

Maximising seed, fertiliser delivery

THE wraps are off a robust zero-till planter that will appeal to growers who believe controlled traffic and minimum/zero-till farming practices are the way ahead for their broadacre operations.

The Bio-Drill looks to be a success story in the making for farmer, dealer and principal of Namoi Valley Implements, Narrabri, and managing director of Agline Distributors, Ross Hubbard.

The planter's development caused him "frustration and heartache" during the course of its extensive research and development program.

The "Bio family" of precision planting implements began eight years ago with the development of a Bio-Blade unit which, although attracting interest, came with a blade arrangement that meant it was not suitable for a wide range of conditions.

"We recognised that one machine was not going to be all things to all people around the country," Mr Hubbard said.

The upshot has been an intensive 18 month development program culminating in the Bio-Drill which places the critical seeding apparatus directly behind a straight-running disc.

The objective of delivering seed and fertiliser to an optimum depth to maximise soil moisture, heighten plant emergence, as well as aid maturity, has now been met.

Each 450-millimetre wide disc

Machinery Matters

By Graham Fuller



slices through stubble and is followed by a cast opener and inverted-T seed boot – at speed.

A double shoot system permits both seed and fertiliser to be placed in each groove with special emphasis placed on the ability to adjust disc depth independent of the seeding boot to match conditions.

Additionally, soil build-ups are minimised due to small prongs on either side of the discs.

However, Mr Hubbard said many farmers – especially south of Dubbo – did not want to rely on discs, preferring a tyne arrangement.

Knowing these growers also wanted to be able to cultivate, design engineer, Richard Sulman, of BioSystems Engineering, came up with the Bio-Tyne.

The challenge has been to overcome the limitations associated with traditional parallelogram-type tyne machines that are unable to be used as cultivators since their spring arrangements operate against soil-engaging work.

Mr Sulman came up with a design that enabled the unit's parallelogram system to remain locked up while maintaining the integrity of the break-out mechanism.

"It's the only parallelogram on



Southern Queensland producer, Phil Egan, "Traighli", Moonie, checks out the new Bio-Drill with farmer, dealer and principal of Namoi Valley Implements, Ross Hubbard, Narrabri, who is also managing director of Agline Distributors.

the market which you can drop out the ram and make it rigid," he said.

The Bio-Drill precision planter was officially unveiled to a group of Queensland farmers who attended its launch at Jamie Grant's Jimbour property, "Kielli", last week.

Mr Sulman said the Bio-Tyne unit on display was a pre-production mock-up.

A decision has not yet been made as to whether rams or springs will be utilised, and the

intention is to offer retro-kits.

Queensland producer, Phil Egan, "Traighli", Moonie, purchased of the first Bio-Blade units which successfully handled both summer and winter crops, as well as applying urea/MAP and seed simultaneously on his melon-hole country.

His pioneering work with the Bio-Blade planter enabled him to grow a 9.8 tonne a hectare sorghum crop in the 2004-05 season – achieved by

matching up his Case IH Magnum 8950 tractor and 2188 header with Beeline Technologies' Arro SM guidance system and the Agline planter he was testing.

More recently, he completed 2023 hectares of work with a prototype Bio-Drill, commenting "anyone could set it up" and drew attention to how the new adjustable height mechanism saved wear on the discs.

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