

MAINTAINING PROFITABLE FARMING SYSTEMS WITH RETAINED STUBBLE

Technology is a dance learned step-by-step

A desire to revive their enthusiasm for farming after 10 heartbreaking years of drought led Lou and Charlie Clemson to develop a diverse and innovative stubble management system with a German compact disc harrow as the centrepiece.

PHOTOS: SARAH CLARRY



Lou and Charlie Clemson chose a Lemken Heliodor because it provides good soil coverage on the stubble, which speeds the breakdown of organic matter in the soil.



SNAPSHOT:

PROPERTIES: Wongajong/Rosemorder (Ardlethan), Fergies/Pineview (Moombooldool)
OWNERS: Lou and Charlie Clemson
LOCATION: Ardlethan, NSW
FARM SIZE: 2450ha total
ANNUAL RAINFALL: 406mm
SOIL TYPE: Clay Gilgai country running up to lighter sandy red loam, red clay loam running to granite clay, sandy loam
SOIL PH (CaCl): 4.5 to high 6
ENTERPRISES: Crop (90%), pasture (10%), remnant vegetation (220ha of hill)
CATTLE NUMBERS: 100 cows, 100 calves and 150 opportunity weaner steers
TYPICAL CROP SEQUENCE: 70% wheat, 15% barley, 15% canola and grazing crop
CROPS: canola, wheat, barley
EQUIPMENT: New Holland 8970A tractor, Case Steiger 9330 tractor, John Deere 6430 front-end loader tractor, Flexicoil 82ST air seeder, Croplands boom spray, New Holland CR940 header, 12.2m Kelly chain, 12.2m Lemken Heliodor.

Lou and Charlie Clemson run 1650 hectares of cropping and cattle country at Ardlethan, south-west NSW. They also have another 800ha block in the mallee country of Moombooldool, which they use exclusively for cropping.

Charlie grew up in West Wyalong. The family farm was out on the Bland, between Quandialla and Barmedman. His Dad passed away when Charlie was very young, and although the farm was sold when he was 15, he always knew that he wanted to get back to farming. After finishing school Charlie went jackarooing for a few years before he met Lou.

"Lou and I bought this farm in 1992 and we were married in 1993. I thought at the time, 'this will be easy. We'll have a few cows, some sheep, a duck and a chook.' But it wasn't easy. Working out what to do was the toughest thing."

Despite having the help of a neighbour, Charlie and Lou mostly had to learn about grain growing themselves, through research, trial and error.

MACHINERY JOURNEY

In 1997 they did what a lot of people were doing and bought a Flexicoil seeder. Their neighbour loved them and had one of the first in Australia.

"At this stage – in the mid-1990s – we were burning everything, working paddocks four and five times and starting to use RoundUp®. No-till was just beginning," Charlie says.

By 2000, the Clemsons had started minimum till. Charlie was concerned about losing nutrients through burning and the drought was just beginning.

"In the late '90s we had these cracking crops," Charlie says. "We were averaging between four and five tonnes to the hectare and in this area that was fantastic. Predrilling fertiliser was the norm; urea was cheap and created a lot of stubble."

The Flexicoil was not able to get through the big stubble loads, so they had to go back to burning.

Around this time, fertiliser prices were skyrocketing and so the couple began to think

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about how they could improve their efficiencies and become better farmers.

Charlie says: "One thing we knew we could do was to maintain stubble and let it break down. It took a few years before the crop started to pick up with direct drilling but we could see it was the right way to go."

KELLY CHAIN

The first step the Clemsons took after deciding to retain and manage stubble in the early 2000s was the purchase of a Kelly chain diamond disc harrow.

While it worked well for incorporating stubble on the light, sandy soils of the Moombooldool country, it was not quite right for the home block.

"The Kelly chain just didn't cover the stubble enough and it wasn't a very even dig," Charlie says. "We still weren't getting the soil coverage over the stubble that we wanted."

"All we were doing was creating an obstacle. If we laid the stubbles down with a Kelly chain we were just going to block our machine and still end up having to burn."

However, Charlie says that on canola stubbles, the Kelly chain came into its own.

"For knocking down canola stubbles and exciting

weeds to germinate, it's fantastic. We hire the machine out. It's sought after for canola stubbles and has added an off-farm income stream to our business."

Because the Kelly chain was not doing the job they required in their cereals, they bought a new Flexicoil seeder with the tines set up a little differently.

"We were getting more stubble to go through the machine but on the heavier crops, such as our early sown Bolac wheat, we were still having trouble," Charlie says. "It grows early and gets going, so you can imagine the stubble load."

Lou and Charlie knew they had to do something, because with their goal of stubble retention and incorporation they didn't want their header, plus contractors, having to cut the stubble short.

"In years when we get spring rain we want to be able to say to the header drivers, 'Cut as high as you can and go as fast as you can.' That saves us money but gives us more stubble," Charlie says.

They did a lot of research and spoke to many people about the type of equipment they required for their goals.

LEMKEN HELIODOR

One of the people they talked to was the Australian representative for Show Me Shortline, an American

PHOTO: SARAH CLARRY



Lou Clemson says a focus on efficiency gives them some control over their farming fortunes.

THE LEMKEN DROPPED OUT OF A CONTAINER AND THERE IT WAS, A PILE OF NUTS AND BOLTS.

Charlie Clemson likes to have his sowing equipment organised and well maintained so he is ready to sow his Bolac wheat in early April.

PHOTO: NICOLE BAXTER



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PHOTO: SARAH CLARRY



equipment distributor. Lou explains: "He often sends us a YouTube clip and says, 'Check this out'.

