

# When it comes to Crunch

By Leanne Savage (From 'The Land' Newspaper 21/3/2002)

Stubble retention is a core aspect of conservation farming, but how to handle that stubble come sowing has been one of the biggest challenges facing farmers.

The quest to get stubble breaking down quickly, both to benefit the soil and avoid blocking the sowing machinery, has spawned a variety of harrows and machinery over the years.

The latest example is the Stubble Cruncher, designed by Ariah Park farmer, Colin Harper, who came up with his machine as a way to knock down canola stubble.

His property "Taravale" is a 2430 hectare mixed cropping and grazing operation.

He has a rotation where canola is followed by wheat undersown with lucerne pasture as the start a three-year pasture phase.

He has been farming with minimum tillage for the past 10 years, and in a bid to get an ideal seed bed for the wheat/pasture sowing he has used harrows, rotary harrows and tried slashing the canola stubble.

"Slashing did the job but it was slow and expensive" Mr Harper said. "And it only cuts the stubble once, whereas the Stubble Cruncher cuts it in a number of places."

The prototype for the cruncher consisted of a 2.4 metre-wide roller made from 300-millimetre pipe with steel posts welded around the outside.

The pipe was mounted on an axle through roller bearings set in plates at either end, and the device was initially towed behind his ute. "It showed enough potential to get a full-sized one made" Mr Harper said.

It cost him about \$18,000 to have Cowra manufacturers, K-Line, produce the 12m version he displayed at the Central West

Conservation Farming field day at Parkes.

It has already "crunched" about 250ha, pulled behind a 90-kilowatt tractor at speeds of between 20 and 25 kilometres an hour, but Mr Harper said speed was not necessary to make it effective.

The large version features a series of the 2.4m wide gangs mounted on a K-Line Harrow bar, which folds for ease of transport.

The ends of each of the rollers are hinged separately to help them follow the ground closely.

The steel posts on the Cruncher leave in its wake a series of "divots" which look similar to the track-marks left by a bulldozer.

Importantly, Mr Harper said the Stubble Cruncher did not ruin the feed value of the paddock by destroying dry or green feed which has grown among the stubble.

"Harrows tend to 'smudge' everything, whereas this rolls straight over," he said.

The machine has been tried on wheat stubble, which it "knocks flat" according to Mr Harper, splitting the waxy coating of the stubble to allow moisture and microbes access to start breaking it down.

Mr Harper said the Cruncher might also be used to knock down thistles, crunching pea stubble, or busting melons.

He plans to hire it out at a cost of less than \$4/ha "because it is so quick people are not going to need it for long"

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