



Project Catalyst: an innovation project for cane growers in the Great Barrier Reef catchment

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Project Catalyst Overview



Purpose

To reduce the environmental footprint, enhance crop production and increase farm viability within sugarcane production systems in the GBR catchment by accelerating the identification, validation and adoption of innovative farm practices.

- 19 growers in 2008 to 78 growers engaged in Project Catalyst in 2017
- ~ 20,000ha of farm land involved
- Partnership of growers, Coca-Cola Foundation, WWF, Natural Resource Management groups and the Australian Government
- Annual project investment of >\$1.5M



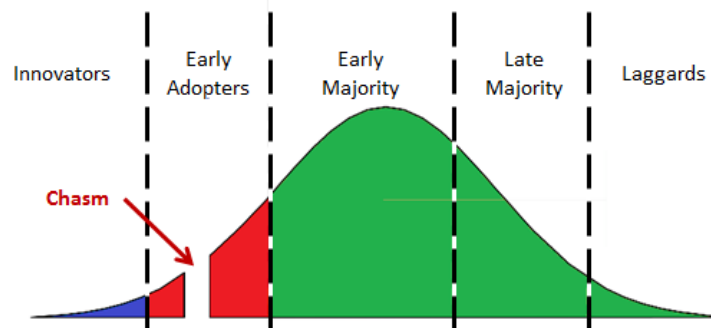
Our Approach

Target group: the innovators and early adopters

Trials: support participating growers to establish trials on the farms to evaluate different practices and technologies to improve the efficient use of fertilisers, chemicals and water

Adoption: growers are supported to adopt technologies or practices across their farms that meet the project's objectives

Grower led: Project Catalyst growers can propose practices or technologies to trial, and are actively involved in trials and presentation of results



Our Approach

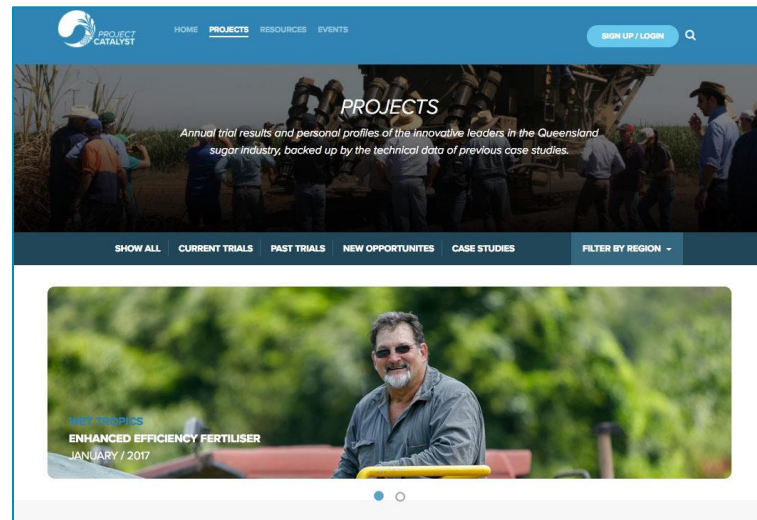


Extension: Project Catalyst growers have access to extension service providers to advise them on practices and technologies suitable for their farm conditions

Culture: a positive no-regrets environment that provides a safe-space to innovate – innovators need to be encouraged and supported!

Learning: the project fosters peer-to-peer learning where growers present trial results and farm activities to other growers

Communications: open sharing of results, and support growers to communicate project outcomes



Trial Program

Matching fertiliser and chemical application to crop requirements



Farm practices and technologies:

- Reduced nutrients on old ratoons and late cut ratoons
- Reduced nutrients on soils with production constraints
- Targeted variable rate applications of fertiliser and pesticides
- Strategic use of residual chemicals
- Using GPS to improve farm management.



- Matching available nutrient to the yield potential of the soil, climate and crop
- Maximise crop production with reduced nutrient application where crop or soils dictate

Trial Program

Improving irrigation and water management



Farm practices and technologies:

- Using sensors to irrigate to meet crop demand
- Retention of biomass on-farm to reduce evaporation and improve soil health
- Manage overland flow water quality with sediment traps, treatment trains, wetlands and water recycling pits



- Reduction of chemicals, nutrients and sediments from farm runoff
- Improved water used efficiency



Trial Program

Specific practices or technologies for particular site conditions



Farm practices and technologies:

- Retention of biomass on-farm to reduce evaporation and improve soil health
- Skip row planting;
- Sub-surface amelioration of soils;
- Application of bio-fertilisers
- Mixed species planting to improve soil health and reduce dependence on nutrient application
- Banded and sub-surface application of mill mud