"In June 2013 he called in on his way back from Queensland and said, 'Have you ever heard of a Lemken Heliodor?'"

The Clemsons looked on YouTube and discovered it was a compact disc harrow that can be used for shallow stubble cultivation on light and medium soils. It is relatively light, so it can be used at high speeds and with low power requirements. Its implements, which range in width from 3.5 to 12 metres, can be handled on the tractor's three-point linkage or direct pull.

"We didn't want aggressive tillage and this light machine looked like what we needed," Lou says.

Although Lou and Charlie had only had the Kelly chain for around five years, and were relying solely on the YouTube demonstration, they went ahead and ordered the \$115,000 Lemken.

"I was nervous," Charlie says. "I wasn't sure if it would work in Australian conditions. Then it got here – it dropped out of a container and there it was, a pile of nuts and bolts."

Despite their initial anxiety, Lou and Charlie were able to assemble the machine and get it working. About a month later, the Lemken southern hemisphere representative arrived from Germany at the farm to see the machine.

Lou and Charlie organised a demonstration and the rep could not believe how well the machine was working on the Australian soil in respect to its digging

ability. The demonstration was in light, sandy soil and pulling the 12.2m Lemken with a 240 horsepower tractor at 13 kilometres per hour. He was most impressed. "Because of the speed you get good soil throw and hence good soil coverage on the stubble," Charlie says.

The crumble and packer rollers at the rear of the Lemken seal in the moisture around the stubble and give an even finish. Good soil coverage on the stubble speeds the breakdown of the organic matter in the soil.

"We think we've found the machine to incorporate the stubbles behind the header and get around five months of stubble on the ground."

WEED MANAGEMENT

The couple also sees the Lemken playing a role in their weed management program. Herbicide-resistant annual ryegrass is a big problem for the Clemsons and others in their area. Good chemical rotations are one tool in the fight against ryegrass; a mechanical option is another.

"We need to be able to excite that ryegrass to grow, and machines like this – because of its cutting ability plus packer/rollers on the back – can do that," Charlie says. "It will do a manual control. Instead of relying totally on chemicals over the summer and spraying, we can use a tine machine for instance, then a second pass with the Lemken. Manual control won't be 100 per cent effective but it's another tool. I don't have RoundUp® resistance and I don't want it."

Annual ryegrass was also a driver behind their

- The crumble and packer rollers
- on the back of the machine excite
- weeds such as annual ryegrass to
- grow and provide the Clemsons
- with a non-chemical option for
- weed management.

LIVESTOCK

- Lou and Charlie run a small
- herd of 100 cows, which they
- put into calf each year. They
- then buy an extra 50 calves
- from the sales to top up the
- herd numbers. The couple is
- in the process of putting in a
- fencing program comprising
- a series of laneways that
- will allow them to move
- the cattle strategically.
- Lou says the laneway is
- part of a drought-proofing
- and feedlotting grant they
- received and they are using
- it to put watering troughs in
- sections: "The laneway will
- allow us to use sections of our
- farms with troughs and move
- the cattle to and from those
- areas. It will also link the
- 200 hectares of hill country
- where we like them to calve."

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PHOTO: SARAH CLARRY



decision to bring livestock back onto their farm.

"It would be nice to grow 400ha of peas on a ryegrass-infested paddock and then work them into the ground. But that 400ha means a lot of money that you're not going to get that year," Charlie says.

"So if we incorporate our stubbles and sow a grazing crop such as a vetch cereal mix, not only can we fatten our weaners for September sale, we can then spray the paddock, and we're making a quid."

FLEXIBILITY

Lou and Charlie say they have essentially had to learn farming from scratch over the past 25 years. But because they came into farming, especially cropping, without any entrenched practices, they have been able to respond nimbly as challenges and opportunities have arisen.

For example, when they were confronted with stem-frosted wheat midway through the 2014 season, they had to decide quickly what to do: "We knew we could put some cattle on it but there were 160ha – it was just too much," says Lou. "We had professional haymakers come and look at it but they didn't want to touch it because it was too early. No one was sure whether it would dry or condition. We looked at making silage but we would have had to build pits the size of four Olympic swimming pools.

"We had four days to decide so we went baling.

The people who baled it bought a new conditioning machine for the job. And we bought more cattle straight away because every day there weren't cattle eating it, we were losing bulk and money.

The outcome was they fattened cattle, and in areas where the frost took out some tillers, the remaining plants put all their energy into grain, and Charlie and Lou were still able to harvest some of the affected crop.

LEARNING

With all that a season can throw up – variable rainfall, disease, weeds and frost – Lou says they have learned that the one factor that can give them some control over their fortunes is efficiency.

"The market dictates price, and the seasons are out of our control, so efficiency is our focus. You can make your own farm – in your own way – more efficient by just changing little things."

Charlie adds: "I'm 45 now, at an age where young blokes ask me questions ... and I know exactly where they are coming from.

"Questions of stubble management, having the cattle, having water ... and you're thinking, 'how do I hold that together year in, year out? How do I stop any of it falling apart?'"

"It can be scary. We've had a reasonable harvest and we sold fat cattle into a rising cattle market. But now it's a new year ... and we have to do it all over again." ▶

• Lou and Charlie Clemson are a true
• partnership. They have learned the
• ropes over 20-plus years together,
• relying on research, trial and
• error, and each other's support to
• build a successful mixed-farming
• enterprise.



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GRDC PROJECTS:

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• profitable farming systems
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