

C2 Sowing Date, MRZ Wimmera (Pimpinio), Victoria

Aim

To investigate the adaptability of a range of kabuli chickpea varieties to sowing date.

Treatments

Varieties: Kabuli - Genesis090, PBA Monarch, Kalkee, Almaz, CICA1156, CICA1352, CICA1451, CICA1452, CICA1453, CICA1454, CICA1455. Desi - PBA Striker

Sowing dates: 13 May (Early), 18 June (Mid)

Other Details

Row Spacing: 30cm

Stubble: Standing (approx. 30cm tall), sown inter-row

Fertiliser: MAP + Zn @ 80 kg/ha at sowing

Plant Density: 35 plants/m²

Soil Type: Alkaline Black cracking clay (Table 1 in Trial L2 above)

Results and Interpretation

- Key Message: Yields were generally too low to draw specific conclusions about varieties and the interactions with sowing date due to the extreme climatic conditions (frosts and dry) in spring.
- Plant establishment – Establishment for all chickpea varieties was generally lower than targeted ranging between 17 and 32 plants/m² (Table 1). Similar to Curyo all of the CICA14** series lines displayed spindly growth in early establishment, with very fine leaves. Normal plant structure had recovered by mid season, however biomass development always appeared less than other varieties. In addition the CICA 14** series lines generally had marginally lower establishment than other varieties 17-24 plants/m² compared with 19-32 plants/m².
- Plant growth – Growth until August was adequate and as expected given the seasonal conditions. Growth slowed during the August to October period and the dry conditions combined with many frosts caused significant flower and pod abortion during the reproductive phase. The ongoing dry conditions ensured plants experienced significant drought stress that rapidly progressed maturity and reduced grain yields.
- Grain Yield – All results need to be treated with caution due to the extreme climatic conditions during spring (low rainfall and frost, see above). There were no major differences in yield between sowing dates. Overall grain yield ranged between 0.36t/ha for CICA1454 and 0.13t/ha for Almaz. Grain weights and size distribution not calculated due to low yields

Table 1. Establishment (pl/m²) and Grain Yield (t/ha) of chickpea at Pimpinio in 2014.

Variety	Establishment	Grain Yield
CICA1454	24	0.36
CICA1455	21	0.32
<i>PBA Striker</i>	31	0.29
CICA1451	17	0.25
Kalkee	28	0.23
CICA1453	22	0.23
CICA1452	17	0.23
CICA1156	21	0.20
CICA1352	19	0.20
Genesis090	32	0.20
PBA Monarch	31	0.17
Almaz	25	0.13
<i>Isd</i>	5	0.07

Key Findings and Comments

- Yields were generally too low to draw specific conclusions about varieties and the interactions with sowing date.