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Big Leaf Wholesale Nurseries

Big Leaf Wholesale Nurseries is located at North Arm in the hinterland of the Sunshine Coast of Queensland, Australia. The nursery supplies to the wholesale, retail nursery and landscape industries with a strong focus on retail presentation and sun grown or sun hardened stock. Big Leaf Wholesale Nurseries was established in September 2002 at Eumundi on the Sunshine Coast, and began relocating to the present Gold Creek Road site in December of 2013. The site has been developed and infrastructure constructed to meet nursery industry Best Management Practice (BMP) standards.

Development of the new site is just three years into a five year development plan and has provided the opportunity for the business to increase production, expand the product range, increase the service area, and develop new customer relationships. The 4.05 hectare site currently provides ten thousand square metres of pot production area to be expanded to fifteen thousand square metres when completed.

Big Leaf Wholesale Nurseries is owned and operated by Greg & Jackie Phillpott and Kieran Studders, who are backed by a hard working dynamic team of staff with many years of experience and a wealth of specialised knowledge. Greg has a background in shipping and transport logistics, Jackie has many years experience in international trade and shipping, while Kieran has formal horticultural qualifications and over 33 years of horticultural experience.

Greg, Jackie and Kieran are proud of the friendly and supportive workplace they have cultivated and believe it directly results in the high level of productivity achieved from the nine staff members. Staff are quick to identify the friendly work atmosphere and good communication from the owners as a key to the happy and stable workforce.

The nursery is currently a member of the 'Nursery & Garden Industry Queensland'. Kieran has served in the role of NGIQ board member and is a former president of the local Sunshine Coast branch of NGIQ. Kieran is currently active on a number of event committees including 'Brisbane Trade Day' and 'NGIQ Green Expo'.



Nursery & Garden Industry
Queensland

Big Leaf Wholesale Nurseries

Case study



RURAL
WATER USE
EFFICIENCY

IRRIGATION
FUTURES

Improving irrigation management
for a profitable and sustainable future

a case study



big leaf
wholesale
nurseries

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Big Leaf Wholesale Nurseries produce stock in containers from 100mm through to 45 litre bags, however the bulk of production is in 200mm to 400mm containers. The nursery has facilities for production of container stock under hail netting, fifty and eighty percent shade cloth, within a poly covered protected structure, along with extensive areas for full sun production.

Stock produced at Big Leaf Wholesale Nurseries is sold along the eastern seaboard of Australia from South Australia to North Queensland through a broad customer base. While a major portion of these sales is via phone and email communication with each individual customer, a significant portion of nursery stock is also marketed through greenlife wholesale market operations, Nursery Traders and Plantmart.

Nursery relocation has provided the opportunity to not only expand production and broaden the range of crops grown, but also to provide the most suitable growing environment for each of the plant varieties produced.

“We continue to learn about growing crops on this site. How we achieved something this year may be vastly different next year.

We are growing and happy to embrace change”.

Kieran Studders 17.01.2017

Improved water use efficiency is a significant benefit achieved on the new site. Installing irrigation systems to industry BMP, a variable speed drive pumping system, larger irrigation zones, consolidating like water use plants together, purchase of an irrigation controller and the use of a rain sensor have all contributed to substantial water and energy savings for the business. A sixty percent improvement in water use efficiency has been achieved in establishment of the new site.

Location of the nursery industry’s Portable Weight Based Scheduling Unit, PWBSU, on-site provided valuable data on the relationship between irrigation scheduling and growing media to assist in scheduling decisions. Recent installation of a water meter provides accurate water use data and permits nursery owners to monitor irrigation system performance.

Big Leaf Wholesale Nurseries extensive product range consists of Heliconias, Gingers, Cordylines, Dracaenas, a selection of trees, shrubs and grasses, and foliage lines including Calathea, Strelitzia, Philodendrons, Aspleniums, Spathiphyllum, and Spathoglottis.

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Big Leaf Wholesale Nurseries is located on a 4.05 hectare site at 60 Gold Creek Road, North Arm on the Sunshine Coast and is currently utilising 1.5 hectares of the site for plant production along with office, shed and support areas. Crop growing areas consist of 2,300m² of full sun production, 4,500m² of hail netting, 6,000m² of 80% shade cloth, 1,000m² of 50% shade cloth, 450m² of poly covered greenhouse and a 150m² propagation facility. Crops are produced within a variety of growing areas; gravel, hard stand and raised benches all constructed to nursery production BMP standards.

