

Title: Drought Preparedness Grant Case Study – Bamboo Down Under

Project: Farm Business Resilience Program

Case Situation:



Bamboo Down Under, located at Wongawallan in the Gold Coast hinterland, is a retail and production nursery specialising in clumping bamboo production and tropical foliage lines, with sales to the retail and landscaping sectors. Bamboo Down Under principle, Rick Warwick, has had a lifelong love of bamboo, starting a specialist

bamboo nursery on his small acreage property in 1996, before moving to the present site in 2003. Today the site consists of a dedicated retail garden centre, with over 2.5 hectares of display gardens for visitors to stroll through, complemented by the production nursery at the rear of the property.

Bamboo is a high water-use crop requiring large volumes of good quality irrigation water. Consequently, water security is of paramount importance to Bamboo Down Under. The main irrigation water supply is from two bores, but the sustainable yield of the underground water decreases during dry periods. There is a licence to pump from the creek adjacent to the nursery, but this is only needed in dry times. During droughts, the creek flow slows but has still been able to provide useful amounts of water during the worst droughts. Being able to re-use runoff water and make better use of sporadic rainfall during droughts, and improving drought resilience has been Rick's long-term goal for many years.

“The grant application was necessarily quite involved to make sure the works fitted with the grant requirements, but it was well worth the effort to apply for the grant. The Farm Business Resilience Plan developed as part of the application process also helped highlight other risks to the business.” Rick Warwick – Principle - Bamboo Down Under.

Upgrades to the sprinkler system to improve water use efficiency have helped to reduce water use, and grey water taps are installed around the site to help with reducing the pressure on the bore and creek water supplies. However, even with these changes, there are still concerns that the existing water sources are not reliable enough, and that water would still have to be transported in during severe droughts, at significant cost.

Context

Over a period of years, various developments had been undertaken to increase water capture, but these had not been fully integrated. A plan was developed to combine these separate systems and to install a duplicate system that had its own pumps, sump and



storage tanks, and sprinklers. The captured water would then be used to irrigate stock plants, windbreaks, wash down bays, areas requiring extra water, and to irrigate any non-sensitive crops, reducing the pressure on the existing water supplies further. Also to be built into the system was the option of using recycled water in the main irrigation system in exceptionally dry times.

Link to project

Developing the infrastructure for the recycling system required a significant financial commitment, and grant assistance was sought through the Queensland Rural and Industry Development Authority (QRIDA) and the Farm

Business Resilience Program (FBRP), funded by the Queensland Department of Agriculture and Fisheries and Australian Governments. The FBRP grants provide a 25% rebate on capital expenditures up to \$200,000 for projects that will improve the drought resilience of approved businesses.

Changes made or planned/ Adoption

All the growing areas gather water from irrigation and rainfall events, resulting in significant volumes being available for recycling. The production nursery has approximately 4,000 m² of concrete growing beds, 4,000 m² of gravel growing beds, and concrete drains and pathways throughout the nursery, all draining to the sump tank at the lowest point of the property. It has been calculated that the growing areas will generate a minimum of 96,000 L/day of runoff from the average 120,000 L/day of irrigation water applied. The runoff water will be channelled to a single point, enabling the water to be efficiently collected and stored, before being pumped and filtered through three media filters before re-use.



Costs

Bamboo Down Under had not taken advantage of government grants previously, because they thought it was a difficult and time-consuming process. However, in this case, the financial benefit outweighed their concerns, so they applied for a \$37,500 grant to assist with the overall cost of \$150,000 for the installation of the recycling system.

Impact

At the time of writing this article the collection and filtration systems were still being installed, and consequently the effectiveness of the system during drought conditions had not been evaluated. However, once the system is set up, it is expected that the nursery will be able to weather the worst droughts without having to import water.

Benefits

Apart from the increased water security the business has achieved. the Farm Business Resilience Plan developed as part of the application process helped highlight other risks to the business and these will be worked on into the future.

Relevance to others

Rick said the grant application was necessarily quite involved to make sure the works fitted with the grant requirements, but it was well worth the effort to apply for the grant. The Rick said that other growers should 'absolutely' consider applying for grant funding for their businesses

Resources.

The process of applying for the grant involves completing and submitting an application via the QRIDA online portal. The application for funding requires:

- A description of why the recycling system needed to be installed.
- A Farm Business Resilience Plan. Funding is also available to assist with developing these plans with a 50% rebate on expenditures up to \$5000 available when engaging a specialist advisor. These plans are a risk assessment covering:
 - climate variability (drought),
 - weather/seasonal risk,
 - biosecurity risk,
 - family business risk,
 - production risk,
 - financial and market risks,
 - workforce risks,
 - personal risk and related risks.
- Quotes or invoices associated with the costs of installing the recycling system.
- Evidence of payment of the tax invoice/s.
- Any additional documents required in the application.

For more information on accessing the grant go to the QRIDA website

at: <https://www.qrida.qld.gov.au/program/drought-preparedness-grants>

