Trial 7

Chickpea Sowing Depth Trial
Sponsored by the National Australia Bank

Aim: to determine safe and effective techniques for using Simazine and Trifluralin in Desavic chickpeas

Method: trial work undertaken by the BCDS in 1995 on a sandy soil showed that deep sowing (8cm) of chickpeas was much safer when using Simazine for weed control compared to sowing shallow (4cm). The trial was repeated in 1996 on a heavier soil type and, besides the 2 rates of Simazine, we included 2 rates of Trifluralin. Trifluralin was applied just prior to sowing and was incorporated by sowing, the Simazine was applied immediately post sowing.

Results:

sowing depth (cm)	rate of Simazine (L/ha)	rate of Trifluralin (L/ha)	yield (t/ha)
4	1.5	0.8	1.87
8	1.5	0.8	2.36
4	1.5	1.6	1.87
8	1.5	1.6	2.03
4	2.5	0.8	1.93
8	2.5	0.8	2.36
4	2.5	1.6	1.89
8	2.5	1.6	2.06
Significant difference			**P<0.05 LSD=0.27**

Interpretation: a strong negative effect on crop yield was found with sowing chickpeas shallow (4cm) even with light rates of Simazine (1.5L) and Trifluralin (0.8L). At high rates of Trifluralin (1.6L) crop yields suffered whether the crop was sown shallow (4cm) or deep (8cm). The highest yields were obtained sowing chickpeas deep (8cm) and using Simazine at either 1.5 or 2.5L and Trifluralin at 0.8L.

Commercial practice: The results in 1995 on a sandy soil type clearly showed the intolerance of chickpeas when sown shallow to high rates of Simazine. In this years trial (1996) the results were quite similar. On these heavier soils (Mallee clay loams) chickpeas should be sown deep (8cm) and rates of Trifluralin should not exceed 0.8L to 1L/ha.