

**Northern  
Territory  
Government**

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- ISSN: 1325-9539



**DECEMBER 2010**



# BARKLY BEEF

## **HELEN SPRINGS INVADED BY BARKLY GLM WORKSHOP PARTICIPANTS**

*Jodie Ward, Grazing Land Management Officer, Katherine*

**Twelve producers, five NTDOR grass mechanics, one Barkly Landcare representative, and a couple of presenters descended upon Helen Springs on the 23<sup>rd</sup> and stayed until the 25<sup>th</sup> of November. The invaders forcefully commandeered the station quarters, the motel rooms, the kitchen, the office and most upsettingly for other station residents, the outdoor entertainment area next to the refreshment refrigerators.**

The Helen Springs Barkly Grazing Land Management (GLM) workshop was the first to be held in the area, and was well attended by participants who came from seven stations, from as far away as Avon Downs to the south and Ruby Plains to the west covering a total land area of 38,958km<sup>2</sup>. Topics covered in the workshop included:

- Understanding the grazing ecosystem- including the interaction between land type, climate and pasture production and the importance of land condition.
- Managing grazing, including possible management strategies to reduce patch grazing and the process of calculating sustainable carrying capacities according to land type and appropriate utilisation rates.
- Use of fire to help refresh rank pasture, assist in controlling pasture species composition and maintain biodiversity
- The importance of weed management, and
- Station planning

The materials were based on those developed previously for other regions in northern Australia, but have been customised based on local data and expertise of technical staff and Barkly producers.

Participants identified the managing grazing session as being of particular interest, as they noted the stocking rates they currently set based on experience were largely in line with what they calculated as their sustainable carrying capacities to be, using a more objective method and all of the available tools.



Above: Ryan Gurney (Soudan) analysing his grass species. Does it fit into the 3P classification – Productive, Perennial and Palatable?



Above: GLM'ers identifying the need to take an unbiased quantity of samples that will give an accurate representation of the paddock or land system area

other producers and managers in the region are collecting from their breeder herd, and the technology that is now available to assist with this.

**Day One** of the GLM workshop had participants drawing their ideal grazing system which incorporated factors varying from soil microbes to expelled methane and everything in between. Jenny Milson (QDEEDI) and Mick Quirk (MLA), the knowledgeable presenters of the GLM workshop, had participants identifying common plant species found on the Barkly, and assisted the participants in determining their value to the grazing ecosystem.

**Day Two** had participants picking up their shears and dragging their quadrats across country to assess and measure pasture growth, as well as calculating their property carrying capacities.

**Day Three** saw participants grouped together according to the station they were from, and put together a plan of changes that they would make to a specific paddock and present it to the rest of the group, incorporating carrying capacity calculations, spelling programs and weed management regimes.

Cassie Duggan (NT DoR) and Geoff Murrell (Manager, Helen Springs), gave a presentation about the Producer Demonstration Site (PDS) currently running at Helen Springs. Geoff explained how holding the PDS on Helen Springs was about showing



Above: Richard Peatling (Alexandria) listens intently as Jenny Milson, Mick Quirk & Chris Materne discuss grass species, pasture composition & land condition assessments



Above: Thursday morning, assessing red soil country in terms of land condition & pasture growth

Other highlights of the workshop included a presentation given by Scott Armstrong of Beetaloo Station, showing their current infrastructure plans and the thinking behind them. The assistance of Naomi Wilson from Barkly Landcare during the Managing Weeds section added another dimension to the workshop by

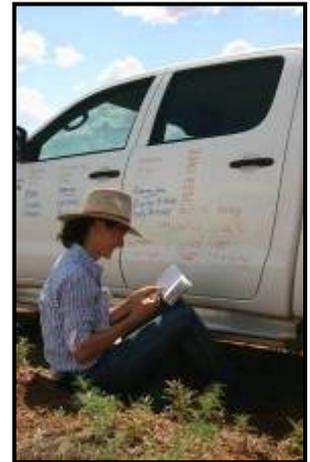


*Above: Michael Johnson (Avon Downs) tries his hand at pasture sampling*

identifying the financial significance of treating weeds early and the effect weeds can have on carrying capacity.

Overall, there was an overwhelming positive response from GLM participants with all keen to participate in the follow-up workshop in July/August of next year.

An enormous thank you must go to Geoff and Wendy Murrell and the entire Helen Springs team for hosting the event. We would also like to thank and acknowledge the support of the Caring for Our Country program, the NT Department of Resources, the Northern Territory Cattleman's Association and Meat and Livestock Australia (Mick Quirk in particular) in customising this workshop.



*Above: Jenny Milson (QDEEDI/Plant guru) puts a whole new spin on what used to be called 'back of the envelope' calculations*

*Although Geoff and Wendy Murrell escaped relatively unscathed, it is recommended that care should be taken when approaching such a gathering, particularly if it is known that there is a microphone and SingStar present.*



*Above: Geoff Murrell (Helen Springs) attempts pasture assessment using photostandards*



*Above: Todd Cordie & Ryan Gurney (Soudan) present their ideas for Soudan during the planning session.*



*Left: GLM Presenter, Jenny Milson (QDEEDI) does some on site pasture weighing*

*Right: Chris Materne (DoR, Alice Springs) – "All Hail Grass!"*





**Helen, Skye, Ted, Tom, Greg, Cass, Casey, Naomi & Drew wish everyone a wonderful Christmas and holiday season. May the New Year bring with it luck, cheer and lots of it! We look forward to catching up with you in 2011!**

**The Tennant Creek DoR office will be closed from Monday 27 December 2010 and will reopen on Tuesday 4 January 2011.**

***For emergencies during this period, please contact:***

**BIOSECURITY: Thomas Haines (Stock Inspector) – 0401 113 445**

**GENERAL ENQUIRIES: Skye Ries – 0408 875 749**



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## **STAFF NEWS**

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### **Pastoral Production Staff Travel to Bourke, NSW**

*Casey Collier, Pastoral Technical Officer, DoR Tennant Creek*

Casey Collier (Tennant Creek) and Dionne Walsh (Darwin), represented the Department of Resources at the 16<sup>th</sup> Biennial Australian Rangeland Society Conference held in the little historic town of Bourke, New South Wales in September. The conference provided the perfect environment to meet and network with people sharing similar interests in preserving, improving and using innovative ways to utilise rangelands right across Australia.

The conference opened with a welcome gathering in the heart of Bourke at an old unique building, locally known as the 'Old Lands Office'. It was a great chance for the conference participants, including international guests, to introduce themselves and mingle before the 'thinking' started.

Day 1 of the conference was a field tour entitled "Grazing Management & Innovation" during which two local properties were visited. The first property, Bokhara Plains, owned by Graham and Kathy Finlayson, was 35km north of Brewarrina and runs a successful 7,000ha cell grazing operation with approximately 1700 agisted cattle. During the tour, Graham spoke about the challenges he faced during the establishment off his agistment program and the tools, such as grazing charts, that he now uses to assist in the everyday decision making associated with running a successful business. The second property, 'The Angle' is owned by Tony Thompson and situated just south of Bourke. Tony gave an insight into a local sheep producer's battle to perfect a walk over weighing-RFID (Radio Frequency Identification) system he has been persevering with since 2004.

The three days that followed were filled to the brim with presentations on an array of topics; from rain-driven production systems to Indigenous land practices and many



in between. Many producers gave inspiring talks on their journey, process and eventual successes in bringing degraded, poor condition land back to productive pastures. As well, researchers gave updates on the various projects currently being conducted across the Australian rangelands.

Dionne gave a spoken presentation on the utilisation rates study that was conducted on the Barkly last year (co-authored by Robyn Cowley). Robyn was also the co-author of a paper about using the GRASP pasture growth model to identify safe stocking rates, which was delivered during the conference by Lester Pahl of Queensland Department of Employment, Economic Development and Innovation (DEEDI).

The final conference dinner was one to be remembered. Set on the deck of the Back O' Bourke Centre, with the temperature a little less than warm, the night allowed newly found friends to enjoy great food, great company and learn a little more about the history of Bourke. The next conference is set to be held in Kununurra in September 2012; which for all in the Territory is a little closer to home and a little more tropical!

All conference papers can be found at: [http://www.austrangesoc.com.au/site/conference\\_papers.php](http://www.austrangesoc.com.au/site/conference_papers.php)

## Tennant Creek Techie Taking Off



*All in a days work!* On the way up Sundown Hill in the VRD after a day of grass counting on Victoria River Research Station (Kidman Springs)

*Cassie Duggan, Technical Officer, DoR Tennant Creek*

After two very enjoyable and memorable years in Tennant Creek with the Department, I have decided to move on. This was a difficult decision and certainly not made due to being dissatisfied in my current role. My time with DoR has given me experiences far beyond what I imagined a Technical Officer role to entail. With such a small Pastoral Production team, I have had the opportunity to try my hand at a wide variety of activities, both research and extension and also had the chance to see what life as a stocky is like. I have travelled to places such as the flood plains on Finnis River Station near Darwin to the sandy soils of Mt Riddock Station north-east of Alice Springs, and of course all over the Barkly. This opportunity to travel to opposite ends of the spectrum, I believe, is unique to a NT Government Technical Officer.

I am remaining in the Territory and will be just down the road at AACo's Brunette Downs Station testing my skills in their

office. It will be a great opportunity to experience the beef industry from another side. My last day with DoR will be the 30 December however I will be on holidays from 17 December.

Thank you to everyone who I have worked with over the past couple of years and for your willingness to pass on advice and assistance where needed. It has been a privilege working with the Department on the Barkly and I wish you all a Happy Christmas and prosperous New Year. See you in 2011!!!

Cheers,  
Cass



[www.nabrc.org.au](http://www.nabrc.org.au)

**NORTH AUSTRALIA BEEF RESEARCH COUNCIL**

# CALL FOR POSTERS

Please advise your intention to submit a poster by Friday 28 January 2011. Abstracts due Friday 15 April 2011.

