

L5 Sowing Time, LRZ Yenda, NSW

Aim

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

Treatments

Varieties:	PBA Blitz, PBA Herald XT, PBA Bolt, CIPAL0802, PBA Ace and CIPAL0901
Sowing dates:	18th May (Early), 20th June (Late)
Fertiliser:	Legume Starter @ 115 kg/ha at sowing banded below the seed
Plant population:	120pl/m ² target
Herbicides:	Pre-sowing; Glyphosate @ 1.5 l/ha and Terbyne® at 1 kg/ha.

Results and Interpretation

In the 2012 season at Yenda, lentil variety choice and time of sowing significantly influenced grain yield, Figure 1. The two emerging PBA lentil breeding lines PBA Ace and CIPAL0901 yielded higher than current commercial varieties.

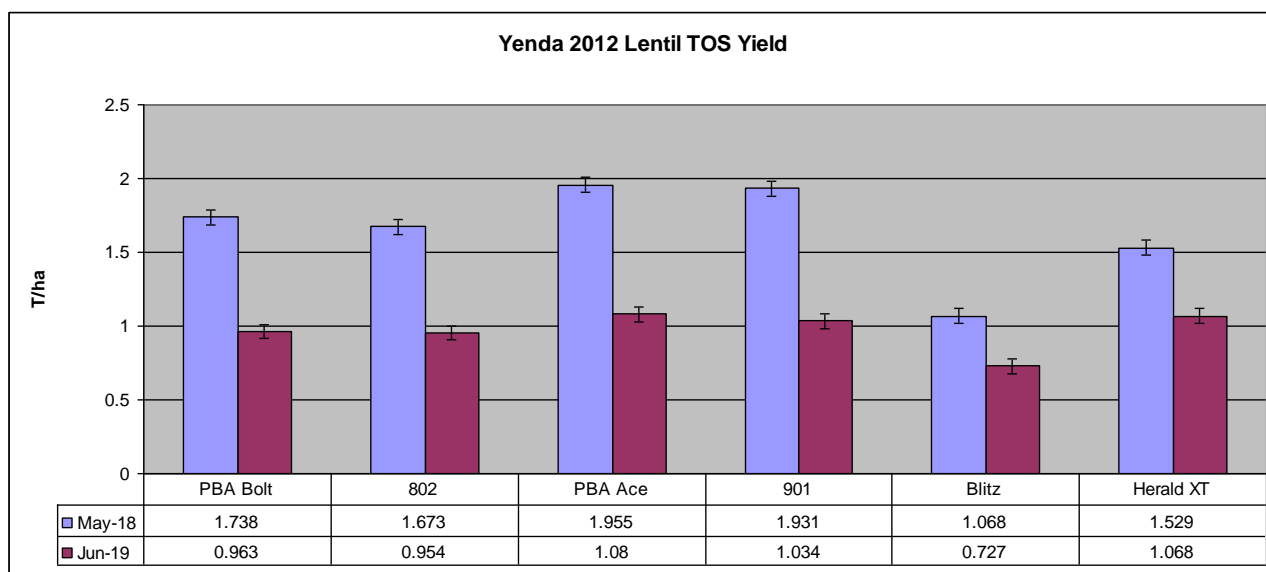
The yields achieved would suggest lentil production within the southern NSW cropping zone could be highly profitable, given average cropping season rainfall.

Yields generally trended lower with delayed sowing time, with significant yield reductions in all varieties. Spring growth conditions were warmer and thus less favourable, compared to Wagga Wagga resulting in yield penalties for all species 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. There was some crop damage from a late post emergent application of Brodal.

Figure 1. Effect of variety and sowing date (18 May & 20 June) on grain yield (t/ha) of 6 lentil varieties at Yenda in 2012.



Key Findings and Comments

- PBA Ace and CIPAL0901 were the highest yielding varieties and show great potential for future lentil production in this region.

- Delayed sowing reduced yields in 2012 at Yenda by an average of 40%
- 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 and 2012 findings across variable growing seasons.