

## GrazingFutures LBR Case Study

### Northwest beef extension team talk on the Territory.

Australia's agricultural practices are often separated by our state's invisible borders. However Northwest Queensland and the Northern Territory (NT) (while different) share land types, highly variable climates, and most importantly, face similar extensive livestock industry and production challenges.

The Department of Agriculture and Fisheries northwest beef extension team, recently embarked on a ten-day study tour to attend the Kidman Springs BeefUp forum, staged by Meat and Livestock Australia. The group's primary objective was to learn more about the Easy P research project.

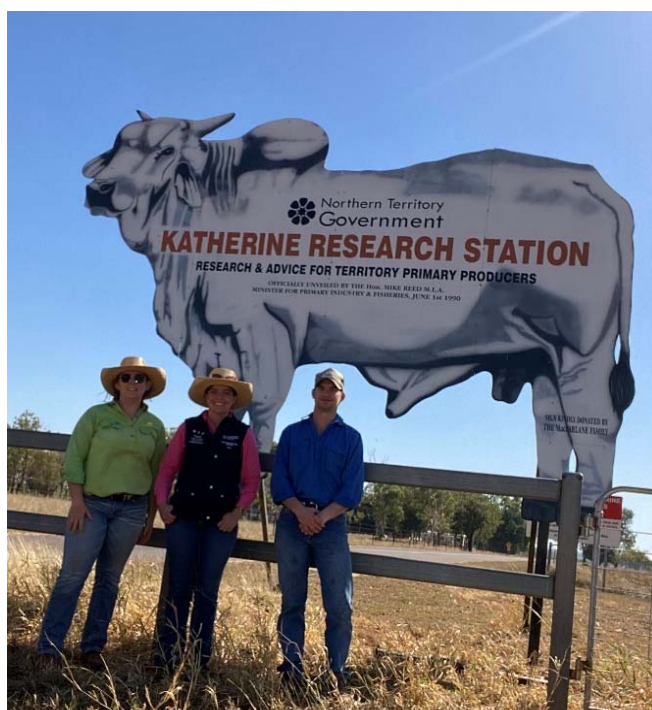
Along the way the team visited several properties including Sunday Creek, Mathison Station, Newcastle Waters, and undertook tours of Katherine Research Station and Victoria River Research Station.

The trip was provided by the Grazing Futures Livestock Business Resilience project, which is jointly funded through the Australian Government's Future Drought Fund and the Queensland Government's Drought and Climate Adaptation Program. The study tour enabled extensive insight into Northern Territory land types, management practices and beef production. Additionally, the team networked extensively with the Northern Territory Department of Industry, Tourism and Trade's (DITT's) staff members who had previously implemented a successful Easy P trial.

An allied Easy P demonstration trial is being considered for northwest Queensland.

#### 1. Katherine Research station

The research station houses the Select Brahman and tropical composite cattle that are bred as part of NT DITT's long-term selective breeding programs and genetic research projects.



**Figure 1.** Beef extension officers Katie Hay, Jane Evans, and Zach Hick at Katherine Research Station

Each year a portion of animals that were not selected for the Repronomics herd are made available to the public via auction. In 2022, the top cow reached \$10,000. The associated bull sale was less successful than previous years, believed to be a consequence of the poor season the Territory has had.

The northwest beef extension team was provided an overview of some of the projects underway in the NT, including the self-herding trials that have begun in the south. The self-herding trials use an “attractant station” that encourages cattle to associate visual, auditory and smell cues with a reward of molasses or lick. As attractant stations are moved to underutilised areas, the cattle follow, grazing areas rarely frequented. Self-herding strategies also provide some predictability around mustering.

Similar practices have potential to translate well in northwest Queensland if implemented successfully.

## 2. Sunday Creek

Sunday Creek is a 220,000ha beef cattle family-owned business located 30 km west of Daly Waters. Owned by the Stockwell family, the property runs a 7000 head self-replacing breeder herd of Droughtmaster-cross cattle. Peta Stockwell, the third generation of Stockwells on Sunday Creek, kindly gave the northwest beef extension team a tour of their property.



**Figure 2.** Sunday Creek cattle on dry season supplement

The pastures are made up of native species including blackspear grass, kangaroo, and bluegrasses, with buffel and Sabi grass, as well as stylos

present throughout. Like most of northern Australia, the wet season finished early in 2022, although with showers falling in recent months, pastures have received a late season boost.

Sunday Creek targets the live export market, however in recent times has also utilised competitive prices, sending cattle south and into Queensland. They are producing a strong line of cattle, culling for temperament, and focusing on polled genetics. The Stockwells have clear direction within their business, which is easily seen in their management practices and herd quality. Sunday Creek is a testament to cattle producers in northern Australia and are an example of a successful family business.

## 3. Mathison Station

Mathison Station is a 65,000ha family-owned beef cattle business located 100 km southwest of Katherine. The property currently runs 2,500 self-replacing angus brahman cross cattle and is in the process of herd building. The property is predominantly native pastures with heavy tree cover and stylos present. The property was purchased by Jay and Bec Mohr-Bell

in 2011, a month prior to the banning of the live export trade. The property had very little infrastructure at the time of purchase.

The Mohr-Bells focus on herd fertility and temperament with their beef cattle breeding program. Like Sunday Creek, Mathison produces cattle for the live export market, but in contrast, leave their male cattle entire. By doing so, the Mohr-Bells have not only received a 10c price premium, but are also able to have better access to the export market while growing cattle out quicker.

Mathison Station is currently conducting a trial in conjunction with the University of Queensland, looking at joined cows being fed a high-quality feed for a short period prior to lactation.