## Northern Beef Research UPDATE CONFERENCE

HOLIDAY INN ESPLANADE DARWIN  
116 THE ESPLANADE DARWIN NT  
**TUESDAY 2 – FRIDAY 5 AUGUST 2011**

Further information contact  
[www.nabrc.org.au](http://www.nabrc.org.au)  
JK Connections  
Conference Organisers  
[nabrc@nabrc.org.au](mailto:nabrc@nabrc.org.au)  
Jackie Kyte 0409 564 729  
Janine King 0419 735 542

Early bird conference registration -  
Monday 16 May to  
Friday 8 July 2011

! Welcome Reception | Field Trip | BBQ Dinner | Technical Presentations | Conference Dinner

## Senior Beef Cattle Researcher Recognised

*As seen in Katherine Rural Review, Issue 301*

Katherine based Beef Cattle Research officer Kieren McCosker has recently been awarded the North Australian Beef Research Council (NABRC) Young Achiever Medal. In a ceremony at the MEATing Centre at the Royal Queensland Show (EKKA), Kieren was recognised for his long-term commitment to the Northern Territory beef industry through his scientific ability, practical skills and keenness to communicate with producers.

Kieren has been working for the DoR since 2002 and has been involved in a number of cattle projects conducted by the Department. He is currently working on the CashCow project which runs throughout Queensland, the Northern Territory and Western Australia on commercial cattle properties and is looking at the factors contributing to reproductive wastage in northern breeder herds.

Kieren was one of four beef industry representatives awarded. Other recipients included Queensland Research Scientist Dr Richard Holroyd and Extension Officer Robert Shepherd and Western Australian Producer Keith Anderson of Jubilee and Quanbun Downs.



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## NEW NORTHERN GRAZING SYSTEMS PROJECT SITE ON THE BARKLY

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*Casey Collier, Pastoral Technical Officer, DoR Tennant Creek*

The Northern Grazing Systems (NGS) project, an initiative of Meat & Livestock Australia, and funded by MLA, NT and Australian Governments has recently expanded to include a smaller project that has just commenced on a Barkly Tableland station. The project will run as part of the NGS project and link in with the overall aim to develop practical, region-specific management options for managing issues impacting on the profitability and sustainability of the northern beef industry. During the initial stages of the NGS project, research, producer experience and modelling identified the following four key areas as requiring attention in the form of research, development and extension:

1. Stocking rate management
2. Wet season spelling
3. Infrastructure development
4. Prescribed burning (where relevant)

As many of you know, the Northern Grazing Systems project is currently well underway with several smaller projects currently being run under the NGS title. Ross Peatling has offered the opportunity to monitor and document the spelling and stocking rate management in a paddock on Alexandria. The proposed demonstration site fits well with the priorities identified in the NGS workshops held in the region and by the modelling completed to date. It is also an opportunity to build on grazing trials done in the region (e.g. Rockhampton Downs and Newcastle Waters) by monitoring land condition over the longer-term.



The main components of the study will involve the long term monitoring of three bores, all of different ages. By looking at land condition through yearly pasture monitoring data and photos, the effects of wet season spelling, stocking rate management and infrastructure development can be assessed in terms of profitability and sustainability.

Although still in the early stages, it is envisaged that the outputs of this project will include a field day to be held at Alexandria that will demonstrate to other Barkly producers the use of sustainable stocking rates and wet season spelling to maintain/improve land condition. The demonstration will include examples of the interaction between pasture spelling, stocking rates and land condition and therefore lead to practical advice and technical knowledge about implementing these practices on the Barkly Tableland.

**For more information on the Alexandria monitoring trial or the Northern Grazing Systems trial, please contact Casey Collier (Tennant Creek) on (08) 8962 4493 or Dionne Walsh (Darwin) on (08) 8999 2178.**

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## REGIONAL UPDATE

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*Neil MacDonald, Regional Director/Director – Primary Industry Research, DoR Katherine*

December again. Hopefully everyone has finished their season's work and will be able to watch the rain come down with an easy mind.

With any luck a good wet season will make up for some other current difficulties like increasing prices and restrictions on the live export trade. We are well aware what a hard year 2010 has been for much of the pastoral industry. This view is backed up by MLA's "Northern Beef Situation Analysis 2009" by Terry McCosker, David McLean & Phil Holmes which paints a gloomy picture of profitability across the whole of Northern Australia. Although most of their evidence is not from this region, their conclusions no doubt apply here too. This subject was also addressed by Val Dyer in a paper she presented to the NT Economic Outlook Conference held in Katherine on 13 October. The data she presented from Hayfield-Shenandoah showed that margins are very tight but it is possible for an enterprising operation to keep going and even expand under these circumstances.

Sadly Cassie Duggan will be leaving the Department at the end of December, but happily she will not be lost to the region as she is moving to Brunette. She has been a wonderfully active member of our team as well as a great asset to the whole community. We wish her well in her new role. We have advertised for a replacement who I hope will be on deck to help Casey early in the New Year.

Hopefully many of you have had the opportunity to meet Pieter Conradie who is now managing the Barkly pastoral staff from his base in Alice Springs. Pieter started with us at the beginning of November.

There is some project news that I would like to draw your attention to.

We will be starting a new trial at Brunchilly next year aimed at producing real figures on the cost:benefit of supplementing phosphorus. This has been hard to definitively prove in the past, as the data has always been confounded by paddock differences. We plan to overcome this problem by using an automatic drafter which will give individual cattle access to supplement or not depending on their eartag and thus allow different treatments to graze together in the same paddock. Other aims of the trial are to field test new diagnostic methods being developed by the University of Queensland, and to investigate how long the benefit of Phosphorus supplementation lasts and whether a good feed of supplement in the late dry has an effect throughout the wet. This

project will be led by Tim Schatz from our Department and by Simon Quigley from the University of Queensland. Whitney Dollemore from our Katherine office will manage the operation of the project, and she will also be assisting Kieren McCosker to collect data for the Cash Cow project.

Some years ago BRAC asked us to compile a list of all past projects carried out on the Barkly to make sure they were not lost or repeated. This has taken us a long time because of staff changes but I am delighted to say that Casey has persevered and it is now finished. It will be published in late December or early January. We tracked down 83 projects from 1947 onwards including work done by other agencies on related subjects like conservation and wildlife. For each project there is a short summary of the main findings, details of sites, dates and project staff, and details of how to get further information. In most cases the full reports are available in our Tennant Creek Office.

We will be carrying out another pastoral survey early in 2011. The last one in 2004-05 attracted a lot of attention because it showed how radically the NT industry had changed since the previous survey in the early 1980s, and its conclusions have been widely used. We promised to repeat the exercise every 5 years to keep the industry's profile up-to-date and there seems to be good support for that. I should emphasise that all data is confidential. Only regional averages are published and original data is destroyed. Casey will be the main surveyor for the Barkly so please contact her direct for further details. Realistically it will be March before she can get out to most outlying stations.

Elsewhere in this edition, Cassie has advertised next year's Barkly Herd Management Course scheduled for late March. This course is only run every two years and is always popular. I hope to see many of you there.

***Best wishes for a safe and happy Christmas to all on the Barkly!***

## NORTHERN TERRITORY BULL SELECTION & HERD IMPROVEMENT WORKSHOP

In Conjunction with

## ANNUAL NORTHERN TERRITORY DROUGHTMASTER BULL SALE ~ TENNANT CREEK ~

15<sup>TH</sup>/16<sup>TH</sup> APRIL 2011

Workshop Commencing 10am Friday 15th April

Topics of Discussion:

- **NUTRITION:** Nutrition's role in increasing productivity and herd health in Northern Australia
- **MARKETS:** Knowing your target markets and achieving increased returns from your operation
- **BREED SELECTION:** Breed characteristics and suitability to the Northern Australian environment
- **VETERINARY:** Increasing herd fertility by identifying non performing bulls
- **BULL SELECTION:** Understanding and identifying traits to improve your profitability

Guest Speakers:

- Peter Atkinson BVSc. (President Reproductive Vets Association of Australia)
- Tony Newman B.APP.Sc./RT
- Dean Allen (QLD/NT Buyer for International Livestock Export P/L)
- Neil Donaldson (CEO D.S.B.S)
- Brett Nobbs (Principle of NCC Brahman Stud)
- Jock McPherson (Partner & Director Territory Rural McPherson)

Followed by Northern Territory Droughtmaster Bull Sale on Saturday 16th April commencing 10am

### REGISTRATIONS / ENQUIRIES:

Phone: 07 4748 4942

E-mail: [ntbullsale@hotmail.com](mailto:ntbullsale@hotmail.com)



# To be confirmed...

## Barkly Herd Management Forum ~2011~

*Some of our industry's finest will be on hand at the Barkly Herd Management Forum (BHMF) to assist station staff (Head Stockmen/women, Overseers, Assistant Managers) with developing their knowledge base and understanding of the basic principles required to manage a profitable enterprise. The BHMF will help participants develop an appreciation of the region's resources, understand the steps necessary to preserve land condition and expand their knowledge on the factors affecting production in northern Australian beef herds. Attendees will participate in interactive sessions that provide recommendations and key strategies specifically for the Barkly region and allow them to learn from experts in various fields*

## Alexandria & Brunette Downs

Late March 2011

Note: The topics to the left are examples only and may not be covered at the 2011 BHMF



communication



genetics



sustainable intensification



animal welfare



# BE ATHEL AWARE!

Kay Bailey, National Athel Pine Co-ordinator



With widespread rain throughout Australia this year an athel pine seedling event is likely.

Moist conditions at the time of seed fall, of up to 500,000 seeds per tree (usually autumn in Australia), has provided an ideal environment for the establishment of athel pine seedlings.

## What you can do?

- Check areas around and downstream of existing planted trees
- Record location of any seedlings found (use a GPS or mark on a map) and inform your local weeds officer
- Control any seedlings found (it is much cheaper and easier at this stage)
- Either hand pull or spray (using herbicides recommended in the National Athel Pine Best Practice Management Manual, available at [www.weeds.org.au/WoNS/athelpine](http://www.weeds.org.au/WoNS/athelpine))
- Check the area and complete any follow up treatment

From this...



