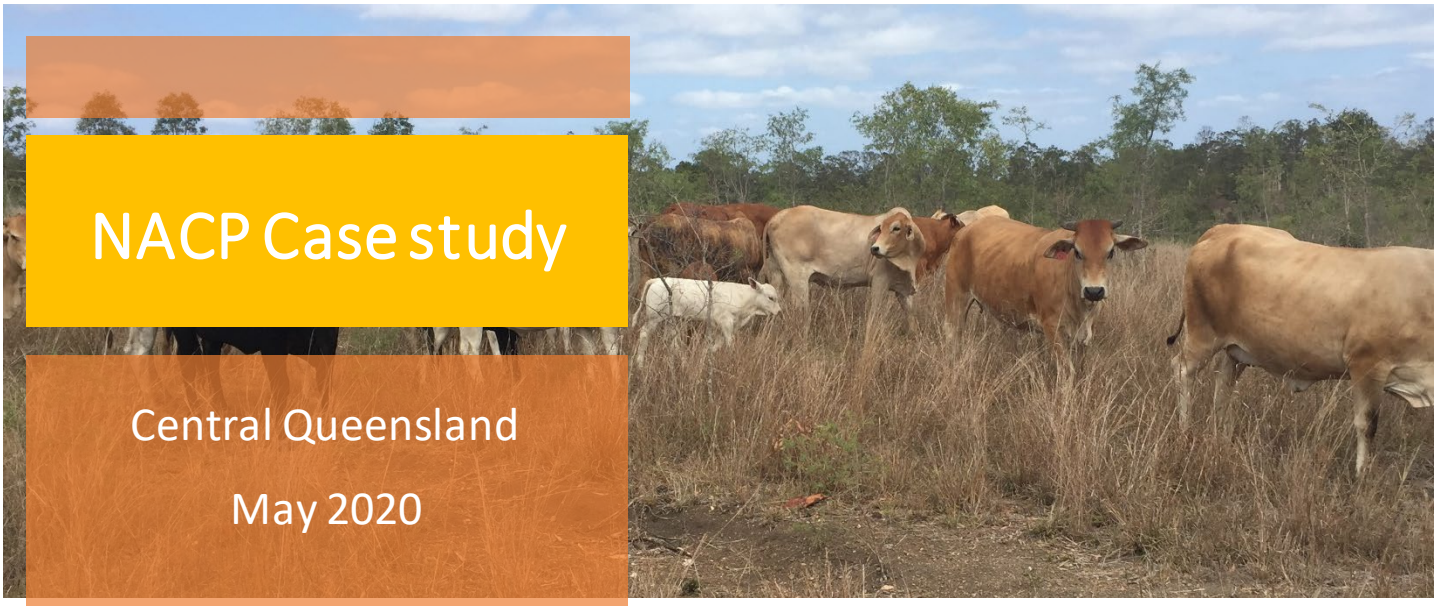
Northern Australia Climate Program



NACP Case study

Central Queensland

May 2020

Subject: David & Carol Cusack, Nurung Pastoral Co

Property: Immellaroo

Location: Gin Gin, Qld

Size: 1200 ha

Enterprise: Beef cattle breeding & trading

Breed: Senopol-Brahman crosses

Herd size: 300-350 breeders

Key message:

Seasonal climate forecasts in combination with monitoring of rainfall, pasture and land condition can inform decision making, especially during poor seasons.

'If we know how much feed we've got, we know how much rain we've had and we have some idea about what the season's likely to do, we've pretty much got it.'

Climate forecasts and pasture monitoring inform stocking decisions in Central Queensland

David and Carol Cusack's property, Immellaroo - to the north of Gin Gin in the coastal hinterland west of Bundaberg, Queensland - is 1200 hectares of predominantly native pastures and forested country on sandstone-derived duplex soils that 'can grow a lot of feed if we get summer rain'.

Established as a cattle breeding operation, breeding is planned so that cows start to calve around September, when rainfall is more likely and the summer-growing pastures are more responsive, and conclude calving by the end of December to enable weaning in May. This gives the Cusack's cows the chance to recover some body condition while pasture conditions are still favourable. 'The less we carry through winter the better.'

