

Chickpea Sowing Depth

Summary: in 1997, due to the dry conditions, there was little effect of Simazine and Trifluralin on chickpea yield. On lighter soils it is still advisable to sow chickpeas relatively deep (7 to 8cm depth) when using Trifluralin and Simazine for weed control.

Aim: To determine safe and effective techniques for using Simazine and Trifluralin on Mallee clay-loams with Lasseter Chickpeas

Methods: Previous work undertaken by the Birchip Cropping Group has clearly demonstrated the importance of sowing chickpeas deep (8cm) to avoid damage from herbicides. Chickpeas were sown at 4 and 8cm depth, Trifluralin was applied at 0.8 and 1.6L and Incorporated By Sowing (IBS), Simazine was applied Post Sowing Pre-Emergent (PSPE) at 1.0 and 1.6L.

Results:

Sowing Depth (cm)	Trifluralin (IBS) (L/ha)	Simazine (PSPE) (L/ha)	Yield (t/ha)
4	0.8	1.0	0.25
4	0.8	1.6	0.30
8	0.8	1.0	0.24
8	0.8	1.6	0.28
4	1.6	1.0	0.26
4	1.6	1.6	0.27
8	1.6	1.0	0.25
8	1.6	1.6	0.27
Significant Difference			NS

Interpretation: there was no effect of the herbicides (Trifluralin and Simazine) applied at two rates in relation to sowing depth on the yield of chickpeas. In previous years we have observed that shallow sowing of chickpeas together with high rates of Trifluralin and Simazine resulted in significant crop damage. The lack of an effect this year could have been due to the dry conditions during sowing and that there was insufficient rain during that time to wash the chemical into the root zone.

Commercial Practice: when using high rates of Trifluralin (more than 1L/ha) and Simazine (more than 0.8L/ha) on lighter soils it is essential to sow the chickpeas deeper than 5cm (around 7 to 8cm) to avoid crop damage.