

# 12. Canola Evaluation Trials

## PART B. MFMG Canola Variety Trials

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Two MacKillop Farm Management Group (MFMG) canola variety trials were sown in 2018 at Millicent. This trial was conducted to enable growers to evaluate a selected number of varieties under specific local conditions. There are no NVT Canola sites in the lower south-east and Millicent is seen as important in evaluating canola varieties in a high rainfall environment.

### TRIAZINE TOLERANT CANOLA TRIAL

**Site** Millicent  
**Crop** Canola  
**Previous Crop** Beans  
**Sowing date** 21-May-18  
**Sowing rate** 60 seed/m<sup>2</sup>  
**Harvest Date** 8-Jan-19

In the Triazine Tolerant (TT) variety trial (Table 1), site mean yield was 3.92 t/ha with yield varying from 5.00 t/ha (SF Ignite TT) down to 2.60 t/ha (Hyola® 650TT). SF Ignite TT out yielded all varieties at Millicent. This mid to mid-late maturing hybrid canola was released in 2017.

**Table 1:** MFMG Millicent 2018 Triazine Tolerant (TT) canola variety trial.

Variety	Maturity	50 % Flower Date	Yield		Moisture (%)	Oil (%)	Protein (%)	
			t/ha	% Site Mean				
ATR Wahoo	ML	14-Sep-18	3.82	cd	97	8.2	43.1	23.2
DG 670TT	ML	08-Sep-18	3.95	bcd	101	8.9	43.5	21.1
Hyola® 650 TT	ML	09-Sep-18	2.60	e	66	9.0	42.9	22.7
SF Ignite TT	M-ML	11-Sep-18	5.00	a	128	8.1	43.7	23.4
InVigor® T 4510	EM	09-Sep-18	4.16	bc	106	8.9	42.7	22.7
Pioneer 45T01 TT	M	08-Sep-18	3.61	d	92	8.6	42.9	23.7
SF Turbine TT	EM	05-Sep-18	4.30	b	110	8.7	42.1	23.6

<b>Site Mean</b>	3.92
<b>P Value (0.05)</b>	<.001
<b>LSD</b>	0.413
<b>CV (%)</b>	0.8

*Means followed by same letter do not differ significantly*

#### **Frost Events:**

This trial experienced frost conditions on the following dates throughout the flowering period: -0.2 °C on Aug 27, -1.6 °C on Aug 28, -0.6 °C on Sep 3, -0.3 °C on Sep 4, -0.4 °C on Sep 26, -1.1 °C on Oct 24, -1.3 °C on Oct 29. Interpret results with caution.

## Trial Inputs (all plots)

Seed Treatment: Jockey Stayer

2 L/100kg seed

2018 Date	Product and Rate/ha				
	Fertiliser	Herbicide	Fungicide	Insecticide	Other
21-May Sowing	18:13:0:10 +2 % Zn 140 kg PLUS Impact (in furrow) 400 mL	Roundup PowerMax 2.5L Cavalier 75mL Rustler 1.0 L			Snail Bait 7.5kg
19-Jun		Select 500 mL Simazine 3.0 L		Lorsban 500mL Alpha Forte 80mL	
27-Jun					Snail Bait 7.5kg
16-Jul	SOA 70kg				
14-Aug	Urea 70kg				
3-Sept			Prosaro 425mL	Lorsban 500mL Alpha Forte 80mL	
5-Sept	Urea 50kg				

## CLEARFIELD CANOLA TRIAL

<b>Site</b>	Millicent
<b>Crop</b>	CL Canola
<b>Previous Crop</b>	Beans
<b>Sowing date</b>	TOS 1 2-May-18 TOS 2 21-May-18
<b>Sowing rate</b>	60 seed/m <sup>2</sup>
<b>Harvest Date</b>	8-Jan-19

Two sowing times were undertaken with Clearfield (imidazolinone tolerant) varieties. The long season winter canola varieties have a high vernalisation (or cold requirement) before they become reproductive and bud elongation starts to occur. This gives these varieties the ability to be sown early then grazed with often little damage to grain yield. In this trial the varieties were not grazed, just managed for grain yield. Long season winter canola varieties include Hyola® 970CL, SF Edimax CL and Pheonix CL.

