

JAMES TRAILL AND ASHLEY TUNKS

"Arrawatta" Warra, QLD

James Traill and Ashley Tunks manage One Tree Agriculture's farming operation consisting of 9,500 arable hectares across 13 properties, spread from Warra to Jandowae on the Darling Downs, Queensland. The cropping system comprises a mixed crop rotation of sorghum, chickpeas, wheat, barley, and dryland cotton, with some developed supplementary irrigation.

With a highly developed aggregation of properties, James and Ashley along with close working relationships with leading agricultural consultants manage a predominately dryland cropping enterprise with a maximum 600 ha of supplementary irrigated crop production, with management based on the adaption and adoption of technology with detailed internal benchmarking.

Cotton varieties are chosen depending on the varying soil types which range from heavy to light grey vertosols. Planting rate is 10 seeds per metre, with the aim of having 8 to 10 plants per metre established over 1.5 metre row spacings in the supplementary irrigation, and 1.5 metre single skip in the dryland. Their variable soil types encouraged the adoption of variable rate and precision planting technologies with strong results. Their irrigation fields are treated essentially as a dryland operation. They fallow heavy cereals through to summer crops on three metre beds, with the option of changing them into 1.5 metre hills if there is a need, allowing them to plant and establish on stored fallow moisture, not irrigation water so as to maximise their return on supplementary water during the reproductive stage of the crop. This regime has resulted in a long-term average supplementary irrigated cotton yield of 6.2 bales per hectare and 3 bales per hectare for dryland cotton.

The nutrition program starts in March with a cotton sustain / urea blend which is worked out from soil tests.



James and Ashley have implemented variable rate technology this year in their dryland cotton system using variable rate urea to maximise return on inputs. Petiole testing is used in-crop to monitor nutrition levels throughout the season. One Tree Agriculture has high insect and disease thresholds, focusing on lower application rates to maintain a high number of beneficials. Disease management is achieved by employing a one-to-one crop rotation program with cereals and variety selection.



This rotation has also allowed them to establish a solid residual program to help minimise the use of herbicides. Camera spray technology has also been implemented to help with problem weeds and decrease chemical usage. The one-to-one rotation also provides soil structure benefits and aids in effectively capturing rainfall in the fallow period. 'We also try and keep off the fields as much as possible. Our residual program has meant we need to do fewer fallow and in-crop sprays which reduces compaction. Compaction on this country can be severely yield limiting', explained Ashley.

Preferring to do most things in-house, James and Ashley continually strive for greater efficiencies with equipment upgrades and modifications as part of an overall continual improvement plan. This has led to them implementing three metre wheel centres / 18 metre controlled traffic farming system to gain maximum efficiencies out of all machinery.

One Tree Agriculture is myBMP accredited and participates in the Better Cotton Initiative program. Every aspect of One Tree Agriculture's operation is meticulously planned, executed and recorded. This attention to detail extends through to impressive farm presentation and hygiene practices. With a detailed and thorough employee and contractor induction process, their work health and safety and fatigue policies are robust as is their staff training and accreditation program. Communication is key as is their detailed staff management and succession planning program. Also noteworthy are the well constructed and managed petroleum and pesticide storage facilities.

One Tree Agriculture is a highly impressive operation on a large scale. To help manage this operation they use a completely paperless system with staff using individual iPads and app-based software to log timesheets, purchase orders, agronomic reports and recommendations, chemical records, fuel and work health and safety. The implementation of this has resulted in greater administrative efficiencies and the ability for real-time business analysis. James explained 'The productivity, efficiencies and traceability we've been able to achieve with this paperless and real time recording system have been fantastic'. Their strong and effective business structure underpins the enterprise's success.

Keen trial collaborators with Cotton Seed Distributors, James is also a Cotton Seed Distributors ambassador and an active member of the Darling Downs Cotton Growers Association. James and Ashley recently hosted the 2019 Darling Downs Cotton Grower of the Year field day.

Passionate about social license, James, Ashley and the One Tree Agriculture team have a strong focus on contributing to the local community through sponsorship, volunteering as well as hosting an annual RUOK day breakfast on farm which last year attracted 130 growers. This is just one example of their commitment and contribution to their community.

