: No pesticide applied

Harvesting: September 28, 2023

Month	Precipitation (mm)
June	43.4
July	37.8
August	31.5
TOTAL	112.7

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	7.3	-
AGTIV® IGNITE™ L	9.3	2.0

► PLOT TRIAL

Research partner:	Integrated Crop Management Services
Research site:	Saskatoon, SK
Treatments:	a) Untreated check; b) AGTIV® IGNITE™ L*.
	*Products applied according to manufacturers recommended rate.
Experimental design:	Complete Randomized Block Design, 6 repetitions, 30 m ² plots.
Variety:	PIONEER P509-L treated with Lumiderm, LumiGen and Helix vibrance.
Previous crop:	Wheat
Seeding details:	Seeded on May 26, with a cone seeder at a rate of 7 kg/ha in a clay soil (pH: 8.0, OM: 8.8%). Emergence on June 21.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:	80-30-10-20 kg/ha: prior to seeding
Pesticides:	<ul style="list-style-type: none">Liberty 150: July 4Decis 5EC: August 18Reglone Ion: September 6
Harvesting:	September 16, 2022

Month	Precipitation (mm)
May	25.8
June	38.0
July	46.5
August	25.6
September	6.8
TOTAL	142.7

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	19.6	-	36.6
AGTIV® IGNITE™ L	21.0	1.4	36.3

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Portage la Prairie, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: DEKALB 75-65 RR treated with Prosper Evergol

Previous crop: Carrots

Seeding details: Seeded on June 17, with a cone planter at a rate of 8.2 kg/ha in a clay soil (pH: 7.7, OM: 6.9%).
Emergence on June 23.

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	29.3	-	30.6
AGTIV® IGNITE™ L	32.8	3.5	35.2

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides:

- Roundup WeatherMax: June 24 and July 14
- Sevin XLR: June 24

Harvesting: September 26, 2022

Month	Precipitation (mm)
May	140.7
June	70.3
July	96.3
August	89.0
September	50.3
TOTAL	446.6

► PLOT TRIAL

Research partner: Ag-Quest Inc.

Research site: Taber, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: DEKALB DKTF96 SC treated with Buteo, Prosper EverGol and Fortenza.

Previous crop: Rye

Seeding details: Seeded on May 24, with a cone seeder at a rate of 8 kg/ha in a loam soil (pH: 7.8, OM: 2.6%).
Emergence on June 6.

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	28.8	-	32.1
AGTIV® IGNITE™ L	32.7	3.9	32.9

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 0-58-0-17 kg/ha: May 16

Pesticides:

- Roundup Transorb: May 18, June 9, 17 & 29
- Decis: June 22, July 6 & 15
- Sevin XLR Plus: June 22, July 6 & 15

Harvesting: August 31, 2022

Month	Precipitation (mm)
May	55.1
June	78.2
July	204.3*
August	89.3*
TOTAL	426.9

* Plots were irrigated during those months

► 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: Complete Randomized Block Design, 6 repetitions, 34 m² plots.

Variety: In Vigor L233P treated with Lumiderm

Previous crop: Rye

Seeding details: Seeded on June 5, with a cone seeder at a rate of 5.5 kg/ha in a sandy loam soil (pH: 8.3, OM: 2.2%).
Emergence on June 10.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 137-36-22-28 kg/ha: prior to seeding

Pesticides:

- Liberty: June 17
- AMIGO: July 1
- Centurion: July 1
- Coragen: July 1
- Reglone Ion: September 8

Harvesting: September 13, 2022

Month	Precipitation (mm)
May	131.0
June	65.6
July	92.6
August	57.6
September	30.8
TOTAL	377.6

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	46.1	-	37.7
AGTIV® IGNITE™ L	48.0	1.9	37.3

EFFICACY REPORT
2022 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partner:	Wellington Agricultural Research
Research site:	Alma, ON
Treatments:	a) Untreated check; b) AGTIV® IGNITE™ L*.
	*Products applied according to manufacturers recommended rate.
Experimental design:	Complete Randomized Block Design, 6 repetitions, 10 m ² plots.
Variety:	In Vigor L233P treated with Prosper Evergol
Previous crop:	Soybean
Seeding details:	Seeded on May 30, with a cone seeder at a rate of 5.5 kg/ha in a loam soil (pH: 7.5, OM: 3.7%). Emergence on June 6.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	20.0	-	36.3
AGTIV® IGNITE™ L	21.4	1.4	36.9

