

Levelling trial shows 20 percent improvement to net return



Glen Anderson already knows how important precise drainage is to his productivity, but work on an SRA-funded project run by MSF Sugar is providing eye-opening numbers for the impact on his bottom line.

BY BRAD PFEFFER

For Far North Queensland sugarcane grower Glen Anderson, drainage is paramount to optimising the productivity of his farm.

Farming at Fishery Falls, north of Babinda, the annual rainfall is 3430mm and daily and weekly rainfall tallies can be huge during the wet season.

This means that he continues to plan his farming operations around drainage to minimise the damage from waterlogging.

"When we have our long wet seasons, there's often not much we can do, but we also know the more water we can get rid of, the more cane we can grow," he said.

This is why he has been a keen participant in a recent SRA-funded project through MSF Sugar that assessed the costs and benefits of investing in GPS-assisted laser-levelling.

The project worked with four farms in the Mulgrave mill area to assess a control area against a GPS-assisted laser-levelled area.

Data was collected for the 2016 season, and for Glen he said the results showed that the investment was worthwhile, to the point where he has now laser levelled the control area as well.

"Before this project we already had a network of drainage pipes and drains across the farm and had started levelling. But we were basically doing our own land plaining without GPS-guidance, just doing it by eye and experience," he said. "The GPS brought more precision, and I've since continued with it for other blocks. I was sick of having to get into the control block with a shovel to let the water out, so it is laser levelled now, too.

"The increase in tonnes has been out of sight, although we still have to be careful

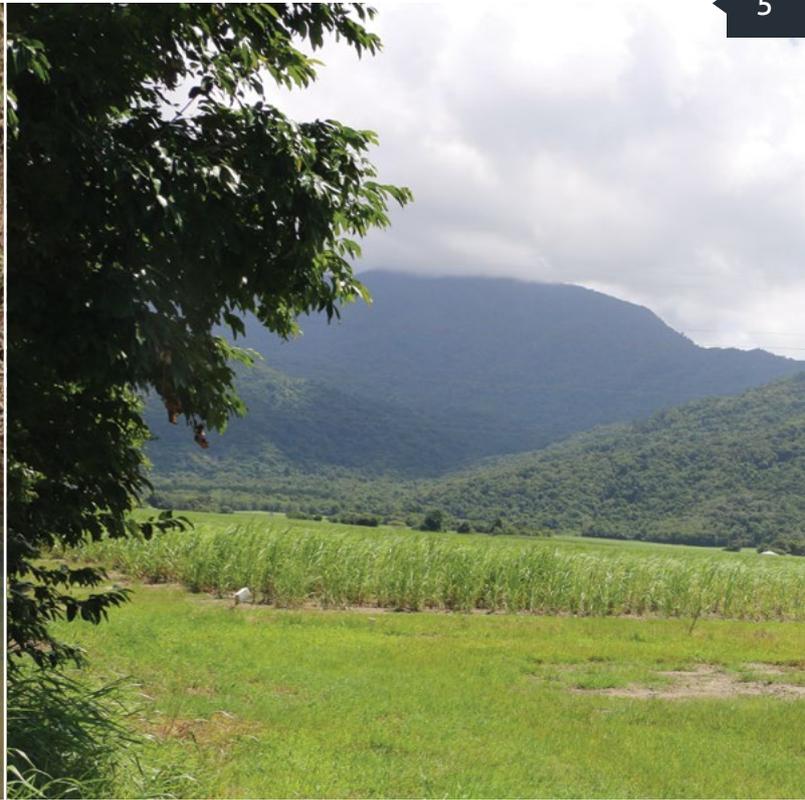
with any wet weather at harvest, as we don't want to ruin the laser levelling."

For the 2016 harvest as part of the trial, Cane Supply Field Officer with MSF Sugar Matt Hession ran the project and he said this site was the wettest and most poorly drained of the three sites that were harvested in the project.

"Glen's lasered block had a positive response in all four productivity benchmarks of actual CCS, cane yield, sugar yield, and net return," Mr Hession said. "There was a 9 percent better response in tonnes of cane per hectare with 138TCH compared to 126TCH.

"Relative CCS was 0.58 units better in the lasered block than the non-lasered block. As a result, sugar yield was 15 percent better and net return was 20 percent better for the lasered block."

FARM	VARIETY CLASS GB	SOIL GROUP	DELIVERY (TONNES)	ACTUAL CCS	REL.CCS	HARVESTED AREA (HA)	CANE YIELD (T/HA)	SUGAR YIELD (T/HA)	NET RETURN* (\$/HA)
Laser	Q208(ϑ PL G	Granitic	264.22	12.97	12.65	1.91	138.34	17.5	3,365
Non-laser	Q208(ϑ PL G	Poorly Drained Alluvial	122.00	12.24	12.07	0.97	125.77	15.18	2,795



The net return was \$3365/ha in the lasered, compared to \$2795/ha for the non-lasered.

The crop was approximately 18 months old at harvest, due to delays in getting to the blocks because of wet weather that year.

Glen Anderson added that he felt that 2016 was a year that favoured the control block. "We didn't have the usual flood and had a pretty good mix of rain and sunshine, and therefore both of the treatments grew well. If we had experienced a normal season and flood, I expect the control would have been further behind."

He is yet to make a long-term assessment, but he hopes that GPS-assisted levelling could ensure his crops get to a third or fourth ratoon, as sometimes the floodwaters and still water sitting in the paddock can do significant damage.

Looking beyond the project, he said the trial site had also performed well in 2017. "Because we got caught with the weather during harvest in 2016, this meant the crop was quite young when it came time to cut in the normal cycle last year.

"So the tonnes were down in 2017, but it has since come away nicely and looking like it will be a good crop again this year."

He said while levelling is far from new, the project has helped him become re-educated with it and learn how modern technology has improved it.

"It is definitely worth it, but levelling also needs to be considered in the context of the finances each year, and having contractors available. I'll keep laser levelling every year, doing a bit each year, focussing first on my wet blocks and the dry blocks can come later."

He has not yet completed a crop cycle yet with any of the lasered country, but

said he expects the ground will all need touching up each cycle.

His row spacing was 150cm, and is now 162cm, and he is looking at trying 180cm. He is also using a variable rate fertiliser box, GPS guidance, and looking at zonal tillage. ■

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(Over Page) Fishery Falls farmer Glen Anderson has seen positive results through trial work analysing the benefits of GPS-assisted laser levelling. (Above Left) No drain – no cane. One of the many drains at the Anderson farm. (Above Right) Some of the beautiful views at the farm.