

## Ray Harrington's old JD 1010 Bar finally retires for a Flexi-Coil 820 Seeding Machine at Darkan W.A.

Ray along with brother David are extremely well respected in no-till as early pioneers with their 22nd no-till crop in the ground this season. As most know they are passionate about the subject and call a spade a spade - speaking from experience.

The old 1010 bar had to be modified with extra ranks & stronger tynes to do the job but as Ray has always maintained you don't have to spend a lot of money on machinery to be a successful no-tiller, now though, after 21 crops the old girl has retired behind the shed.

The original knife point system was built on the farm in Darkan after much deliberation and trialling, Ray seeding and David making 65 points each and every day as they would wear a set of points out in 12hrs. Ray says "Thank goodness for tungsten or else there wouldn't be no-till in highly abrasive country today". Agmaster then took the ideas and turned it into the commercial reality it has become now. Ray and David still shake their heads in awe to think how far a few different ideas have progressed in a relatively short time to nearly become the norm especially in Western Australia.

Through it all, the fundamentals have not changed from day one, Ray says "If you can, you have got to have



cultivation below the seed, place seed accurately, then have an effective covering system". Today Ray runs single shoot at 9in spacing, 12mm points, press-wheels and plastic harrow combination to cover every aspect needed in his cropping program.

Ray and David operate as separate entities now. Ray crops 1300ha himself, contracts 1177ha and with the new 35ft flexi-coil gets it in easily with the help of his nephew Tim. It has always been maintained that no-tilling is a package and Ray has very strong opinions on this, gained from experience. Each farmer's package may be slightly different, but if not treated as such, there is a higher risk of failure and financial loss.

Ray's package includes a rotation of canola, barley, wheat, lupins, peas, and for the first year oaten hay for export. Hay as part of weed control strategy along with double knockdowns, crop topping legumes, swathing and spraying Paraquat under the swather using every opportunity to take weeds out using a non selective herbicide.

Another important part is stubble and residue management, cutting stubble

short, spreading CHAFF and STRAW evenly eliminating header rows and concentrated weed seed areas. These are all important parts of the overall package.

Amazing things are happening for long-term no-tillers as soil structure and health improves, organic carbon levels rise dramatically and moisture retention keeps getting better. Ray says his yields have almost doubled in the past 10years with no increased fertilizer input, resulting in over 4t/ha average in cereals. This type of comment is often expressed by long term no-tillers and can only be attributed to soil health increasing natural nutrition in the soil.

Ray's advice to newcomers, is "Go for it". There is any amount of data out now to help farmers get the package together, with the past drought and massive erosion seen in some areas. Can we afford not to do no-till and look after our soil?"

We thank the Harrington brothers for their foresight 22 years ago thinking outside of the circle and their help in making no-till a reality for a lot of farmers.

Brothers Hayden and Matt Lienert farm together at Buckleboo on the Eyre Peninsula in 325mm rainfall operating a mixed cropping/livestock operation no-tilling all crops since 2001.



Hayden and Matt Lienert

Crops are sown with a 42ft flexi-coil seeder and include Peas, Barley, Wheat and Oats. Hayden and Matt use Agmaster 16mm knife points and seeding system combined with home made press wheels and Agmaster star harrows. The press-wheel/harrow combination can be used together or else individually depending on soil type and or moisture conditions, "We need to stay flexible" say Matt and Hayden.



"After much study, attending field days, and dialogue with other farmers we found it easy to go no-till, choosing Agmaster's seeding system to stay flexible which enables us to convert back to conventional in a couple of hours if need be".

Hayden and Matt said the most difficult challenge was getting used to spending more time in the boom spray as the paddocks had heavy weed burden the

first year or so. Also the speed of seeding came down from 11kmh to 8.5kmh but soon got used to that as now a one pass operation.

"In extreme wet conditions you have to be careful in our soil type that sufficient soil flows back for seed coverage, hence the press-wheel/ harrow combination".

Matt and Hayden say they have not experienced any increase in snail or slug activity, or new disease pressures as yet, but weed control has to be taken care of early and don't skimp on knock down rates. A double knock down is used in all paddocks to maximize weed control, with high disease risk paddocks seeded last. A big advantage with no-till sowing is keeping weed seeds on top and not burying them at depth. The soil structure has improved with higher organic matter levels and increased soil activity e.g. earthworms.

"Spending less hours on the tractor is a huge plus saving fuel, our time of sowing has improved and can sow on minimal moisture. We are trialling liquid fertilizers and if successful would like to include this in our operation, g.p.s. guidance system would be nice although our marker arms work well for up and back sowing".

Hayden and Matt's advice to others thinking no-till is 'stay flexible', have a

machine that converts easily and seek as much information as possible to complement your program.

The Lienert brothers are serviced by Pringles-Kimba whose association with Agmaster started in 1999, they have 12 staff to offer help with the back up of Dave Humphries our South Australian representative. Pringles have commented that the business done together has grown much in 4 years and that Agmaster's standard of product tends to sell itself throughout the area.