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:	160-20-0 kg/ha: May 10
Pesticides:	• Liberty: June 21 • Matador: June 21
Harvesting:	September 17, 2022

Month	Precipitation (mm)
May	76.4
June	46.2
July	29.8
August	69.6
TOTAL	222.0

► PLOT TRIAL

Research partner: South East Research Farm

Research site: Redvers, SK

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

*Products applied according to manufacturers recommended rate.

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

Variety: InVigor L340 PC treated with Vercoras & Poncho.

Previous crop: Pea

Seeding details: Seeded on June 1, with a cone seeder at a rate of 9 kg/ha in a loam soil (pH: 7.6, OM: 4.2%).

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	32.2	-	36.6
AGTIV® IGNITE™ L	34.1	1.9	36.5

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 100-25-0-6 (kg/ha): at seeding

Pesticides:

- Roundup: June 6
- Voliam: June 23
- Liberty: June 23

Harvesting: September 16, 2022

Month	Precipitation (mm)
May	121.0
June	75.0
July	259.0
August	25.2
September	15.0
TOTAL	495.2

► PLOT TRIAL

Research partner: New Era Ag Research

Research site: Swan River, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: InVigor LL 234 PC treated with Lumiderm & Helix Vibrance.

Previous crop: Carrots

Seeding details: Seeded on June 5, with a cone seeder at a rate of 6 kg/ha in a clay loam soil (pH: 7.1, OM: 6.2%).

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 100-25-0-6 (kg/ha): at seeding

Pesticides:

- ARROW ALL IN: June 19 & 28
- Pounce: June 23 & 28
- Cotegra: July 22

Harvesting: September 28, 2022

Month	Precipitation (mm)
May	114.0
June	59.4
July	40.6
August	41.8
September	34.7
TOTAL	290.5

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	60.0	-	30.6
AGTIV® IGNITE™ L	62.2	2.2	35.2

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Josephburg, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 24.4 m² plots.

Variety: RR Canola 6086 CR

Previous crop: Wheat

Seeding details: Seeded on May 31, with a cone drill at a rate of 7 kg/ha.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	23.9	-	39.1
AGTIV® IGNITE™ L	25	1.1	40.2

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: N-P-K 81-41-0 lb/ac

Pesticides: • Round up WeatherMax: June 12
• Heat LQ: September 20

Harvesting: Combined on October 7, 2021.

Month	Precipitation (mm)
June	85.3
July	112.1
August	52.5
September	53.7
TOTAL	303.6

► PLOT TRIALS

Research partner: New Era Ag Technologies

Research site: Swan River, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 30 m² plots.

Variety: InVigor LL234PC

Previous crop: Wheat

Seeding details: Seeded on May 18, with a cone planter at a rate of 4 kg/ha.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	46.9	-	37.8
AGTIV® IGNITE™ L	48.2	1.3	37.8

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: • Urea (46-0-0): May 28
• MAP (11-52-0): May 28

Pesticides: • Edge: May 7
• RT 540: May 27
• Pounce: June 13
• Arrow: June 13
• Arrow all-in-one: June 18
• Liberty: June 18
• Guardsman: August 26

Harvesting: Combined on September 11, 2021.

Month	Precipitation (mm)
May	33.0
June	65.9
July	45.5
August	77.1
September	39.0
TOTAL	260.5

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Portage la Prairie, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 24.4 m² plots.

Variety: RR Canola CS2100

Previous crop: Wheat

Seeding details: Seeded on June 2, with a cone drill at a rate of 6 kg/ha.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%) ¹
Untreated check	36.3	-	36.8 ^{ab}
AGTIV® IGNITE™ L	38.9	2.6	37.1 ^a

¹ Oil content with the same letter are not statistically different according to a Tukey HSD test (p≤0.05).

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides:

- Pounce: June 14, July 7 and August 9
- Roundup Transorb: June 19 and July 9
- Proline 480 SC: July 8

Harvesting: Combined on September 10, 2021.

