

Press Wheels on cane planters

Good soil contact ensure setts quickly reach the temperature and moisture conditions required for rapid plant establishment. Soil which is too loose will reduce plant establishment while over pressing may create a compacted soil layer that shoots cannot penetrate.

On many planters the weight on the press wheel can be varied and a wide range of tyre widths are used. For this reason the press wheel loading on the soil is best expressed as a load in kilograms per centimetre of press wheel width (kg/cm). For example a 10 cm wide press wheel with a vertical loading of 20 kg would have a press wheel loading of 2 kg/cm.

Growers can determine the press wheel loading on their planters by measuring the vertical force of the press wheel using a set of bathroom scales and dividing the measured weight by the width of the tyre in centimetres.

Trial work using a range of press wheel loading from 0 to 6.25 kg/cm has shown that press wheels used on a cane planter can have a positive impact by increasing both the number and rate of shoot establishment.

In addition other trials have demonstrated that using a light tractor as a press wheel by driving the tractor over the planted cane can have a negative impact on the number and rate of shoots established as the compaction level

over the planted setts is too great.

The ideal press wheel pressure will depend on:

- Soil texture – more pressure on clays and less pressure on sands
- Soil tilth – more pressure on lumpy tilth and less pressure on fine tilth
- Soil moisture – more pressure on dry soil less pressure on wet soils

Press wheel tips

- The press wheel pressure should aim to produce good soil sett contact without excessive compaction.
- The area around the setts should be free from air pockets and have good soil moisture.
- On soils which are prone to crusting the use of harrows or drag chain after the press wheel can assist in the prevention of crusting.
- When planting into moist clay soils, reducing the inflation pressure of the pneumatic tyre will enable the tyre carcass to flex and shed mud.
- Large diameter pneumatic tyres will roll more efficiently over a wider range of soil types.



Above: Twin inclined press wheels on a cane planter that press each side of the sett. Pressure can be set by the spring adjustment.



Above: Straight single wheels that press over the top of the sett.