

**AGF**  **seeds**

# CANOLA 2024



# SMEATON CANOLA TRIALS

As adoption of winter canola in Australia continues to rise AGF Seeds has been on the front foot adapting international genetics for local conditions, and we continue to do so with Phoenix CL and Captain CL.

Winter canola has a huge opportunity for growers to find economic value in a dual-purpose system. To provide further data for graze and grain systems, as well as grain only systems, we decided in 2023 to obtain trial results for an ungrazed trial, and two simulated grazed trials with separate sowing dates. We hope this information will help farmers and agronomists to continue to make informed decisions around adopting winter canola.

Each trial, ungrazed and the two grazed trials with different sowing dates, comprise of a 4 replicate randomised trial design. Commercial and pre-commercial lines are tested against benchmark varieties.

## WINTER CANOLA (UNGRAZED)

The aim of the un-grazed winter canola trial was to evaluate pre-commercial and new commercial winter canola genetics from a maturity, disease, plant type and grain yield perspective compared to benchmark varieties.

<b>Sowing Date</b>	14/04/2023
<b>Seeding Rate</b>	Calculated per variety to target plant population of 50 plants/m <sup>2</sup>
<b>Seed Treatment</b>	Illevo @ 8L/t + Poncho @ 5L/t

Of the commercially available cultivars, Captain CL was the highest yielding (3.6t/ha) followed by Phoenix CL (3.13t/ha), Hyola Feast CL (2.6t/ha), Hyola 970 CL (2.57t/ha) & Nizza CL (2.35t/ha).

The winter x spring pre-commercial line (AGFCA014820 CL) began flowering ~2 weeks before the earliest winter canola in the trial. This line yielded (2.86t/ha) and did suffer medium pod shattering.

Table 1. 2023 Un-grazed Winter Canola Start of Flowering Assessment

Variety	Estimated Start of Flowering Date
AGFCA014820 CL	5/09/2023
AGFCA015023 CL	19/09/2023
Nizza CL	19/09/2023
AGFCA014420	20/09/2023
Feast CL	20/09/2023
Captain CL	20/09/2023
Phoenix CL	22/09/2023
Hyola 970 CL	25/09/2023
AGFCA006310	1/10/2023
AGFCA006110 CL	1/10/2023

Table 2. 2023 Un-grazed Winter Canola Trial Pre-Harvest Height Assessment. 0 = nil, 5 = very high

Variety	Plant Height	Lodging Score (0 - 5)	Pod Shattering Score (0-5)
AGFCA014420	182.5	0	2
AGFCA014820 CL	178.75	0	2.9
AGFCA015023 CL	181.25	0	2.1
Captain CL	181.25	0	1.6
Hyola 970 CL	176.25	0.13	1.5
Feast CL	168.75	0.75	3.4
Nizza CL	177.5	0	3.4
Phoenix CL	171.25	1	2

Note: Storms and wet conditions prior to harvest did lead to significant pod shattering across the site. This was scored during the pre-harvest assessment and should be noted when interpreting results.

Table 3. Un-Grazed Winter Canola Trial Grain Yield Analysis

Variety	Mean Yield (t/ha)	Homogeneous Groups	% Of Site Mean
Captain CL	3.60	A	125
AGFCA006310	3.60	A	125
AGFCA014420	3.41	AB	119
AGFCA015023 CL	3.38	AB	118
Phoenix CL	3.13	ABCD	109
AGFCA006110 CL	2.87	BCDE	100
AGFCA014820 CL	2.86	BCDE	100
Feast CL	2.63	CDE	92
Hyola 970 CL	2.57	DEF	90
Nizza CL	2.35	EF	82