...to this in less than 7 months (Gemfields, Queensland)

For further information contact:  
KAY BAILEY, NATIONAL ATHEL PINE COORDINATOR  
(08) 89519213 or [kay.bailey@nt.gov.au](mailto:kay.bailey@nt.gov.au)

## TIPS & TRICKS FOR USING RFID PANEL READERS

Don Menzies, Outcross, Rockhampton  
As seen in Katherine Rural Review: Issue 301



Listed below are some tips and tricks for using RFID Panel Readers. Please note my experience mostly relates to Allflex readers but generally all readers operate the

same in terms of the issues discussed. The reasons for using a Panel Reader are obvious in

terms of the increased speed but consideration needs to be given to interference from metal and electrical equipment when installing and using.

### 1. Metal installations

RFID readers emit an electromagnetic field, which is radiated from the reader in a sphere. Metal will either absorb the electromagnetic field or it can also channel the electromagnetic energy away from the usual read zone.

Readers will not read through sheet steel but will read through / around metal pipes (as typically found in a crush) and achieve a decent read range. Our experience is that the read range achieved when mounting a reader on a crush is

fine for scanning cattle when they are being stopped, weighed etc.

The other consideration is that the more metal, the more the reader's electromagnetic field is absorbed and therefore read ranges can be inadequate when used in very heavy duty crushes and the reader may require tuning or some steel removed from the crush.

A trick to allow the reader to be used in a range of conditions from site to site without tuning is to simply lift the reader off the metal on one side. That is, instead of mounting the antenna flat against the pipes, leave one edge flat and swing the other edge away (about 50mm – 75mm). Pack the gap with something non conductive, like a wooden block and you will be ready to read.

In some situations you might find what you think is the perfect spot to mount the antenna within a "window" of metal pipes. However this can form a closed metal frame around the Panel Reader, which will reduce the electromagnetic field emitted from the reader. To prevent this, simply mount the antenna so it straddles one of the metal sides and you achieve a reasonable result.

## 2. Parasitic Effect

As mentioned earlier, metal can absorb the electromagnetic field but can also channel the electromagnetic energy away from the usual read zone. What often happens is that the metal actually acts like an extension to the antenna. This is called the Parasitic Effect. In most instances this can be extremely beneficial as it means that the RFID tags begin being read well before the animals head is in front of the panel reader.

The Parasitic Effect can be a disadvantage when a panel reader is mounted in a metal raceway. In a crush the "enhanced" read zone is restricted. A typical metal race has vertical posts about 2700mm apart and horizontal rails in between the vertical posts. If you mount a panel reader close to one of the vertical post the read area can extend the full distance between the vertical posts. This looks impressive when you are testing but when you try to read cattle in single file you end up with multiple tags being read simultaneously. This can result in missing some tags especially if you are processing weaners that can be two abreast.

The simplest solution to this is to position the antenna about 300mm from one vertical post and then weld a new vertical bar about 1200mm from the other post. You need to weld the new bar to each horizontal bar. This stops the

electromagnetic field from travelling outside the read zone "window" you have now created.

## 3. Electrical Interference with RFID Readers

Interference can be broken into radiated or conducted.

### 3.1 Radiated Interference

#### *Other Readers*

When you have any two readers operating (either Panels Readers or Wands) the effect is to reduce the read range of each one. For instance, Outcross data collectors will often have to touch the handheld reader against the ear tag to get it to read when a panel reader is operational as its read range is drastically reduced. Likewise the effect is particular apparent when two panel readers are operating at the same time. There are a few collaborators within the Cash Cow project who would like to collect data and use a panel reader at the same time as Outcross is working. The best solution we have found is to use the Allflex Panel Reader with a split cable that goes to both the Outcross data collector's computer and the collaborators data collection unit.

### 3.2 Conducted Interference

Conducted interference relates to a current conducted into the panel reader different from the power being sent to charge the panel reader. Possible sources of interference include generators, light dimmers and solid state relays.

I recently had an instance when demonstrating NLIS equipment where current unintentionally travelled from a generator to a panel reader while the reader was being powered from a 12volt battery. The read range was drastically reduced, which meant a wand had to be used. If I had of isolated the generator power from the panel readers the problem should have been eliminated.

Another issue to be aware of is electrical noise conducted into the power system of the reader. An example of this occurring is if a scale indicator is being charged from a battery which is also being used to operate a panel reader. The regulating of the scale charger will interfere with the power into the reader.

### Conclusion

Irrespective of what brand of reader you have, all of the suppliers have support staff you can turn to for assistance either through sales representatives or via help desks. If you consider the points above when installing and using Panel Readers their use will be optimised and your cattle flow will be increased.

**For more information on RFID readers, please contact Don Menzies at Outcross on (07) 4927 4160 or 0410 319 027**

# INTEGRATED NATURAL RESOURCE MANAGEMENT PLAN 2010-2015

Tanya Howard, Regional Co-ordinator, NT NRM Board

The Natural Resource Management Board (NT) would like to thank all members of the NT NRM community who attended the INRM Plan 2010-2015 'roadshow' in August or who have commented on the plan during presentations, via submissions, emails and phone calls.

## What happens now?

Over 100 management actions have been identified from feedback received. These actions, and others identified from existing plans and strategies, are being used to inform four regional action plans - for the Tablelands, Arid Lands, Gulf Savanna and Top End.

The NRMB has held workshops to once again seek the community's input to help prioritise the identified management actions.



Northern  
Territory  
Government

greening the  
Territory  
A Territory Government initiative

## Parthenium weed alert Containment area remains in place

Parthenium weed (*Parthenium hysterophorus*) was found at the Tennant Creek stockyards in July 2010.

This weed poses a serious threat to the NT. The containment area established to prevent inadvertent spread of this weed has been extended to **30 April 2011**.

Residents are urged to keep watch for this weed. Parthenium weed is a declared Class A and Class C weed in the NT and a Weed of National Significance.

### Have you seen parthenium weed?

Contact the Weed Management Branch of the Department of Natural Resources, Environment, The Arts and Sport immediately on **8999 4567**. Landholders are urged not to attempt to control or dispose of parthenium weed.

For more information and photo identification visit [www.nt.gov.au/weeds](http://www.nt.gov.au/weeds)



[www.greeningnt.nt.gov.au](http://www.greeningnt.nt.gov.au)

### A GOOD CHRISTMAS CAKE RECIPE FOR YOU!

2 cups flour, 1 stick butter, 1 cup of water, 1 tsp baking soda, 1 cup of sugar, 1 tsp salt, 1 cup of brown sugar, Lemon juice, 4 large eggs, Nuts, 1 bottle Brandy, 2 cups of dried fruit

Sample the brandy to check quality. Take a large bowl, check the brandy again. To be sure it is of the highest quality, pour one level cup and drink. Repeat. Turn on the electric mixer. Beat one cup of butter in a large fluffy bowl. Add one teaspoon of sugar. Beat again. At this point it's best to make sure the brandy is still OK. Try another cup... Just in case. Turn off the mixer thingy. Break 2 eggs and add to the bowl and chuck in the cup of dried fruit.

Pick the fruit up off floor. Mix on the turner. If the fried druit gets stuck in the beaters just pry it loose with a drawscraper. Sample the brandy to check for consistency. Next, sift two cups of salt. Or something. Check the brandy. Now shift the lemon juice and strain the nuts. Add one table. Add a spoon of sugar, or some fink. Whatever you can find. Greash the oven. Turn the cake tin 360 degrees and try not to fall over. Don't forget to beat the turner. Finally, throw the bowl through the window. Finish the brandy and wipe counter with the cat.

Bingle Jells!

# AussieGRASS – DECEMBER 2010 UPDATE

Chris Materne, Pastoral Production Officer, Alice Springs

AussieGRASS is a spatial modelling framework that estimates various pasture characteristics (such as growth and total standing dry matter) over a given time period and compares it with historical records. It does this by using rainfall, climate, soil and pasture type information to estimate average pasture growth (among other parameters) over 5km x 5km square grids across Australia. Seasonal benchmarking tools such as this are potentially valuable tool to assist pastoralists make informed land management decisions.



For more information on AussieGRASS see <http://www.longpaddock.qld.gov.au>.