Month	Precipitation (mm)
June	90.0
July	78.4
August	68.3
TOTAL	236.7

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Saskatoon, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 24.4 m² plots.

Variety: LL canola P501L

Previous crop: Wheat

Seeding details: Seeded on May 20, with a cone drill at a rate of 7 kg/ha.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	10.3	-	41.8
AGTIV® IGNITE™ L	12.5	2.2	42.3

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 80-40-10-20: preseeding.

Pesticides: • Centurion: June 21
• Liberty: June 21

Harvesting: Combined on August 26, 2021.

Month	Precipitation (mm)
May	35.5
June	41.7
July	17.7
August	28.9
TOTAL	123.8

► 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: Complete Randomized Block Design, 8 repetitions, 33 m² plots.

Variety: DEKALB DKTF 96 SC

Previous crop: Soybean

Seeding details: Seeded on May 18, with a cone drill at a rate of 6 kg/ha.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Blend of Urea, MAP, MOP and AMS 94-79-90-11: at seeding
Foliar copper: June 22

Pesticides:

- Roundup WeatherMax: May 19, June 10 and 24
- Pounce: June 4, 16 and August 13
- Coragen: June 16
- Reglone: August 31

Harvesting: Combined on September 7, 2021.

Month	Precipitation (mm)
May	61.9
June	101.5
July	25.4
August	103.3
TOTAL	292.1

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	36.3	-	35.1
AGTIV® IGNITE™ L	37.4	1.1	37.1

EFFICACY REPORT

2020 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partner: Ag-Quest inc.

Research site: Taber, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 25.2 m² plots.

Variety: Pioneer 45CS40

Previous crop: Wheat

Seeding details: Seeded on June 11, with a cone planter at a rate of 6.41 kg/ha.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	37.3	-
AGTIV® IGNITE™ L	38.5	1.2

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 11-52-0 and 20-0-0-24 (116.3 kg/ha and 56.3 kg/ha): June 11

Pesticides:

- Roundup WeatherMax: May 24
- Decis: July 17
- Weed Whacker: August 20

Harvesting: Combined on September 23, 2020.

Month	Precipitation (mm)
June	80.8
July	23.1
August	18.8
September	47.3
TOTAL	170.0

► PLOT TRIAL

Research partner: New Era Ag Technologies

Research site: Swan River, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 30 m² plots.

Variety: Pioneer 45CS40

Previous crop: Soybean

Seeding details: Seeded on May 21, with a cone planter at a rate of 6 kg/ha.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: NH₃, MAP, potash and AMS (163-30-35-60): fall 2019

Pesticides:

- Pounce: June 5 and 16
- Roundup: June 23
- Clethodim: July 10
- Proline: July 17
- Guardsman: September 5

Harvesting: Combined on September 22, 2020.

Month	Precipitation (mm)
May	12.0
June	62.8
July	122.7
August	43.2
September	9.9
TOTAL	250.6

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%) ¹
Untreated check	61.2	-	38.7 ^a
AGTIV® IGNITE™ L	64	2.8	40.5 ^b

¹ Oil content with the same letter are not statistically different according to a Tukey HSD test ($p \leq 0.05$).

► PLOT TRIAL

Research partner:	Integrated Crop Management Services
Research site:	Moon Lake, SK
Treatments:	a) Untreated check; b) AGTIV® IGNITE™ L*.
	*Products applied according to manufacturers recommended rate.
Experimental design:	Complete Randomized Block Design, 8 repetitions, 30 m ² plots.
Variety:	Pioneer 45CS40
Previous crop:	Field pea
Seeding details:	Seeded on May 19, with a cone planter at a rate of 7 kg/ha.

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%) ¹
Untreated check	16.3	-	41.6 ^a
AGTIV® IGNITE™ L	18.2	1.9	43.6 ^b

¹ Oil content with the same letter are not statistically different according to a Tukey HSD test (p≤0.05).

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:	Blend of 70-30-0-20: preseeding with the tillage
Pesticides:	None
Harvesting:	Combined on August 31, 2020.

