

## Canola Establishment

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The aim of this trial was to determine the ideal depth for optimum canola establishment in local conditions.

### Summary

Canola is best sown shallow (1 to 2cm) on hard setting and crusting soils. On lighter soils or better structured soils canola can be sown a bit deeper (5 to 8cm) if there is more moisture at this depth.

### Background

Good canola establishment is a problem and each year there is discussion as to the best sowing method. The optimum plant establishment for canola is 50-80 pl/m<sup>2</sup>, however lower plant populations of 20 pl/m<sup>2</sup> have been found sufficient. Variability in emergence can be related to sowing method, in particular sowing depth. The small seed of canola would suggest that it would be best to sow shallow, but in a dry year this would not reach the moisture. As farmers can not always time the sowing to just prior to or following a rain the option of sowing deeper to moisture needs to be evaluated.

### Method

Karoo canola was used in the trial at Birchip, Sea Lake and Charlton.

### Results

There were no differences in yield between the two sowing depths at Birchip and Sea Lake. At Charlton the optimum sowing depth was shallow (Table 4.6).

**Table 4.6 Canola yields (t/ha) in relation to sowing depth**

Sowing depth	Birchip	Sea Lake	Charlton
2cm depth	0.89	1.02	1.03
6cm depth	1.19	1.08	0.65
Significant difference	NS	NS	P<0.05 LSD=0.18

### Interpretation

On hard-setting or crusting soils (such as the red soil at Charlton) it is best to sow canola shallow. On lighter or better structured soils which do not suffer from crusting, canola can be sown a bit deeper. In dry years that can be of benefit if there is a small amount of moisture below the soil surface.

### Commercial Practice

So shallow on hard setting and crusting soils. On better structured or sandy soils canola can be sown a bit deeper. Some people have made the observation that the variety Pinnacle does not emerge very well if sown deep, whereas Dunkeld seems to be stronger and more vigorous and comes up when sown a bit deeper.