

Northern Australia Climate Program

NACP case study

Northern Territory
May 2024

Producers: Fiona McBean & Pete Cogill

Property: Old Cameron Downs

Location: Batchelor, NT

Property size: 610 ha

Enterprise: Cattle breeding, boutique abattoir

Land type: Savannah woodland, remnant lowland vine forest & alluvial plains

Average rainfall: 1383 mm

Soil type: Clay loam

Key message: Taking a climate-informed stewardship approach in decision-making helps balance social, economic, and environmental considerations.

Understanding climate information builds confidence in decision-making

Fiona McBean and Pete Cogill run Old Cameron Downs, a vertically integrated enterprise consisting of a breeder herd of Senebrah cattle - a tropically-adapted Brahman-Senepol mix - and an on-farm abattoir, near Batchelor, south of Darwin in the Northern Territory. They breed and grow out calves to slaughter weight, butcher on farm and sell directly to their customers in the residential retail market in Darwin, trading as Eva Valley Meats - a complete 'paddock to plate' operation that processes cattle, bred and raised on their property. Their unique business model emphasizes animal welfare and environmental sustainability and building a strong narrative around this to ensure the confidence of their customers.

Old Cameron Downs has a mix of savannah woodland, remnant lowland vine forest, and alluvial plains, with clay loam soil types and an average annual rainfall of 1383 mm. Fiona says that a key challenge is the presence of invasive gamba grass, and the heightened fire risk this represents when uncontrolled. With distinct wet and dry seasons, the issues of water access and pasture quality and availability through the dry are critical concerns to their operation.

Weather conditions significantly impact the success of their operations. Fiona says that reliable climate forecasts are crucial for anticipating weight gains, and also potential losses that might result from adverse conditions, over the three-year period it takes to breed and raise calves to slaughter weight.

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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 NT, Emily Hinds, says *'Working with local producers Fiona and Pete has been great. Fiona is such an experienced land manager and producer, I learn something new each time we meet. The learning is definitely a two way street. While I provide forecasting information, Fiona will discuss what work activities she may have planned ahead, so that I can then relate the forecast back as to how that might affect her business and property decisions. What really excites me about their property management is that they are using the forecast information for not just their business and herd operation, but also for decision making on improving the land through revegetation works, weed and erosion control.'*

Interaction with NACP

Fiona has recently participated in a face-to-face session with Emily Hinds, the regional NACP Climate Mate, and Dr. Andrew Marshall, who is the NACP extension project coordinator and an experienced seasonal climate research scientist with the BoM. She says that Emily and Andrew took her through the information that can be gained from both the short-term and longer-range climate forecasts that are available on the BOM website and the different ways this can be used to support decision-making – things that she hadn't previously known and feels she wouldn't have been able to use without this interaction. She says that, while she is still learning to fully utilise these resources, this has played a huge role in helping her gain a deeper understanding of the various forecasting tools that are available. She also says that the email that Emily sends out always has useful links that make it much easier to find the information she needs.

Fiona says that the greater understanding of the drivers behind weather patterns, gained from her interactions with the NACP, provides her with critical information that was not available to her when she relied solely on

the media coverage of forecasts. In her view *'the media gets in first and they get in loud ... and people just look at the El Nino because that's what the media covers. Then we have to balance between the media and what we understand. To be able to look deeper into what's causing it and why it might happen, if you know the drivers, that's a huge difference. And having Emily up here and being able to focus on those things that are more specific to our climate ... I didn't realize our region was so much less affected by El Ninos.'*

Fiona says that, for her, the value of having greater confidence and trust in the forecasts, rather than relying solely on hope or looking for a different forecast, has led to reduced stress and more informed decision-making. However, in her view, it will take a cultural shift for many producers to start trusting weather forecasts over traditional optimism. *'I think it's a cultural change as opposed to anything the BoM can do. It's just that farmers, the world over, as a group of people, have the disposition to be optimistic if they want it to rain. Trying to change that is really hard.'*

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Climate risk decision-making

Fiona says that she and Pete rely heavily on climate forecasts for various aspects of their farming operations on Old Cameron Downs. They use daily and hourly forecasts for immediate decisions like spraying for weed control, gauging fire risk in the dry season, and organising deliveries from their abattoir.

