



Case Study

Integrated Weed & Pest Management Planning



LANDHOLDER	Mark Aquilina
LOCATION	Mourilyan
CATCHMENT	Johnstone
RAINFALL	3283mm
PROPERTY SIZE	42.3ha
ON-GROUND PROVIDER	CANEGROWERS Innisfail

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.



Post application inspection of spray job.



Mark's Spray Rig



Great Barrier
Reef Foundation



●●●● Goal

Support the grower to improve pesticide and residual herbicide management through more targeted applications and product choice. A large focus of these Weed and Pest Management Plans (WPMPs) will be product selection targeting the use of softer chemical options supported by data from local water quality projects.



Post application inspection of spray job.

●●●● Overview

Yield loss due to sub-optimal weed control can be very costly, making timely and effective weed control in the early crop stages vital to maximise cane yields. Integrated Weed and Pest Management Planning incorporates the grower's knowledge of the physical attributes of their farm, identifies weed and pest species and their densities and the equipment available for use. This process helps growers to make informed decisions about weed and pest management strategies most appropriate for their farming situation.



WPMP Cover page

●●●● Action

In Developing Mark's WPMP the following steps were taken.

- 1- Identify environmental risks, including proximity to sensitive areas and other crops, waterways and drainage lines, dominant wind direction and buffer zones.
- 2- Identification of major weeds and any invasive plants on farm.
- 3-Develop weed management strategies for the whole farm through the whole crop cycle including Fallow, Plant cane and Ratoon cane. These strategies focus on reducing weed seed bank, applying appropriate herbicides and rotating herbicide groups, good farm hygiene, appropriate cultural practices (trash blanket, fallow management) and mechanical control where appropriate.
- 4-Identify the species of cane grub present (if any), the affected areas and plan a control strategy.
- 5-Identify Rat management and control options.
- 6-Identify other pests that are affecting the farm and identify management strategies.

●●●● Outcome

Through the development and implementation of the weed and pest management plan Mark has moved to using residual herbicides in the plant crop to establish good weed control and then only using residual herbicides in ratoon blocks with high weed pressure. Ratoon blocks with low weed pressure are managed with knockdown herbicides.