All irrigation systems within the nursery are overhead sprinkler systems utilising Nelson S10, Nelson R10 turbo, Antelco Rotormax, and inverted Naandan green swivel sprinklers. All sprinkler systems have been designed and installed to industry best practice, and on-site 'catchcan' assessments conducted to ensure their most efficient operation.

A Hunter I-Core 48 station irrigation controller is currently used to schedule the nursery irrigation, however a more sophisticated irrigation controller is being investigated. One that incorporates a weather station and also provides remote access and fault reporting.

The nursery currently requires approximately 73,000 litres of water for irrigation each day during the warm summer months supplied from a nine megalitre dam on a neighbouring site. Less water is required for irrigation during the cooler months. A water meter has recently been installed and water use is regularly monitored.

Water is pumped from the storage dam via an Azud disc filter through an upgraded 90mm supply line into four 30,000 litre storage tanks. The dam water is disinfested using sodium hypochlorite and three Toro F-600 media/sand filters are used to remove any impurities including organic particles to ensure the water is suitable for nursery irrigation.

A Lowara 15SV variable frequency drive pump is installed to provide the pressure and flow requirements across the nursery. Irrigation is distributed to each of the growing areas via a newly installed 63mm main line.

Growing areas across the nursery are located at various elevations, vary in size, number of sprinklers and sprinkler types requiring different flows and pressures from the Lowara pumping system.



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Relocation of Big Leaf Wholesale Nurseries to the Gold Creek Road site has provided the opportunity to expand production, product range and customer base.

The site has been developed to industry Best Management Practice guided by participation in the Nursery Production Rural Water Use Efficiency– Irrigation Futures (RWUE-IF) initiative.

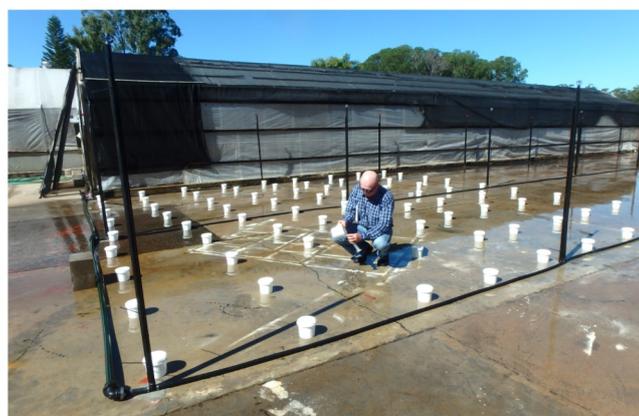
Growing areas have been constructed and irrigation systems installed to industry BMP, and crops with similar water and light requirements have been consolidated together.

Kieran Studders, production manager at Big Leaf Nurseries has identified a number of benefits as a direct result of the nursery’s development to BMP and improved irrigation application uniformity;

- a 20% improvement in general crop health with quicker, healthier plant growth,
- a 25% improvement in crop uniformity,
- a 15% improvement in crop turn or production times,
- a 7% reduction in throw outs or plant losses, and
- a water use efficiency improvement of 60%.

The new site development has also provided the space and flexibility to ‘value add’ nursery stock as required.

Big Leaf Wholesale Nurseries have plans and aspirations to continue site upgrades. Short to medium term plans include: irrigation controller upgrade, onsite weather station, potting machine, bring further unused areas into production, investigate the use of onsite bores, further expansion of market opportunities, seek nursery accreditation, investigate nursery wastewater recycling, and a second irrigation pump to provide backup security.



For more information contact:

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Nursery & Garden Industry Queensland



Queensland Government The RWUE-IF initiative helps irrigators make better use of their on-farm water supplies, through efficient irrigation system design and management. It also helps irrigators to reduce energy consumption associated with their pumping applications. RWUE-IF is a partnership between the Queensland Government and major rural industries, where the government provides financial support to assist industry groups in providing services to irrigators.



Improving irrigation management for a profitable and sustainable future