

## Irrigation upgrade to increase farm efficiencies and aid drought preparedness.

Growcom's Farm Business Resilience Program (FBRP) is assisting horticultural growers to identify gaps in their current farm management systems and develop plans that support growth and aid in mitigating the impacts of future droughts.

Using Growcom's best management practice platform, Hort360 growers can easily undertake a gap-analysis and develop their Resilient Plan using the inbuilt template. Financial assistance is also available through QRIDA.

This case study is based on a horticultural Farm Business Resilience Project client. The business has used the program for identification and expansion of consideration of areas to focus on across the farm, thereby aiding improvements by using farm business planning and support existing projects and following stages.

### THE FARM

100 ha in a valley area of southern Queensland. The area has a long history of traditional farming and has deep regenerative clay loam soils well suited to a wide range of cropping. The business employs several full time and numerous casual employees at harvest times.

The existing water storage and water delivery systems are based on older irrigation strategies, technology and are now inefficient and result in low efficiency of application.

The existing asset of farm knowledge and experience has enabled actions to improve water efficiency by utilising years of knowledge imputed into developing Farm Business Resilience Planning practices to identify areas across the farm to apply improvements.

### THE PROJECT

The existing project is a water infrastructure project, focussing on water use and cropping efficiency on farm. Realignment of the underground mains to better provide for drip irrigation systems and the use of more efficient variable drive pumps delivering less water volumes over a larger area to increase business ability to be energy, water, and drought efficient.

The areas of focus include:

- Water efficiency
- Energy efficiency
- Labour efficiency and safety
- Sustainability and Drought preparedness

Farm planning has been an integral part of the existing business over the long term. The business has applied Farm Business Resilience Planning, embedded in the Horticulture Best Management

# Farm Business Resilience Program

Practice platform, Hort360. The business commenced the Farm Business Resilience Planning module within Hort360 in February 2022 and completed in April 2022.

The Farm Business Resilience module generated risk factor analysis outputs that quantify the objectives of the project and provided risk benefit inputs into the current Farm Business Resilience Plan. The first stages of the project are under construction, with further stages to follow. Ongoing development aims to increase economic efficiency on farm and increase overall water capacity in times of drought.

## PROJECT BENEFITS

Installation of new the water delivery mains and variable controlled pumps and computer-controlled delivery is planned to significantly increase water efficiency across the farm.

Extending delivery efficiency of productivity and useable volume of water, leading to overall increase in drought sustainability along with production across the farm.

Efficient delivery of water pressures within the drip irrigation systems will have long term benefits of extending the life of water infrastructure and improve the delivery of water to crops at peak times. Adding value to maintaining better soil profile moisture levels and maintaining active soil biomes longer in drought conditions.

The changes will result in extended crop health with reduced water loss and increased farm capacity to endure better in drought times.

Additionally, these activities will result in reduced power consumption for water delivery, conservation, and improved targeting of irrigation within the cropping area, thus extending irrigation capacity in times of drought. This includes lowering the overall impact on soils and water runoff into the surrounding ecosystems.

Finally, this will lead to better management of machine time and labour resourcing, leading to potential increases to farm efficiency and safety.

## IMPACT & OUTCOMES

Re-developed water infrastructure alignment, resulting in increased water efficiency over the farmed area, increasing productivity and increasing the area farmed whilst reducing water use on the farmed area.

Further plans involve increased water capacity by de silting and extending and covering dams to maintain water holding capacity, along with recharge capacity via solar pumps.

# Farm Business Resilience Program

The outcome is to improve the farm's ability to cope with drought conditions and be economically efficient in the long run, providing better capacity to produce and maintain seasonal diversity.

*This case study has been prepared as anonymous, as authority for the case study and sharing of business ownership details is pending written approval at the current time.*

## FOR MORE INFORMATION, PLEASE CONTACT

**Karen George**

Manger, Resilience

0408 135 003

[kgeorge@growcom.com.au](mailto:kgeorge@growcom.com.au)

**John Targett**

Central Queensland

0418 803 997

[jtargett@growcom.com.au](mailto:jtargett@growcom.com.au)

**Brock McDonald**

Southern Queensland

0418 893 442

[wcdonald@growcom.com.au](mailto:wcdonald@growcom.com.au)