

Paired row Morris drill

A SEEDING demonstration trial coordinated by the West Midlands Group at the Badgingarra Research Station last season has reinforced the performance of a paired-row double shoot opener system in non-wetting and sandy soils.

Replicated 100 metre strip trials of Hindmarsh barley over a total one hectare area were planted on June 11 by a 12m (40ft) Ausplow DBS Auseeder set on 25cm (10in) spacings, an 18m (60ft) Morris Contour Drill with its paired-row double shoot opener system set on 30cm (12in) spacings and an 18m Seed Hawk bar also on 30cm spacings.

Plant counts taken on July 9 (Z14 crop stage) tipped the numbers in favour of the Morris drill by up to an extra 27 plants – and this translated into higher yield at harvest.

The Morris notched 3.09 tonnes/ha, 170kg/ha more than the Seed Hawk at 2.92t/ha and 230kg/ha higher than the DBS Auseeder. All of the Hindmarsh barley achieved Food quality classification.

At a price of around \$300/t for Hindmarsh barley, the Morris earned an extra \$69/ha than the DBS Auseeder and \$51/ha more than the Seed Hawk.

The site received a double knockdown with Ultramax Glyphosate at 1.5 litres/ha on May 28 followed by paraquat at 1L/ha and trifluralin at 2L/ha on June 11.

The Hindmarsh barley was sown with 90kg/ha of Gusto fertiliser and received a top-up of NS41 fertiliser at 80kg/ha on July 25.

Flexi-N liquid fertiliser was applied at 30L/ha in a mix with Velocity broadleaf herbicide at 800

millilitres/ha and 0.5 per cent Hasten on July 22, while LV Ester 680 herbicide at 1L/ha and Prosaro fungicide at 200ml/ha was sprayed on August 25.

The trial supported similar results from other West Midlands Group trials held on local grower properties in previous years.

In a farmer demonstration trial with a knife point system at Badgingarra in 2011, the Morris paired-row double shoot opener achieved up to 50 per cent higher wheat establishment and a 190kg/ha yield increase.

In the same year in a full paddock demonstration compared with a DBS Auseeder on a property also hosting other West Midlands Group trials, yield gains of more than 0.5t/ha were achieved.

A Department of Agriculture and Food trial in the district in 2012 also indicated the paired-row double shoot opener system could lift wheat yields by up to 0.5t/ha compared with using knife points on severely water-repellent sand.

Research has also confirmed improved moisture-holding capacity and significantly less weed populations due to the better crop competition with the paired-row system.

The paired-row double shoot opener with the Morris Contour Drill places two rows of seed 10cm (4in) apart and the fertiliser directly behind the knife point.

Brad Gray with Morris' national distributor, McIntosh Distribution, said the independent openers and true one-to-one parallel linkage with the drill meant seed depth was maintained no matter the country it traversed.

"It maintains a constant opener

shines in double shoot cropping trials



☐ Pictured is an example of a young crop established with the Morris Contour Drill paired-row double shoot opener system. Independent openers and true one-to-one parallel linkage with the drill means seed depth is maintained no matter the country it traverses. It maintains a constant opener angle relative to the soil and a constant opener depth relative to the packer wheel.

angle relative to the soil and a constant opener depth relative to the packer wheel," Mr Gray said.

"The winged point grades any topsoil out of the wider furrow, but not from the side of the furrow and it doesn't mix non-wetting soil and dry the furrow out.

"It also creates an undisturbed seedbed or shelf for the seed, and, with the positive packing pressure from the press wheel, it achieves the seed-to-soil contact required to give the seed every opportunity to germinate.

"Seed is distributed in a true 4in (10cm) split either side of the furrow compared with other split or ribbon bar seeders which split seed randomly through the furrow."

Mr Gray said the quick crop emergence achieved with the Morris Contour Drill especially impressed growers.

"With the Contour Drill full paddock demo, the crop was up and away quickly," Mr Gray said. "It was around three to four days ahead of the DBS.

"In drier years, that's what

growers are chasing because they need to get crops up and away.

"On non-wetting sands and sandy gravels, where crops can struggle, the crops sown

with the Contour Drill have been exceptional."

☐ **More information:**
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WEST MIDLANDS GROUP TRIAL PLANT COUNTS, JULY 9, 2014 (Z14)

Seeding Bar	Plant Counts	
	Rep 1	Rep 2
Ausplow DBS Auseeder	108	132
Morris Contour Drill	123	147
Seed Hawk	110	120