Month	Precipitation (mm)
May	42.1
June	106.9
July	52.1
August	16.2
TOTAL	217.3

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Josephburg, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 8 repetitions, 30 m² plots.

Variety: Pioneer 45CS40

Previous crop: Barley

Seeding details: Seeded on May 25, with a cone planter at a rate of 7 kg/ha.

Table 1. **Summary of yields and oil content per treatment**

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	47.2	-	34.7
AGTIV® IGNITE™ L	49.5	2.3	36.3

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Blend of 51-22-26: preseeding with the tillage

Pesticides:

- Lontrel: June 12
- Roundup WeatherMax: June 12

Harvesting: Combined on October 6, 2020.

Month	Precipitation (mm)
May	93.5
June	121.4
July	121.9
August	68.4
September	4.9
TOTAL	410.1

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Saskatoon, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: In Vigor L252

Previous crop: Wheat

Seeding details: Seeded on June 7, with a drill seeder at a rate of 7 kg/ha.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	38.8	-
AGTIV® IGNITE™ L	41.8	3

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Blend of 70-30-10-20: preseeding with the tillage

Pesticides:

- Centurion: July 12
- Liberty 150: July 12
- Matador: September 9

Harvesting: Combined on October 21, 2019.

Month	Precipitation (mm)
June	84.8
July	67.6
August	20.3
September	39.5
October	3.0
TOTAL	215.2

► PLOT TRIAL

Research partner: Integrated Crop Management Services

Research site: Josephburg, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: Dekalb 75-42BL

Previous crop: Barley

Seeding details: Seeded on June 1, with a cone planter at a rate of 7 kg/ha.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Blend of 31-0-10-8: : preseeding with the tillage

Pesticides: Roundup WeatherMax: June 26

Harvesting: Combined on October 4, 2019.

Month	Precipitation (mm)
May	0
June	0
July	153.7
August	31
September	43.7
TOTAL	228.4

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	46.8	-
AGTIV® IGNITE™ L	53.2	6.4

► PLOT TRIAL

Research partner: New Era Ag Technologies

Research site: Swan River, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 30 m² plots.

Variety: InVigor L255PC

Previous crop: Canola stubble

Seeding details: Seeded on May 21, with a drill planter at a rate of 7 kg/ha.

Table 1. Summary of yields and oil content per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)	Oil content (%)
Untreated check	53.7	-	49.9
AGTIV® IGNITE™ L	55.4	1.7	52.1

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 90-50-0-25: broadcast at seeding.

Pesticides:

- Avadex: May 3
- Liberty: June 6 and 27
- Pounce: June 6
- Arrow: June 11 and 27
- Proline: July 12
- Heat: September 6

Harvesting: Combined on September 22, 2019.

Month	Precipitation (mm)
May	25.4
June	26.1
July	59.3
August	51.8
September	48.7
TOTAL	211.3

► PLOT TRIAL

Research partner: Prairie Ag Research

Research site: Taber, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 16 m² plots.

Variety: Pioneer 45M35

Previous crop: Wheat

Seeding details: Seeded on May 27, with a drill planter at a rate of 5.6 kg/ha.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	25.4	-
AGTIV® IGNITE™ L	27.0	1.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Broadcast of 29-37-0-30

Pesticides: • Roundup WeatherMax: May 20 and July 3
• Pounce: July 3 and August 8

Harvesting: Combined on September 25, 2019.

Month	Precipitation (mm)
May	58.7
June	47.0
July	31.3
August	22.8
TOTAL	159.8

► PLOT TRIAL

Research partner: Wheatland Conservation Area

Research site: Swift Current, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 9 m² plots.

Variety: In Vigor L233P

Previous crop: Wheat

Seeding details: Seeded on May 28, with a cone seeder at a rate of 6.7 kg/ha.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Broadcast of 29-37-0-30: May 27

Pesticides: Roundup WeatherMax: June 25

Harvesting: Combined on September 25, 2019.

Month	Precipitation (mm)
May	13.3
June	156.0
July	11.1
August	42.6
September	92.1
TOTAL	315.1

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	25.0	-
AGTIV® IGNITE™ L	27.1	2.1

► PLOT TRIAL

Research partner: New Era Ag Technologies

Research site: Swan River, MB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 15 m² plots.