The Mohr-Bells also have several of their own projects, including the use of a walk over weigh system, which they use as a breeder management tool. This system enables them to effectively draft off desired animals at each watering point, reducing the time required mustering.

Other endeavours include preparing country for cropping as well as the development of laneways and clearing along fence lines.

The Mohr-Bells feed supplements to their herd all year round as salt-based lick blocks with the main nutrients being urea, phosphorus, and sulphur, with trace minerals. Jay has worked with his supplier to develop a custom trace mineral block containing higher levels of cobalt after determining his cattle were seeking out the mineral.

Mathison Station is a good example of a business that has faced numerous hurdles. The property now looks to be ahead of the curve as the Mohr-Bells eagerly adopt and trial a combination of technologies progressing them towards their goals of improving herd efficiency and reducing operation costs.

#### 4. Kidman Springs BeefUp Forum

The Kidman Springs BeefUp forum was a one-and-a-half-day event. The BeefUp covered industry “hot topics” including biosecurity, pasture management and technology, MLA’s CN30 project, calf loss and live export. The event included a comprehensive half-day tour of the research station.

The paddock tour showed demonstrations of the ‘Easy P’ project. This was of particular interest to the northwest beef extension team, as an Easy P site near Cloncurry is in the early stages of development. With a large proportion of northern Australia being phosphorus (P) deficient, the trial aims to demonstrate the benefits feeding P in the dry season and



**Figure 3.** Mathison Station weaner selected for temperament

supplementing in bulk bags during the wet season. During the wet season, much of northern Australia's cattle country becomes inaccessible due to unsealed roads and boggy black soil. The Easy P strategy aims to eliminate the challenge of accessing paddocks during the wet while still delivering adequate P supplementation to cattle. Viewing the trial site in-person established a realistic view of the significant differences P supplementation is making in northern Australia. The team saw many similarities in country, soil and pasture types between northern Queensland and the trial sites visited, providing a valuable eye-opening experience.



**Figure 4.** Beef extension officers departing Victoria River Research Station

Most importantly, attending the BeefUp gave the northwest beef extension team the opportunity to discuss the proposed Cloncurry trial site with Principal Livestock Research Officer, Tim Schatz. He, as well as other NT DITT staff, answered many of the questions the team had around logistics and methods of the trial.

During the tour the group was shown the 30-year-old Shruburn trial sites. The sites are burnt either early or late in the season at two-, four- and six-year intervals. The trial is determining the best interval, and time of year, to see pasture benefits and timber thickening reductions.

Arid soil ecologist, Wendy Williams, spoke to the group about boosting nitrogen capital with biocrusts, a foreign concept for many of the group. Wendy explained that the biocrusts act as a "living skin" that help to regulate soil moisture, sequester carbon, and fix significant amounts of atmospheric nitrogen. What is often seen as bare patches of earth or slimy areas of algae around the yards, are in fact, cyanobacteria, facilitating soil surface stabilisation and regeneration.



**Figure 5.** Beef Up attendees on a tour of Victoria River Research Station



**Figure 6.** Brahman cows selected on fertility for the Repronomics project on the research station

The last leg of the tour saw NT DITT's Gretel Bailey-Preston talk on the Select Brahman and Tropical Composite Herd. Coaxed with hay, the cows gathered briefly, boasting a body condition score of four to five. The Repronomics project, of which these herds are key, is determining identifiable genomic indicators of fertility that can be used to confirm the genetic merit of females and increase the accuracy of the fertility Estimated Breeding Values (EBVs).

From a producer perspective, the data from these improved EBVs is allowing informed selection decisions to be made without the individual data collection.

Both herds are strictly selected for fertility. Cows that are not pregnant at the time of weaning are drafted off into the residual herd and sold at auction. However, Gretel explained that the project has developed to the point where most cows in that residual herd are only missing one calf in their lifetime.



**Figure 7.** Repronomics cows eyeing off the on lookers.

## 5. Newcastle Waters

Newcastle Waters, owned by Consolidated Pastoral Company, is located on the western side of the Barkly region of the Northern Territory. Its open plains, flood country and timbered sand hills can carry 65,700AE. As a result of networking at the Kidman Springs BeefUp, the team met Greg Dakin – the manager of Newcastle Waters. Although only taking on the position three weeks prior, Greg kindly gave the team an overview of the property's early weaning program that focuses on the improvement of cow body condition. Seeing the scale of the Newcastle Waters was beneficial for the team to understand what a program of this scale looked like on the ground.

### Invaluable experience

After ten days, some very tactical car packing and lots of conversation around the northwest beef extension workplans, the team arrived back in Queensland.

The study tour allowed significant discussion about the implementation of the Northwest Easy P site and provided great networking opportunities with WA and NT extension officers.

Experiencing the country firsthand created valuable perspectives on NT beef operations, current research, development, and projects that can't be created through a computer screen.

The relevance of the work and its ability to be translated to northwest Queensland has sparked innovation and excitement within the northwest beef extension team.

Allowing the team, who are all relatively new in the role, to spend time with mentors in other states, alongside their Queensland colleagues, was invaluable in developing further understanding of beef production in northern Australia and is critical to the development of a well-rounded extension officer.

The firsthand experience, knowledge of the NT research results, and insights from successfully operated NT properties, has equipped the team to better support northwest Queensland beef producers through the GrazingFutures Livestock Business Resilience project.



**Figure 8.** WA DPIRD, NT DITT and QLD DAF extension officers alongside Project Manager, Northern Beef Adoption for MLA (left to right: Annie Bone, Stacey Holzapfel, Jane Evans, Zach Hick, Sarah Gwynne, Katie Hay, Charlotte Thomson, Harriet Bawden)

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