

4.1.2 CANOLA GROWTH REGULATOR TRIAL (GNARWARRE)

Location: "South Roxby" Gnarwarre

Background:

This is a follow on trial from the previous two years looking at the impact of growth regulators in reducing the lodging tendency of canola. In some years and under high nitrogen regimes, canola can tend to lodge which can result in difficulties at windrowing and reductions in grain yield.

Take Home Messages:

- Plant breeders have done a good job in reducing the lodging tendency of canola varieties. ATR Grace is a particularly good standing variety.
- Unless you are dealing with very high nitrogen soils and the growing season is particularly favourable, growth regulators should not be required in canola.
- Chlormequat ® had no effect on reducing plant height.
- Chlormequat ® appeared to have no adverse effect on grain yield and grain quality.

Researchers: Colin Hacking, Dominic Bolton, and Wes Arnott, *SFS Ltd.*

Aim:

To assess the effect of Chlormequat ® at different rates and at different stages of plant growth on reducing the lodging tendency of canola.

Trial Design:

- 7 treatments (nearest neighbour design)
- Plot length 60 metres x 3 beds per treatment.
- Inside bed harvested.

Variety: Grace

Sowing Rate: 5 kg/ha

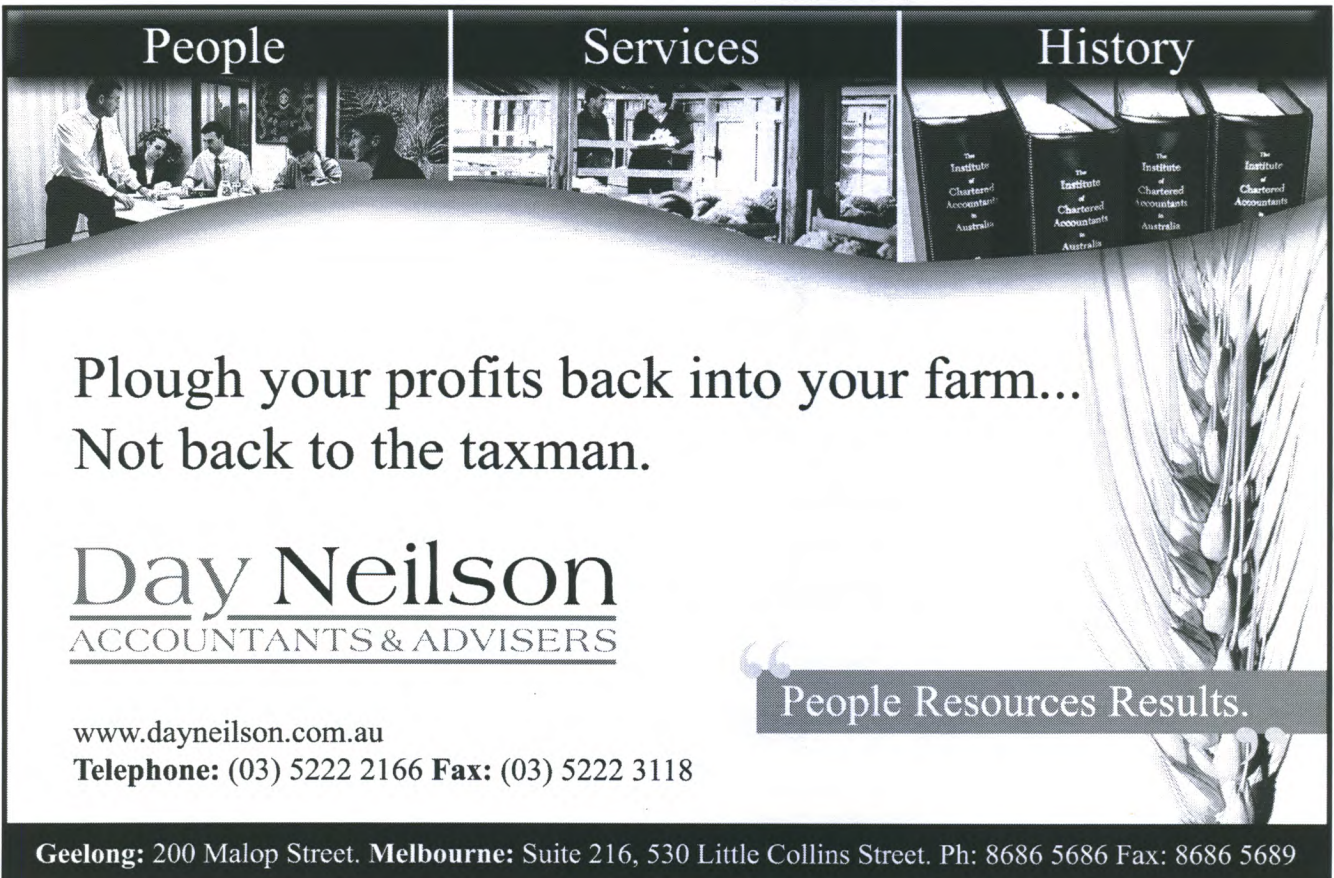
Sowing Date: 26th May 2002

Fertiliser:

- 120 kg/ha Granulock 15 at sowing
- 100 kg/ha Urea applied 21/08/02
- 100 kg/ha Urea applied 02/09/02 – not ideal conditions – hot & windy only 1-2 mm rain after application.

Herbicide:

2 L/ha Simazine + 2L/ha Atrazine applied 28/05/02



People

Services

History

The Institute of Chartered Accountants in Australia

**Plough your profits back into your farm...
Not back to the taxman.**

