Northern Australia Climate Program

NACP case study

Wide Bay Burnett Region, Coastal Queensland

Producer: Mike Moller

Property: Oakyvale

Location: South Isis District, Qld

Property size: 130 ha

Enterprise: Property leased to cattle breeding and fattening operation for the domestic market

Land type: CB 1 Bloodwood and Stringybark (Coastal Plains) with CB 2 Blue Gum flats

Average annual rainfall: 900 mm

Soil type: Mostly sandy loam

Main pastures: Pangola, Callide Rhodes, Signal and native grasses with Wynn Cassia and Seca Stylo legumes

Mike Moller's 130 ha property 'Oakyvale' is currently leased to a cattle breeding and fattening enterprise at South Isis, in coastal Queensland. Mike says the main challenges in the region are the drier times: '*it's mainly the drier times that's the hard bit … making sure there's enough feed over winter and hoping like hell for the spring and summer rain*.' While Mike doesn't operate the livestock enterprise himself, he is involved in discussions around decisions such as stocking rates to ensure the sustainable management of the property and its pastures.

Interaction with NACP

Mike has been involved with the NACP for some time. He says '*I find it quite valuable. I mean, a lot of this information is available on the media, but it's good that (with the program) it's actually all in one place*'. He particularly likes the monthly and seasonal updates that Peter produces. '*You know it's always good to get the forecast and the seasonal outlook - particularly the quarterly outlook … mainly to know when there might be rain and … to try and manage the dry times because they're the ones that can cause the most issues*.'

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 (UniSQ) to help red meat producers in northern Australia to 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 UniSQ, the Bureau of Meteorology (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.

Climate Mate for the Isis region, Peter Crawford, stresses the importance of the Green Date: '*it's the first date by which you're likely to get a 70% chance of getting 50 mm of rainfall over three days*.' He says this can vary geographically and with seasonal conditions (e.g., ENSO phases - El Niño or La Niña - shift the timing), but that the date is important for planning forage: '*when the wet season's finished … end of March, end of April … you're gonna have 260 days before you have enough rain for grass growth again*.' He adds that pasture growth lags and a storm '*can make the difference between a good manager and a bad manager*.'

Climate Awareness & understanding

Mike takes a pragmatic approach to climate information, preferring to rely on trusted summaries, such as those provided by his regional NACP Climate Mate, rather than going into the technical detail. He explains, '*I don't sort of delve into [the climate drivers] too much. I rely on the overall outlook that Peter provides and probably stick with mostly the Bureau forecast.'* While acknowledging that multiple sources of such information exist, he says *'certainly the others are useful information, but I don't get too hung up on those … when you're getting a summary from a reputable source… they know what they're doing. They're gonna provide good information as best they've got it. It just means that it's one less thing to think about, and there's plenty to think about.'*

He says producers are already juggling multiple responsibilities: *'Anyone with any sort of property is always thinking about different things and doing different activities so … because there's others doing that work, I don't need to think about that.'* Ultimately, he values the clarity and accessibility of the information provided through the NACP: *'getting the information and getting it sorted and getting it out in what I think is a pretty understandable format.'*

Climate risk decisions

Mike feels that climate forecasting products are particularly valuable in guiding operational decisions around feed management and paddock recovery: '*It's basically just trying to manage the feed in the dry time… and trying to do some wet season spelling, you know, to allow some paddocks to recover.'*

He says that stocking rates on his property are deliberately conservative, which allows paddocks to be locked up to maintain feed through to the green date, even in dry times. He's also aware that '*you might get that first flush of pasture growth, but you're not really going to have any bulk of food for probably another six weeks. … You just can't stretch things too much because there will be times when it will be dry*.'

Climate risk decision-making

Mike highlights the benefits of using climate forecasting information and products for timely decision-making, particularly around stocking rates: *'Stocking rate is probably the thing … the climate forecast would play a part in making that decision.* He says that, for him, climate outlooks support risk management, allowing adjustments when conditions look favourable, or caution when *'things are gonna go pear shaped.'*

Impact

In Mike's view climate services such as those provided through the NACP are most valuable during dry periods, when they can help guide feed and stocking decisions*. 'It's really about… managing stocking rates, managing feed… I think it's most useful in dry times and trying to look ahead and saying this doesn't look too good at all.'*

Economically, he sees the main benefits of forecasts as supporting decisions around adjusting herd numbers: *'If that means destocking, well that's what happens. But if it means the ability to put… some more head or to keep the same numbers, then yeah.'* He says this reduces financial risk by avoiding overstocking during poor seasons and making the most of opportunities when conditions improve. He also see this as critical in supporting sustainable land use: *'making sure you've got ground cover, making sure you've got good feed.'*

He says that, environmentally, reduced stocking pressure *'probably [has] a soil carbon benefit… it goes with reduced erosion as well, reduced soil and wind erosion.'* Being in a coastal catchment, he is also aware of the value of protecting ground cover to reduce erosion and risks to offshore coral reefs: *'We don't want to be… putting out heaps and heaps of sediment into the reef.'*

Socially, Mike feels that the program fosters trust and collaboration among producers and that this can help build community resilience. Mike says he shares the NACP climate updates with others in the region: *'We pretty much try to follow the science and the facts… when you get something from Peter and the program … (you know) it's the best available science.'*

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