

### NORTHERN MUSTER Information for rural business in North Queensland



# Benefits of pregnancy testing

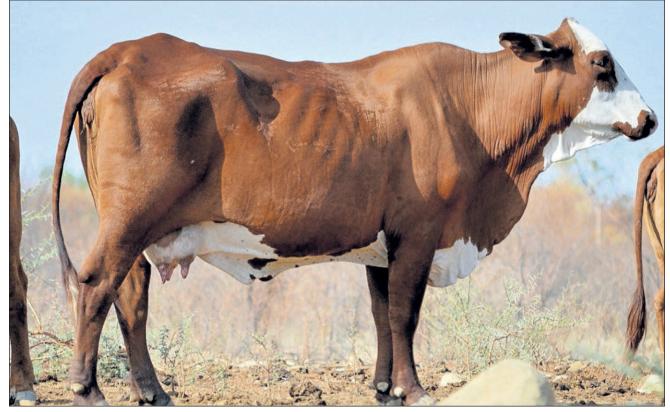
AS DAY length decreases and temperature drops, grass production is complete for another season.

Have you considered pregnancy testing your herd and segregating females based on foetal age? Knowing when and how many calves are expected, and separating cows into calving groups, assists with planning, paddock allocation, supplementation and mustering for branding and weaning.

It helps you determine what animals should be sold and assists pasture management to ensure your stock will have enough pasture for the dry season, while maintaining adequate residual ground cover for the seasonal break.

Cows, dry and empty, can provide immediate cash flow. They may be poor mothers or have reproductive diseases or abnormalities rendering them infertile. Their revenue can assist with covering the costs of productive stock.

The important group to are back in calf in the desired Score 3 or 4 before calving.



Body Condition Score 2 (Backward store). Light tissue covering over skeleton. The backbone is clearly distinguishable as are the rear ribs.

time frame. Identify them and look after them. They are your indicator cows - if they are in Body Condition Score identify are the 'gems' - those 2 now, they may struggle to who have weaned a calf and get back to Body Condition

Adequate body condition at calving is critical for cows to conceive at the right time again next year. Good body condition at calving enables the breeding herd to handle a late seasonal break and May and September have ed period in the dry season.

reduces breeder deaths. For condition score photos see futurebeef.com.au/knowledge-centre/body-condition-score-for-beef-cattle.

the greatest need for supplementation and lowest chance of reconceiving during the following wet season, as they lose too much condi-Cows calving between tion lactating for an extend-

Segregating these cows gives you options. They can be targeted for supplementation and early weaning or sold to reduce dry season problems.

Cows that will calve late or retained empty cows require less nutritional support once their current calf is weaned. Their nutritional demands during spring will be far less than the 'gems', so supplementation to this group can be delayed, offering savings in time and money.

Benefits of pregnancy testing, foetal aging and segregating breeders into calving groups:

- Know when and how many calves to expect
- Identify poor performers/ cows to sell
- Target supplementation to the groups who need it
- Identify productive females to look after
- Segregate cows calving out of season.

Your local beef extension officer can provide more assistance with targeted management and nutritional recommendations.

■ Roxanne Morgan, Beef extension officer, DAF Mackay, 07 4999 8563.

#### MASTER THE ART OF WEANER FEEDING, NUTRITION AND SUPPLEMENTATION



FIRST round mustering is here and it is timely to review how you feed your weaners. Immediate access to quality hay, clean water and appropriate supplements prevents decline in rumen bug activity and production losses. Good quality hay with high leaf content is essential. Segregating by weight and size with adequate yard and trough space limits bullying and ensures weaners have access to feed and

water. They need three-four square metres/head in the yards and 15-20 centimetres/head trough space. Hay feeders minimise waste, spoiled hay and disease.

Most weaners are in the yards for five-seven days. Smaller weaners (60-100 kilograms) need longer to grow and minimise mortalities. Feeding weaners monensin from the start will prevent coccidiosis and scouring; however, it is ineffective after an outbreak has occurred. Segregated weaner groups can be custom fed according to nutrient requirements. Small weaners require high protein (20 per cent plus) and energy (12MJME). They will quickly gain weight and move on to cheaper, lower protein rations.

