

## Canola nitrogen management

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### Key findings

- The grain yield of TT Tornado canola was not significantly affected by nitrogen form (urea or SOA) or timing (IBS to green bud).

### Why do the trial?

To investigate different nitrogen timings on the grain yield and quality of canola. Also to compare the performance of urea and sulphate of ammonia (SOA) as sources of nitrogen. SOA is sometimes applied to canola to provide extra sulphur, with evidence suggesting that it might also produce an increase in grain yield.

### How was it done?

<b>Plot size</b>	1.4m x 10m	<b>Fertiliser</b>	DAP @ 75 kg/ha
<b>Seeding date</b>	24 <sup>th</sup> May 2010	<b>Variety</b>	TT Tornado @ 5 kg/ha

**Available soil moisture 10<sup>th</sup> March (0-90cm)** 0mm

**Available soil nitrogen 10<sup>th</sup> March (0-90cm)** 55 kg N/ha

The trial was a randomised complete block design with 3 replicates and 8 treatments.

Nitrogen fertiliser (80 kg N/ha) was applied in the form of urea or sulphate of ammonia (SOA) at 3 different timings:

IBS – spreading urea or SOA onto the ground and incorporated by seeding (IBS)  
IBS:Budding – 50% of the urea or SOA was incorporated by seeding and the remaining 50% at appearance of the green flower buds (16<sup>th</sup> August) and spread by hand prior to rain.

Budding – 100% of the urea or SOA at appearance of the green flower buds (16<sup>th</sup> August) and spread by hand prior to rain.

Plots were assessed for grain yield and oil content.

## Results

There was no significant difference between urea or SOA on the grain yield or oil content of TT Tornado canola at Hart in 2010 (Table 1).

The nil nitrogen treatments were significantly lower yielding 1.69 t/ha, compared with 2.27 t/ha where 80 kg/ha of nitrogen had been applied. However, there were no differences between the nitrogen application timing treatments on grain yield or oil content.

*Table 1: Grain yield (t/ha) and oil content (%) results for TT canola for nitrogen form and timing at Hart in 2010.*

<b>Nitrogen form</b>	<b>Nitrogen timing</b>	<b>Grain yield (t/ha)</b>	<b>Oil content (%)</b>
Urea	Nil	1.70	42.9
	IBS	2.27	42.8
	IBS:Budding	2.37	42.5
	Budding	2.18	42.7
Sulphate of ammonia	Nil	1.68	43.0
	IBS	2.22	42.6
	IBS:Budding	2.23	42.7
	Budding	2.36	42.3
LSD (0.05)		ns	ns

