

# Using fire to manage thickened woody vegetation in the Gulf region of north Queensland

Woody vegetation across the Gulf Savannah has been thickening over the last 30 years and now reduces total pasture production in many areas. It also negatively impacts on management practices, for instance by increasing mustering costs.

Healthy savannah woodlands are a valuable resource for dry tropical regions and the native pastures are critical to the profitability of the grazing industry in the region.

The most common species associated with thickening across the Northern Gulf are:



<b>Bread fruit</b>	<i>(Gardenia vilhelmi)</i>
<b>Gutta percha</b>	<i>(Excoecaria parvifolia)</i>
<b>Yellow wood</b>	<i>(Terminalia platyptera, T. platyphylla)</i>
<b>Rubbervine</b>	<i>(Cryptostegia grandiflora)</i>
<b>Wattles</b>	<i>(Acacia spp.)</i>
<b>Tea tree</b>	<i>(Melaleuca spp.)</i>
<b>Cooktown ironwood</b>	<i>(Erythrophleum chlorostachys)</i>
<b>Currant bush</b>	<i>(Carissa lanceolata)</i>

Native eucalyptus species also contribute to woodland thickening.

The reintroduction of fire appears to be the most affordable option available for producers on extensive grazing areas in the gulf region to manage vegetation thickening.



**Breadfruit**

To maximise the benefit of the fire event, landowners can take a few important steps.

- Understand the purpose of burning areas of a property and plan a burning strategy to be applied over several years.



- Identify the problem woody species and their susceptibility to fire. Is fire an option and what fire frequency is needed to manage the problem? Problem species under 3 metres tall will be more susceptible to fire damage.
- An effective fuel load for the fire is critical. A fuel load of at least 1500kg/ha of grass will provide best results. This will usually require the paddock or area to be wet season spelled and/or only lightly stocked.
- Plan to burn toward the end of the dry season or after the first storms.
- Appropriate burning conditions on the day of the fire are vital for a good result. The best conditions for an effective fire are hot with a reasonable breeze. Fire breaks and back burning are essential to ensure that the fire doesn't escape. Research on other woody species has shown that a slow back burn with a high "residence" time can be more effective fire compared to a fast front burn.
- Don't introduce cattle back onto the burnt area until the native pastures have regrown. A good indicator is that the 3P grass species have seeded (usually 3-4 months after rain)
- Don't burn after Christmas or in El Nino years when the expectation of a "good wet" is lower.

Species susceptibility to fire

High	Rubbervine
	Gutta Percha
	Breadfruit
	Wattles
	Yellow wood
	Currant bush
	Tea Tree
	Cooktown Ironwood
Low	Native eucalyptus species



**Gutta percha**



**Yellow Wood**

For further information or enquiries, please contact the  
 DPI&F Beef Team.  
 Ph: (07) 4091 9400