

## **C7 Varieties (Traits), HRZ South West (Rokewood), Victoria**

### **Aim**

To investigate the adaptability of a range of chickpea varieties and breeding lines to the high rainfall zone

### **Treatments**

Varieties: See Table 1 below.

### **Other Details**

<b>Sowing Date</b>	26 April
<b>Stubble (height cm)</b>	Standing (20)
<b>Row Spacing (cm)</b>	36
<b>Plant Density (plant/m<sup>2</sup>)</b>	120
<b>Fertiliser (kg/ha)<sup>1</sup></b>	100

1. MAP (9.2, 20.2, 0, 2.7) + Zn (2.5)

### **Results and Interpretation**

- Key Message: Chickpeas produced highly profitable yields in the HRZ in 2016, but production risks are high and crops such as faba beans, peas and lupins remain a more reliable option. Careful selection of soil types not susceptible to waterlogging is required for successful chickpea production
- Similar to previous trials in the HRZ in 2013 and 2014 growth of chickpeas was generally slow and lacked vigour. At times throughout the season the chickpea plants were red or yellow in colour, possibly due to wet and cold conditions. In the HRZ, due to cold conditions, it is important to sow chickpeas by early May to achieve some early growth and maximise potential biomass and yield. Alternately spring sowing is an option, but further experimentation is needed to assess the best varieties for this system. Yields ranged between 0.46 and 1.81 t/ha, which could provide returns up to \$2000/ha based on the 2016 grain prices (Table 1). Production risks, particularly related to waterlogging and acidic soils are high and crops such as faba beans, peas and lupins remain a more reliable option.

Table 1. Grain yield, Grain weight and Estimated Gross return (\$/ha) of lentils at the Rokewood in 2016. *Gross return based on costs of \$330/ha and grain price of \$1300/t for Kabuli's and \$900/t for desi's.*

<b>Variety</b>	<b>Grain Yield (t/ha)</b>	<b>Grain Weight (g/100seed)</b>	<b>Gross Return \$/ha</b>
CICA1541	1.81	26.8	1299
Genesis090	1.80	30.3	2010
CICA1352	1.51	39.9	1633
PBA Slasher	1.43	17.0	957
CICA1156	1.29	31.3	1347
CICA1442	1.29	18.8	831
PBA Monarch	0.96	34.7	918
PBA Maiden	0.95	21.7	525
PBA Striker	0.86	19.5	444
Kalkee	0.46	32.4	268
<i>LSD (P&lt;0.05)</i>	0.58	1.9	
<i>CV%</i>	16.9	0.4	