The need for protein and energy supplements once paddocked depends on weaner weights, quality of available pastures and production targets. Sustainable stocking rates are a must and weaner paddocks should be spelled every wet season to maximise feed availability and quality. Too often second round weaners perform poorly because they are put into overgrazed paddocks. Most weaners, even in reasonable paddocks, will require dry season supplements.

For information regarding suitable feeds, visit futurebeef.com.au and search 'weaner supplements'.

#### Where do you go for your beef info?

- That's what we want to know! To help us improve what we do, we would love it if you filled in this brief five question survey https://www. surveymonkey.com/r/ CC3LF8H
- It should take five minutes or less and would really help us out. Thanks in advance.





### NORTHERN MUSTER Information for rural business in North Queensland



# Keep an eye on calves

The Calf Watch project aims to develop a system to remotely monitor calving and study calf loss in northern Australia.

ALF loss is a major source of lost income for beef producers in northern Australia and reducing calf loss has the potential to improve weaning rates and profitability.

Previously it has been difficult to investigate the causes of calf loss as calving females and calf carcasses are hard to find in large paddocks, therefore few autopsies are able to be conducted to determine the cause of calf deaths.

A system to remotely monitor calving in extensive areas would provide great benefits for research on calf loss in northern Australia. The Calf Watch project aims to meet this need.

NT Department of Primary Industry and Resources researchers are collaborating with the University of Florida to modify an existing 'barn' system of birthing sensors (cowmonitor.com/ technology) to increase the footprint area and enable remote monitoring of calving in locations where mobile phone coverage is limited.

The system uses intra-vaginal birthing sensors that emit a UHF signal when a rapid temperature change is detected (when sensors are expelled during calving).

The signals are received by antennas in a low-power wireless-area network (LPWAN) and are transferred via the internet to servers owned by the sensor manufacturer (JMB).

A calving alert is then sent and is immediately viewable on a website.

The cows are fitted with GPS tracking collars that record location every 15 minutes, enabling cows to be located at the time of an expulsion alert and the location data is viewable in real time on a website.

The Calf Watch project is being conducted at Manbulloo Station near Katherine (NT) in a 2215 hectare uncleared paddock of native pasture.

Four gateways with external antennas mounted on 12 metre high towers give adequate coverage of the paddock.

In August 2019, 189 pregnant cows were fitted with birthing sensors and GPS tracking collars, and another 10 cows were fitted with GPS collars only.

It was very dry and hot (mean maximum temperatures of around 40 degrees) during most of the October and December calving period, and the cows congregated around the single water point for most of the day before leaving in the late afternoon to graze.

This allowed daily visual checks to be made.

If calving cows could not be located using GPS data, observations were recorded when they came for water in the days after calving.

Alerts were successfully received from 85 per cent of birth sensors. However, some GPS collars stopped



A GPS collared cow with a newborn calf.



A system to remotely monitor calving would be a game changer for research into calf loss in northern Australia.

working and if a cow calved without a working GPS collar it was usually not possible to locate the birth site and retrieve the expelled birth sensor.

The issues with the GPS collars have been identified and the company (Smart

Paddock) is producing an improved model to be used over the next calving season.

It is thought that GPS tracking collars have not previously been used on this number of cattle anywhere in the world, so the project is playing a valuable role in

developing GPS tracking collars for use on cattle in extensive situations.

Data analysis has not been completed and final calf loss figures will be determined at the firstround weaning muster in 2020. However, some initial observations are:

■ Bottle teats (resulting in calf death through dehydration) are a bigger problem than previously thought. The calving alerts allowed more cows to be observed shortly after birth than normally happens on northern stations. A number of cows were observed to have bottle

teats shortly after calving, however their udders looked normal several weeks after losing their calves and so they would not be identified as having bottle teats at a muster several months later. Therefore, it is likely that cows with bottle teats remain undetected in herds and lose multiple calves. These cows can be identified, where only pregnant cows are kept in a paddock or if pregnancy testing records are available to see if they should have raised a calf. Most cows (71pc)

- commenced calving during daylight hours. This goes against the common perception that calving mostly occurs at night. A high proportion of calves being born during the hottest times of day in northern Australia may contribute to calf loss. This data supports conducting research into providing shade where there is limited natural shade.
- The birth sites that were able to be located were distributed evenly throughout the paddock, although there were some 'hot spots' where multiple cows calved. Heifers calving for the first time tended to calve closer to the water point than older cows. Despite the cows congregating around the water point during the day, most either walked away to calve in more private locations or did not come into the water point on the day that they calved.

