

Canola Profitability

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Key messages

- There was no significant yield difference between varieties tested in the trial
- Nitrogen was the greatest factor contributing to yield, with most varieties requiring 120 kg/ha of N to maximise yield
- The premium price associated with growing “Monola” led to greater levels of profitability compared with normal varieties.

Why do the trial?

The profitability of canola in the Mid North has often been questioned. Yields are not consistently high; the crop requires significant nitrogen to achieve yield potential and blackleg is always of concern. The crop is a net nitrogen exporter and results in higher nitrogen demand in the following crops. All of these factors lead to high in crop variable costs that often combine to hinder the profitability of canola.

How was it done?

The trial was established at the MNHRZ site at Navan, between Riverton and Tarlee, in the Mid North of SA.

3 varieties of Triazine Tolerant canola (Bonito (farmer retained), Hyola 650TT and Monola 416TT) were sown on April 27th 2016 in a randomised complete block design trial consisting of 4 replicates. All varieties were sown at 5 kg/ha with 60 kg/ha MAP. Nitrogen treatments were applied as urea within 6 weeks of sowing and had significant rainfall to incorporate it within 24 hours.

Plots were harvested with a plot harvester and sub samples taken for oil testing.

What happened?

Table 1: Canola Yield and Oil vs. Variety and Nitrogen, MNHRZ, 2016

Nitrogen	Bonito TT		Hyola 650TT		Monola 416TT	
	Yield	Oil	Yield	Oil	Yield	Oil
Nil	1.68	48.3	1.68	43.8	1.93	47.0
60	2.41	48.0	2.09	44.8	2.05	46.4
120	2.45	47.5	2.64	43.8	2.24	46.7
180	2.66	46.7	2.71	42.0	2.52	46.3

Table 2: Gross Return (\$/ha) vs Canola Variety and Nitrogen, MNHRZ, 2016

Nitrogen	Bonito TT	Hyola 650TT	Monola 416TT
Nil	838	841	1148
60	1204	1047	1217
120	1226	1318	1334
180	1332	1357	1500

Assumes \$500/t for canola and \$595/t Monola

What does this mean?

Provided that the Monola premium of \$95/tonne is achieved, Monola 416TT was at least as profitable as the other TT varieties tested. In fact, it was often superior. There was a significant effect of nitrogen in this trial with 120-180kg N/ha required to maximise yield in most varieties. This was despite the soil test returning 170 kg N/ha down to 1.2m. Considering that 2.5t/ha of canola removes approximately 100 kg N/ha there are some substantial inefficiencies associated with nitrogen applications in canola. This is an area that needs to be explored further.

In this trial there was very little difference in yield between the open pollinated varieties and hybrid canola, suggesting that profitability would be significantly affected if seed cost was taken into consideration.

Oil was negatively impacted by the increased rates of nitrogen. Often oil contents dropped 0.5-1% with every additional 60 kg N/ha added. This effect must be taken into consideration when higher rates of nitrogen are applied to chase yield potential.

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