Variety: In Vigor L140P

Previous crop: Canola stubble

Seeding details: Seeded on June 4, with a drill planter at a rate of 5.6 kg/ha.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Midrow band 20-58-5-8 and broadcast 125-0-35-25.

Pesticides: None

Harvesting: Combined on October 4, 2018.

Month	Precipitation (mm)
June	127.6
July	59.3
August	35.4
September	51.1
TOTAL	273.4

Table 1. Summary of yields per treatment

Treatment	Yield ¹ (bu/ac)	Yield increase (bu/ac)
Untreated check	63.5 ^b	-
AGTIV® IGNITE™ L	68.0 ^a	4.5

¹ Yield mean with the same letter are not statistically different according to a Tukey HSD test (p≤0.05).



CEREALS

AVERAGE YIELD INCREASE

AGTIV[®]
IGNITE

DURUM WHEAT

9.3%

10 sites over 3 years
Canada

AGTIV[®]
IGNITE

SPRING WHEAT

10.2%

3 sites over 2 years
Canada

AGTIV[®]
IGNITE

BARLEY

8.8%

3 sites over 1 year
Canada



EFFICACY REPORT
SUMMARY – SERENDIPITA ON SEED INOCULANT

DURUM WHEAT



AGTIV

IGNITE

► PLOT TRIALS

- Research partners:**
- Ag-Quest Inc.;
 - Murphy & al.;
 - Prairie Ag Research;
 - Small Plot;
 - Wheatland Conservation Area.
- Research sites:**
- Alberta;
 - Saskatchewan.
- Treatments*:**
- a) Untreated check;
 - b) AGTIV® IGNITE™ L.
- *Products applied according to manufacturers recommended rate.
- Experimental design:**
- 72 replicated plots per treatment in complete randomized block design:
 - 4 of 6,
 - 6 of 8.

Table 1. Summary of yield trials for different sites

Year	Sites	Untreated check yield (bu/ac)	AGTIV® IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
2021	Lethbridge	66.7	73.3	6.6
2021	Vulcan	25.8	28.8	3
2021	Taber	39	40.6	1.6
2021	Swift Current	11.8	14.4	2.6
2022	Lethbridge	50.2	59	8.8
2022	Swift Current	54	55.8	1.8
2022	Vulcan	29.2	31	1.8
2022	Taber	27.3	31.8	4.5
2023	Raymond	53	56.1	3.1
2023	Lethbridge	32.6	34.6	2
Total	10 sites	38.9 ^a	42.5 ^b	3.6 bu/ac *

* Yields with same letter are not statistically different according to a Tukey HSD test (p≤05).

EFFICACY REPORT
2023 – SERENDIPITA INOCULANT

DURUM WHEAT



AGTIV

IGNITE

► PLOT TRIAL

Research partners: Prairie Ag Research

Research sites: Raymond, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 12.0 m² plots

Variety: Grainland

Previous crop: Spring barley

Seeding details: Seeded on May 12 with a cone seeder at a rate of 100 kg/ha in a clay loam soil (pH: 7.3, OM: 3.7%).
Emergence on May 19.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides: • Glyphosate: May 11
• Pardner: June 19

Harvesting: August 30, 2023

Month	Precipitation (mm)
May	13.2
June	30.1
July	7.8
August	26.2
TOTAL	64.3

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	53.0	-
AGTIV® IGNITE™ L	56.1	3.1





► PLOT TRIAL

Research partners: Murphy & al.

Research sites: Lethbridge, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 12.0 m² plots

Variety: Stronghold Cert #1 treated with Raxil Pro

Previous crop: Canola

Seeding details: Seeded on May 31 with a cone seeder at a rate of 110 kg/ha in clay soil (pH: 8.2, OM: 1.6 %).

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	32.6	-
AGTIV® IGNITE™ L	34.6	2.0

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 28-10-11-3 (310 kg/ha): May 31

Pesticides:

- OcTTain XL(450 ml/ac): June 20
- 2,4-D (86 ml/ac): June 20 and July 15
- Dicamba (117 ml/ac): July 15

Harvesting: September 5, 2023

Month	Precipitation (mm)	Irrigation (mm)
May	17.8	19.1
June	36.3	69.9
July	13.3	151.3
August	10.7	50.8
TOTAL	78.1	291.1



► PLOT TRIAL

Research partner: Prairie Ag Research

Research site: Lethbridge, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 6 repetitions, 12 m² plots.