Site Mean (t/ha)	2.87
P Value	0.0000
CV	15.74
LSD	0.643

### Chemical Inputs

Type	Product	Rate	Date Applied
<b>Pre-emergent Herbicide (IBS)</b>	Glyphosate 540 @ 2.5L/ha, Trifluran 480 @ 2L/ha		14/04/2023
<b>Insecticide</b>	Transcend Bait	15kg/ha	17/04/2023
<b>Insecticide</b>	Alpha-Cypermethrin 250	200ml/ha	1/05/2023
<b>Herbicide</b>	Intervix + Hasten Adjuvant	750ml/ha	2/06/2023
<b>Herbicide</b>	Clethodim Hi-Load 360 + Hasten Adjuvant	330ml/ha	9/06/2023

### Fertiliser Inputs

Product	Analysis	Rate (kg/ha)	Date Applied
<b>MAP</b>	10% N, 21.9% P, 1.5% S, 1.6% Ca	110	14/04/2023
<b>SOA</b>	20.2% N, 24% S	90	15/05/2023
<b>Urea</b>	46% N	85	21/06/2023
<b>Urea</b>	46% N	130	4/08/2023
<b>Urea</b>	46% N	75	5/09/2023

# WINTER CANOLA (GRAZED)

In the mechanical biomass cut to simulate grazing for TOS1 Captain CL achieved the highest dry matter (DM) production for a commercial variety of 1680kg DM/ha. This was a 4% and 5% higher dry matter production compared to Nizza CL and Feast CL respectively, and 25% higher production vs Hyola 970 CL.

The winter cross spring pre-commercial line (AGFCA014820 CL) achieved a 14% higher dry matter production compared to Captain CL.

The TOS2 biomass cut highlighted that delayed sowing by 20 days resulted in an average dry matter production loss across the site of 49% (857kg DM/ha) at simulated grazing compared to TOS1. Average grain yield in TOS1 was 0.47t/ha or 15.5% higher than the average grain yield achieved in TOS2.

Of the commercially available cultivars, Captain CL achieved the highest grain yield in both TOS1 and TOS2 (4.3t/ha and 3.38t/ha respectively). In TOS1 Captain CL (4.3t/ha) was followed by Hyola 970 CL (3.64t/ha), Phoenix (3.28t/ha), Hyola Feast CL (3.23t/ha), & Nizza CL (2.98t/ha). In TOS2 Captain CL (3.38t/ha) was followed by Phoenix (2.97t/ha), Hyola 970 CL (2.59t/ha), Hyola Feast CL (2.46t/ha), & Nizza CL (1.88t/ha).

Table 1: Winter Canola Graze and Grain Trial Biomass Cut Analysis. Plots cut and weighed to simulate grazing.

Variety	Time of Sowing 1 Cut 21st of June: 88 days after sowing			Time of Sowing 2 Cut 7th of August: 115 days after sowing			
	Mean Yield (kg/ha)	Homogeneous Groups	% Of Site Mean	Mean Yield (kg/ha)	Homogeneous Groups	% Of Site Mean	Yield % vs Time of Sowing 1
Captain CL	1680	AB	96	1157.2	AB	122	69
Phoenix CL	1548	AB	88	404.7	C	43	26
Hyola 970 CL	1248	B	71	387.5	C	41	31
Feast CL	1596	AB	91	947.7	AB	100	59
Nizza CL	1611	AB	92	736.9	BC	78	46
AGFCA014820 CL	1923	A	110	1303.5	A	138	68
AGFCA015023 CL	1944	A	111	1171.5	AB	124	60
AGFCA006310 CL	1934	A	110	952.7	AB	101	49
AGFCA014420 CL	2099	A	120	1039.2	AB	110	50
AGFCA006110 CL	1949	A	111	959.7	AB	101	49
	Site Mean (kg/ha)	1753		Site Mean (kg/ha)	896		
	CV	14.62		CV	34.52		
	P Value	0.2579		P Value	0.0042		
	LSD	719.84		LSD	773.82		

Table 2: Winter Canola Graze and Grain Trial Pre-Harvest Assessment. 0 = nil , 5 = very high

