

Performance of canola varieties in the Mallee

The aim of this trial was to compare the performance in 2003 of 12 canola varieties suited to Mallee environments.



Summary

Of the conventional varieties: Outback (1.2t/ha), Emblem (1.1t/ha) and Rivette (1.3t/ha) performed the best at Berriwillock in 2003.

The triazine tolerant (TT) lines that yielded highest in this trial were Surpass501TT (1.1t/ha) and Beacon (1.0t/ha). Eyre, a TT variety performed poorly at 0.7t/ha.

The Clearfield line that performed very well in the trial was Pioneer 45C75 (1.3t/ha).

In the Wimmera, monola is worth keeping an eye on as a niche crop as it performed similar to, if not slightly better, than some canola varieties and receives a premium of \$40/t on delivery.

Background

Several new canola varieties will be marketed in Victoria in 2004 with many of the varieties having limited testing in the Wimmera/Mallee prior to release. With the advent of varieties being released from several different seed companies it is even more important to have an independent group evaluating new varieties.

Methods

This trial was conducted using a fully replicated (x4) randomised block design at the Berriwillock site. A demonstration plot was sown at the Birchip site.

Twelve canola varieties (Table 1) were each sown at 5kg/ha on May 15 with 60kg/ha EzyZinc. Triflur 480[®] was applied at 0.6L/ha prior to sowing. Lontrel[®] was applied at 100ml/ha on June 11 and Dimethoate[®] at 300ml/ha on June 25. No other herbicides were applied.

Results

There were significant differences in canola yield between varieties which ranged in the 2003 trial from 0.7t/ha for Eyre to 1.3t/ha for 45C75 (Table 1).

Canola varieties were also compared at the Birchip site. Yields ranged from 1.42t/ha for Surpass404CL, which is an early maturing variety, to 1.37t/ha for Pioneer46CO4 and 1.21t/ha for Sapphire, both mid maturing conventional varieties.

Table 1. Grain yield and oil content of canola varieties at Berriwillock in 2003.

Variety	Herbicide tolerance	Maturity	Yield (t/ha)	Oil (%)
Outback	conventional	Early	1.19	39.3
Eyre	TT	Early	0.71	40.2
Surpass400	conventional	Early	1.15	41.9
Surpass404CL	CL	Early	1.10	42.0
Hyola43	conventional	Early	1.14	40.9
Pioneer44C73	CL	Early	1.06	39.8
Emblem	conventional	Early-Mid	1.11	41.8
Rivette	conventional	Early-Mid	1.27	41.2
Surpass501TT	TT	Early-Mid	1.08	40.2
Pioneer45C75	CL	Early-Mid	1.35	41.0
Stubby	TT	Early-Mid	1.07	39.8
Beacon	TT	Mid	1.03	40.1
LSD (5%)			0.14	NS

Interpretation

Emblem and Outback are two conventional varieties that have yielded well in previous Mallee trials, and both varieties have performed well again in 2003. Rivette is another conventional variety that yielded well in this trial at Berriwillock.

Of the TT varieties, Beacon and Surpass501TT out-yielded Eyre (0.7t/ha).

Monola is marketed as healthy oil and was grown at Murtoa as a demonstration and compared to the yield of canola. Three varieties were grown and all three varieties yielded similar if not slightly better than canola.

Table 2. Yields of three monola varieties demonstrated at Murtoa

Variety	Yield (t/ha)
Monola202	1.58
Monola021	1.40
Monoal201	1.27

Monola seed receives a premium on delivery of \$40/t and if it continues to yield similar to or out-perform canola, it may be worth looking at as a niche market. Monola202 was also sown at the Birchip site. Yield for this line at Birchip was 1.34t/ha.

Commercial Practice

The main features to look at when selecting a canola variety are maturity, yield, oil content, and blackleg resistance. When choosing a new variety:

- Match rainfall and growing season length to maturity of variety required. In low rainfall environments such as the Mallee, early-maturing varieties should be sown into adequate soil moisture. Late-maturing varieties are best suited to areas with at least 400mm annual rainfall.
- Look at trial results over a number of years for a particular environment.
- Determine the weed spectrum to make a decision on conventional compared with TT or IT varieties.
- Check the variety blackleg resistance rating – varieties with a resistance level of at least 7 should be grown in the Wimmera, whereas in the Mallee a rating of 6.0 to 6.5 is suggested.