## Past

### Pasture Growth Relative to Historical Records since 1957

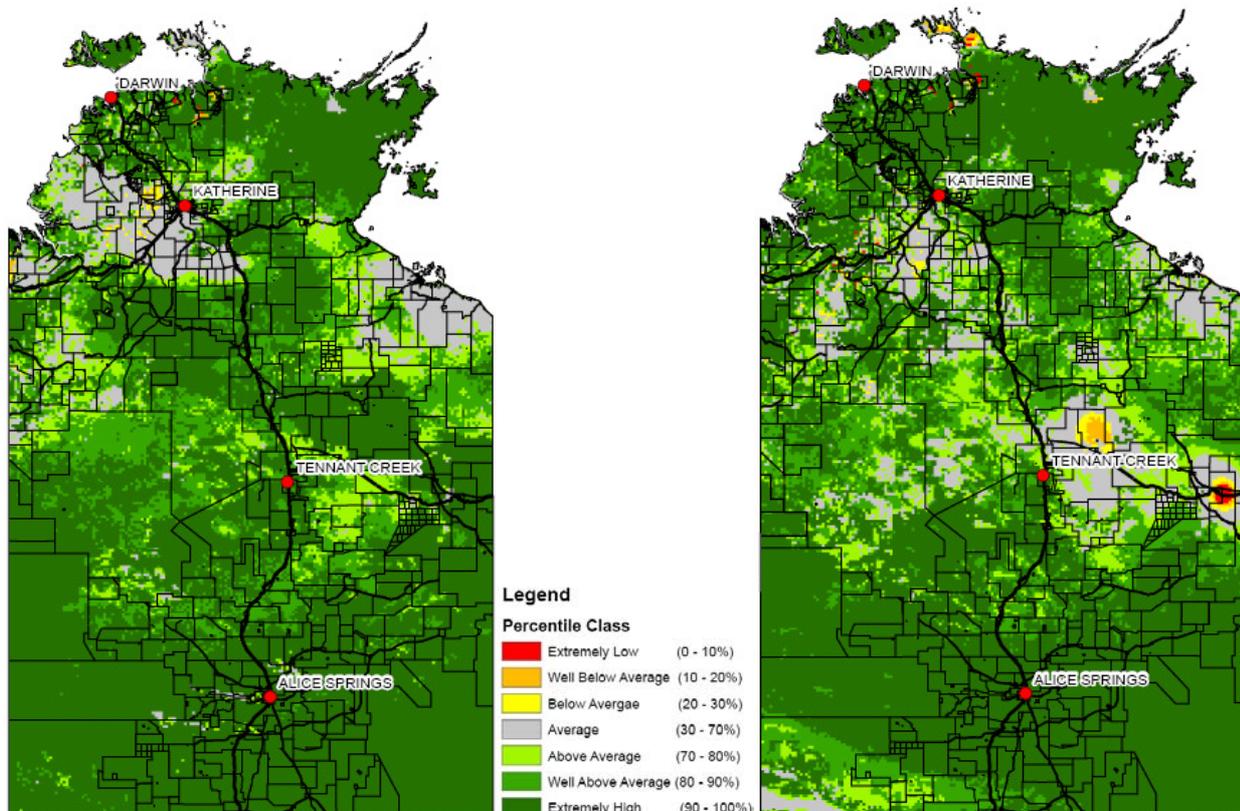


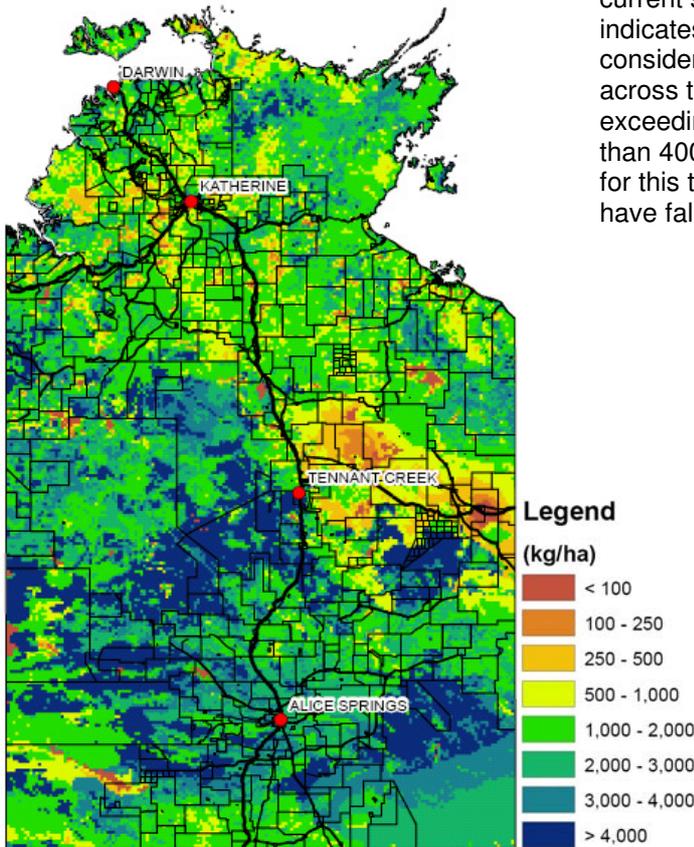
Figure 1: November 2010 Pasture Growth

Figure 2: Past 12 – Months Pasture Growth (1<sup>st</sup> December 2008 to 31<sup>st</sup> November 2010)

Modelled pasture growth for November (**Figure 1**) indicates that an early start to ‘wet season’ has been experienced across the Barkly and ‘Top End’ districts, while the exceptional growth event across central Australia continues. The past 12 months modelled growth (**Figure 2**) shows that the majority of the Northern Territory has had an above average 2009/10 wet season and extremely high growth across the Alice Springs district.

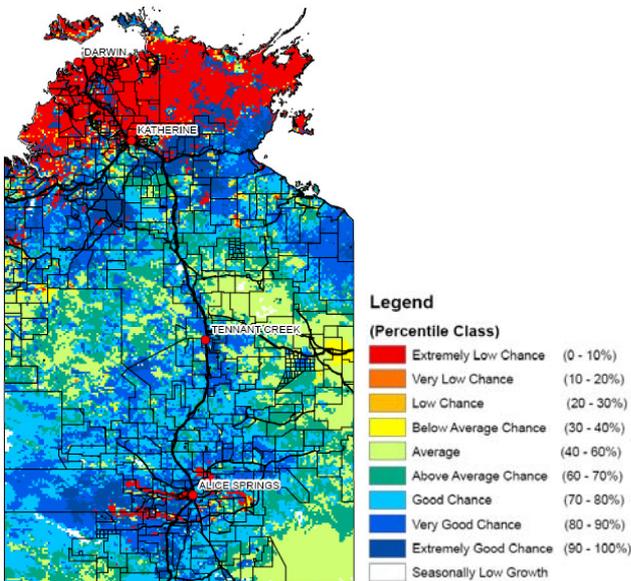
**Present**

**Figure 3: Total Standing Dry Matter (TSDM) as of 31<sup>st</sup> November 2010.**



Total standing dry matter (TSDM) is estimated by incorporating pasture carried over from previous season (less grazing, fire and detachment) and the current season's growth. The TSDM map (**Figure 3**) indicates pasture quantity continues to vary considerably across the NT. The exceptional year across the southern NT has resulted in totals exceeding 1000kg/ha with large areas showing greater than 4000kg/ha. As expected across the northern NT for this time of year (end of the 'dry season'), totals have fallen to generally less than 1000 to 2000kg/ha.

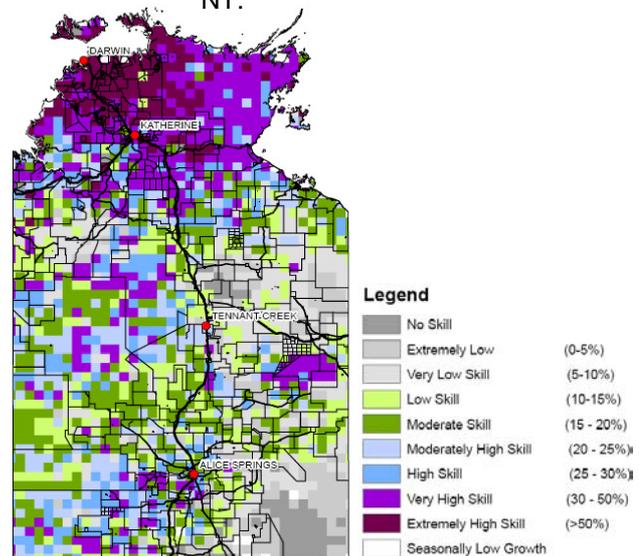
**Future Growth Predications**



**Figure 4: Chances of exceeding Median Growth between December 2010 and February 2011**

**Figure 4** represents the chance of exceeding median pasture growth over the coming three month period based on the SOI index. This model is predicting an extremely good chance of exceeding median pasture growth over the next three months across the majority of the NT, with the exception of the 'Top End'. Areas around Alice Springs are starting to show a low chance of exceeding median growth for the first time this year. Low growth in these areas however may not necessarily be due to reduced rainfall but may potentially be from a depletion of nitrogen reserves following the exceptional year being experienced in the district.

**Figure 5** shows the level of skill or confidence in these growth predictions which is generally high over the 'Top End' but variable across the rest of the NT.



**Figure 5: Prediction Skill based on SOI Phase 2 in November 2010**

**PERSONALISED PROPERTY MAPS**

*Are you interested in obtaining detailed AussieGRASS maps for your property?*

If so get in touch with Chris Materne DOR Alice Springs (89518135) [chris.materne@nt.gov.au](mailto:chris.materne@nt.gov.au).

General NT and Australia scale maps are available on line at:  
<http://www.longpaddock.qld.gov.au/RainfallAndPastureGrowth/>



## Identifying Our Valued Natural Assets on the Barkly NT

One of the challenges facing Northern Territory pastoralists in remote, semi-arid regions is maintaining an economically viable production industry in a climate of rapid change, persistent drought and increasing market pressures, while protecting high-value natural assets in such a vast landscape.

In meeting this challenge, it is crucial to be able to identify specific and discrete landscape features or systems. While this may seem obvious, often the process of defining what is important to us goes no deeper than applying broad generalisation such as “wetlands” or “critical habitats”. Having the capacity to say “these features are most important because...” is a key component in successfully managing for the health and productivity of the whole landscape.

It was during strategic planning processes in 2008 that Barkly Landcare and Conservation Association (BLCA) identified this capacity as a gap for the land management community of the Barkly. The group set about to bridge this gap in 2009-10 through an Australian Government Caring For Our Country funded project; *Asset Protection Decision Support Tools for Pastoralists in Semi-Arid Landscapes*.

It was important to BLCA in undertaking this project to deliver a register of assets for the Barkly that employed the best achievable fit of community consultative processes with objective desktop spatial analysis. To achieve this they set about engaging with a wide range of subject area experts both within and beyond the NT, and pastoral land managers across the Barkly region. Through this process a set of descriptors was developed for three primary asset class types: Areas of Conservation Significance, Premium Production Zones and Water Resource Systems.

These descriptors were then used to develop a range of spatial models, some very basic and others more complex to identify and assign a value to these landscape features across the region.

Availability of appropriate data for this process was a significant barrier throughout this project. While data custodians in the NT Government were very supportive in supplying existing spatial data, the completeness and resolution of the data proved to limit almost all of the original models scoped. This is a significant challenge facing

remote landscapes across Australia where vast landscapes coupled with small populations results in limited resources to effectively survey and map landscapes to a level of detail available in more densely populated landscapes.

