



Case Study

Precision Weed Mapping Using Drones

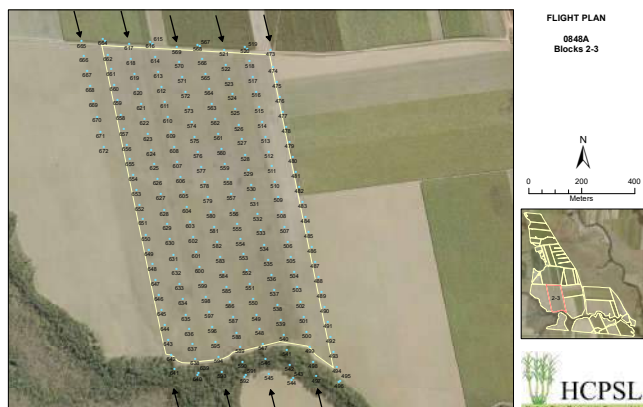


LANDHOLDER	Wilmar
LOCATION	Yuruga, Lannercost & Mid Stone area
CATCHMENT	Lower Herbert
RAINFALL	Lannercost - 2020 annual rainfall 1184m
PROPERTY SIZE	1878.58ha
ON-GROUND PROVIDER	HCPSL

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.



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●●●●● Goal

To precisely map weeds using drone imagery and then using that map to precisely spray weeds with the block by tractor prescription.



●●●●● Overview

Being able to map weed infestations in cane blocks by using drone imagery, Wilmar will be able to precisely know where and what weed problems they need to address. This allows them to reduce herbicide, save money and keep a historic record of weed infestations. By doing this they can then better manage weeds on their farms in the Herbert district.

●●●●● Action

Drone flights by HCPSL to start mapping farm blocks to target weed infestations.
 Mosaic imagery together.
 Ground truth.
 Target weed infestations by tractor prescription.

●●●●● Outcome

Wilmar have started flying some blocks on their Yuruga farm to start identifying weed infestations.

This project is still in a trial stage with more work needed to perfect imagery and mosaicing issues. There is a lot of potential for this technique to be used on a large farm scale in the future but at this stage can only be thoroughly examined on a block by block basis.



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