

PRODUCER SPOTLIGHT

with your NSW North West RALFs



Scott and Jo McCalman
'Kuranda'
Mullaley NSW

Quick Facts

Property and Location: 'Kuranda', Mullaley (SW of Gunnedah NSW)

Farming Enterprises: Mixed cropping – Rain grown sorghum, mung beans, cotton, wheat, barley, canola, chickpeas and cover crops.

No. of hectares: 1,200ha across three properties

Philosophy: 'A healthy functioning soil is the powerhouse of our business, our landscape and our community. It's our bank account'.



Tell me a bit about yourselves and your farming enterprises.

With a passion for cropping and innovation, Scott McCalman is a 5th generation farmer originally from Warren NSW. In 2012, Scott and his wife Jo, sold their properties and moved east to their current location at Mullaley, with climate change being a key driver in the move. Back in the 80's after finishing university, Scott began no-till farming, with soil health as his passion. The McCalmans run a mix of winter and summer cropping, developing a diverse rotation to fit with the markets. The rotation includes rain grown sorghum, mung beans and cotton in the summer and wheat, barley, canola and chick peas in the winter, along with cover crops.

There was a lot of interest in your cover crop roller crimper at an event recently. Tell me more about your experience in cover cropping and the importance of the roller crimper.

After trialling a couple of crimper designs back in the 1990's, Scott settled on the current Chevron design after liaising with Dr Erin Silva from the University of Wisconsin, USA. This 12 metre crimper is a game changer for his current farming business. The machine passes over the cover crop – a simple way to crimp the stem and lay the crop down on the ground. The crimping action kills the plant and creates a thick mulch over the paddock and with the right disc seeder, you can then directly plant into cover crop mulch. The goal of the cover crop is to produce enough biomass to make a thick enough layer of mulch, to then suppress weeds long enough for the crop to establish.

The important benefits include a reduction of chemicals for weed control, adding organic matter to soil, creating microbial ecosystems, improved soil health and water holding capacity through increased soil carbon and reduction in soil temperature.

The timing of crimping is critical to the success of the mulch and biomass on ground. Crimping takes place at the end of the vegetative phase (around 6–9 weeks) and before the reproductive phase takes over – the best time is when the flower buds are emerging. For example, winter cover crop species are planted in late summer and crimped in mid March. The process takes much fine tuning with Scott having experimented for decades. For this cropping enterprise, Scott uses two or three species. Usually a grass species, deep rooted broad leaf plant with a tap root and a legume, choosing species suitable to the environment. He also harvests his own seed each season, ready to use the following season. Scott has found that a larger diversity in species doesn't necessarily work for his business. The crimper only works when plants are at the same physical maturity – choosing species with a similar growth pattern means they can be crimped at the correct maturity.

Temperate season cover crops are planted at 'Kuranda' and the McCalman's plan for 15% of their business to be under cover crops at any one time.

They have proven that the crimper roller is a game changer and liken it to the impact that animals might have in a grazing enterprise. For a cropping system, crimping and rolling is an effective tool to generate fertility naturally in the soil.

How have you used cover cropping to adapt to a changing climate?

Scott sees cover crops as a risk management tool – locking in moisture, keeping soil cool and keeping groundcover at 100% – all crucial in adapting to changing climatic conditions. The cover crops proved their worth during the last drought, with no top soil lost from wind erosion. The costs of having bare ground are too much. With cover crops eliminating bare soil, it has been an effective way of lifting fallow efficiency, for the reasons mentioned above.

Through cover cropping the McCalman's have been able to largely reduce inputs and build soil health, whilst continuing to build soil carbon, microbial activity and nutrient cycling.

Why did you decide to be involved in the 'Saving our Species' Koala Habitat project? How does this fit with your cropping enterprise?

Scott and Jo have planted native corridors with the aim of enhancing their farming business whilst improving natural systems. By planting corridors, the McCalman's are ensuring a best practice approach to integrated pest management – running corridors down fence lines encourages birds back into the system which supports the control of pest insects along with supporting and enhancing koala habitat. The McCalman's have planted a diversity of species that are endemic to the area with the corridors covering 10.5ha (with a portion being enhancement of existing remnant vegetation and 2.1ha of new corridors).

What is the best piece of advice you have been given?



To always remain optimistic and positive – this is crucial in agriculture. And as my grandfather always said, 'leave the land better than when you got it'.

Why is it important to focus on soils as a key driver in your farming business?

A healthy functioning soil is the powerhouse of our business, our landscape and our community. It's our bank account.



Where do you source support and information from, when making changes or improvements to your farming business?

As an early adopter, Scott likes pushing boundaries and is not shy in making tough decisions and learning from mistakes. Scott reads widely and enjoys seeking advice from professionals and researchers (such as Dr Erin Silva from the US). Social media provides sources of information and ideas, along with reading widely on climate variability which he has done for a number of years. He cites the likes of Charles Massey, Peter Andrews and Gabe Brown as being inspirational and takes aspects of their philosophies and applies to his farming business.



Check out the crimper on Youtube

<https://www.youtube.com/watch?v=xkDUli4Wmos>

Want a custom made crimper? Get in touch with Scott on the details below.

Phone: 0428 474 819

Email: jedburghfarming@gmail.com

Acknowledgements: Thank you to Scott McCalman for the interview.
Words: Lana Andrews. Photos by Scott McCalman