Despite these challenges models for all asset classes were produced. The resulting set of spatial data layers was used to inform the *Assets of the Barkly – a Register of our Valued Landscape Features* describing these natural values across the landscape and identifying key management actions to protect and ensure sustainable use of these assets.

While it is still too early to assess the impact of the register on sustainable land management within the region, there are a number of potential applications at the regional planning level. Initially the register is being used by BLCA to support the implementation of the BLCA Strategic Plan and to guide decisions on where to focus group project efforts, particularly in identifying key riparian and wetland restoration projects.

In addition to this the register identifies a number of key management considerations that should be targeted in the areas of land manager capacity and managing emerging threats. These are now informing the development of new projects that build capacity and aim to improve the overall condition of the regions assets.

The register will assist in managing emerging threats to the region by providing a reliable assessment of all the values within the landscape at the point of which a threat may be emerging. It will be possible with this tool to more concisely identify how a threat will impact within the landscape and measure the value that is at risk from a new threat. The register will also assist in determining where to take first action against existing threats.

The register also has the potential to inform future environmental systems condition assessments and monitoring processes region wide. While the register does not attempt to assign a condition or health rating to the identified assets, it does take an important first step of identify what landscape features are important to the health of environmental and production systems and why. It is anticipated that in the coming years, the register will be crucial in the sustainable management of the region for both production and

environmental systems. This will be particularly important through a period of potentially significant land use change with mining enterprises on the increase in the region, changing climatic conditions and rising production demands as market and food security pressures increase for beef producers.

The project was implemented by BLCA project manager, Naomi Wilson. For more information on this project, please contact Naomi on (08) 8962 4494 or at [barklylandcare.nw@bigpond.com](mailto:barklylandcare.nw@bigpond.com)



**Figure 1: Landholders discuss the impacts of an emerging threat on a high value production landscape type at the project workshop**



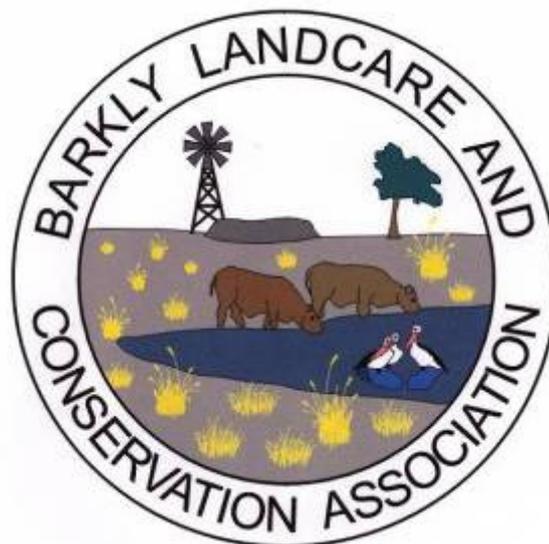
**Figure 2: This semi permanent waterhole on the Barkly provides critical habitat for a range of flora and fauna.**



**Figure 3: The Mitchell Grass Downs natural treeless plains of the Barkly are a key and highly valued production asset.**



**Figure 4: The Georgina River is an example of a significant high value water resource systems asset.**



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## ACARICIDE RESISTANT CATTLE TICKS IN THE NT

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*Sue Fitzpatrick, Principal Veterinary Officer Biosecurity, DoR Darwin*

In the late 1990's, acaricide resistant cattle tick was detected on a station in Darwin region. The resistant tick was identified as *Parkhurst strain*, resistant to the synthetic pyrethroid (SP) and organophosphate (OP) group of chemicals such as Bayticol, Barricade S, Blockade S and Tixafly products. Tracing of livestock movements onto and off the infected property and surveillance conducted on these properties in the Darwin, Katherine and Tennant Creek regions and on properties neighbouring the infected property identified another nine infected properties, which were all in the Darwin region.

Properties infected with resistant tick are quarantined and movement restrictions applied to prevent the spread of resistant tick to other properties. Movement of livestock from an infected property to non-infected properties requires a clean inspection and supervised treatment by an Inspector of Stock prior to movement. Movement to other infected properties or to export yards for export requires a permit.

A recent survey has been undertaken on infected properties, neighbouring properties with cattle or other susceptible livestock and properties with regular or significant livestock movements from infected properties known as trace properties to examine the current distribution of Parkhurst ticks and effectiveness of the movement restrictions to prevent the spread.

Surveillance has shown that the spread of resistant tick has likely been through unauthorised movement of cattle from infected properties or movement prior to infection being detected. Movements from infected properties is being closely monitored using NLIS and waybills to ensure compliance with movement restrictions.

There are currently 20 properties in the Darwin region with *Parkhurst* tick. There has also been some evidence to suggest low levels of *Ultimo strain* tick which is resistant to Amitraz. There has been recent confirmation of an infected property in the Katherine region and some other

suspected properties are being monitored. There are no known infected properties in the Barkly region.

Within the Darwin region, infected properties are contained within three main areas;

1. Mary River area
2. Finnis River area
3. Livingstone/Noonamah area

If resistant ticks are not contained within their current range, all stock including stock from uninfected properties travelling to the Tick Infected Zone in Katherine and Tennant Creek regions or the Kimberley in WA will need a clean inspection and supervised treatment. Currently stock from non-infected properties can move to these areas without inspection and treatment. The chemical used in all Territory plunge dips may also need to be changed to Amitraz to ensure effective control of resistant ticks. If cattle tick developed resistance to Amitraz, there would be no alternate chemical to use in plunge dips.

When introducing stock onto your property from potentially infected properties you need to be aware of the risk of introducing resistant tick and take precautions. Ensuring introduced cattle are treated in an Amitraz plunge dip or with Macrocylic Lactone (ML) injectable or pour-on tickicide products prior to entry onto your property and maintaining accurate records of movements (waybills and NLIS transfers) will minimise the risk of resistant tick entering and establishing on your property. Also monitor the effectiveness of Bayticol plunge dips and report poor tick kill to your Stock Inspector.

The Departmental Agnote - Acaricide Resistance in Cattle Ticks provides further information. The Agnote is available on the publications website at [http://www.nt.gov.au/d/Content/File/p/Anim\\_Dis/845.pdf](http://www.nt.gov.au/d/Content/File/p/Anim_Dis/845.pdf) or to obtain a hardcopy please contact your Stock Inspector.

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## TIME FOR NORTHERN CATTLE INDUSTRY TO PUT MORE EMPHASIS ON GENETICS

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*Neil MacDonald, Regional Director/Director – Primary Industry Research, DoR Katherine*

At a cattle industry meeting a few weeks ago I suggested that genetics was a field where the NT was lagging behind, and I was taken to task for not having data to back up that opinion. I still don't have much evidence singling out the NT, but Rob Banks from MLA has provided some data showing that genetic progress in North Australian herds over the last 30 years has been only a third of that in the south. In Figure 1, the

bottom line is the north and top line the south. On average southern cows have gained almost \$30 in value since 1980 from genetic improvement alone, while northern cows have gained just less than \$10.

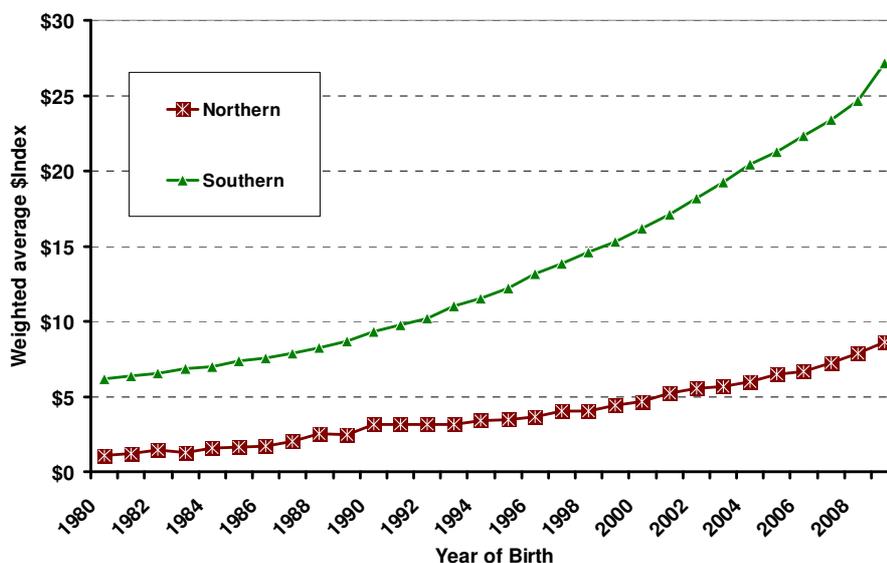


Figure 1: Genetic improvement in Northern and Southern Breeds

The reason for stating this difference is not to criticise or beat ourselves up, but to show what a great opportunity we have ahead of us.

For the whole of the Australian Beef Industry, the rate of genetic improvement is increasing. In 2009 the rate of gain has been calculated at \$1.95 per cow joined per year, about double the rate in 1999. That sounds good, but it is really only about the same as the rest of the world.

The best herds over this period have recorded rates of genetic gain of about \$7 per head per year, again showing that most of the industry is nowhere near its potential.

There are obvious reasons why the south is further ahead than the north:

- In the tropics we have to select for hardiness which makes selection for productive traits a slower process
- We are dealing with bigger herds. Up to now we have not concentrated to the same extent on individual animals.
- We have a shorter time to develop our production systems. Its only about 20 years since BTEC finished and all cattle came under control and we have spent much of that time concentrating on increasing the *Bos indicus* content of our herds.
- Up to now meat quality has not been a major profit driver for many parts of the north
- Some southern breeds have made extensive use of AI to make full use of superior imported genetics.
- The southern figures are enhanced by the tremendous progress made by the Angus breed. They have made the most of some well-chosen imported genetics from a few years ago.

There are some shining examples in the NT of operations that have made big genetics gains. For example the pioneering work on tropical composite breeds by some of the big companies on the Barkly stands out.