Variety	Time of Sowing 1			Time of Sowing 2		
	Plant Height	Lodging Score (0 - 5)	Pod Shattering Score (0-5)	Plant Height	Lodging Score (0 - 5)	Pod Shattering Score (0-5)
Captain CL	170	0	1	158	0.25	0.1
Phoenix CL	160	0	1	153	0.5	0.1
Hyola 970 CL	165	0	1.5	160	0.4	0.1
Feast CL	160	0	1.5	144	0.375	0.25
Nizza CL	170	0	3	157	1.4	0.8
AGFCA014820 CL	170	0	1.5	153	0.3	0.1
AGFCA015023 CL	165	0	1	159	0.5	0.1
AGFCA006310 CL	185	0	1.5	164	0.375	0.1
AGFCA014420 CL	165	0	2	160	0.625	0.25
AGFCA006110 CL	*	*	*	156	0.3	0.1

Note: Storms and wet conditions prior to harvest did lead to significant pod shattering across the site. This was scored during the pre-harvest assessment and should be noted when interpreting results.

\*AGFCA006110 not measured in pre-harvest assessment rep due to establishment problem and was not scored for grain yield or pre-harvest assessment from this plot

Table 3: Winter Canola Graze and Grain Trial – Grain Yield Analysis

Variety	Time of Sowing 1			Time of Sowing 2			
	Mean Yield (t/ha)	Homogeneous Groups	% Of Site Mean	Mean Yield (t/ha)	Homogeneous Groups	% Of Site Mean	Yield % vs Time of Sowing 1
Captain CL	4.30	A	133	3.38	AB	114	79
AGFCA015023 CL	3.83	AB	119	3.58	A	120	93
AGFCA006310 CL	3.77	AB	117	3.40	AB	114	90
AGFCA014420 CL	3.76	ABC	116	3.06	BC	103	81
Hyola 970 CL	3.64	ABC	113	2.59	D	87	71
AGFCA014820 CL	3.44	BCD	107	3.15	ABC	106	92
Phoenix CL	3.28	BCD	102	2.97	C	100	91
Feast CL	3.23	BCD	100	2.46	D	83	76
Nizza CL	2.98	CD	92	1.88	E	63	63
AGFCA006110 CL	2.82	D	87	3.21	ABC	108	114
	Site Mean (t/ha)	3.50		Site Mean (t/ha)	3.03		
	P Value	0.0243		P Value	0.0000		
	CV	14.15		CV	8.03		
	LSD	0.912		LSD	0.609		

## Chemical Inputs

Type	Product	Rate	Date Applied
<b>Time of sowing 1</b>			
Pre-emergent Herbicide (IBS)	Glyphosate 540 @ 2.5L/ha, Trifluran 480 @ 2L/ha, Propyzamide 500 @ 1.5L/ha		25/03/2023
Insecticide	Transcend Bait	15kg/ha	27/03/2023
Insecticide	Alpha-Cypermethrin 250	200ml/ha	1/05/2023
Herbicide	Intervix + Hasten Adjuvant	750ml/ha	13/05/2023
<b>Time of sowing 2</b>			
Pre-emergent Herbicide (IBS)	Glyphosate 540 @ 2.5L/ha, Trifluran 480 @ 2L/ha		14/04/2023
Insecticide	Transcend Bait	15kg/ha	17/04/2023
Insecticide	Alpha-Cypermethrin 250	200ml/ha	1/05/2023
Herbicide	Intervix + Hasten Adjuvant	750ml/ha	2/06/2023
Herbicide	Clethodim Hi-Load 360 + Hasten Adjuvant	330ml/ha	9/06/2023

## Fertiliser Inputs

Type	Product	Rate (kg/ha)	Date Applied
<b>Time of sowing 1</b>			
MAP	10% N, 21.9% P, 1.5% S, 1.6% Ca	110	25/03/2023
SOA	20.2% N, 24% S	90	15/05/2023
Urea	46% N	85	21/06/2023
Urea	46% N	130	9/08/2023
Urea	46% N	75	5/09/2023
<b>Time of sowing 2</b>			
MAP	10% N, 21.9% P, 1.5% S, 1.6% Ca	110	14/04/2023
SOA	20.2% N, 24% S	90	15/05/2023
Urea	46% N	85	21/06/2023
Urea	46% N	130	9/08/2023
Urea	46% N	75	5/09/2023

# Phoenix CL <sup>(D)</sup>

## Rising Above... Again and Again



MATURITY



TYPE  
WINTER



POD SHATTER  
RESISTANCE  
(DSV United Kingdom Ltd, n.d.)



