



Building natural capital to improve climate resilience

Why build natural capital?

Like most farmers, Les practices adaptive management to deal with issues as they occur. However, Les has been proactively investing in natural capital on their Gabalong farm, Burra Burra, to build their resilience to issues such as drought, salinity and other land management issues and as an potential alternative income source.

The end goal for Les is *“to be in a position to financially, mentally and environmetally cope in changes in climate or weather”*.

Les was already actively implementing changes to their farming system before taking part in the Future Drought Fund (FDF) South West WA: Drought Resilience Adoption and Innovation Hub (the Hub) and with Perth NRMs Natural Capital Accounting program.

Les has actively participated in the the Hub’s farmer surveys assisting the program to improve longterm climate resilience awareness, discuss options to create farm climate resilience and provided feedback on Hub resources.

Practice changes

Depending on the season, Les runs approximately 150 breeding cattle plus bulls and followers. He runs a mixed cropping enterprise and share-farms with his southern neighbour in managing between 1,500-2,500 sheep.

For the last 5 years at Burra Burra, cattle have been run following a long break rotational grazing system in which the cows are only on one area for 7-10 days before being moved on and allowing that patch of land to recover for the next 12 months.

The South West Regional Node Lead is engaged through the South West NRM and supported by the South-West WA Drought Resilience Adoption and Innovation Hub, through funding from the Australian Government’s Future Drought Fund.

Quick Snapshot

Farmer: Les and Julie Crane

Farm: Burra Burra, 2,063ha

Location: Shire of Moora

Enterprise: Mixed (Beef cattle)

2023 rainfall: 400ml

Soil: Grey deep sandy duplex

To continue balancing his rotational grazing management and cropping operation, Les is gradually dividing paddocks on the flats into strips, which has only been grazed for the last 25 years.

There is approximately 400ha of legume pasture and 750ha non-legume on the flats of the property.

He has about 35% perennials and a mix of clovers, grasses, and saltbush throughout his pastures.



Figure 1. Native tree planting with Perth NRM in 2023

Between 2008-2010, the Crane family planted 30,000 eucalypts (Oil Mallee herbage) in alleys (wind breaks/shelterbelts) and have approximately 15ha remnant vegetation consisting of Eucalypts, *Melaleucas* and *Acacia*'s which were fenced off from livestock 25 years ago.

Continuing to tackle salinity and the Hub's drought priority issues such as water supply, fodder and improving soil and land quality, the Cranes have invested in their water management infrastructure, maintained a minimum of 12 months of stock food on hand and planted an additional 40,000 native species and a further planting of 20,000 native and saltbush seedlings in 2023 (Figure 1). Species include *Tamarix* sp, *Anameka* saltbush, *Samphire* (*Tecticornia* sp.) and *Melaleuca Uncinata*.

Les has also been investing in additional water infrastructure and keeping ample stock food on hand so he can easily bend to the pressures of dry seasons so he can achieve better outcomes with confidence.

Impact

Having access to up-to-date and regionally relevant information is critical when making management decisions. Les highlighted the need for industry to provide a diverse range of resources and support techniques for people with different learning styles.

Through involvement and discussions with the Hub Node, the Cranes have accessed and utilised evidence-based information housed on the Hub's online platform (<https://hub.gga.org.au/>). This important online resource isn't the first program they have been involved with having previously engaged with multiple industry trials and demonstrations (e.g. Productive Saltland Pastures to Combat Wind Erosion in the Eastern Moore River Catchment).

With the efforts of building their ground covers and strategic tree planting, the Cranes have been able to better manage their farm for the long-term. They have seen improvements in pasture improved pasture diversity and coverage), surface and sub-surface water management and improved animal condition.

Not all their work has been without challenge. Trees planted as a part of an Australian Carbon Credit Unit (ACCU) project failed to survive in adequate numbers over the 2023/2024 summer which will have to be replanted.

This experience emphasised the importance of detailed planning and trials prior to implementation to give plantings their best chance of survival and to optimise the desired final outcome. The recent tree planting done with Perth NRM and the Northern Agriculture Catchments Council (NACC) staff saw an incredible survival rate with a 98% survival rate over the recent dry summer (Figure 1 & 2).

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Figure 2. Les sharing his farming story with Perth NRM staff