Departmental herds have had very little objective selection and would not be genetically superior to most commercial stations. However, the Brahman herd which Gehan Jayawardhana selected on fertility traits for many years still continues today. As Figure 2 shows, this herd has reduced its average days to calving by 5 days and increased its average scrotal size by 2 cm over the last 25 years while the breed average has hardly moved.

There is new evidence that reproduction in the Brahman breed is much more heritable than originally thought, and this herd is attracting a lot of attention as one of the best examples of that.

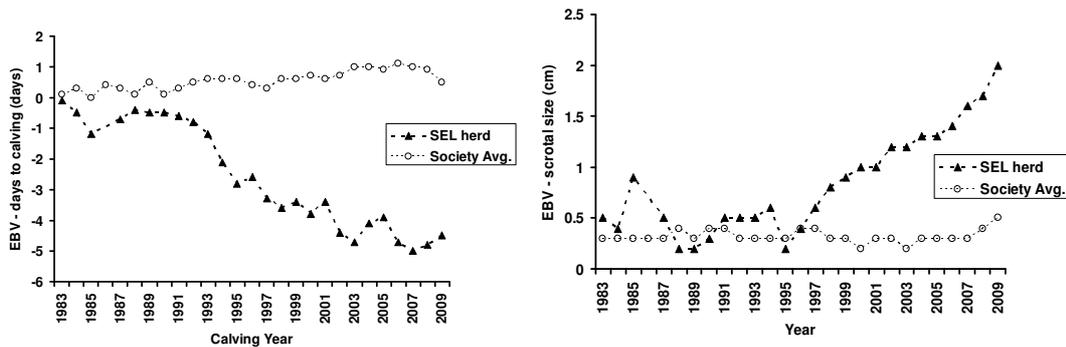


Figure 2: Changes in two reproductive traits (DoR improved Brahmans v breed average)

The NT and WA currently represent only 4% of the calves registered with Breedplan. Without objective measurement our cattle will continue to look good but are unlikely to make much improvement in production. Producers sometimes tell us that they cannot get EBVs from their bull suppliers, but the studs tell us that they do not collect the information because there is no demand from the purchasers. Clearly this is a problem worth investigating.

Since it is getting harder and harder to find ways to improve cattle performance, it is time to look harder at genetics, a great opportunity largely untapped.

**For more information, contact Neil MacDonald on (08) 8973 9746.**

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## POSTER CELEBRATES THE LAKE EYRE BASIN

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*Michelle Rodrigo, Lake Eyre Basin Communications Officer, Alice Springs*

Portraying a strong sense of place for people of the Lake Eyre Basin and a story of discovery for tourists and non-residents who want to learn more about the region, the 2nd edition of the Lake Eyre Basin Poster Map is a powerful illustration of the Basin's most significant historical, cultural, hydrological, economic and biological features.

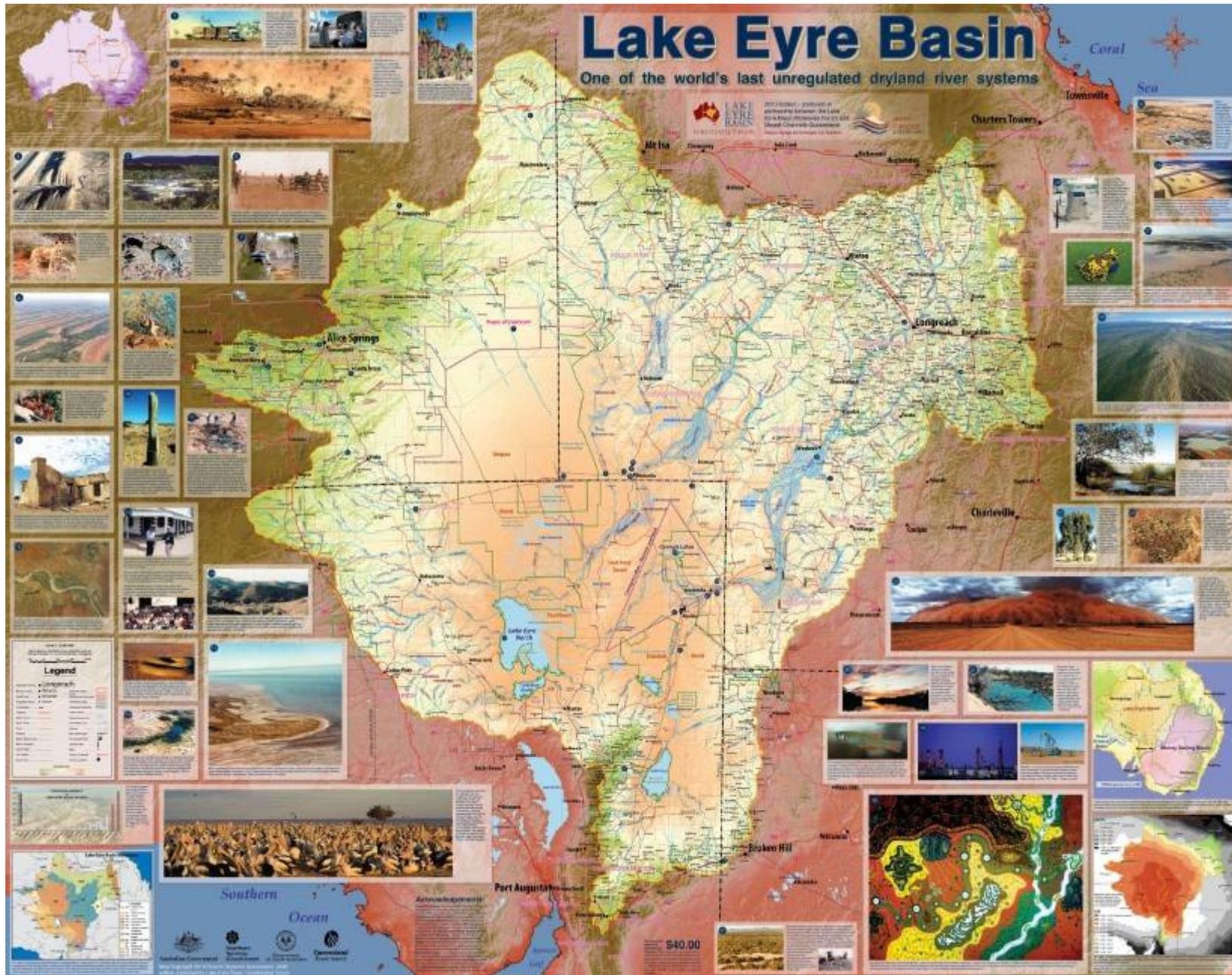


This large, colourful poster (1108mm x 867mm) is surrounded by more than 40 photos and diagrams with detailed captions and loads of information about rivers and wetlands, plants and animals, climate, terrain, towns, homestead names, Aboriginal lands, parks and reserves, land use, the management of natural resources in the Lake Eyre Basin and more.

Production of the new edition has been possible through an important partnership between the Lake Eyre Basin Ministerial Forum (ministers from the South Australia, Queensland, Northern Territory and Australian governments) and Desert Channels Queensland Inc. It builds on the strong themes and depth of information in the 1st edition, originally composed in 2000 for the then Lake Eyre Basin Coordinating Group, to showcase the character and connectedness of this vast inland region.

All proceeds from the sale of the new Lake Eyre Basin Poster Map will be put towards activities that raise awareness of this unique part of Australia at a regional, national and international level.

***The poster is priced at \$25.00 for Basin residents and \$40.00 for all others (plus postage and packaging). It can be purchased from Desert Channels Queensland Inc., (07) 4658 0600, 92 Galah St, Longreach, Queensland. Non-sales enquiries can be directed to the Lake Eyre Basin Communications Officer, Michelle Rodrigo, (08) 8951 9255, or [michelle.rodrigo@nt.gov.au](mailto:michelle.rodrigo@nt.gov.au).***



## BARKLY PRODUCER WINS 'CATTLE COUNCIL RISING CHAMPION' AWARD FOR NT

Casey Collier, Pastoral Technical Officer, DoR Tennant Creek  
Adapted from [www.cattlecouncil.com.au](http://www.cattlecouncil.com.au)



Anthony Cox, Assistant Manager of Brunette Downs, was recently awarded the Northern Territory Cattleman's Association finalist for the Cattle Council's Rising Champion Initiative. The aim of the Initiative is to inspire, empower and support young people who are passionate about the Australian beef industry to provide input on the issues and challenges facing our industry. The Initiative will result in a network of informed young people equipped to take on beef industry leadership roles now and in the future. The concept was designed and coordinated by Cattle Council of Australia with NAB Agribusiness and Rural Press Limited as the key supporting partners. Cattle Council strongly believes that what you put into life is what you get out - the Cattle Council Rising

Champions Initiative is no different. Applications closed in October and the finalists are representatives of the State Farming Organisation members of Cattle Council (AgForce Queensland, NSW Farmers' Association, Tasmanian Farmers' and Graziers Association, WA Farmers, Pastoralists and Graziers Association of WA, Northern Territory Cattlemen's Association, Victorian Farmers' Federation, South Australian Farmers' Federation).

Finalists recently travelled to Launceston, Tasmania to participate in Stage 3 of the process which involved meeting with the other state finalists and presenting their project goal to Cattle Council at their AGM. Following the Cattle Council meeting, finalists had the opportunity to attend Meat and Livestock Australia's AGM and the inaugural 'Beef Industry Champions Gala Dinner'. Alison McIntosh from NSW Farmer's Association was announced *2011 NAB Agribusiness Rising Beef Industry Champion* at the Dinner on 16 November. This award includes the honour of representing Australia's beef producers in the Five Nations' Beef Alliance Young Ranchers' Forum. Highlights of the Forum include visits to:

- Colorado State University at Fort Collins meeting with Temple Grandin (expert on animal handling)
- All day ILC Tour: King Soopers Case-Ready Processing Plant and National Cattlemen's Beef Association Headquarters
- 2011 International Livestock Congress-USA
- National Western Stock Show Rodeo & Yards
- Canadian Consulate – Young Ranchers Round Table
- US Meat Export Federation
- Field visits to cattle operations

Congratulations to Anthony as NT finalist and to the 2011 NAB Agribusiness Rising Beef Industry Champion, Alison McIntosh. If you missed the cut off this year, keep your eye out for next year's call for applications!

