Case study: Fire management in the Fitzroy Woodlands

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Mount Mica and Florence Vale, Rubyvale

Background

The Williams family properties are 15 kilometres north west of Rubyvale with the main land types being silver-leaved ironbark, box flats and softwood scrub. About half of the aggregation is cleared with good stands of buffel and native grasses. The treed areas are well grassed with healthy stands of desert bluegrass, black speargrass and kangaroo grass. Land condition is very good over the two properties. Infrastructure has been well developed over the last 40 years with most paddocks carrying 100 – 300 head. Cattle are run as a self replacing herd with most of the turnoff steers and heifers going to the Jap Ox and local trade markets.

The Williams family has owned these properties for the last 100 years and they have a wealth of experience with grazing land management. While the management has been changing over the years, one constant has been a regular burning management program. Glynn believes that *"to burn at any time during the year is beneficial."* In the early days the burns were frequent and uncontrolled due to a lack of infrastructure and resources. More recently the burns are well controlled. Together with a light stocking rate regime, benefits received from the burns include:

- Enhanced animal production
- Maintaining tree and shrub density
- Regrowth management
- Maintaining good land condition

Glynn believes the burning management has been consistent over the last 100 years. The burning has averaged out to about once every three years. Patch burning with cool fires are used in the forest country while hotter fires are used for regrowth control.

"Burning any time of the year is beneficial"

For example Back paddock was patch burnt in February 2011. Good land condition, light stocking and good summer rain has resulted in good regrowth of bluegrass and black speargrass.

Kim Williams in Back paddock, April 2011.

Forest country

During early settlement, there were little resources (roads, water points, paddocks or machinery) to manage fire. Wildfires were often a problem. To prevent catastrophic fires, hazard reduction burns had to be implemented. This usually involved burning with cool fires for strategic fire breaks and also patch burning across paddocks. When combined with low stocking rates the benefits from these burns became apparent including enhanced animal production, altering grazing distribution across paddocks and preventing tree and shrub thickening. As the properties became more developed after the 1970s, the burning management became more efficient and a normal part of property management. Now a system for burning could be implemented whereby paddocks were burnt about every three years and burning could be delayed until there is adequate soil moisture for grass to begin regrowing straight after the fire. Usually about one quarter of a paddock is burnt to ensure there is a safety margin of feed retained. Cattle remain in the paddock to obtain the benefit from the fresh growth. In subsequent years a separate section of the paddock is burnt. Cattle patch graze the newly burnt section and the previously burnt area effectively receives a rest from grazing.

Queensland Government

Road paddock April 2011. This photo shows a quarter of the paddock that was burnt in February 2010

"Never burn more than ¼ of a paddock to keep a safe feed reserve!"

Cleared country

The fire regime for the cleared country is to have hotter fires compared to the forest country. The aim is to remove logs and suppress the growth of the currant bush, silver-leaved ironbark and wilga regrowth. Therefore, more grass for a bigger fuel load is required together with hot weather conditions. Four or five years may be required between burns to generate the higher fuel loads. Adequate soil moisture is essential to generate healthy grass regrowth when managing hot burns.

"Patch burning every three years gives the previously burnt area a rest!"

Pulled paddock, April 2011 Cleared 2000, burnt October 2008 and regrowth chained June 2009

Summary

100 years of burning management on forest and scrub country has demonstrated benefits for animal production, maintaining land condition and manage tree, shrub and regrowth density. Infrastructure developments over the last 40 years have allowed a greater degree of control and targeted burning. Cool fires, patch burnt on forest country about every three years, or hotter fires for regrowth control have been a successful management combination for the Williams family.