

A case for conservation farming

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Harden, South West Slopes, NSW Area cropped: 3,000 ha **Gradual move into conservation farming over** last 10 years

The last decade has seen Harden district farmers Terry and Antonia Brown make a gradual transition from more conventional farming practices to a position where they were recognised as finalists for the Murrumbidgee catchment in the 2011 Conservation Farmer of the Year Award.

As a family partnership, the Brown family farm wheat and canola in rotation across approximately 3,000 hectares, covering two properties owned by the family, as well as share farmed and leased blocks in the Harden district. They do not run any livestock.

The farming country covers a wide variety of soil types, ranging from granite and red loams to self-mulching black soils, on an average annual rainfall of 625mm.

Terry Brown says the gradual move over the last 10 years into conservation farming was done at a time that suited the family's business and needs. He believes being an award finalist was recognition of the hard work and planning that goes into his family's business.

"I try to be the best at what I do to get the best results at harvest. We needed to conserve more soil moisture and improve soil structure and nutrition to grow better and higher yielding crops with less inputs. Conservation farming techniques help us to achieve these goals."

The results are evident with soils becoming noticeably softer and fuel use down by two to three litres per hectare.

Terry says the main change made over the last decade has been the purchase of an air-seeder, providing better accuracy and germination rates, particularly when used with press wheels.

"The purchase of a disc planter is planned for sometime in the future, however low grain prices this year have meant we will defer the purchase for the time being," says Terry.

"There have been some challenges along the way," says Terry. "Managing stubble and effective weed control are the two biggest challenges I face. I aim not to burn stubble, but minimise it by either baling or using a Kelly Disc Chain so the Flexicoil bar can get through it.

"I need to ensure I have sufficient ground cover to save valuable moisture and to protect the ground from the elements whilst having a low enough straw load at sowing to ensure good seed germination, especially with canola."

In the longer term, the purchase of the disc planter may eliminate the need for both baling and disc chaining the straw.

The critical element of the Brown's management plan is effective weed control.

"To effectively store moisture and nutrients, weeds must be eliminated as much as possible over the summer fallow period. The stored moisture and nutrients are very important to make sure crops get a good start and have no competition at germination.

"We currently have good soil moisture and are working to make sure this is still available in the growing season by keeping all the stubble clean and maintaining



Terry & Antonia Brown

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good ground cover," explained Terry.

On farm research and trials are another aspect of monitoring the success and options available to the Browns over the seasons.

"We have phosphorus trials and stubble handling trials currently running on our properties. It's very interesting to see the different results through the year and at harvest on our own country.

"I also access information on trials through my local agronomist," says Terry.

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Nuts & bolts: Terry & Antonia Brown

Spraying

- 6000 litre 24m Croplands Sprayer behind a Case Magnum 275 tractor for most of the spraying.
- 4200 litre 20m Hardi Commander Sprayer behind a Case Magnum 255 Tractor as a backup sprayer.
 It is handy to have the second sprayer for applying chemical in front of the air seeder at sowing.

Sowing

 New Holland TJ450 tractor pulling a 12m ST820 Flexicoil Bar with 550lb breakout tynes and Agmaster press wheels, with a 2340 TBT bin.

Harvest

- In conjunction with a neighbour the Browns run two Case IH 7120 headers with 11m draper fronts.
- Use combine chaser bins and trucks for efficiency of operations.

All equipment runs on 10cm GPS.

