

# TREES - THE POWERHOUSE IN YOUR PADDOCK



The Australian landscape and environment is renowned for its extremes and plants and animals (whether they be native or managed) must display incredible adaptability to survive and thrive. As the climate becomes more variable, summers get hotter and frosts bite harder. Rain events become more sporadic, but fall with greater intensity and pressure on agricultural productivity and the environment increases. However, the presence of trees can help improve both farming system and landscape resilience.

Getting the right balance of tree density and species in the landscape can be challenging. Pre-settlement vegetation in the Southwest Queensland rangelands included large areas of open and sometimes only lightly timbered native pastures. Landscapes were fire and flood adapted to maintain a healthy balance and distribution of fire sensitive species such as Mulga, Gidgee and Brigalow and alluvial species including coolabah, gums and boxes.

Over time this balance was altered with changes in grazing practices to include sheep and cattle, bore drains to run away and move water around the landscape and a decline in the use of fire management and pasture spelling. In some areas this contributed to an overabundance of some tree species including Mulga. While it is a valuable drought fodder, once dominant, Mulga can shade out productive pastures, leaving bare, erodible ground and provide little habitat for stock or native species. Other areas suffered a complete loss of vegetation, leading to a reduction in ecological function, increased bare ground, runoff, erosion and loss of production and biodiversity values.

Maintaining and allowing regeneration of native vegetation to around 30-35% tree cover as shadelines, clumps or scattered across the landscape improves ecological function. Trees are the powerhouse providing shelter for stock and wildlife and sustaining pastures through hot summers and frosts. They are the hydraulic pump that brings moisture and nutrients from down deep to pastures and supports the native species that help keep pastures healthy. Even in lower densities, aiming for 10-15% vegetation cover is a useful intermediary goal to visibly improve environmental and productivity outcomes.

Trees are the cornerstone of a functional landscape but an ideal habitat is messy. It has layers of vegetation made up of multiple species of different ages. Standing dead timber is retained, as are fallen logs and leaf litter. There are numerous microclimates and resources to support a diversity of flora and fauna species.

## Individual on-farm actions you can take to restore landscape function

- Protect strategic areas of native vegetation first, especially along water courses, ridges and slopes
- Focus on creating wide clumps of vegetation by fencing and encouraging natural regeneration
- Protect stepping stones of bushland to facilitate wildlife movement
- Allow strategic regrowth of species that provide resources for livestock and wildlife
- Avoid the urge to clean up dead logs and debris that slow runoff and provide shelter for pasture species
- Carefully manage grazing in tree patches, but do use them for protection of livestock at critical times

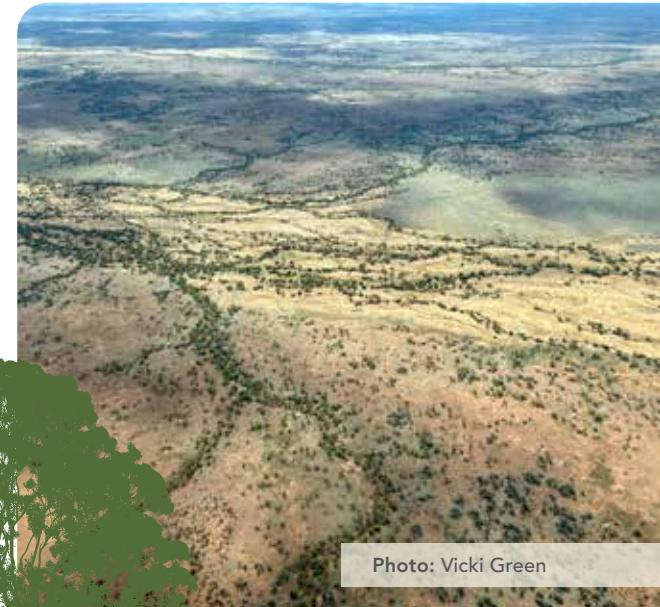
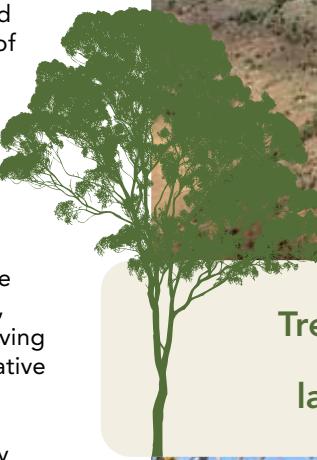


Photo: Vicki Green



**Trees support healthy productivity and landscape function.**



Photo: Vicki Green

# BENEFITS OF TREES IN THE LANDSCAPE

