



# Rangelands Memo

November 2019

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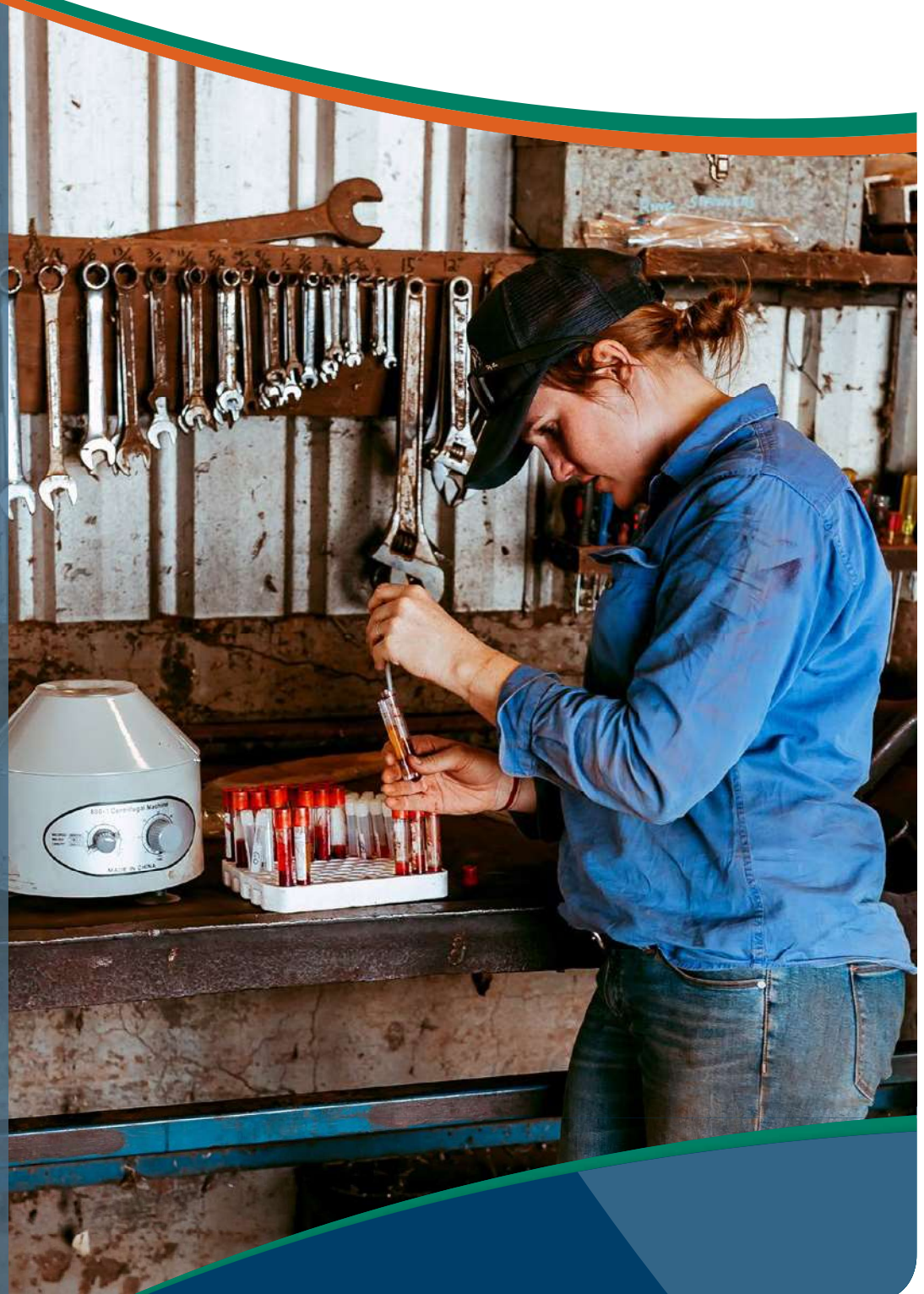
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# Twilight forums – bringing events back to the bush

Clare Atkins and Stephanie Coombes, Development Officers, DPIRD, Kununurra and Broome

Ongoing dry conditions across large parts of the northern and southern rangelands have resulted in increased pressure on the rangelands, livestock, infrastructure, management and staff.

DPIRD is undertaking a dry season response program to support pastoralists to manage the challenging conditions and to ensure positive animal welfare outcomes. To date this has included providing information to support business decision-making, extending road train permits, improving the turnaround time for agistment requests, investigating remote satellite imagery resources, providing assistance to individual pastoralists where needed, and access to subject matter experts and support services through on-station events.

In April, the Northern Beef Development (NBD) project hosted a series of on-station workshops titled Twilight Forums (forums) with the theme of “Managing for climate variability”.

Three forums were successfully delivered in the Pilbara and Kimberley regions and were attended by 38 staff from 13 pastoral companies.



DPIRD Development Officers and the guest speakers travelled many kilometres to host the events on-station instead of in towns



A number of resources were made available at the forums, but the laminated pastoral maps were the biggest hit

Regretfully, the impact of Tropical Cyclone Veronica and the potential impact of Tropical Cyclone Wallace postponed two forums in the Pilbara region. These were re-scheduled and delivered across the Pilbara in October, with an additional forum added for the Gascoyne region. The October forums were attended by 52 people from 15 pastoral companies.

