



New liquid ready cart saves time and money with Plug'n'Play and section control.

Western Australian grain grower Dan Critch has enjoyed major improvements in seeding efficiency this season thanks to a carefully considered machinery upgrade.

Dan and his father Tony, brother Tim, and their families grow wheat, lupins and canola near Mullewa in the north-east corner of the State's grain growing region. The farm has been in the family for four generations.

With up to 17,600 hectares of crops going in each year, and limited labour, Dan said their aim was to upgrade to a seeding system that would help them get more done each day, with less wastage and labour units.

The answer was a John Deere C650 Liquid Ready tow-between air cart.

The C650 came with a dedicated 4,800L liquid centre tank with constant agitation and a dealer-fitted next generation Liquid Systems LQS120 C650 pump and control system, adding a liquid 8 Section Control Stacker Kit, mounted on a new Bourgault 335qda paralink bar.

The seeding system upgrade means Dan is working across 24 metres (or 80 rows) at a time, up from 15 metres (50 rows).

While this considerably improves the speed of seeding, it also increases the incidence of overlap, making section control important. "When we were looking for this new larger seeding system, we were adamant that it had to have section control for all inputs to minimise wastage," Dan said.

Section control automatically switches off the seed, MAP and liquid nitrogen in areas that have already been seeded if they are encountered again, avoiding overlap.

Dan estimates that overlap could affect up to 5% of their seeding program, adding up to a significant wastage of seed, fertiliser and liquid nitrogen, as well as potentially poorer growth. "The sections shut off as you go into the headlands or into corners," he explained.

"It's really detrimental to double up on the headlands. We see it a lot in years with a dry finish where the crops brown off on the doubled-up corners and overlaps, so we're looking forward to seeing less of those negative effects."

Who:	Dan Critch, his father Tony, brother Tim and families
Where:	Wyalong Farm at Tenindewa, west of Mullewa, WA
Crop:	17,600 hectares of wheat, lupins and canola
Inputs:	Flexi-N and MAP
Equipment:	John Deere C650 TBT Air Cart with the Liquid Systems (SA) LQS120-C650TBT Module – 80' Bourgault Bar mounted with Liquid Systems 8 Section Control "Stacker Kit", 80 friction tube outlets
Key Outcomes:	<ul style="list-style-type: none"> • Faster and more efficient sowing system, saving time and labour costs. • More even and constant stream of nutrients • Savings on seed and fertiliser of up to 5% thanks to section control • Plug'n'Play technology that worked straight out of the dealership

They are covering almost twice as much area in the same amount of time as one of their older seeding systems, only needing to refill every 120 hectares.

"The new aircart and liquid system makes seeding a lot faster, which is helping us get crops in on time, and that's probably the most important thing," he said. "On a long day, we'd fill at least twice every day, about every five hours."

"It's a lot more efficient than our other machines – we'd have to run around the clock to do the same area in roughly the same time, so it's got that labour saving side to it too."

The placement of liquid nitrogen has also improved thanks to the upgrade. "Rather than just a dripping type system, we are now putting the Flexi N in a narrow stream down behind the longest point," he said.

"The seed placement tool on this machine is slightly offset to the cultivation point where the liquid fertiliser goes, so it is banded about 12 cm under the seed and slightly offset which is really good for crop safety."

Dan said the liquid system integrated seamlessly with the John Deere screen, being ISOBUS compatible. In fact, he says it is one of the best things about the new seeding system.

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“It’s all compatible, which is a really important thing these days,” he said.

“We really didn’t spend any time setting it up. Liquid Systems had worked their magic before we took delivery, so we just turned it on, and it was faultless on the first run.”

“We could check the output of the liquid system, the pressure it was running and the flow rates on the John Deere screen and we could see that it was shutting off nice and neatly across each section as we approached the headlands.

“The new machine is certainly a big step up in technology. It’s quite modern in every capacity and it has been really good this season.”

Dan said they had finished seeding within a couple of days of the start of June this year.

“We don’t like to go much longer than that – our seeding has to fit into that window from about mid-April to the end of May or we start to see reductions in yield potential,” he explained.

With a wet summer and an additional 60 mm from Cyclone Seroja in April, the crops have a good profile of soil moisture under them for the season ahead.

“All the crops are growing rapidly now, and everything is looking great,” he said. “We can see that the section control has worked because it’s coming up evenly across the paddock without the overlap.”

For growers thinking of getting an upgrade, Dan recommended Liquid Systems (SA).

“Our dealership has fitted the Liquid Systems control systems to a number of other machines in the district successfully – they’ve got a good reputation for simplicity and complementing a range of seeding systems,” he said.



Front page: Daniel Critch in front of his Liquid ready C650 air cart. **Above top right:** Close up of Bourgault opener & liquid stream, 40-50L of Flexi N is placed under the seed. **Above left:** Operator Phill Rumble with the section control kit. **Above right:** One of 8 Stacker Manifolds, 80 friction tube outlets. **Below:** C650 TBT complete seeding rig in action.