Ongoing drought conditions through 2018-19 drove the decision to progressively off-load cattle, to reduce the number of breeders and to also begin to trade. They now plan to maintain a smaller breeding herd of around 200 cows, allowing them greater flexibility to buy and sell cattle based on the amount of available feed.

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Queensland Government

Northern Australia Climate Program

About NACP

The Northern Australia Climate Program (NACP) is a partnership between the Queensland Government (through the Drought and Climate Adaptation Program), Meat and Livestock Australia and the University of Southern Queensland (USQ) to help red meat producers in northern Australia manage drought and climate risks. A core component of the program is the 'Climate Mates' initiative, which employs and trains local climate extension experts who are connected through the program to leading climate science researchers at the USQ, BoM and UK Meteorological Office.

The NACP Climate Mates have two key roles: to 'translate' the best available climate information for the local regional context to help producers make informed decisions; and to pass feedback from producers back to researchers to ensure research and product development is targeted to producer needs.

Peter Crawford, Climate Mate for Central Queensland, says of the role 'There are many producers out there that we find need assistance to understand and interpret seasonal climate forecasts. My role as a conduit between graziers and the climate organisations and scientists is important in terms of providing information to improve producers' understanding and knowledge of what drives our climate, and how to improve their decision making regarding climate risk.'

Goals

Since taking over the property eight years ago, the Cusacks have progressively subdivided and installed watering points across the property to enable them to rotationally graze. Based on Dick Richardson's holistic Grazing Naturally approach, the property is managed as a number of zones, allowing priority areas to be grazed more intensively to keep the pasture in a productive vegetative state, with other paddocks kept in reserve. While this approach involves a lot more management, David says: 'I'm finding it's really helping us. And the performance of the animals is so much better.'

David and Carol's primary goal is to sustainably manage the property to ensure both economic and environmental outcomes. In David's view, 'the environment is critical to everything we do, including productivity.'

Challenges

David says the biggest challenges that producers in the Gin Gin region face are the variability of the rainfall and the shortness of the growing season. As well as drought, they also experience periods of intense rainfall; however, he says they 'don't mind a cyclone or two ... We're just hanging out for rain half the time anyway, so a cyclone comes along, and gives us a heap of rain ... we try and catch as much in the soil as we can; we try and keep the ground well covered so it's not an issue.'

The Cusacks, who are Grazing Best Management Practices (BMP) and Qld government's Grazing Resilience and Sustainable Solutions (GRASS) accredited, have recently assessed the land class over every paddock on the property. The drought had forced David and Carol to fall back on their reserve paddocks and David says 'We can see that the during the drought we knocked our country around a little bit; some slipped a little bit below B Class, so we'll be trying to lift that all up to B or A. We're hoping to strengthen the sward of native pastures in there as well.'

Links with the NACP

In addition to keeping rainfall records, including a rolling 12 month rainfall record, the Cusacks keep an eye on the Bureau of Meteorology's ACCESS-S website and receive the monthly outlook for Central Queensland that Peter Crawford, the NACP Climate Mate for Central Queensland, sends out. 'We're regularly looking at the forecasts that Peter sends us. We were just sweating on that information during this last winter and spring and it helped us make some pretty tough decisions.'

