

Canola Varieties

Summary: the canola varieties tested did not significantly differ in yield. The best suited varieties for the Southern Mallee environment will still be the shorter season types: Monty, Narendra, Scoop and Hyola 42. Narendra has inherently low oil content and is not preferred.

Aim: to determine the best suited canola varieties for the Southern Mallee environment

Methods: Urea (60 kg/ha) was predrilled and all varieties were sown in replicated plots on May 16, 1997 with 100 kg/ha of Mallee Mix 1.

Variety Descriptions:

Monty (BLN 900) Early maturing variety (7-10 days) with better lodging, shattering, oil, protein and blackleg resistance than Narendra, also higher yielding (5-10%).

Narendra Early maturing cultivar recommended for short season growing areas of 250-400mm rainfall where enhanced yields have been measured. Narendra has average blackleg resistance, oil content and canola quality.

Scoop (BLN 887) Potential replacement for Oscar and Rainbow with earlier maturity and higher quality.

Rainbow Medium to early variety, flowering 0 to 4 days earlier than Oscar, has good blackleg resistance, similar to Oscar and oil content is up to 1% higher than Oscar. Rainbow has excellent early vigour and vegetative growth. Seed yields have been 3% less than Oscar.

Grouse (BLN 884) Possible replacement for Oscar due to higher oil and protein content, shorter plant than Oscar.

Oscar Mid-season variety that combines high seed yields with excellent adaptation, good blackleg resistance and improved canola quality characteristics.

Range (AGA 94.18) Long season variety with taller plant than Dunkeld. Very good blackleg resistance and higher yielding than Dunkeld or Oscar.

Dunkeld Long season variety with flowering time similar to Oscar. Dunkeld has excellent vigour and vegetative growth with enhanced blackleg resistance compared with Oscar and oil contents up to 3% higher than Oscar. Seed yields are similar to Oscar. Recommended for average to better rainfall zones.

Hyola 42 Hybrid variety, flowers between 5 and 14 days earlier than Oscar. Excellent seedling vigour but with low tolerance to black leg. Could be well suited to the southern Mallee.

PAC101 and 102 New Pacific Seeds hybrid varieties. Flowering slightly earlier than Hyola 42, improved black leg resistance (similar to Dunkeld), excellent seedling vigour, better yielding than Hyola 42. Could be well suited to the southern Mallee.

Aga 97.1 Early maturing variety, with high oil potential, suited to 300-400 mm rainfall districts.

Aga 97.2 districts.	Early maturing variety, with high oil potential, suited to 300-400mm rainfall districts.
Aga 97.3 districts.	Early maturing variety, moderate oil potential, suited to 300-400mm rainfall districts.
Aga 97.7	Early to medium maturing variety (similar to Rainbow) and medium oil potential. Suited to 300-400mm rainfall districts.
Aga 96.8	Medium maturing variety, high oil potential (similar to Dunkeld but 3% better oil). Suited to medium to high rainfall districts, greater than 450mm.

Results:

Variety	Yield t/ha	Oil %	Variety	Yield t/ha	Oil %
Monty	0.88	37.3	Hyola 42	1.42	38.9
Narendra	1.26	36.7	PAC 101	0.95	37.2
Scoop	1.23	39.3	PAC 102	1.54	38.0
Rainbow	0.81	37.5	Aga 97.1	1.13	36.9
Grouse	1.03	38.4	Aga 97.2	1.43	39.6
Oscar	0.94	37.9	Aga 97.3	1.36	38.2
Range	1.07	39.1	Aga 97.7	1.09	38.9
Dunkeld	0.91	39.5	Aga 96.8	0.95	40.2

There were no significant differences in yield between varieties. Even though the yields do appear to be very different, there was too much variation between plots that variety differences were masked. This was primarily due to subtle soil type differences across the site. These soil type differences especially show up in dry years. There was a significant difference in oil contents between the varieties ($P < 0.001$, $LSD = 1.2$).

Interpretation: The canola yields were poor as expected and plot variability was quite high, possibly due to soil type differences within the block of canola. Some of the varieties, Scoop, Dunkeld, Aga97.2 and Aga96.8

Commercial Practice: Of the named short season varieties Monty, Narendra, Scoop and Hyola 42 will be the best varieties available at the moment for the Southern Mallee. Narendra has low oil content and is now not preferred.