Twilight Forums are an extension tool developed by the NBD team to provide timely access to relevant information and reduce producer downtime by being hosted on multiple stations across the northern pastoral region. Neighbouring stations within a three-hour driving radius are invited to attend each event to allow a full morning's work before the event commences at 2pm and conclude at 6pm with a barbecue.

## Climate variability and available monitoring and management tools

The Northern Australia Climate Program (NACP) local extension officers, known as Climate Mates, provided an explanation of the four key drivers of seasonal climate in the northwest; the Madden-Julian Oscillation, the Monsoon, the El Nino Southern Oscillation and the Indian Ocean Dipole.

Attendees were taught how to find and interpret measures of climate drivers on the BoM website. Understanding these key drivers and their indexes is important for reading seasonal outlooks as well as informing decision-making processes.

In addition to BoM, some useful apps and websites such as CliMate, Long Paddock and ARM online were introduced, along with discussion of herd management implications of the current dry conditions and median outlook.

The NACP Climate Mates are available across the north to connect producers to the NACP seasonal forecast and assist producers to further their understanding of seasonal climate forecasts.



Grey McKay presenting Climate information at Bidgemia Station in the Gascoyne

## Forage budgeting

With over 30 years of experience in research, development and extension in the grazing lands of northern Australia, Col Paton discussed management strategies to improve land condition and increase carrying capacity and profitability.

The session included a field walk to undertake a practical calculation of feed on offer. Participants were tasked with identifying pasture species and estimating the quantity of standing forage by using photo standards, before harvesting samples and calculating dry matter.



Pastoralists using photo standards on Ethel Creek Station



Col Paton demonstrating how to assess available top feed



It was great to see the next generation learning how to do a forage budget

Col's take home messages were:

Regardless of weather forecasts, make sure:

1. your land is always 'rain ready' (good land condition with attached ground cover)
2. you regularly monitor pasture, animal and land condition so that you can anticipate and avoid feed shortages, diminished animal performance and land condition decline
3. there is flexibility in your herd structure and grazing management to allow for timely adjustment of stock numbers.

## Applications of satellite imagery in extensive pastoral enterprises

After manually calculating the feed on offer to manage carrying capacity, Phil Tickle from Cibo Labs presented on how satellite technology can be leveraged to answer questions such as: How many grazing days do I have?; How much green or non-green cover do I have?; Is my land condition improving or declining?

While the technology has been available for close to 30 years, Phil said a silent revolution had been taking place in the last 10 years with an increase in the frequency at which satellites capture data and the level of detail captured. Some satellites pass over as often as every five days and are able to capture 10m resolution data—enough to see individual trees.

Satellite imagery can be used not only to assess pasture biomass, but the stage of growth, thus allowing land managers to monitor pasture response to weather events such as rain and heat waves.

Satellite technology is complementary to traditional methods of forage budgeting and assessments by being able to quantify pasture growth and consumption, allowing for a direct



Col Paton explaining how to use photo standards for estimating pasture biomass



Phil Tickle demonstrating how to use a plate meter to assess pasture biomass



Pastoralists assessing pasture biomass in a quadrat

comparison with the predictions made through traditional forage budgeting methods. The accuracy of visual assessments made out in the paddock can be measured against data collected from the satellites. However it was highlighted that the technology cannot be used as a replacement for visual assessments in the paddock.

Satellite imagery can also be used to demonstrate development potential to financial lenders as imagery showing unutilised country can be used to demonstrate a business case for water point development.

The ability to monitor land condition not only for internal business management, but to also demonstrate positive stewardship to the broader community was heralded as a major opportunity of the technology.

While there are a number of opportunities available from the use of satellite technology, pastoralists are encouraged to undertake a benefit-cost ratio analysis to understand the benefits applicable to their specific enterprise.

## Regional Men's Health Initiative

The October forums included a fourth presenter, Owen Catto from the Regional Men's Health Initiative. Owen provided an informal presentation during dinner on the topics of wellbeing, managing situational distress, and looking after yourself and your mates.

The NBD team invite Owen to speak after reflecting on the amount of time that is dedicated to learning about how to look after cattle and country, compared to the time spent learning about how to look after ourselves.



Owen Catto from the Regional Men's Health Initiative sharing information on how to maintain wellbeing



Each event had a great turnout, however the Gascoyne forum took home first prize with 26 people attending

Attendance at the Twilight Forums is increasing with repeat as well as new stakeholders attending. These tailored events provide an opportunity for pastoralists to engage with their neighbours, access industry leading key speakers and share knowledge.

The NBD team welcomes suggestions from pastoralists about the topics they would like covered at future forums that are scheduled for early 2020.

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The Twilight Forums offer an opportunity for pastoralists to network and discuss what they've learnt by putting on a BBQ at the end of the event



A cow calf pair in the Gascoyne, October 2019, in great condition given the lack of rain. A true credit to the hard work of pastoralists