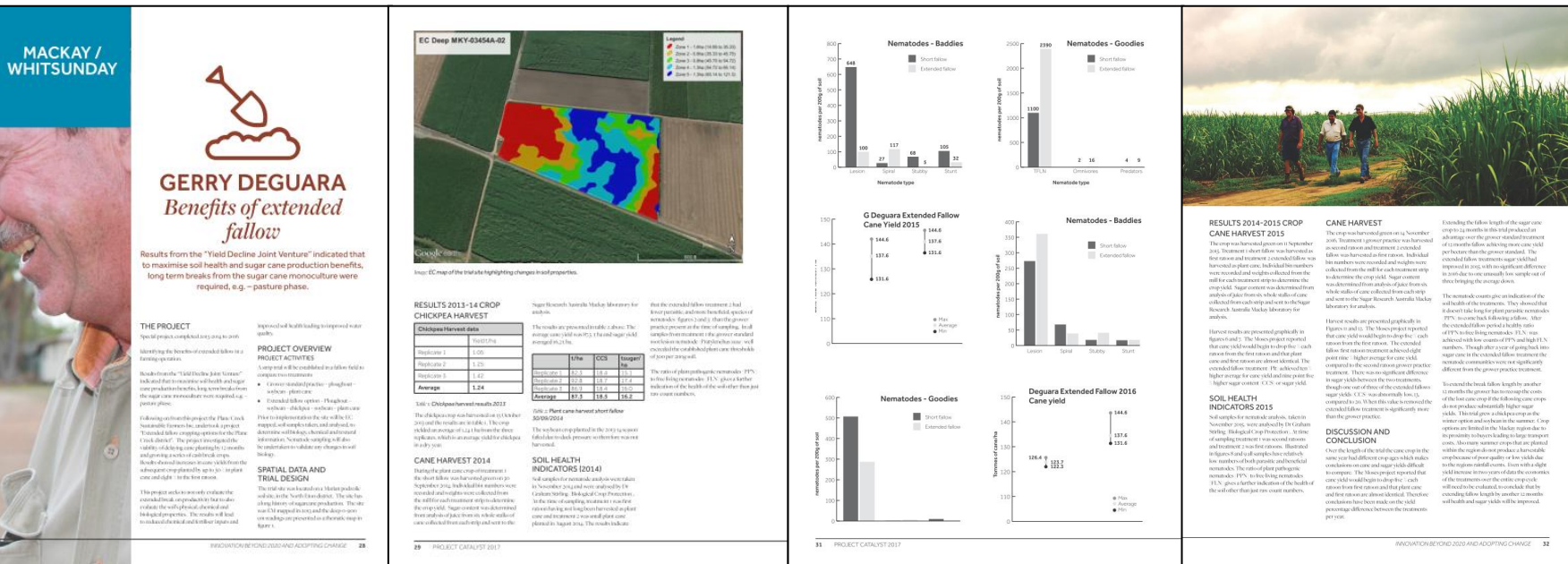


- Removal of chemicals, nutrients and sediments from farm runoff
- Increased water efficiency

