

Case Study – Burnett Grower Profits from Watering Wisely

RURAL WATER USE EFFICIENCY INITIATIVE – WATER FOR PROFIT

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RURAL WATER USE EFFICIENCY INITIATIVE - 'Water for Profit'

The Rural Water Use Efficiency Initiative (RWUEI) is a partnership between industry and government to improve the use and management of available irrigation water, thereby improving the competitiveness, profitability and environmental sustainability of Queensland's rural industries.

The RWUEI program will be achieved by:

1. Adoption programs to improve water use efficiency on farms.
2. Reducing water losses from storages on farms
3. Financial incentives to achieve best practice irrigation water management
4. Reducing water losses in irrigation water supply and distribution systems.

Queensland Fruit and Vegetable Growers (QFVG) facilitates the RWUEI for horticulture in Queensland under its 'Water for Profit' program. The aim of the Water for Profit program is to increase water use efficiency in the fruit and vegetable industries by 11 percent over four years. Apart from the actual savings in water, farmers are also likely to be attracted to savings in energy and fertiliser associated with best management practices.

The Burnett Catchment boasts 3 part-time irrigation officers who are available to assist growers improve their water efficiency and to promote QFVG's Financial Incentives Scheme.

A local grower who has taken advantage of the Water for Profit program and has reaped the benefits is Geoff Chivers.

BACKGROUND TO CHIVERS PROPERTY

The Chivers Family runs an 80ha Macadamia farm approximately 12km north east of Bundaberg (see Figure 1). They have 23 000 trees ranging from 6 months old to 11 years old. The Family established the orchard 11 years ago and Geoff successfully runs the farm himself, with the assistance of a casual labourer 3 days a week.

For many years Geoff has been practicing what the Water for Profit Program is currently promoting. Water for Profit enabled Geoff to gain a deeper working knowledge of his macadamia water use. This information complimented Geoff's holistic and innovative approach to water efficiency and farm management.

In July 2001 Geoff was awarded the 2001 Water for Profit program's Water Efficiency Award

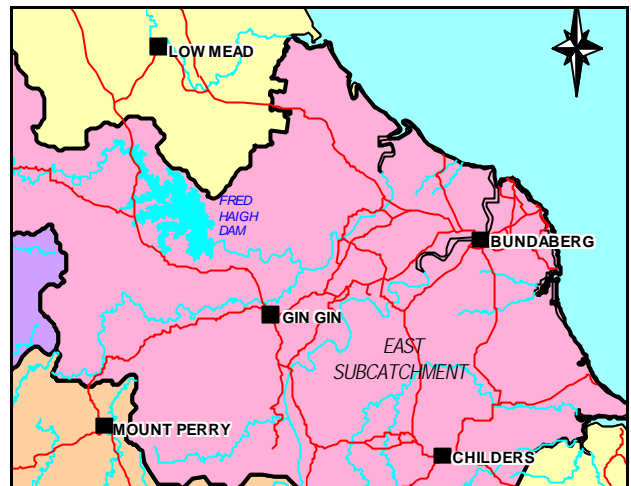


Figure 1: Locality Map

STEPS TO WATER USE EFFICIENCY and THEIR OUTCOMES

- Early conversion of 15 000 trees from micro sprinklers to drippers– new plantings also set up on drippers. *Resulted in a 30% water savings, drippers require less maintenance which also allows for night watering on lower tariffs (power)*
- Construction of a tailings dam to collect runoff from his property and his neighbours'. *Water reuse/recycling*
- Purchase of a Sentek Diviner 2000® for monitoring soil moisture levels. *Excellent understanding of soil moisture holdings characteristic and times of peak water use.*
- Blocks divided up according to soil type with individual drip lines for each block. *Consistent production across trees in different soil types.*
- Installation of an Enviroscan® (See Figure 2) through the RWUEI *allowed for fine tuning of irrigation volumes and watering times.*
- Significant modification of fertiliser program with use of a fertigation tank

The above innovative and holistic approaches to farm management have resulted in annual increases in nut yield and quality, and have significantly reduced operating costs. Geoff has meticulously documented his changes and is very willing to share this information with his neighbouring macadamia growers and other associated industries.



Figure 2: Geoff is pictured here with an Enviroscan, and his macadamias.

SUCCESSFUL PARTNERSHIPS

Through interactions with respective industry organisations, Landcare/Integrated Catchment Management groups, fellow growers, government extension staff and neighbours, mutual-benefitting partnerships can be formed and maintained. Organisations that Geoff is currently involved in include:

- Water for Profit
- Bundaberg Orchardist Association - Treasurer
- Burnett Catchment Care - East
- Bundaberg Irrigation Area SunWater Advisory Council – macadamia nut representative
- Bundaberg Fruit and Vegetable Growers
- Macadamia (MAC) group meetings
- Dept. Primary Industries –on-farm research trials

In addition, Geoff and his wife Narelle run the business as a successful partnership.

BARRIERS

In a dry catchment like the Burnett, water is a very precious commodity with heavy local restrictions. Geoff consequently felt that his only barrier to further increases in production is having enough water to support further increases. He currently has an additional 40 hectares out of production due to a lack of water.

IMPLEMENTATION OF THE BURNETT CATCHMENT STRATEGY and INDUSTRY CODES OF PRACTICE

The Burnett Catchment Care Association (BCCA) is the Integrated Catchment Management (ICM) organisation for the Burnett Catchment. Geoff is an active member of the BCC East Group and supports the ICM philosophy of a coordinated approach to the management of land, water, vegetation and biodiversity. The BCCA is an incorporated, non-profit organisation.

A fundamental theme of the BCCA's Strategy is Section 4.7 *Water Access, Quantity and Environmental Flows*. Programs such as the RWUEI are encouraging implementation of a number of strategy actions within this Section.

Education and awareness of best management practices other than actual savings in water (eg. using less fertilizer) is an additional on-farm benefit of the Initiative. FARMCARE is the Code of Practice document for Sustainable Fruit and Vegetable Production in Queensland. It constitutes an industry owned standard, outlining the principles and practices for minimising environmental impacts.



Figure 3: Geoff's son Ryan sitting amongst crates of macadamia.

A WORD ON WATER

Water is used by all sections of the community. It is vital to nearly all industries, especially rural industries which make an important contribution to many regional communities. Queensland's water resources are limited and we need to make the best use of them. Schemes such as the RWUEI are encouraging steps towards long term water use efficiency.

RWUEI IN OTHER INDUSTRIES

Rural Water Use Efficiency Initiative Adoption programs have been established in other rural industries throughout Queensland:

- CANEGROWERS for sugarcane
- Cotton Australia for cotton and grains
- Queensland Dairyfarmers' Organisation for dairy and pasture

CONTACTS

Water for Profit Extension Officers in Burnett Catchment:

- Bundaberg: David Clark (07) 3213 2444
- Gayndah: Matt Dagan (07) 4161 1166
- Citrus: Peter Wishart (07) 4161 1166

Updates on the RWUEI will appear at the Initiatives website: <http://www.dnr.qld.gov.au/water/rwue>

For further information on the Burnett Catchment Care Association and its Strategy please visit the Website at: <http://www.widebay.net/icm/bcca>