Anthony spent his adolescent years in Brisbane with a family that is agriculturally minded. During this time he completed his primary and secondary education, however education wasn't his highest priority with sport, outdoors and anything to do with competition playing a major role in his development. In his final year at Brisbane Boys College he was elected school prefect and vice-captain of rugby and cricket.

Post secondary education, Anthony followed his passion in rural industry completing certificate 3 & 4 in Agricultural Production at Dalby Ag College. He commenced full time employment as a Jackeroo at 'Glentana' station, Springsure QLD (central highlands area) with AACo. He progressed through the ranks working on various stations throughout the Barkly Tableland in the Northern Territory and Gulf of Carpentaria in Northern Queensland.

In 2006 Anthony decided to pull on the travel hat and for the following 12 months worked in a variety of roles in Uruguay, Argentina, USA and Canada along with backpacking around the United Kingdom. Upon his return to Australia, he found himself re-joining AACo Ltd and working back up the ladder where he is now Assistant Manager at 'Brunette Downs' station on the Barkly Tablelands.

**INDUSTRY IN FOCUS**

**Breaking new ground in the Barkly**

DI SORLEY CAME TO VALUE THE REGION AND LIFESTYLE OF THE EASTERN BARKLY, IN THE NORTHERN TERRITORY, WHEN SHE MOVED THERE WITH HER HUSBAND GEORGE TO MANAGE LAKE NASH STATION IN 2004.

Despite extremely busy days, Di has found time to participate in the Barkly Research Advisory Committee (BRAC) and was recently elected chair of the group.

Part of Peter and Jane Hughes' Georgina Pastoral Company, Lake Nash is a cattle property with 1.2 million ha located on the Northern Territory-Queensland border. Di Sorley and her husband George Scott primarily manage a breeding herd, producing cattle for Queensland's prime grassfed and 100-day grainfed markets. Under normal conditions, they run 65,000 head of cattle.

Di wears many hats: veterinarian; bookkeeper; procurement officer for up to 24 staff; part-time distance education teacher; and mother. With two small boys, Daniel, age 7, and Sam, age 4, days at Lake Nash are full and fast. But with a great team in place, Di said day-to-day work usually unfolded fairly smoothly.

Di joined BRAC in March 2010. She said George (proactive on committees for years) had been suggesting she take on an industry role for some time.



CHAIR OF THE BARKLY RESEARCH ADVISORY COMMITTEE, DI SORLEY WITH HER SONS, DANIEL AND SAM

"Now the boys are a little older, and I'm more familiar with the region, becoming involved with a research committee appealed to me the most," Di said.

With a background in veterinary science and an MBA, Di's skills are not only a great asset at Lake Nash, but will greatly assist BRAC in its job to identify priority research and development projects.

Di was raised on her family's Red Brahman stud on the Darling Downs. After gaining a vet science degree from the University of Queensland and an MBA through Charles Sturt University, Di worked for a live export company. She later moved into equine reproduction, which took her to the United States (US) for two mare seasons to work in artificial insemination and embryo transfer.

"When I returned from the US, I was employed as the Veterinary Services Manager for Coopers Animal Health in Sydney, which I really enjoyed," Di said.

"After I met George, I took a job in Blackall, near where he was based at Tanbar Station in the Channel Country, working as a pastoral inspector for Stanbroke. We married in 2002 and stayed at Tanbar until moving here in 2004."

Di is looking forward to her involvement with BRAC, given her interest in the committee and its potential to identify valuable projects.

BRAC-supported projects include:

- the Northern Grazing Systems project, summarising scientific evidence related to the northern Australian beef industry on wet season spelling, stocking rate management, prescribed burning and infrastructure development
- the Carrying Capacity project, providing information for the GRASP pasture growth model

**PRODUCER INFORMATION**

**PRODUCER** Dianne Sorley

**LOCATION** Lake Nash Station, Barkly Tablelands, NT 

**PROPERTY AREA** 1.2 million ha

**ENTERPRISE** Beef cattle breeding

**GOALS** Identifying effective, well-targeted R&D for the Barkly

**LIVESTOCK** 65,000 head

**PASTURES** Predominantly open downs country, Flinders, Mitchell

**SOIL TYPES** Alluvial black with red loam ridges

**ANNUAL RAINFALL** 300mm

- a land type utilisation study for sustainable utilisation rates
- the Liveweight Gain project, investigating growth variability of young cattle

A Producer Demonstration Site (PDS) at Helen Springs is also documenting and demonstrating a breeder segregation system to assist herd management. The PDS is implementing a paddock management system using Grazing Land Management principles to improve or maintain good land condition and incorporating paddock measures into the recording system to help make management decisions.

Di said another study was underway into rubber bush biology-ecology distribution and rate of spread, looking at its invasiveness, improved control options and establishing an adaptive management site.

"BRAC had identified and initiated many valuable research projects to help the beef industry maintain its leading edge in science and new technologies," Di said.

"I'm looking forward to taking part in this and hope I can help the committee continue identifying effective, well-targeted research and development for the industry's sustainability."

**MORE INFORMATION**

> **Di Sorley**  
 Phone: 08 4748 4877  
 Email: [disorley@hotmail.com](mailto:disorley@hotmail.com)

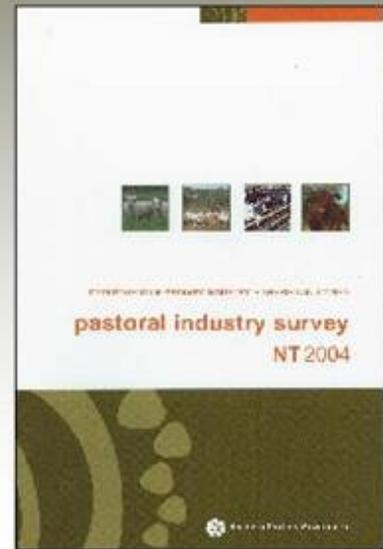
It's Happening Again...

# Pastoral Industry Survey 2010

If you could ask the NT pastoral industry one question, what would it be?

Email your question to: [Trudi.Oxley@nt.gov.au](mailto:Trudi.Oxley@nt.gov.au)

The best question will be included in the NT Pastoral Industry Survey for 2010 and will win a mystery prize.



## HAVE A LAUGH!

Send your jokes to [barklybeef.dor@nt.gov.au](mailto:barklybeef.dor@nt.gov.au)

A little boy knocks at the door and tells the owner that something of his had found its way into her garage, and he wanted it back. The homeowner opened the garage and noticed two additions; a baseball and broken window sporting a baseball-sized hole. "How do you suppose this ball got in here?" she asked the child. Taking one look at the ball, one look at the window, and one look at the homeowner, the little boy exclaimed, "Wow lady! I must have thrown it right through that hole!"

## IN THE SPOTLIGHT!

### HELEN KEMPE

Job:	<b>Regional Executive Officer</b>
Employer:	<b>Department of Resources, Tennant Creek</b>
No. of years in the Territory:	<b>¾ of my life...too many to note down!</b>
I grew up...	<b>on Macumba Station, Oodnadatta, South Australia</b>
Favourite movie:	<b>Lonesome Dove</b>
When I was growing up I wanted to be:	<b>Employed in the pastoral industry</b>
Described in 3 words I am an:	<b>Enthusiastic amateur photographer</b>
3 people I would like to have dinner with:	<b>My paternal grandparents and great grandfather</b>
The thing I enjoy most about my job:	<b>Being surrounded by enthusiastic co-workers</b>
Right now I should be:	<b>Seriously thinking about life after public service</b>
Favourite thing about the Territory:	<b>It's a long drive to get to where you want to go</b>
Least favourite thing about the Territory:	<b>The infamous 'Barkly Breeze'</b>

## TASTES OF THE TABLELANDS: AILEEN'S 'VELVET PUDDING'

### The Cook

**AILEEN FALVEY - MITTIEBAH STATION**

Company: **North Australian Pastoral Company (NAPCO)**

No. of years in the Territory: **2 years**

No. of years as a station cook: **2 years**

Originally from: **Charters Towers, QLD**

Speciality Dish: **Velvet Pudding**

Favourite thing about station cooking: **I can choose the menu**

Least favourite thing about station cooking: **The early mornings in winter**

Cooking inspiration: **Glossy photos in cooking magazines**

Favourite meal of staff: **Crumbed Steak & Potato Bake**

Least favourite meal of staff: **Cold meat & salad**

Cooking Disaster: **Mistaking salt for caster sugar in a cheesecake**

### The Recipe

**VELVET PUDDING**

3 cups milk

2 tablespoons cornflour

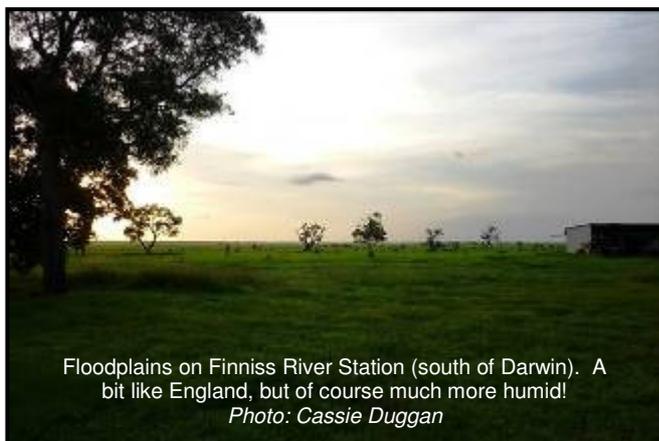
½ cup sugar

3 eggs

- Mix yolk of eggs with sugar and cornflour adding a little milk until creamy
- Have the remainder of the milk boiling and stir the cornflour mixture into it and stir until thickened
  - Pour into an ovenproof container and top with meringue made from the egg white beaten with ¼ cup sugar until it forms peaks
- Place in oven until the meringue is a nice golden colour

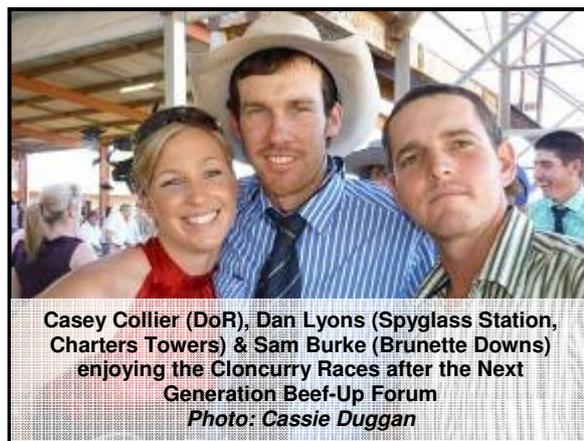
### AROUND THE TRAPS

*Have you taken a good photo? Send it into [barklybeef.dor@nt.gov.au](mailto:barklybeef.dor@nt.gov.au)*



Floodplains on Finnis River Station (south of Darwin). A bit like England, but of course much more humid!

