

## 2.3 Canola

### 2.3.1 Canola Variety Trial - Inverleigh, Vic

**Location:**

Inverleigh

**Funding:**

Thanks to the members and sponsors for supporting the trial.

**Researchers:**

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**Rainfall (mm):**

2007 Annual: 528.6 mm

GSR (April – November): 393 mm

- Growing season rainfall was average
- August to October was very dry only 67% of long term average
- Significant rainfall during November and above average rainfall in December.

**Summary of Findings:**

- Average Canola yields in the trial were 2.75 t/ha (2.22 t/ha 2006, 2.4 t/ha 2005).
- The timing of the rain in early November arrived too late for most of the longer season varieties to exploit their full potential.
- The highest yielding variety was a hybrid variety '46Y78' at 115% of the site mean.
- Seven of the top ten yielding varieties were TT varieties, compared to 4 out of 10 in 2006 and only 1 out of the top ten in 2005.
- Disease pressure at the site was low.

**Background to the trial:**

Some of the key features to consider when selecting a new canola variety are yield, oil content, blackleg resistance, early vigour and suitability of maturity to your season length. Additionally you need to consider which herbicide resistance package fits in with the problem weeds on your property. This trial compares a number of varieties that are either commercially available or close to commercial release that are potentially suitable for growing in southern Victoria.

**Trial Design:**

A fully randomized block design consisting of 4 replicates per variety. Plot length of 12 metres and plot width of 1.45 metres.

▼ **Table 2.17: Trial inputs**

<b>Previous Crop:</b>	Pulse
<b>Sowing Date:</b>	15 May 2007
<b>Windrowed:</b>	17 November 2007
<b>Harvest Date:</b>	28 November 2007

	Product	Rate	Date Applied
<b>Herbicides</b>	Trifluralin	1.5Lt	14 May 2007
	Simazine 900 (TT only)	1.1Kg	15 May 2007
	Dual Gold	0.25Lt	15 May 2007
	Atrazine 600 (TT only)	2Lt	30 July 2007
	Select + Hasten	0.25 + 1Lt	30 July 2007
	Intervix + Hasten (Clearfield)	0.3 + 0.5Lt	1 August 2007
<b>Fertiliser</b>	MAP	100 kg	15 May 2007
	Urea	90 Kg	16 July 2007
<b>Insecticides</b>	Talstar	0.2Lt	15 May 2007

## Results:

▼ Table 2.18: Yield of the varieties, type and maturity.

Variety	Yield (t/ha)	Significant Difference <sup>1</sup>	Yield % Site Mean	Type	Maturity	Oil %
46Y78 CL	3.15	a	115%	CF Hybrid	Mid - Late	44.3
Rottnest TT	2.99	ab	109%	TT	Early - Mid	43.6
Marlin TT	2.97	ab	108%	TT	Mid - Late	43.4
BLN TT	2.97	ab	108%	TT	Early - Mid	43.2
Hyola 50	2.96	ab	108%	C Hybrid	Early - Mid	44.1
Summitt TT	2.94	ab	107%	TT	Mid	42.8
45Y77 CL	2.85	ab	104%	CF	Early - Mid	43.8
Barra TT	2.73	ab	99%	TT	Mid	42.0
Flinders TT	2.72	ab	99%	TT	Mid - Late	42.6
Bravo TT	2.61	ab	95%	TT	Early - Mid	43.6
46Y76 CL	2.61	ab	95%	CF	Mid - Late	44.1
Warrior CL	2.60	ab	94%	CF	Mid	43.5
Rocket CL	2.60	ab	94%	CF	Mid - Late	43.5
Tornado TT	2.54	b	92%	TT	Mid	43.2
Thunder TT	2.42	b	88%	TT	Mid - Late	43.3
Garnett	2.41	b	88%	C	Mid	43.8
Mean	2.75					43.4
LSD (P=.05)	0.588					1.65
CV%	15.12					2.69

<sup>1</sup> Means followed by same letter do not significantly differ (P=.05, LSD)

Key: C = Conventional, TT = Triazine Tolerant, CF = Clearfield

The yield results from the 2007 trials have a CV% of 15.12 which means that we can have a reasonable level of confidence in the results being repeatable. It is important to note that although there was 0.74 t/ha between the highest and the lowest yielding variety, only 46Y78 yielded significantly higher than the bottom three varieties: Tornado, Thunder and Garnet.

The number of Triazine tolerant varieties in the top half of the yield table is really encouraging, with seven in the top ten. This compares to four in 2006 and only one in 2005. TT varieties Marlin and Summitt have yielded extremely well in the canola trials over the last two seasons, with oil % also being comparable to some of the Clearfield and Conventional varieties.

However there was a trend, although not significant, for the majority of the non TT varieties to have slightly higher oil percentages than the TT's, which we have seen in previous seasons.

The top yielding variety for the third season in a row has been a hybrid canola variety. These varieties, if grown to maximize their potential, will significantly increase grower returns over and above industry benchmark varieties. The hybridization of the variety brings the following advances through hybrid vigour:

- Earlier seedling establishment and enhanced vigour
- Better standing power from stronger stems
- Improved weed management from better plant competition
- High levels of Blackleg resistance
- Very high yield potential