



Case Study

Integrated Weed & Pest Management Planning



LANDHOLDER	Phil Campagnolo
LOCATION	Mourilyan
CATCHMENT	Johnstone
RAINFALL	3283 mm
PROPERTY SIZE	77.6 ha
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.



Aerial Canegrub Monitoring December 2021



Pig Damage February 2022



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●●●● Goal

Support the grower to improve pesticide and residual herbicide management through more targeted applications and product choice. A large focus of this Weed and Pest Management Plan (WPMP) focuses on canegrub management.



Aerial Monitoring for Canegrub Damage, damage on eastern side of block is pig damage.

●●●● Overview

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. Phil is looking to refine the management of canegrubs on his farm through increased monitoring and the development of a targeted plan.



Phil's Weed and Pest Management Plan

●●●● Action

In Developing Phil'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, any invasive plants and pests 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

When developing Phil's WPMP a small flight of French's cane beetles had been identified the previous year. As a result, a targeted monitoring program focusing on higher risk blocks with sandy ridges was established to identify grub populations in the the first year of the current generation of French's canegrubs.

Currently no canegrubs or canegrub damage has been identified in Phil's ratoons. Phil will continue monitoring canegrubs on his farm however at this stage he has decided to move away from chemical canegrub control.

Feral pig damage identified during canegrub monitoring helped further guide Phil's pig control program.



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