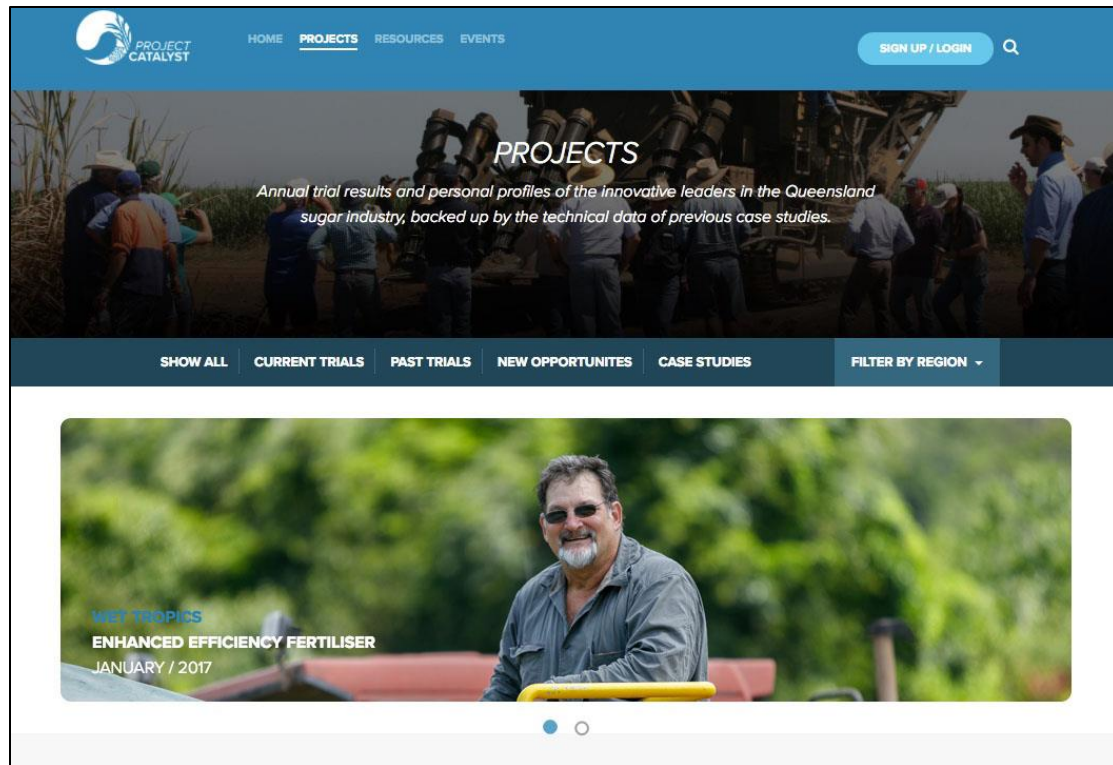


Communicating Results

- Annual project Forum
- Farm tours and shed meetings



Communicating Results



Economic, social and environmental benefits



Economic

- Supporting growers to identify practice change that improves the bottom line – change is more likely to be embedded in the farm management system
- Overcoming production constraints
- More efficient farming operations

Social

- Growers making the business case for practice change to other growers
- Reducing the fear/uncertainty associated with change

Environmental

- Showcasing that more efficient farming practices can also deliver environmental outcomes

PROJECT CATALYST

PRESERVING OUR GREAT BARRIER REEF



The declining health of the Great Barrier Reef is a global concern.



Urgent action was needed to reduce the impact of human activity on the reef including by introducing more sustainable farming methods

To help reduce the impact of agricultural runoff on the **Great Barrier Reef**, The Coca-Cola Foundation joined forces with farmers, WWF, and natural resource management bodies



↑78 FARMERS TODAY
UP FROM 19 IN 2009

FARMER-LED INNOVATION HAS IMPROVED THE QUALITY OF **150 BILLION LITRES** OF WATER FLOWING INTO THE REEF
The equivalent of 60,000 Olympic swimming pools

Project Catalyst has helped to reduce runoff by 180 tonnes by reducing pesticides, soil analysis and improving fertiliser

180 TONNES

Pollution in runoff is linked to **outbreaks of crown of thorns starfish** that cause damage to coral tissue and reef deterioration.

The Reef is under threat from pollution and declining water quality

- **Climate change** is the biggest long term threat to the Great Barrier Reef, causing coral bleaching*
- **90%** of pollution into the reef comes from farm runoff**
- **50%** of the reef's coral has been lost since 1985***

The Coca-Cola Foundation has contributed around **\$6 million to Project Catalyst** to improve the water quality of the Great Barrier Reef. Its commitment has helped the company achieve its ambitious global sustainability goals.
In 2016, the Federal Government announced a further **\$3 million in funding** for the project.

Project Catalyst is a pioneering partnership between



Learn more
www.coca-colajourney.com.au/projectcatalyst

Join the conversation
[#ProjectCatalystAU](https://twitter.com/ProjectCatalystAU)

*Global Warming Potential (GWP) is the warming effect of greenhouse gases. **Source: Department of Environment and Heritage, Great Barrier Reef Marine Park Authority. ***Source: Great Barrier Reef Marine Park Authority, Great Barrier Reef Marine Park Authority, Great Barrier Reef Marine Park Authority.

Success Factors

Grower input and peer-to-peer learning

Growers are most open to new ideas when these are presented by other growers

Trust-based relations between growers and extension service providers

Good quality extension service cannot be overstated! The project extension service providers are there to support the growers (and not sell a product)

Economic, Environmental, Social

Multiple project benefits

A positive project culture

Negativity is corrosive. Innovators can only do so much on their own, and the project has sought to create an environment that brings the best out in them

Diversity of project partners

Each partner brings a different perspective and drivers but all committed to the outcomes the project is seeking to deliver

Project longevity

The outcomes sought are long-dated. The practice improvements and water quality outcomes sought cannot be achieved in the typical three year project funding cycle





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