Day Neilson
ACCOUNTANTS & ADVISERS

www.dayneilson.com.au
Telephone: (03) 5222 2166 **Fax:** (03) 5222 3118

People Resources Results.

Geelong: 200 Malop Street. **Melbourne:** Suite 216, 530 Little Collins Street. Ph: 8686 5686 Fax: 8686 5689

Treatment List:

- T1 : Control
- T2 : Chlormequat @1 L/Ha + 0.1% BS1000 at Growth Stage D26 (6 leaves)
- T3 : Chlormequat @ 2L/Ha + 0.1% BS1000 at Growth Stage D26
- T4 : Chlormequat @ 1 L/Ha + 0.1% BS1000 at Growth Stage D30 (early stem elongation)
- T5 : Chlormequat @ 2 L/Ha + 0.1% BS1000 at Growth Stage D30
- T6 : Chlormequat @ 1L/Ha + 0.1% BS1000 at Growth Stage D26 + D30
- T7 : Chlormequat @ 1.25 L/Ha + 0.1% BS1000 at Growth Stages D26 + D30

Growth stage D26 sprayed on 09/08/02 Ideal conditions
 Growth stage D30 sprayed on 31/08/02 – Ideal conditions.
 Maybe 2 days late with spray

Table 57: Grain Yield and Grain Quality

Treatment	Yield kg/ha	% Control (Yield)	Oil %
T1	3159	100%	42.00
T2	3054	97%	39.60
T3	2851	100%	40.00
T1	2839	100%	41.90
T4	3147	111%	39.50
T5	2950	100%	41.80
T1	2937	100%	40.60
T6	3097	105%	41.80
T7	3245	102%	39.70
T1	3167	100%	40.30

Discussion:

In Table 57, the comparison of each treatment is made with its nearest control treatment (T1). The site was a particularly high yielding one, with yields in excess of 3 tonnes per hectare.

The season was not conducive to vigorous plant growth and lodging. None of the canola lodged in the trial.

There was no effect of the growth regulator Chlormequat ® in reducing plant height.

There was no effect of the growth regulator on grain yield or quality.



Photo 8: Wes Arnott applying early growth regulator spray to canola.