Variety: Grainland

Previous crop: Fallow

Seeding details: Seeded on May 23, with a cone seeder at a rate of 100 kg/ha in a clay loam soil (pH: 7.4, OM: 4%).
Emergence on May 30.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides: • Glyphosate: May 20
• Infinity: June 30

Harvesting: September 14, 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.

Table 1. Summary of yields per treatment

Treatment	Yield ¹ (bu/ac)	Yield increase (bu/ac)
Untreated check	50.2 ^b	-
AGTIV® IGNITE™ L	59.0 ^a	8.8

¹ Yield mean with the same letter are not statistically different according to a Tukey HSD test (p≤0.05).



► PLOT TRIAL

Research partner: Wheatland Conservation Area

Research site: Swift Current, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 17 m² plots.

Variety: Alloy

Previous crop: Wheat

Seeding details: Seeded on May 18, with a cone seeder at a rate of 123 kg/ha in a sandy loam soil (pH: 6.1, OM: 2.7%).

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 30-15-0-6 (374 kg/ha): sidebanded on June 8.

Pesticides: • RT540: May 2
• Achieve: June 8

Harvesting: August 16, 2022

Month	Precipitation (mm)
May	51.2
June	37.7
July	90.4
August	7.5
TOTAL	186.8

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	54.0	-
AGTIV® IGNITE™ L	55.8	1.8



► PLOT TRIAL

Research partner: Small Plot

Research site: Vulcan, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 16 m² plots.

Variety: Spitfire

Previous crop: Rye

Seeding details: Seeded on May 16, with a plot drill machine at a rate of 130 kg/ha in a clay loam soil (pH: 7.6, OM: 3%).
Emergence on May 28.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 60-15-15-6 kg/ha: sidebanded on May 16.

Pesticides:

- Epic: June 25
- Stellar XL: June 25
- ZIVATA: June 25

Harvesting: August 30, 2022

Table 1. Summary of yields per treatment.

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	29.2	-
AGTIV® IGNITE™ L	31.0	1.8

Month	Precipitation (mm)
May	9.8
June	136.8
July	86.0
August	18.1
TOTAL	250.7

EFFICACY REPORT

2022 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partner: Ag-Quest inc.

Research site: Vulcan, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete Randomized Block Design, 6 repetitions, 22.5 m² plots.

Variety: Strongfield

Previous crop: Rye

Seeding details: Seeded on May 17, 2022, with a cone seeder at a rate of 117 kg/ha in a sandy loam soil (pH: 7.8, OM: 2.6%). Emergence on May 20.

Table 1. Summary of yields per treatment.

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	27.3	-
AGTIV® IGNITE™ L	31.8	4.5

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 5-20-5 kg/ha prior to seeding

Pesticides:

- Roundup Transorb: May 18
- Achieve liquid: June 19 and July 6
- Infinity: July 6

Harvesting: August 30, 2022

Month	Precipitation (mm)
May	16.1
June	78.2
July	204.3*
August	89.3*
TOTAL	387.9

* Plots were irrigated during those months.



► PLOT TRIAL

Research partner: Prairie Ag Research

Research site: Lethbridge, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 12 m² plots.

Variety: Grainland

Previous crop: Barley

Seeding details: Seeded on May 31, with a cone seeder at a rate of 100 kg/ha in a clay loam soil (pH: 7.4, OM: 2.9%).
Emergence on June 7.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides:

- Glyphosate: May 31
- Achieve: June 28
- Infinity: June 28
- Turbocharge: June 28

Harvesting: September 14, 2021

Month	Precipitation (mm)
May	33.1
June	76.5
July	70.3
August	35.6
TOTAL	215.5

Table 1. Summary of yields and protein per treatment

Treatment	Yield ¹ (bu/ac)	Yield increase (bu/ac)	Protein (%)
Untreated check	66.7 ^b	-	19.2
AGTIV® IGNITE™ L	73.3 ^a	6.6	20.3

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

EFFICACY REPORT

2021 – SERENDIPITA INOCULANT

DURUM WHEAT



AGTIV[®]

IGNITE

► PLOT TRIAL

Research partner: Small Plot

Research site: Vulcan, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 32 m² plots.

