



Case Study

Recording Irrigation Data via a Smart Phone App



LANDHOLDER	Andrew Balmer
LOCATION	Burdekin
CATCHMENT	Burdekin
RAINFALL	984mm
PROPERTY SIZE	31ha
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 set up a grower’s farm in a smart phone app to assist them in collecting irrigation record data.

Imz Name	Set Name	Start Date	Start Time	End Date	End Time	Pumping Hours	Start Row	End Row	Total Rows	Area	Application Rate (ML/ha)	Depth Applied (mm)	Irrigation Applied (ML)
Block 1	1	08/10/20		09-10-20	09:34:AM	12.38	1	28	28	2.00	1.23	122.54	2.45
	2	23/10/20		24-10-20	12:47:AM	17.65	29	55	27	1.93	1.74	174.42	3.36
		10/11/20		11-11-20	06:54:AM	10.33	29	55	27	1.93	1.02	102.16	1.97
		21/12/20		22-12-20	08:32:AM	24.15	29	55	27	1.93	2.39	238.75	4.60

●●●● Overview

The Farmacist Irrigation Record App has been trialled on a number of different farms and used to record irrigation data over a season. The growers who have used the app have found it easy to use and appreciate the “start, stop” function for creating irrigations. This suggests that the app can be installed on other growers’ phones.

Growers need to have base line irrigation data in order to benchmark To set themselves and identify where they may be able to improve their practices. Using the app to record irrigation data can help growers develop this baseline. From there, they can identify where they may be using too much or not enough water and adjust their practices.



●●●● Action

Andrew was the original test grower for the Farmacist Irrigation Record App!

Andrew provided us with maps for all of his farms with his irrigation sets mapped (including number of cups and pumps) so we could easily set the farms up in the App. By setting the farm up spatially, the set areas are accurate (taking oddly shaped blocks and angle drills into account), making the irrigation volume calculations more accurate!

Following that, we measured the flow rates of all of Andrew’s pumps and entered these values into the app to calculate volumes.

Andrew has been providing us with regular feedback on usability of the app and the records.

●●●● Outcome

Because Andrew was the original test grower for the Farmacist Irrigation Record App, he now has 3 years of irrigation records!

We can use this data to assess several elements of his irrigation efficiency, including application efficiency.

Combined with his use of GDots to guide scheduling his irrigations, Andrew’s irrigation data can help him make informed decisions going forward.