

8.2 CANOLA - GNARWARRE

Location: "South Roxby" Gnarwarre

Researchers: Colin Hacking, Wes Arnott (SFS Ltd)
Peter O'Loughlin (Agvise Services)
Bob Evans (Cargill Australia)

Background:

Canola under high rates of nitrogen fertilizer or where there is high organic nitrogen, is prone to lodging. This can cause difficulty with being able to effectively windrow and harvest the crop.

Aim:

To determine whether the chemical "Cultar" was effective at reducing the lodging tendency of canola and to measure the effect on yield and oil content.

Trial Design:

3 chemical treatments were applied each to 3 beds of canola. This was replicated 4 times.

Spraying was undertaken with a boom spray on 25th August at early stem elongation.

The trial was windrowed on 25th December 2001 and a plot length of 56 metres was cut out of the center bed for each treatment on 4th January 2002.

Yield Results:

Treatment	Yield kg/ha	Oil %	Protein %
1000 ml/ha Cultar	2564	45.6	20.28
500 ml/ha Cultar	2544	43.8	22.12
Control	2438	44.4	21.82
Average	2515	44.6	21.41

LSD = 362 kg/ha

There was no significant difference between treatments for yield.

Treatments: T1 : Control – no chemical
T2 : 500 ml/ha Cultar
T3 : 1,000 ml/ha Cultar

Variety: ATR Grace

Planting rate: 6 kg/ha

Sowing date: 22nd May 2001

Fertiliser: 100kg/ha MAP at sowing and
100kg/ha Urea at late rosette

Herbicides: 1.5L/ha Roundup Max + 100 ml/ha
Goal + 100 ml/ha Dimethoate on
4/5/01
2 L/ha Simazine + 2 L/ha Atrazine +
75 ml/ha Telstar applied on 24/5/01
250ml/ha Select + Hasten spray oil
@ 1% applied on 13/7/01

Observations:

There was a significant "step down" height effect with the use of the growth regulator. At 500 ml/ha, the height was reduced by approximately 20 cm and at the 1000 ml/ha rate, the height was reduced by approximately 30 cm compared to the control. Whilst there was a height difference between the treatments, there was no appreciable lodging in the crop.

Discussion:

Based on this year's results, there was no benefit to be gained in applying Cultar to reduce lodging in canola. The variety ATR Grace appears to have very good lodging resistance, superior to Pinnacle, the variety used in previous trials. Hopefully lodging resistance will be given a high priority by plant breeders in the future, thereby reducing the need to chemically manipulate the height of the crop.



Photo taken on 20th Nov 2001, clearly shows the height difference between 1000 ml/ha treatment on the left and the control treatment on the right.