



Case Study

Using End of Row Sensors to Manage Irrigation Tail Water

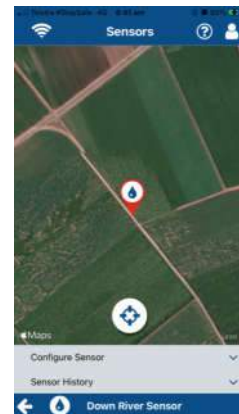


LANDHOLDER	Anthony Contzonis & Serg Pagotto
LOCATION	Down River
CATCHMENT	Burdekin
RAINFALL	984mm
PROPERTY SIZE	94ha
ON-GROUND PROVIDER	Farmacist-Burdekin

Project Catalyst is a grower led, sugar cane innovation and adoption project that explores, develops and validates farm management practice change to improve the enduring water quality of the Great Barrier Reef.

BROADER ADOPTION VALIDATION & GROWER SUPPORT

Founded in 2009, the project operates in the Mackay Whitsunday, Burdekin and Wet Tropic regions to deliver valued practice change outcomes and develop methods for industry adoption. Under the Broader Adoption and Grower Support program, professional on-ground service providers assist selected growers to adopt and validate appropriate change practices. Service providers continue to monitor implementation benefits and derived environmental performance improvements. Through targeted extension activities, the program seeks to accelerate the uptake and broader adoption of improved farming practices at local, regional and industry levels.



Great Barrier Reef Foundation



●●●● Goal

To implement end of row sensors that communicate with the grower's smart phone to reduce the volume of tailwater leaving blocks.



●●●● Overview

Approximately 95% of sugarcane grown in the Burdekin is furrow irrigated. Irrigation run off is a function of furrow irrigation. At the moment, growers can't be sure when their sets have finished, therefore, significant water losses may occur. There is no alert system currently available to growers that will alert them to when water has reached the bottom of the paddock.

By supplying the grower with a wireless end of row sensor, it is hoped that being alerted to when their sets have finished will lead to sets being changed or pumps being turned off in a more timely manner.



●●●● Action

The End of Row Sensors (EORS) developed by Farmacist communicate off a network of Taggle base stations set up around the Burdekin. The range of the base stations is limited to certain areas in the Burdekin - the area around the Home Hill township is one of those regions, which includes Anthony & Serg's farms!

To use the sensors, Anthony and Serg have been set up with an account on the Farmacist App and provided with 2 EORS to trial - the sensors are light weight and easy to transport so they can be moved around all of the farms to wherever is being irrigated.

Anthony and Serg have welded a handle on to a steel picket so that they can mount the sensor permanently on the picket and move it around the farm depending on where they're irrigating.

●●●● Outcome

There is certainly potential for the sensors to work on Anthony and Serg's farms (due to their proximity to the Home Hill Base Station). The sensors have been tested around the farms to check for coverage and are responding well!

The sensors will help Anthony and Serg manage their tail water by alerting them when water has reached the bottom of the paddock. This will save them in labour by not having to regularly check whether sets have finished. They will also save on water and electricity costs by being able to turn the pump off when water reaches the end of the paddock!

