

Nyngan CWFS Site -Yield Response of Canola to P and N

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Key Points

- Canola yields in 2003 were below average, mostly less than 0.5 t/ha.
- No yield response was reported with increased rates of P and N fertiliser.

Introduction

In 2003 the Nyngan regional site group decided to investigate the yield response of canola to phosphorous (P) and nitrogen (N). The trial was designed as a randomised block, with 3 replicates. It was located at 'Coreen' in a paddock which had a failed wheat crop in 2002 and wheat in 2001. The trial was sown with Beacon, at 3 kg/ha, on 5th May with 50 cm of subsoil moisture. Verdict®520

was used as an in-crop spray for grass weeds at 0.05 L/ha. The P and N fertiliser treatments were: P rates (kg P/ha) - 0, 10, 15 & 20 and N rates (kg N/ha) - 0, 25, 50 & 70.

The rainfall figures for the Nyngan site can be seen in Figure 1. The annual rainfall was 348 mm, which is below average, whilst the growing season rainfall was 225 mm.

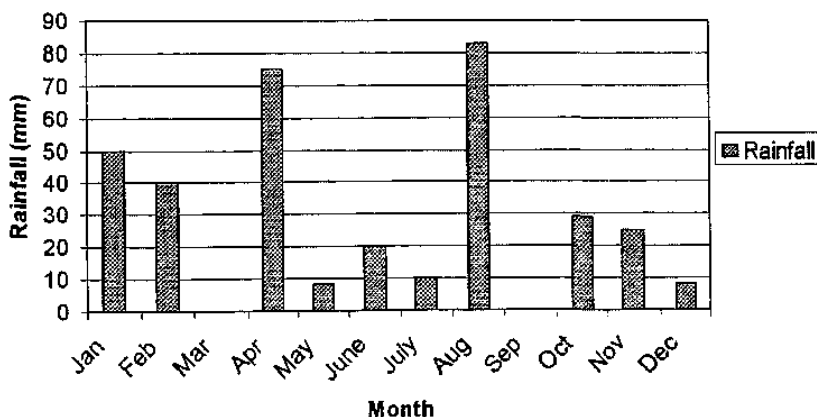


Figure 1. Nyngan Regional Site Rainfall 2003

Results

The canola yield from the P and N fertiliser rates can be seen in Figure 2 and 3, respectively. These figures show that

there is no significant difference in yield between the four rates of P and the four rates of N.

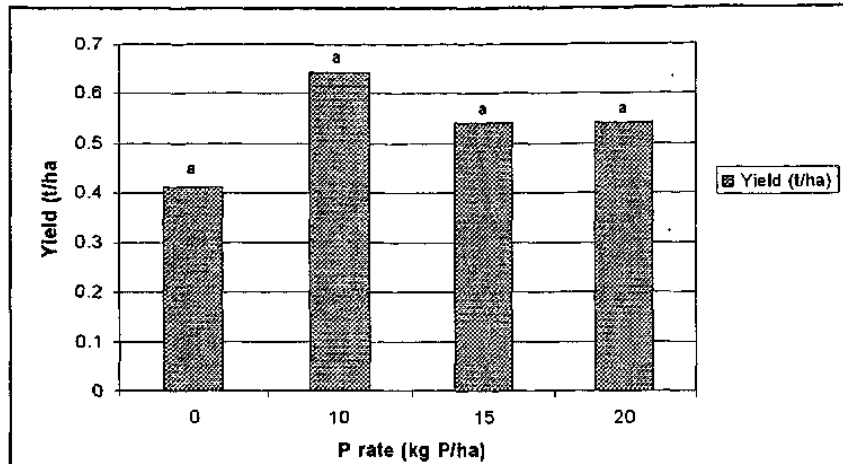


Figure 2. Canola yield response to phosphorous rate

Note: Bars with the same letters are not significantly different.

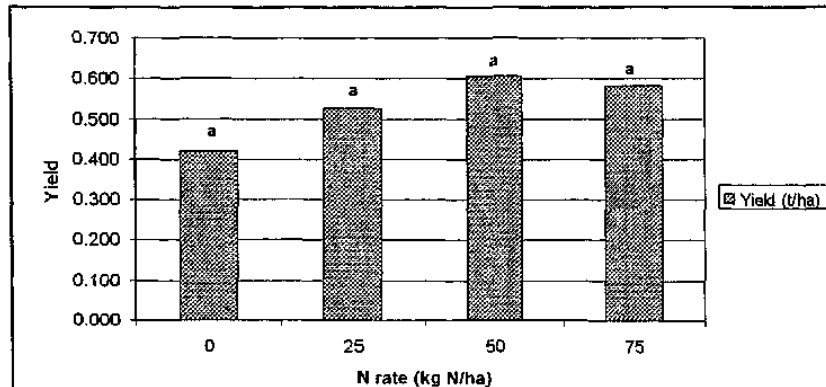


Figure 3. Canola yield response to nitrogen rate

Note: Bars with the same letters are not significantly different.

Discussion

Due to the dry seasonal conditions in 2003 the canola yields were below average, with most treatments yielding less than 0.5 t/ha. After sowing on the 5th May hot, dry conditions limited seedling growth until later in the season. Due to these seasonal conditions a yield response

to increasing rates of P and N did not occur.

Acknowledgement

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