

RAIN READY RANGELANDS - MITCHELL GRASS RECOVERY



INTRODUCTION

Anthony Lagoon station spans roughly 560 000 ha across the Northern Territory's Barkly Tablelands. The homestead is situated approximately 440km north east of Tennant Creek. The AACo property is managed by Brumby Vaughan who is in charge of the 23,000 head of Brahman cross cattle grazing the Mitchell grass pastures on Anthony Lagoon. Brumby is no stranger to the Barkly, having worked on and managed properties in the region and around the Territory for most of her life. Since arriving at Anthony Lagoon, Brumby has been working to improve the productivity of the station, her success in doing so is aided by proactive management of stocking rates around seasonal variability.

BACKGROUND

Mitchell grasses are the dominant component of the alluvial cracking clay grasslands within the Barkly Tablelands and contribute significantly to the diet quality and quantity in the region. Several years of below average rainfall resulted in a noticeable reduction in Mitchell grass tussocks in 2022. The Barkly component of the Rain Ready Rangelands project was developed to trial the commercial scale application of wet season spelling to promote Mitchell grass recovery. Anthony Lagoon Station became involved in the project as Brumby was interested in what learnings would arise and identify ways to improve adoption of wet season spelling.

BENEFITS

Wet season spelling removes cattle from the grazing system while the Mitchell grass is growing, which enables the tussocks to recover and provides opportunities for new plants to establish. By giving paddocks a rest, the palatable species in pastures are given the chance to re-build root reserves and set seed, something that light grazing alone may not do, because of the preferential grazing by cattle of preferred plants. This demonstration aims to investigate how spelling versus moderate set-stocked grazing influences Mitchell grasses and the land condition of paddocks. Wet season spelling, if done correctly with good climate conditions, can ensure that there will be feed available later in the year, or act as a reserve in case of drought.

AT A GLANCE

Benefits

- Spelling promotes perennial grass growth and seeding
- Better land condition = higher carrying capacity
- Land in good condition can respond better with less rainfall

Challenges

- Seasonal variability
- Spelling paddocks increases the grazing pressure in other paddocks - its crucial to get stocking rates right
- May need increased infrastructure



“Wet season spelling is the easiest and most impactful intervention we can make to improve our land condition”

Brumby Vaughan

Manager, Anthony Lagoon Station





“We’re seeing a marked improvement from wet season spelling. As pastoralists we try and do our best to ensure we leave everything better than how we came into it. So anything we can do to improve land condition, improve what was before us, that’s the aim.”

Brumby Vaughan
Manager, Anthony Lagoon Station



IMPLEMENTING WET SEASON SPELLING AND ROTATIONS

Before starting a wet season spelling program it’s important to know the carrying capacity of both the spelled paddock and the paddock(s) that cattle will be moved to. Knowing how many cattle can go in each paddock over the long and short term is an important planning step to avoid overgrazing one paddock to spell another.

The more paddocks you have available, the easier it is to move mobs around without impacting large areas of the property. Brumby has invested in infrastructure development to turn large paddocks into multiple smaller paddocks. Brumby explained “You’re locking up a lot of land, especially in big paddocks, so you run the risk of stocking other paddocks too densely. It can get quite hard to organise” Brumby currently runs a one in five year spelling program, prioritising paddocks in poorer land condition.

Herd segregation can be a tool to help mitigate some of the logistical challenges of wet season spelling. By segregating the herd, it can be easier to plan and manage a spelling and rotation program around the changing nutritional demands of each mob. Brumby noted “Segregation has been a really good tool. You can have your herd organised into their pregnancy groups so you know what your mob size is going to be going into that paddock”.

A full wet season spell is optimal, but the minimum spelling time should be no less than 6 to 8 weeks during the active growth phase of the pasture.



Images taken before and after a good season, reduced stocking rates and wet season spelling at Anthony Lagoon Station



“The biggest amount of extra work for wet season spelling is in the organisation of it. Understanding the dynamic of my herd and forecasting what pregnancies I'm going to get out is a big one. It can be a bit tough making sure I've got the right numbers going into those paddocks”

Brumby Vaughan
Manager, Anthony Lagoon Station



RISKS AND CHALLENGES

While the benefits are well known, implementing wet season spelling is not always straight forward. Brumby identifies “the biggest amount of extra work is just in the organisation of it, understanding what the dynamic of my herd is going to be, what pregnancies I'm going to get out. Forecasting that out is a big one. It can be a bit tough if you run into some unexpected variables that you didn't account for”.

Fire, poor wet seasons and abrupt market shifts can throw even the best prepared spelling plans into chaos. An effective wet season spelling program needs to be flexible and adaptable to any changes in pasture and herd dynamics. Having skills in forage budgeting, land condition assessment and carrying capacity calculations can help managers make confident decisions in their spelling programs based on current or emerging conditions.

A major risk to the ongoing success of a wet season spelling program is overgrazing some paddocks to spell others. Due to this risk, it may not be beneficial to attempt a wet season spell in low rainfall years when growth is limited. A successful spelling program needs to ensure that utilisation rates remain at a safe recommended level in both the non-spelled paddocks and the spelled paddock after the wet season.

SUMMARY

The Mitchell Grass Recovery Project was established to look at ways that grazing strategies, such as wet season spelling and rotational grazing can be used to decrease the impact of seasonal variability and improve land condition. The Anthony Lagoon demonstration site has been established to allow ongoing monitoring of how pastures respond to wet season spelling using large long term exclosures.

The Mitchell Grass Recovery project is run by the Department of Industry, Tourism and Trade's Livestock Industries, funded by the Australian Government's Future Drought Fund.