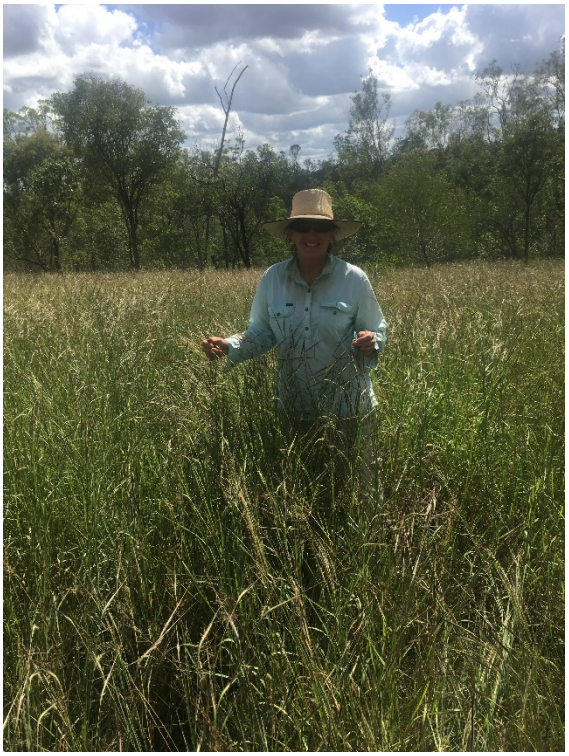
David and Carol find the NACP climate outlooks informative. 'Very much so. Three months, six, everything ... whatever we can get. We'll discuss that and that will tie into some of these other bigger strategic decisions like joining and whether we run a few less breeders through or marketing decisions. If we know how much feed we've got, we know how much rain we've had and we have some idea about what the season's likely to do, we've pretty much got it.'

David says of the NACP Climate Mates project, 'This job that Peter's doing is getting this information out to land managers and I think it's really useful. It's not much point unless it gets out to the ground, a lot of this info. It's a good initiative – really good.'

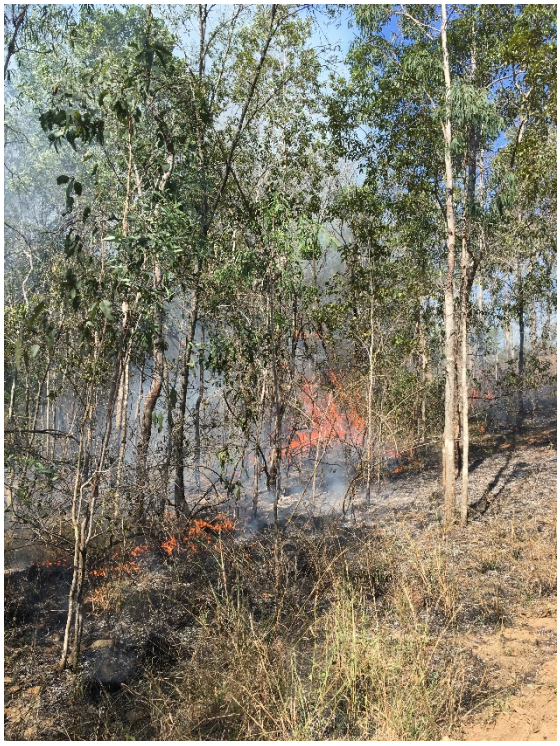
Actions taken and benefits expected

'When we decided to quit a lot of these cattle during the latter part of 2019, the forecast was showing nothing happening for that year pretty much and so we did the right thing. And, when we did get the break in January, we took that long to grow much in the way of feed, we couldn't have done anything else – it was a good move to sell when we did.'

The recent decision to start trading cattle will allow the Cusacks to buy in additional cattle when they have available feed. 'At this stage (mid-2020), we're looking at buying in about 200 leaner cattle and running them through for about six months then quitting them. We can comfortably carry those through into December-January with the amount of dry feed we currently have. But Roger Stone's forecast (the NACP monthly outlook) will have some influence maybe over what we buy as much as anything. We'll be looking at that in September before we buy cattle.'



Native pastures on Immellaroo respond to summer rains



Cool season burning on Immellaroo to promote productive groundcover

Relevance to others in the region

Managing for rainfall variability is a key component of a sustainable pastoral business and having strategies in place to mitigate the impacts of poor seasons is essential. These strategies include pasture condition monitoring and management through conservative stocking, spelling, effective fire management regimes and targeted herd management.

Understanding the climate drivers for the region and how these are likely to affect upcoming seasons allows for early decision making. Combining seasonal climate forecast information with monitoring of available pasture condition and land condition enables proactive planning and management of stocking rates. The regional NACP Climate Mate can assist producers in the area to better understand the regional drivers of climate variability and provide up to date climate information and a point of contact for informed discussion and, where needed, a sounding board for climate sensitive stocking and land management decisions.