

L6. Sowing Time, LRZ Yenda, NSW

Aim

To maximise yield of lentils by identifying superior varieties and optimising sowing date.

Treatments

Varieties: Boomer, Nipper, PBA Blitz, PBA Flash, CIPAL0801, CIPAL0802, CIPAL0803 and CIPAL0901
Sowing dates: 20th May (Early), 22nd June (Late)
Fertiliser: Legume Starter @ 115 kg/ha at sowing banded below the seed
Plant population: 120pl/m² target
Herbicides: Pre-sowing; Glyphosate @ 1.5 l/ha and Terbyne® at 0.75 kg/ha. PSPE; Sencor @ 200ml/ha to TOS1 only.

Results and Interpretation

In the 2011 season at Yenda, lentil variety choice and time of sowing significantly influenced grain yield, Figure L6.1 and Figure L6.2. Varieties by sowing time effects were not statistically significant. The two emerging PBA lentil breeding lines CIPAL0803 and CIPAL0901 yielded higher than current commercial varieties.

The yields achieved would suggest lentil production within the southern NSW cropping zone could be highly profitable, given average cropping season rainfall.

Yields generally trended lower with delayed sowing time, with significant yield reductions in Boomer, CIPAL0803 and CIPAL0901. Spring growth conditions were warmer and thus less favourable, compared to Wagga Wagga resulting in yield penalties for all species except Blitz from delayed sowing.

Establishment management changes (separation of seed and fertilizer and eliminating/minimising herbicide damage) also had positive impact on emergence and plot vigour.

Weed burdens within the site were low and weed growth was minimal and not sufficient to affect crop yields. At the first sowing, Metrabuzin (Sencor®) applied PSPE induced some visual crop damage. Metrabuzin was not applied at the second sowing.

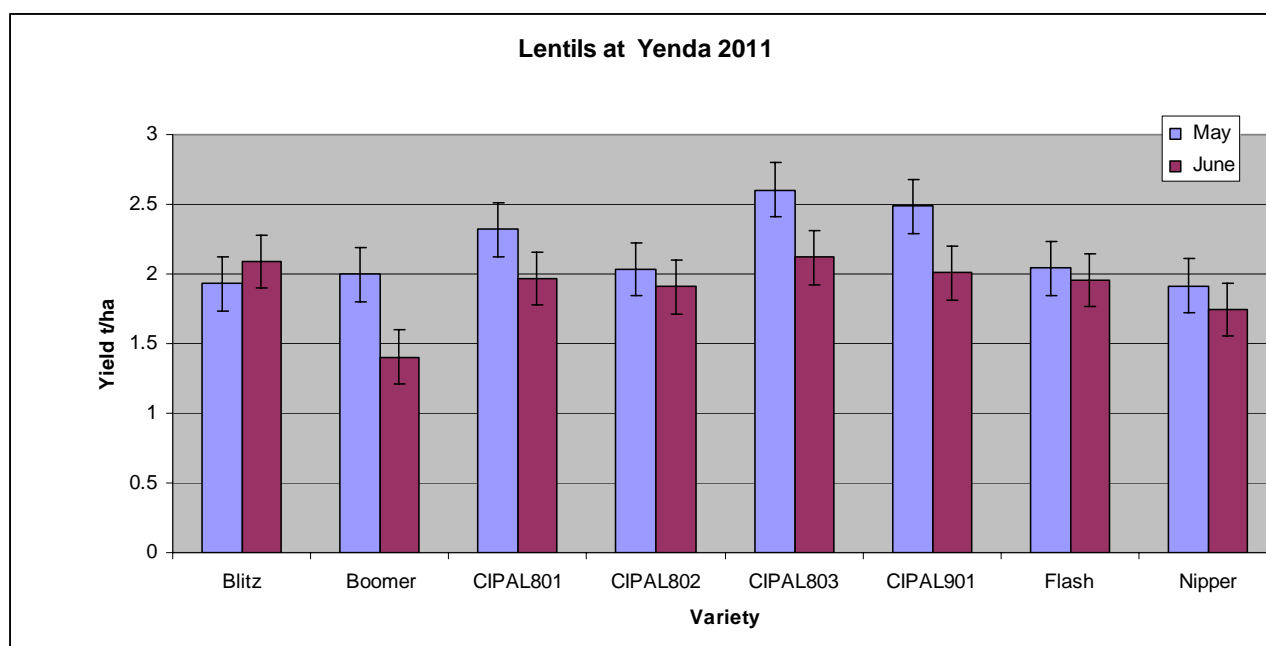


Figure L6.1. Effect of variety and sowing date (20 May & 22 June) on grain yield (t/ha) of 8 lentil varieties at Yenda in 2011.

Key Findings and Comments

- CIPAL0803 and CIPAL0901 were the highest yielding varieties and show great potential for future lentil production in this region.
- Delayed sowing reduced yields in 2011 at Yenda in most varieties with significant effects in the longer seasoned Boomer, and breeding lines CIPAL0803 and CIPAL0901.
- Established human consumption markets and yields over two tonnes per hectare suggest that lentil production could be profitable in southern NSW cropping zone
- This trial should be repeated in future seasons in order to compare and validate the 2011 findings across variable growing seasons.