Variety: Spitfire

Previous crop: Oats

Seeding details: Seeded on May 16, with a plot drill machine at a rate of 115 kg/ha in a loam soil (pH: 7.5, OM: 3%). Emergence on May 20.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 70-20-20-20 kg/ha sidebanded at seeding.

Pesticides: ZIVATA: July 25

Harvesting: August 30, 2021

Month	Precipitation (mm)
May	167
June	109
July	152
August	163
TOTAL	591

Table 1. Summary of yields per treatment.

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	25.8	-
AGTIV [®] IGNITE [™] L	28.8	3.0

► PLOT TRIAL

Research partner: Ag-Quest inc.

Research site: Taber, AB

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 22.5 m² plots.

Variety: Strongfield

Previous crop: Rye

Seeding details: Seeded on June 6, with a cone seeder at a rate of 130 kg/ha in a loam soil (pH: 7.8, OM: 2.2%).
Emergence on June 20.

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: None

Pesticides:

- Achieve: July 2
- Infinity: July 2
- Axial Herbicide: July 16

Harvesting: September 3, 2021.

Month	Precipitation (mm)
May	24.8
June	89.9
July	78.5
August	53.7
TOTAL	246.9

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	39	-
AGTIV® IGNITE™ L	40.6	1.6



► PLOT TRIAL

Research partner: Wheatland Conservation Area

Research site: Swift Current, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Complete randomized block design, 8 repetitions, 18 m² plots.

Variety: Transcend

Previous crop: Barley

Seeding details: Seeded on May 28, with a cone seeder at a rate of 130 kg/ha in a sandy loam soil (pH: 6.5, OM: 2.7%).
Emergence on June 11.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	11.8	-
AGTIV [®] IGNITE [™] L	14.4	2.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 30-15-06-6 sidebanded at seeding (374 kg/ha)

Pesticides:

- Aim EC: May 4
- RT540: May 4
- Achieve: June 17
- Buctril: June 17

Harvesting: August 27, 2021

Month	Precipitation (mm)
May	44.1
June	74.5
July	51.9
August	43.2
TOTAL	213.7

► PLOT TRIALS

- Research partners:**

 - Ag-Quest Inc.;
 - New Era Technologies Inc.
- Research sites:**

 - Manitoba;
 - Saskatchewan.
- Treatments*:**

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

*Products applied according to manufacturers recommended rate.
- Experimental design:**

 - 12 replicated plots per treatment in complete randomized block design:
 - 2 of 6.

Table 1. Summary of yield trials for different sites

Year	Sites	Untreated check yield (bu/ac)	AGTIV® IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
2023	Swan River	68.1	74.7	6.6
2023	Saskatoon	13.9	17.6	3.7
Total	2 sites	41	46.2	5.2 bu/ac *



► PLOT TRIAL

Research partners: New Era Technologies Inc

Research sites: Swan River, MB

Treatments: a) Untreated check;
b) AGTIV[®] IGNITE[™] L.

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 16.95 m² plots

Variety: AAC Wheatland treated with Raxil Pro

Previous crop: Peas

Seeding details: Seeded on May 11 with an air drill at a rate of 139 lb/ac in a sandy loam soil (pH: 7.0, OM: 4.1%).
Emergence on May 16.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	68.1	-
AGTIV [®] IGNITE [™] L	74.7	6.6

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 46-0-0 (259 lb/ac): May 16
11-52-0 (67 lb/ac): May 16

Pesticides:

- Fortress: May 9
- Stellar XL (405 ml/ac): June 7
- Decis (30 ml/ac): June 7
- Miravis Neo 300SE (303 ml/ac): June 13
- Miravis Ace (405 ml/ac): July 6

Harvesting: September 3, 2023

Month	Precipitation (mm)
May	19.7
June	45.3
July	33.0
August	118.2
September	5.6
TOTAL	221.8



► PLOT TRIAL

Research partners: Ag-Quest Inc

Research sites: Saskatoon, SK

Treatments: a) Untreated check
b) AGTIV® IGNITE™ L

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 8.74 m² plots

Variety: AAC Wheatland treated with Vibrance Quattro

Previous crop: Oat

Seeding details: Seeded on May 23 with a cone seeder at a rate of 90 kg/ha in a loam soil (pH: 5.9, OM: 3.8%).