## Field Day Calendar

**New South Wales & Victoria**  
Nyngan Ag Expo - 2 August

Mallee Field Days,  
Speed Victoria - 6,7 August

Henty Field Days,  
NSW - 17,18,19 September

**South Australia**  
Yorke Peninsula Field Days  
Paskerville - 30 September  
1,2 October

James Graham, and his family, farm 2024 ha at Coolac (near Gundagai) on the Murrumbidgee River in the South West Slopes of NSW. Their country runs from gentle slopes to being "seriously" hilly!



They run a mixed livestock and cropping program. James crops about 650 Ha. A mixture of wheat, oats, canola, peas, lucerne, pasture and forage sorghum are grown to support their feedlot of Angus cattle.



The change to no-till came in 1999 when James purchased an Agrodriill. He found that less time was spent working the country and better yields were being achieved. This year he changed his plant to a Flexicoil ST820 with a 3 bin Flexicoil 2640 Air Cart and the combination of Agmaster Presswheels and Star Harrows on the back for improved soil contact and covering system.

James says that it was easy to change to no-till but that the cost of the plant can be a major problem. He has found that it has allowed him to put more crop in on time and in the moisture, especially in the last few years when the moisture has been a limiting factor. He has found that "much more pressure is put on your chemical selection. Correct rates and application are very important."

The Agmaster presswheel/harrow combination has handled the difficult, often rocky and steep terrain amazingly well.

The Graham family has found that the main advantages of no-till farming have been the "one pass system" with improved moisture retention and soil structure and major savings in time, fuel and wear and tear.

Being very happy with the set up he now has, James plans to go to GPS at some stage. "With this in place I will be able to use the mapping technology that is about. Controlled traffic would not really work on some of our hills."

This year the Grahams sowed a paddock that had never been cultivated before as it had previously been too steep to access with the plant they had. They were able to do this by using the the no-till farming system thereby reducing the risk of erosion.

In regard to the advice he would give to other farmers thinking of changing to no-till farming, James says "It is very worthwhile looking (at no-till) as there are some very substantial savings to be made with no yield penalty, and more often than not, a yield increase."



James Graham standing on some steep country

## ndar

### Western Australia

Dowerin Machinery Field Days -  
26,27,28 August

Newdegate Machinery Field Days -  
3, 4 September

Mingenew Machinery Field Days -  
18, 19 September

Agmaster also participates in various field walks and smaller days throughout the country

If you have experienced outstanding results with Agmaster products and would like to share with others please contact us at Agmaster. Sharing of information by either newsletter or field days is of great benefit to both farmers and Agmaster as a manufacturer.

Phone Steve King on 0427 719 051.

As most of you would know, Agmaster's manufacturing facility is located in Collie, Western Australia.

The factory covers 2100m<sup>2</sup> and is well equipped with some of the latest technology in manufacturing machinery.



The majority of Agmaster products are produced in-house; however some items that require specialized machinery are outsourced. The steel castings for points and presswheel components are cast at a foundry in Sydney. The rubber tyres for presswheels are also moulded in Sydney. The majority of the company's tungsten requirements are from England. Plastic products like the rotary star harrow hubs, tips and presswheel rims are all injection moulded in Perth. Most other raw materials and products are sourced from suppliers in Western Australia.

Agmaster employees ten people full time and has up to twenty employees during peak production periods (January - May).

In the factory, where possible, production processes are carried out with automated machinery. This includes:

- Auto-feed bandsaw - for cutting of pipe and RHS
- Robot Welder - used to weld components where possible and practical.
- Plasma Cutter - this machine is CNC controlled (computer numeric controlled) and uses the latest torch technology to cut underwater. Typically plate is cut in 50-75mm of water depth. The major benefits of this are to restrict plate distortion, minimize noise and fume. All parts to be cut are computer drawn and then nested using a specific software program to maximize the plate utilization and minimize waste.



After a cutting program is generated in the office it is downloaded to the machine via a fibre optic cable link. An operator then activates the program and sets the machine going. From this moment the machine is self managed and generally requires very little operator support. Fast, clean cutting is then achieved, e.g. 10mm plate is typically cut at 2500mm/minute (just over 40mm/second).

- Profile Cutter - CNC controlled similar to Plasma except it has 4 oxy LPG cutting torches.
- CNC Lathe - for machining of components.
- CNC Twin Pallet Milling Machine - allows the operator to unload and load one pallet whilst opposite pallet is being machined. All knife points are machined in this machine to produce an optimal surface for tungsten application.
- Heat Induction Units - designed to provide uniform, consistent heating for tungsten application.

The factory has also numerous other punching, cutting, bending and purpose build machines for processing components.



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This year is also a milestone for Agmaster being 10 years in the production of the Harrington No-Till seeding systems.

The team at Agmaster wishes all customers a productive year and hopefully a break from the tough dry conditions many farmers across Australia have endured over the past few years.

Agmaster Website up and running

have a look at [www.agmaster.com.au](http://www.agmaster.com.au)