C6. Sowing Time x Variety x Plant population, HRZ (Cowra), New South Wales

Aim

To test the yield response of six chickpea varieties across 3 different sowing times and two targeted plant populations in southern NSW. The information from this trial will be used to improve current grower sowing time recommendations, variety selections and targeted plant population at each sowing time.

Treatments

Varieties:	Kabuli – Genesis 079, Genesis 114.
	Desi – Genesis 509, PBA Slasher, Genesis 509, CICA0511
Sowing dates:	15th April (Early), 6th May, 27th May (late).
Plant populations:	Targeted 25 & 40 plants/m^2.
Row Spacing/Stubble:	30cm into standing light stubble.
Fertiliser:	Legume Starter @ 115kg/ha at sowing.

Results and Interpretation

- Grain Yield - Sowing time and variety were only significant as primary factors in this trial ($P<0.05$). Grain yield was increased by delaying sowing into May, while there was no significant difference in yield between the two May sowing dates (Figure C6.1). A similar trend was observed at the Wagga and Yenda sites, which is a reflection of the very favourable season and ideal growing conditions for late plantings. Under these conditions, early sowing produces tall vegetative plants more susceptible to lodging and disease. PBA Slasher and Genesis 509 (both desi types) were the best yielding varieties at Cowra (Figure C6.2), again a trend seen at both the Wagga and Yenda sites this season. Genesis 090 was the highest yielding of the kabuli types, but other trials showed its sowing window to be much narrower in comparison to desi types.

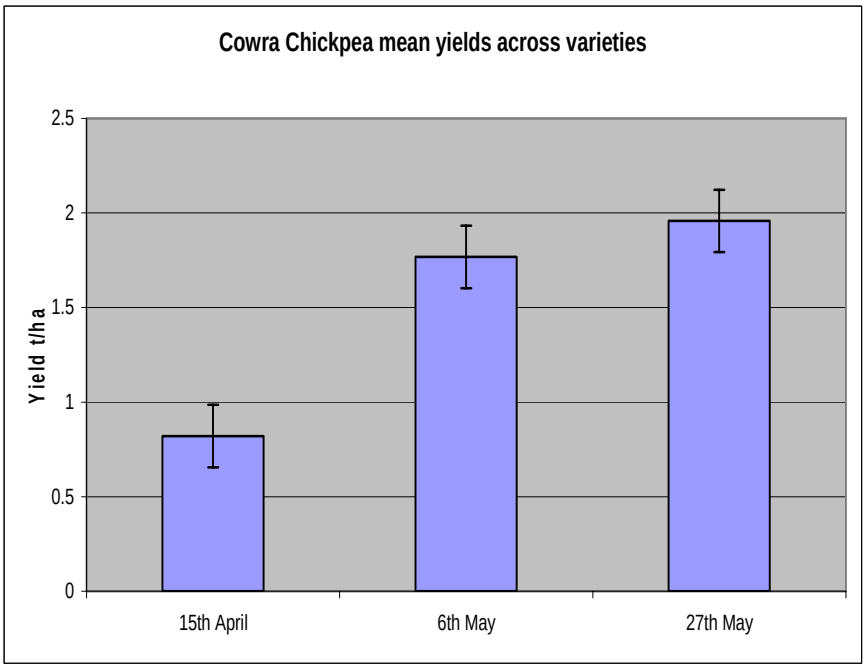

Figure C6.1. The main effect of sowing date on grain yield (t/ha) of chickpeas at Cowra in 2010.

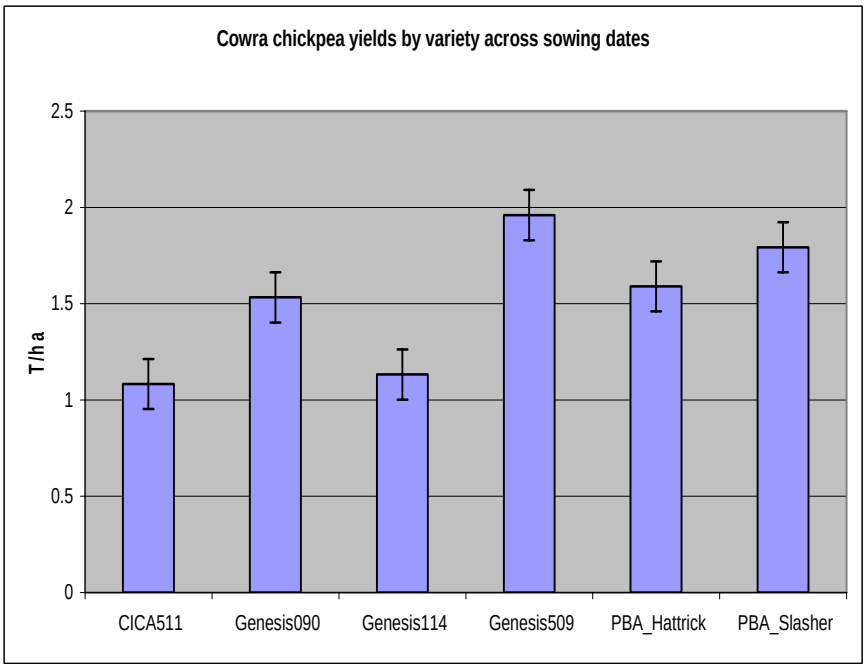

Figure C6.2. The main effect of genotype on grain yield (t/ha) of chickpeas at Cowra in 2010.

Key Findings and Comments

- Later sowings (May) produced maximum yields this season.
- PBA Slasher and Genesis 509 were the best yielding varieties.