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	13.9	-
AGTIV® IGNITE™ L	17.6	3.7

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: Fertilizer blend of 1-52-0 + 0-0-60 (136 kg/ha)

Pesticides:

- Glyphosate (0.67 l/ac): May 15
- Aim (30 ml/ac): May 15
- Everest 2.0 (24.3 ml/ac): June 7
- Foothills NG (376 ml/ac): June 14
- Coragen Max (83 ml/ac): June 16
- Reglone Ion (84 ml/ac): August 23

Harvesting: September 27, 2023

Month	Precipitation (mm)
May	47.9
June	52.4
July	19.0
August	41.3
September	14.7
TOTAL	175.3

► PLOT & STRIP TRIALS

- Research partners:**

 - Ag-Quest Inc.;
 - Wheatland Conservation Area.
- Research sites:**

 - Manitoba;
 - Saskatchewan.
- Treatments*:**

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

*Products applied according to manufacturers recommended rate.
- Experimental design:**

 - 12 replicated plots per treatment in complete randomized block design:
 - 2 of 6;
 - 1 split field.

Table 1. Summary of yield trials for different sites

Year	Sites	Untreated check yield (bu/ac)	AGTIV® IGNITE™ L yield (bu/ac)	Yield increase (bu/ac)
2023	Elm Creek	101.9	104	2.1
2023	Swift Current	22.8	25.6	2.8
2023	Petruic Family farm	59.5	70.7	11.2
Total	3 sites	61.4	66.8	5.4 bu/ac

EFFICACY REPORT
2023 – SERENDIPITA INOCULANT

► 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, 18.0 m² plots

Variety:

CDC Austenson treated with Sexodane and Lumivia

Previous crop:

Soybean

Seeding details:

Seeded on May 16 with a cone planter at a rate of 71 lb/ac in a clay loam soil (pH: 7.8, OM: 4.6%).
Emergence on May 17.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	101.9	-
AGTIV® IGNITE™ L	104.0	2.1

OPERATIONAL NOTES AND RAIN FALL

Fertilisation:

46-0-0 and 11-52- 0; May 9

Pesticides:

Infinity

Harvesting:

August 25, 2023

Month	Precipitation (mm)
May	38.0
June	49.8
July	20.8
August	31.0
TOTAL	139.6

EFFICACY REPORT
2023 – SERENDIPITA INOCULANT

► PLOT TRIAL

Research partners: Wheatland Conservation Area

Research sites: Swift Current, SK

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

*Products applied according to manufacturers recommended rate.

Experimental design: Randomized Complete Block (RCB), 6 repetitions, 17.3 m² plots.

Variety: CDC Bow treated with Cruiser Vibrance Quattro

Previous crop: Durum Wheat

Seeding details: Seeded on May 18 with a cone seeder at a rate of 90 lb/ac in a silty loam soil (pH: 6.7, OM: 2.9%).
Emergence on May 26.

Table 1. Summary of yields per treatment

Treatment	Yield (bu/ac)	Yield increase (bu/ac)
Untreated check	22.8	-
AGTIV® IGNITE™ L	25.6	2.8

OPERATIONAL NOTES AND RAIN FALL

Fertilisation: 30-15-0-6 (267lb/ac): May 18

Pesticides:

- RT540 (0.67 l/ac): May 12
- Liquid Achieve (200 ml/ac): June 16
- Buctril M (400 ml/ac): June 16
- Carrier (0.5 l/100L): June 16
- Decis (60 ml/ac): July 1

Harvesting: September 19, 2023

Month	Precipitation (mm)
May	48.8
June	33.8
July	76.7
August	47.5
TOTAL	206.8

EFFICACY REPORT 2025

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