Operational decisions are typically based on forecasts up to a month in advance, with occasional consideration of forecasts up to three months ahead. This includes decisions on managing livestock numbers and timing weaning based on expected feed availability. Fiona says that the critical concern for them is the timing of rains at the beginning and end of the wet season. *'We don't worry about drought as much as we worry about that lead in from here until when it's going to rain. So, with us, it's that break. Is it going to rain in September, and will it still be raining in April? Our green date's the 14th of November and we look at that date every year, getting up to it, as an indication of what the season might be like. If you can tell us the beginning and end of the wet season, that would be an absolute game changer for us.'*

Fiona says that if they are weaning in June, they'll look at whether there's a fair chance of getting storms in September or October and, if not, they'll sell straight off the mothers - straight from mustering - *'because the feed in the paddocks is so harsh up here in June and if they're not on green grass until four months later, they just lose so much condition. You just really can't make them hold weight on a block like ours. We get a bit tighter on what we keep and might keep 50%, then make sure what we do keep is doing well.'*

Longer-term strategic decisions, such as their landscape rehydration projects - building contours and installing leaky weirs - are also influenced by seasonal forecasts. Fiona says that the forecasts helped them decide if they were going to build more contours and when to get the grader in. *'There's a very small time-frame when you can get down there and do it. We had to make sure we got onto it early because we knew the rain was coming. And if we hadn't, we would have lost an entire season. But, now we've got things in place, it means that we hold on to as much water as we can and get more benefit from it raining earlier and later.'*



*Pete, Fiona and some of the team
on Old Cameron Downs*



*Leaky weirs help rehydrate the
landscape on Old Cameron Downs*

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Triple bottom line

Fiona says that she and Pete take a broad stewardship approach to the management of Old Cameron Downs and their beef production enterprise, and that this helps them balance social, economic, and environmental considerations in their decision-making.

Economically, she says they try to anticipate market conditions three months ahead. By selling early, they can secure better prices and maintain pasture and optimal animal weights. *'With cattle, it's three choices, either buy, sell, or hold. If we can match our stocking rate to carrying capacity with certainty three months out, then we're going to be ahead of the curve. You're also going to actually have heavier animals because the quality of forage drops so severely from August, September and so on.'* She adds that *'When everyone is dry, it's too late. Prices have already dropped through the floor. If you can sell early and hold on to feed so you can buy early, that's the ultimate goal for sure.'*

For their meat processing business, Fiona and Pete will make a decision in July, based on the seasonal forecast, about whether to drop their slaughter weight rather than hold animals and have them lose weight over those drier months. *'Whereas if we're going to get early*

rain, we know that the animal will get through and we'll get to our ideal weight of 500 kg.'

Environmentally, a key focus of their climate informed decision-making is around pasture management. Fiona says that when the forecast is for above-average rainfall, they plan pasture improvements so that they can capitalise on the extended growing season to establish pasture without excessive destocking. Overall, they aim to maintain 100% grass cover year-round even through the driest months. Fiona says *'That's super important for sure. We get environmental benefits as a result of destocking.'* However, gamba grass provides an added complication, meaning that, at times, they need to stock more heavily to maintain pasture quality. *'Because we've got gamba grass, and gamba grows so fast, if we're understocked when it's raining a lot and that grass is growing, that's going to mean we have poor quality forage through the dry season.'*

She says she feels that their greater confidence in forecasts, since engaging with the NACP, has meant they experience less stress and are able to make more informed decisions. *'Getting a bit more confidence in the forecasts means that you've got more confidence in reality and rely less on just hope. So, there's less stress because of that. And that's definitely the main thing.'*