Contact Tim Schatz, Principal livestock research officer, NT DPIR Berrimah, 08 899 92332.





#### NORTHERN MUSTER Information for rural business in North Queensland



## Climate tools for decision-making

## Understand weather drivers

BY UNDERSTANDING the climate and weather drivers and forecasts for your region, you can make more informed management decisions and be ahead of the eight ball.

The Indian Ocean Dipole (IOD) is one of several climate drivers that impacts our climate and weather in Northern Australia. Megan Munchenberg, the Climate Mate for North West QLD from the Northern Australia Climate Program, noted that the IOD influenced the late onset wet season experienced at the end of 2019 and was one of the strongest on record.

The IOD has three phases: neutral, positive and negative. Last year, it was in a strong positive phase where warm water in the eastern Indian Ocean moves west away from Australia towards Africa. Historically this results in increased warm and dry conditions in the spring and early summer in Australia.

including the El Nino-Southern Oscillation and the IOD, are currently neutral and are forecast to remain neu-



Current neutral forecast indicates roughly equal chance of wetter or drier than average conditions for autumn.

these major climate drivers that current pasture supply casts, start looking at the seaabove or below average seasonal rainfall is less likely.

This forecast coupled with a shorter growing season due tral through autumn. When to the late onset, suggests

Major climate drivers, are neutral, widespread and stocking rate should be considered before selling and culling opportunities arise during first round mus-

For future seasonal fore- bility is a key consideration

sonal outlooks and extended range forecasts on the Bureau of Meteorology website in June.

Managing seasonal varia-

for extensive beef producers. Better business decisions can be made by understanding and learning what drives our northern climate management tools.

Contact your local Climate

Managing seasonal variability is a key consideration for extensive beef producers.

Mate at nacp.org.au/about for more information, including how to interpret your local forecasts and how to incorporate that information into your management plan.

At this website, you can subscribe for a monthly climate outlook newsletter developed by Professor Roger Stone. You can also find the latest climate and weather forecasts for your region at the BOM website. Another great resource for seasonal climate and pasture condition information is the longpaddock.qld.gov.au.

■ Megan Munchenberg,

Northern Australia Climate Program, Gregory, 07 4748

## Ensure you have a plan for the year ahead

THE Northern Dry Tropics response to rainfall in these had a later start to the wet season with little useful rainfall anywhere until late January 2020.

an average amount of useful less leaf bulk. Pasture quality pasture with this late start, and producers who regularly overstock or overgraze will be even further behind as

paddocks will be slower again.

With the late arrival of the rain, native pastures quickly Most districts will not grow set seed and often produce peaks quickly and then declines, impacting on animal performance, especially at higher stocking rates.

Good managers have already flagged the likelihood of a shorter growing season and have adjusted animal numbers, selling in a record high market.

Meatworks and boat trade prices have fallen since March due to worldwide COVID-19 impacts but now is the time to consider reducing stocking rates, avoiding land condition decline and selling poorer animals later in the year.

Leading managers will spell their weaner paddocks over the wet season and have adequate fencing and water to wet season spell 20 per cent of their total property annually.

budgeting tools available and recommended stocking rate figures depending on land type and land condition. These assist producers to balance cattle numbers Bernie English, Beef and available pasture in good and tough years.

Switched on producers can achieve similar results

There are many pasture with experience and common sense. If grass supply was tight last year with your available water infrastructure, do something about it

> extension officer, Department of Agriculture and Fisheries, Mareeba, 0427 146 063.



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