The yields for the Clearfield (imidazolinone tolerant) variety time of sowing 1 (TOS1) trial averaged 5.48 t/ha (Table 2a). There was no significant difference in yield between the two varieties sown.

**Table 2a:** MFMG Millicent 2018 Clearfield (imidazolinone tolerant) canola variety TOS1 trial.

Variety	Maturity	Emergence (plant/m <sup>2</sup> )	50 % Flower Date	Yield		Moisture (%)	Oil (%)	Protein (%)
				t/ha	% Site Mean			
Hyola® 970 CL	L	58	04-Oct-18	5.79	106	7.7	43.9	21.5
SF Edimax	L	63	01-Oct-18	5.17	94	8.1	43.4	21.3

<b>Site Mean</b>		5.48
<b>P Value</b>	0.073	0.543
<b>LSD</b>	NS	NS
<b>CV (%)</b>	8.0	6.4

NS – Not significant

The yields for the Clearfield (imidazolinone tolerant) variety time of sowing 2 (TOS2) trial (Table 2b) averaged 5.56 t/ha and ranged from 6.32 t/ha (Pheonix CL) down to 5.18 t/ha (Banker CL). There was no significant difference in yield between the varieties.

**Table 2b:** MFMG Millicent 2018 Clearfield (imidazolinone tolerant) canola variety TOS2 trial.

Variety	Maturity	Emergence (plant/m <sup>2</sup> )	50 % Flower Date	Yield		Moisture (%)	Oil (%)	Protein (%)
				t/ha	% Site Mean			
Pioneer 45Y91	M	45	03-Sep-18	4.91	88	7.8	43.7	22.7
Archer CL <sup>1</sup>	L	49	10-Sep-18	5.81	105	8.2	43.2	23.8
Banker CL	M	41	30-Aug-18	5.18	93	7.3	43.8	24.1
Phoenix CL <sup>2</sup>	L	48	30-Sep-18	6.32	114	9.2	42.9	20.3

<b>Site Mean</b>			5.56
<b>P Value</b>	0.757		0.264
<b>LSD</b>	NS*		NS*
<b>CV (%)</b>	7.3		6.4

NS - not significant

<sup>1</sup> Archer CL has been withdrawn and no longer available.

<sup>2</sup> Phoenix CL is a new winter grain and graze dual purpose hybrid.

#### Frost Events:

This trial experienced frost conditions on the following dates throughout the flowering period: -0.2 °C on Aug 27, -1.6 °C on Aug 28, -0.6 °C on Sep 3, -0.3 °C on Sep 4, -0.4 °C on Sep 26, -1.1 °C on Oct 24, -1.3 °C on Oct 29. Interpret results with caution.

#### Trial Inputs (all plots)

Seed Treatment: Jockey Stayer

2 L/100kg seed

2018 Date	Product and Rate/ha				
	Fertiliser	Herbicide	Fungicide	Insecticide	Other
Sowing TOS1 2-May-18 TOS2 21-May-18	18:13:0:10 +2 % Zn 140 kg PLUS Impact (in furrow) 400 mL	Pre-emergent Roundup PowerMax 2.5L Cavalier 75mL Rustler 1.0 L			Snail Bait 7.5kg
19-Jun		Select 500 mL		Lorsban 500mL Alpha Forte 80mL	
27-Jun		Intervix (+ oil) 750mL Lontrel 150mL			Snail Bait 7.5kg
16-Jul	SOA 70kg				
14-Aug	Urea 70kg				
3-Sept			Prosaro 425mL	Lorsban 500mL Alpha Forte 80mL	
5-Sept	Urea 50kg				



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