

Nurseries Setting Standards

Growing wild in the Tallebudgera Valley

By John McDonald, NGIQ Industry Development Manager and Steve Hart NGIQ Farm Management Systems Officer

Business success is driven by the application and implementation of considered and thoughtful decisions. Supporting those decisions is the utilisation of resources available to the business that will prevent or mitigate associated risks from allowing the business to expand confidently and meet market expectations.

The Nursery Production Farm Management System programs are designed to assist and support business decision making through scientifically robust guidelines and technical support. Wild Valley Propagation, a family business owned and operated by Paul and De'Arne Veal, developed from a greenfield site in 2005 to be, 10 years on, one of Queensland's most adaptive and progressive propagation nurseries.



Wild Valley Propagation mother stock

The nursery is located in the picturesque Tallebudgera Valley in the Gold Coast hinterland, where the Gibsonville Street site embraces both the nursery operation and the family residence. Wild Valley Propagation specialises in contract growing, producing a range of quality, sun hardened ornamentals, groundcovers and grasses for production nurseries, landscapers and retail nurseries across the eastern states of Australia. The business objective of Wild Valley Propagation is to produce and supply to each and every customer, a consistent quality product, on-time, and ready for immediate planting.

Wild Valley Propagation has been NIASA accredited and EcoHort certified under the Nursery Production Farm Management System since 2007 with an initial 12 months of guidance assisting in the early developmental stages. Paul and De'Arne have embraced the Nursery Production Farm Management System programs, agreeing the programs provide support and direction to their expanding business and have utilised all the technical support available through NGIQ over the last 10 years.

De'Arne said, "The nursery has come a long way since it was established back in 2005. We have greatly appreciated the support, assistance and guidance provided by the Nursery & Garden Industry Queensland's technical support network."

Wild Valley Propagation was also one of the first production nurseries to engage with and participate in the NGIQ operated Rural Water Use Efficiency-Irrigation Futures (RWUE-IF) initiative and have an Irrigation, Drainage & Energy Management Plan (IDEMP) created to assist in improving their water and energy efficiency across the cropping system.

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

The strength behind Wild Valley Propagation is the hard working and experienced production team committed to the overall business objective of delivering to meet client expectations. De'Arne has an impressive propagation history

and leads a team of five dedicated staff in ensuring customer orders are satisfied and production schedules are implemented and met.

Paul has managed the building of infrastructure, upgrades and expansion of the business and is currently working on a number of new stock gardens, privacy screens and windbreaks before overseeing the construction of the new propagation mist house.

Business expansion plans have been developed to ensure the propagation nursery can meet the increasing volumes of greenlife demanded by their many customers. In January 2015 De'Arne, stated, "Paul and I are very excited that our expansion plans for Wild Valley Propagation are well underway. This investment in the nursery will allow the business to increase production of our quality tubestock to our loyal customers across Australia". The current expansion is planned to be completed and fully operational by the middle of 2015.

Wild Valley Propagation has continued to expand its facilities and production output since its inception in 2005. During this period the nursery and facilities have grown to approximately 10 times the size of the original business.

Current construction on a new and upgraded propagation mist house facility should double the current holding capacity under mist and deliver an increased output from the propagation shed of around 33%. These new facilities are expected to provide a more suitable propagation environment leading to quicker turnaround of propagation material with lower throw-out rates.

In the latter part of 2014, the new despatch and storage shed was constructed to provide the dedicated space required for detailing and consolidating orders waiting for customer despatch. The new shed also provided upgraded chemical and



Wild Valley Propagation tubestock hardening area

growing media storage facilities that meet the requirements under the Nursery Production Farm Management System Best Management Practice (BMP) programs. The new shed also provides improved access for transport, efficient access for staff to the stock holding areas, enhanced hygiene due to the separation of despatch from the production processes, and generally allows more space for both production and despatch staff to operate which provides a safer and more positive work space.

The full sun and shade production holding areas have been expanded to double their size earlier in 2014. Part of the upgrade and expansion planning was to ensure all stock in these areas is located off the ground on benches to provide excellent hygiene and a suitable work height for staff managing and working in the area.

The irrigation system in both these full sun and shade areas was already operating to industry BMP target parameters and was expanded as part of the upgrade.

“Technical officer assistance and the industry programs of NIASA and EcoHort have provided valuable guidance with all our upgrades and expansion planning” said Paul.

Extensive stock gardens have been planted over the years and new areas have been developed as the nursery has evolved increasing production volume and species produced. Wild Valley Propagation obtains almost 90% of its propagation material from stock gardens on the 0.8 hectare site in the Tallebudgera Valley. The stock gardens are vitally important to the propagation nursery in maintaining its strict hygiene protocols which prevents major pest and disease outbreaks within the propagation facility. All external material undergoes a strict quarantine process of inspection and treatment before progressing into the plant production processing system.

Wild Valley Propagation was one of the first businesses to participate in the RWUE-IF initiative and have an Irrigation, Drainage & Energy Management Plan (IDEMP) developed for



Wild Valley Propagation

the business. The IDEMP provides an independently assessed snapshot of the current operations of the business focusing on both water and related energy use rigorously documented in a detailed report provided to the grower for future reference.

The IDEMP also provides an action plan of activities and improvements to achieve both water use and energy efficiencies. Wild Valley Propagation has already embraced many of the action plan items from their IDEMP report designed to drive the business forward over the coming years.

“The more efficient the irrigation system, the better the plant growth, the crop uniformity and general plant health” said De’Arne.



Wild Valley Propagation propagating area



Wild Valley Propagation mist house

The business has carefully evaluated the irrigation water source, a 54.5 metre bore, to ensure it can meet the demands of the nursery expansion program. Two storage tanks holding 22,000 litres, coupled with a 30,000 litre tank installed in 2014 is designed to reduce the required pumping flow rate from the bore and provide water security for nursery irrigation. The reduced flow requirement from the bore will in the future allow for a smaller pump delivering a substantial reduction in operating costs.

Rainwater is also being harvested to support the nursery irrigation requirements. The irrigation sprinklers exceed the BMP target parameters for nursery production (MAR < 25mm/hr, CU > 85% & SC < 1.5) and were selected to provide the application efficiency required in propagation nurseries. The inverted NaanDan GreenSpin micro sprinklers apply the irrigation water uniformly and allow the clear working space required in the production areas to set out tubestock trays.

Paul has observed that the inverted sprinkler system provides uniform irrigation, equaling improved scheduling, and a clear workspace for production which maintains productivity.

The propagation media has been adapted using feedback from customers, to provide a substrate that has an improved water absorption rate, a good water holding capacity and holds together for customers at planting.

A new mixing area has also been constructed designed to industry BMP standards allowing the propagation media to be manufactured as required while ensuring the nursery hygiene protocols can be maintained during the process. Raw materials are carefully stored in a new dedicated storage facility reducing the risks associated with contamination from water run-off, weed infestations and general nursery traffic.

The nursery drainage system has been significantly upgraded to divert wastewater, from irrigation and rain events, into subsurface drains quickly and efficiently removing this wastewater from the production areas.

Finally, De'Arne and Paul recently installed a 5kW solar energy generating system using 21 panels installed on roofing in the nursery which has reduced the business's energy costs, particularly with irrigation pumping, by approximately 50%. The current savings, pre-expansion, are expected to pay back the \$20,000 investment within 5 years however, this could be reduced with further efficiencies and higher turnover per kWh of energy use.

For further information on Wild Valley Propagation go to www.wildvalleyprop@onthenet.com.au



Wild Valley Propagation staff with De'Arne and Paul Veal (back right)