DUAL PURPOSE

Phoenix CL is a Hybrid Clearfield Dual-purpose Winter Canola

- Proven and consistent performance
- Durability for grazing and for grain
- R Blackleg bare seed rating
- Blackleg Group B resistance
- Maturity suited to a wide sowing window
- Excellent early vigour
- Improved pod shattering resistance
- Late maturing Winter type

“

*'How do you stop this Canola growing?  
I've got 1400 lambs on this paddock!*

*It's been a real success... only regret is  
that I should've put more in.*

”

Rob Cameron

Farmer - Mount Mercer, Victoria

Photo above is Phoenix CL growing on  
the Cameron's property.



Scan for  
more  
information



# CAPTAIN CL<sup>®</sup> for *Big Yields* and *Big Biomass*

Captain CL Winter Canola takes a large step forward in both yields and biomass production, making it the perfect canola for your grain and grazing needs.



## Leading the Way!

EPR \$5.00/t + GST

**MATURITY**

**Clearfield<sup>®</sup>**  
Production System

POD SHATTER  
RESISTANCE

BLACKLEG  
RATING

BLACKLEG  
GROUP

SCAN FOR  
MORE  
INFO

Captain has proven its potential for market leading yields in grain and biomass for grazing. With high oil percentages and a strong disease package and an AH blackleg group resistance Captain can help you lead the way with Winter Canola.

### Higher Yielding

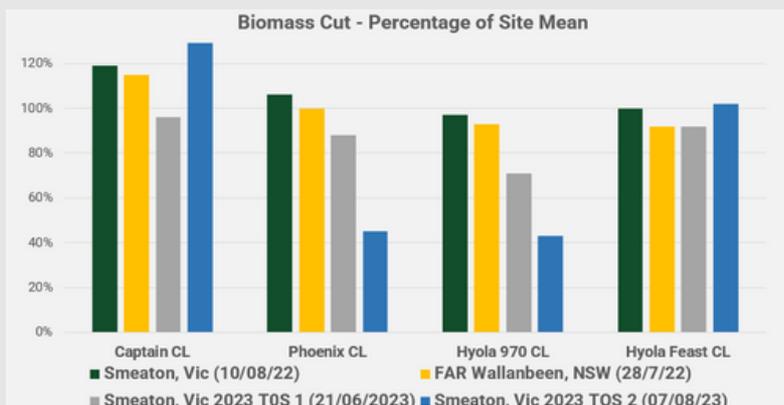
**Table 1:** Yield CL varieties expressed as t/Ha (Sources AGF Seeds, FAR, SFS)

Variety	AGF Smeaton, Vic		AGF Smeaton 2023			FAR Millicent 2022, SA		FAR Wallanbeen 2022, NSW		FAR Gnarwarre 2022
	2021	2022	Ungrazed	Grazed TOS 1	Grazed TOS 2	Ungrazed	Grazed	Ungrazed	Grazed	Ungrazed
Captain CL	6.53	6.55	3.6	4.3	3.38	4.57	4.84	3.79	3.36	3.23
Phoenix CL	5.49	5.31	3.13	3.28	2.97	4.18	3.92	4.37	4.26	2.59
Hyola 970 CL	5.64	5.63	2.57	3.65	2.59	3.81	4.23	3.65	3.39	2.23

### Higher Biomass

Captain CL continues to shine in trials and in the field for biomass. Early sowing can lead to exceptional feed for stock in times when other forms of feed may be hard to find.

Biomass numbers are based on plots cut and weighed to simulate grazing.



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