

Legume fallows and GPS put this family on the right track

By Neroli Rroocke

A lot of growers have driven up **Gerry Deguara's** driveway over the past few years wanting to see how he's reinvigorated his profitability and productivity with his two adult sons. In the early days, some took the road to Kinchant Dam ready to scoff at Gerry's ideas, but increasingly people are positive about what he, **Sam** and **Joe** are doing.



Pictured: (above) A healthy crop of soya on the Deguara's farm; (main) Gerry, Joe and Sam with their spray rig; (right) a tailwater dam which catches run off for recycling through the irrigation system and (on pg16) Sam with the header purchased to harvest legumes.



"I don't think anyone goes away critical any more but there used to be people who didn't believe in compaction or that you needed to grow legumes or that chemicals went to the waterways," Gerry says. "Now people accept those things and know it's just a matter of minimising them."

Gerry and his sons have an integrated farming philosophy across their 570 hectares and they're happy to share it.

"The turning point for me was a heavy rain event in 1998 which meant we destroyed every field we harvested – it became a driver for changing our system," Gerry explains.

This change was based on a number of interrelated things: growing fallow crops, avoiding compaction, improving soil health and targeting the application of fertilisers and herbicides.

"No crop likes growing in a compacted root zone – that is number one," Gerry says.

"Number two is that long term monoculture doesn't work, but on this latitude cane is the best thing to grow so we've got to improve our soil. ▶"





"Green cane harvesting was the first big leap – it was the biggest thing that happened in the sugar industry in cost reductions, lifestyle and returning organic matter to the soil."

The family has grown soya beans and chickpeas on the 100 hectares they have fallow each year and plan to try mung beans this year.

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"We religiously grow soy in our fallow and we will be giving rice a go in the right soils when there's enough water," Gerry says. A good yield is three tonnes of soya beans per hectare.

As well as providing some income, legume crops fix nitrogen in the soil, add organic matter and increase population diversity in the soil biology.

Beginning in 2000, Gerry, Joe and Sam began converting their farms to two-metre uniform beds all mapped by GPS.

"We threw everything out and started again basically," Gerry says of the move to a controlled traffic system.

"We are not ones to compromise and I don't mind putting in the commitment and buying the equipment because Joe and Sam will get the benefit in the long run."

The transition took around six years but now everything that moves through their paddocks has GPS and the correct wheel spacing to avoid impacting and damaging the growing zone.

That includes their harvester, haul outs and all farm tractors, with the investment in the technology supported

by several rounds of Reef Rescue (the precursor to the Australian Government Reef Programme and Reef Trust).

Gerry says he knows they are on the right track because their costs have reduced through more targeted inputs and fewer passes through the paddocks.

"Going from 1.6m cane beds to 2m means every row you pass with the harvester or tractor you're covering 0.4 of a metre more. So in only a few rows you've saved a whole row of fuel and wear and tear," Gerry says.

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Overall the farm's soils are healthier as evidenced by Farmacist soil tests. The same site has been tested across two crop cycles with the results revealing an increasing quantity of organic matter.

"On our poorer soils too, our yield is increasing," Sam says. "Even areas which never used to grow cane now can grow it – that shows that the soil is improving across the board."

Joe explains that the use of pre-emergence weed control chemicals has been reduced by 30% because the GPS system means only the beds are sprayed.

Any weeds in the wheel tracks are taken care of with knock down preparations using a shielded sprayer.

This is a diversified business which aims to make the best use of its machinery investments.

"We decided to go contracting so we could get the best gear for our place and also hopefully make a few dollars as well," Gerry says.

Their harvester will cut 100,000 tonnes this year across their own and contracted areas for four other growers.

They contract apply dunder to other farms as well as their own using a

variable rate applicator and they've recently purchased a header (which is undergoing modifications to widen its wheel spacings to four metres) to harvest the legume fallow crops.

Gerry, Joe and Sam acknowledge the input of government reef funding in helping them implement their farming system changes.

"This industry has been lucky in that government has been willing to help with change where it delivers an environmental benefit," Gerry says.

While he bought his first GPS unit prior to Reef Rescue, subsequent purchases were jointly funded, as were a zonal cultivator, harvester modifications to match the 2m row spacing, mill mud and dunder applicators and spray rig.

"We were always going to do those things, but it meant we could do them quicker and do them better than we would've been able to without Reef Rescue," Sam says.

Reef funding through government programs has also gone into the construction of tailwater pits to catch and recycle water coming off the farms for supplementary irrigation using centre pivots over 330 hectares.

There are plans for more pits so that 85% of their water is collected.

"There's still more we want to do and things we want to try," Gerry says.

"What we'd like to end up with is zero till soya beans in the cane and zero till cane in the soya beans – permanent beds with minimal cultivation to avoid erosion and losing soil and nutrients into the environment."

He warns growers who come for advice not to expect instant and big results from changes in farming practices.

"There've been a lot of people who've come to see what we're doing and everyone just takes out the bit that suits them or their budget," he says.

Along the way there has been the support of like-minded farmers, many of them neighbours.

They've been part of Project Catalyst and, in the earlier 2000s, Gerry was part of a group of growers sponsored by a Department of State Development program which had ten meetings over five years.

"There were people from different growing areas and we looked specifically at changing to a controlled traffic system, the technology to go with it and how we bring about the change."

Joe and Sam belong to a local Young Farmers Group.

"Around here there are a fair few young farmers and people who would love to be farming full time if they could and the returns were better," Joe says.

"Now that the mining industry has slowed down we're finding a lot are coming back to farm too."

Gerry, Joe and Sam say they work well together.

"We share a vision of where the farms need to be and they never have to convince me when it comes to innovation or technology," Gerry says. ■



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