

Delaborin Farm

Delaborin Farm manager Paul Clement achieved the previous unthinkable during a recent irrigation season. He took a break and went snow skiing in Japan.

He was a long way from his dairy farm but could still monitor soil moisture and start his centre pivots by remote control.

"Historically I would never have gone away on holiday in the irrigation season. Farming is a lifestyle and we love what we do, but we need to have a break sometimes and it was good to have some flexibility."

Clement's farm, which is part of Theland Group, underwent big changes in 2015. Rotorainers made way for ten centre pivots when Delaborin hooked into the Central Plains Water (CPW) scheme that ran past its gate.

Clement now just presses a button on his computer or cell phone to set the pivots in action. Two years ago it would have taken two people three hours every day to shift and set the rotorainers; the new irrigation technology has been a catalyst for other change too.

The 355 hectare property near Hororata was milking 450 cows when it was using water from two unreliable bores to irrigate just a third of the land. The rest was used as winter grazing for upwards of 2000 cows in the off season.

But with CPW water now applied through the 10 pivots and 20 sets of fixed grid sprinklers over the whole farm, cow numbers have grown to 1200 and the whole farm has become a dairy platform. There is no longer

winter grazing and nitrogen losses have actually improved.

Clement says the new technology is time efficient, water efficient and financially worthwhile.

"The old farm was a third dairy platform and two thirds dryland run off. We only had enough water to irrigate the dairy platform and the two bores were low yielding and unreliable."

"When stage one of Central Plains Water came past the gate, it gave us the opportunity to irrigate the whole property."

Delaborin was already meeting good farming practices and environmental targets under Synlait's Lead With Pride programme pre-pivots and Clement said the latest spray irrigation improved water efficiency even more.

Removing winter grazing had also resulted in huge gains in the nutrient space.

Clement uses SCADAfarm to run the irrigation and the technology is a big time-saver.

"The three rotorainers required two people the best part of three hours a day to shift and check at different times of the day. Now in terms of turning the irrigation on, it takes me ten minutes. On top of that we still doing checks under the pivots and it takes between half an hour and an hour."

Four moisture meters send reliable data about how dry the soil is, though Clement still does a bit of manual testing with the spade – but what he is finding gives him confidence



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that the moisture strips are doing their job.

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He can view alarms and alerts, and "stop in slot" the pivots in the event high winds are forecast.

Getting to grips with the new system has not been difficult.

"I am part of the generation which has grown up with technology and I really enjoy that sort of stuff. I have a passion for technology and get excited about it. The whole SCADA system was not hard to understand."

Scheduling involved a reasonably complex spreadsheet initially but once that was translated to the irrigators, the centre pivots and sprinklers can do their work for any staff member. Clement said he had found the perfect balance between interval rate and infiltration on his farm for optimal grass growth. The little and often equation sees 10mm applied every two days – "which is a lot better than the ten-day turnaround on the rotorainers".

He is also looking forward to using the technology to its full potential as more modules are added in the future.

"I wasn't aware of how powerful the technology was in the pivots. I see the improvement we made this season and am looking at what we can achieve next season."



Irrigation scheduling is about little and often for Paul Clement.