*Photo: Cassie Duggan*



Casey Collier (DoR), Dan Lyons (Spyglass Station, Charters Towers) & Sam Burke (Brunette Downs) enjoying the Cloncurry Races after the Next Generation Beef-Up Forum

*Photo: Cassie Duggan*



Above: Rhys Jinks & Michael Johnson (Avon Downs Station) in discussion with Chris Materne (DoR, Alice Springs) at the GLM Course

*Photo: Jodie Ward*



Some manoeuvres performed by the Roulettes were done no more than 3 metres apart

*Photo: Cassie Duggan*



In November, Tennant Creek was treated to an impromptu air show from the RAAF Roulettes. Some very clever pilots!  
*Photo: Cassie Duggan*



Chris Materne (DoR, Alice Springs) finding his inner rockstar. Definitely the stand out performance of the GLM Course SingStar evening  
*Photo: Jenny Milson*



Mick Jagger/Quirk (MLA), one of the presenters for the Helen Springs GLM Course letting his hair down  
*Photo: Jenny Milson*



Left: Hard working GLM Officer, Jodie Ward (DoR, Katherine) gives SingStar her best shot at the GLM Course  
*Photo: Jenny Milson*

## IMPORTANT NOTICES / REMINDERS cont...



DEPARTMENT OF RESOURCES



### Property Identification Code (PIC)

Does your rural block / property have Livestock? Is your property registered with a PIC?

The owner of an identifiable property must have a PIC registered for that property. An identifiable property is a property that keeps any of the following livestock - Alpacas, buffalo, camels, cattle, deer, goats, horses, llamas, pigs, poultry, sheep.

The PIC is permanently registered to a specific parcel of land as described by the Lands Title Office, not to the owner of land. Upon sale of the property the PIC remains with the property, it cannot be transferred to another property.

The PIC is required to be used for most livestock movement and identification documents such as NT waybills. The PIC is also required for the National Livestock Identification System (NLIS). The property name and PIC are provided to the NLIS national database.

PIC Registration is free of charge – please complete PIC Registration form [www.nt.gov.au/d/nlis](http://www.nt.gov.au/d/nlis) or contact your Regional Livestock Biosecurity Officer (RLBO) for assistance.

**Darwin Region**  
 Ian Doddrell (RLBO)  
 Ph: 08 8999 2030  
 Fax: 08 8999 2146

**Katherine Region**  
 Greg Scott (RLBO)  
 Ph: 08 8973 9754  
 Fax: 08 8973 9759

**Tennant Creek Region**  
 Ted Martin (RLBO)  
 Ph: 08 8962 4490  
 Fax: 08 8962 4480

**Alice Springs Region**  
 Greg Crawford (RLBO)  
 Ph: 08 8951 8125  
 Fax: 08 8951 8123

[www.nt.gov.au](http://www.nt.gov.au)

## Waybill – PINK COPIES – Reminder

Have you sent your PINK copies in to your Regional Livestock Biosecurity Officer recently?

Waybills are used to record the movement of livestock in the Northern Territory.

The waybill system also acts as a deterrent to stock stealing, provides certification of the property of origin for abattoirs and export markets and provides detailed documentation for station management.

It is compulsory to use waybills under the *Livestock Act*.

It is a mandatory requirement for cattle, buffalo, sheep, goats, camels, alpacas, llams, deer and pig owners to complete a waybill whenever stock are moved outside the boundaries of a property.

**NOTE: Post PINK copies within 28 days to Regional Livestock Biosecurity Officer**

Check PICs – [www.primaryindustry.nt.gov.au](http://www.primaryindustry.nt.gov.au)

**Darwin Region**  
Ian Doddrell (RLBO)  
Ph: 08 8999 2030  
Fax: 08 8999 2146

**Katherine Region**  
Greg Scott (RLBO)  
Ph: 08 8973 9754  
Fax: 08 8973 9759

**Tennant Creek Region**  
Ted Martin (RLBO)  
Ph: 08 8962 4490  
Fax: 08 8962 4480

**Alice Springs Region**  
Greg Crawford (RLBO)  
Ph: 08 8951 8125  
Fax: 08 8951 8123

[www.nt.gov.au](http://www.nt.gov.au)

## WHAT, WHEN & WHERE

MONTH	DATE	CONTACT
<b>FEBRUARY 2011</b>		
NTCA Meeting/AGM (Barkly Branch)	17 Feb	<a href="http://www.ntca.org.au">www.ntca.org.au</a>
<b>MARCH 2011</b>		
Barkly Landcare & Conservation Assoc. Meeting	TBA	Naomi Wilson: (08) 8962 4494
Barkly Herd Management Forum <i>Alexandria &amp; Brunette Downs, NT</i>	Late Mar	Casey Collier (08) 8962 4493
NTCA AGM <i>Katherine, NT</i>	30 Mar	<a href="http://www.ntca.org.au">www.ntca.org.au</a>
<b>APRIL 2011</b>		
NTCA Industry Conference & Dinner <i>Katherine, NT</i>	1 Apr	<a href="http://www.ntca.org.au">www.ntca.org.au</a>
Campdraft <i>Hughenden, Qld</i>	15-17 Apr	(07) 4741 5007
Diamantina Rodeo Assoc. Campdraft <i>Winton, Qld</i>	16-18	Patrice Elliott (07) 4657 3945 / <a href="mailto:karoola2@bigpond.com">karoola2@bigpond.com</a>
Campdraft/Rodeo <i>Boulia, Qld</i>	22-24	Nada Grover - (07) 4746 1211 <a href="mailto:glenormiston@napco.com.au">glenormiston@napco.com.au</a>
Bush Weekend <i>Aileron, NT</i>	23-24	<a href="http://www.aileronbushclub.com.au">www.aileronbushclub.com.au</a>
6-a-side Cricket/Sportsman's Dinner 'Under the Stars' <i>Camooweal, Qld</i>		Shelly Hawkins (Herbertvale) (07) 4748 4998
Campdraft/Rodeo <i>Daly Waters, NT</i>	29 Apr – 1 May	Amanda Murphy - (08) 8975 9941 <a href="mailto:tossamanda@bigpond.com">tossamanda@bigpond.com</a>

Your event not listed here?  
Email [barklybeef.dor@nt.gov.au](mailto:barklybeef.dor@nt.gov.au)



## DoR TENNANT CREEK — Staff List

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**BARKLY HOUSE**  
 First Floor, 99 Paterson St  
 PO Box 159, Tennant Creek, NT, 0861  
 Fax: (08) 8962 4480

### REGIONAL MANAGEMENT

<i>Executive Officer</i>	<b>Helen Kempe</b>	08 8962 4484
<i>Administration Officer</i>	<b>Skye-Lea Ries</b>	08 8962 4488

### BIOSECURITY & PRODUCT INTEGRITY

<i>Regional Livestock Biosecurity Officer</i>	<b>Ted Martin</b>	08 8962 4490
<i>A/Regional Livestock Biosecurity Officer</i>	<b>Tom Haines</b>	08 8962 4458
		M: 0401 113 445
<i>Livestock Biosecurity Officer</i>	<b>Greg Maguire</b>	08 8962 4484
		M: 0457 517 347

### PASTORAL PRODUCTION

<i>Senior Pastoral Production Officer</i>	<b>Pieter Conradie</b>	08 8951 8101
<i>Pastoral Technical Officer</i>	<b>Casey Collier</b>	08 8962 4493
<i>Pastoral Technical Officer</i>	<b>Cassie Duggan</b>	08 8962 4483

(Last day 30 December 2010)

## Barkly Landcare & Conservation Association - Staff List

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<i>Project Manager</i>	<b>Naomi Wilson</b>	08 8962 4494
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## Sustainable Farm Practices, Northern Territory

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<i>Caring for our Country Facilitator</i>	<b>Drew Gracie</b>	08 8962 4487
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<b>To:</b>	<b>POSTAGE PAID AUSTRALIA</b>
	If undeliverable, please return to: Department of Resources PO Box 159 TENNANT CREEK NT 0861

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# WET SEASON SUPPLEMENTATION - PHOSPHORUS

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*Whitney Dollemore, Beef Research Officer, DoR Katherine*

The Barkly region is largely Phosphorus (P) deficient. Phosphorus is needed when cattle are growing, when they are in the second and third trimester of pregnancy and when lactating. Phosphorus is therefore limiting mainly in the wet season, when there is enough protein and energy available, and that is the time when supplementation can really boost fertility rates in breeders. It is also advisable to include a smaller amount of P in dry season supplements because of out-of-season calving. Despite all the evidence, wet season supplement sales indicate that P supplementation is not as widely adopted as we believe it should be.

## **Phosphorus deficiency**

Phosphorus is one of the key nutrients used in the body for bone formation and structure. But it also has many functions in the soft tissues of the body i.e. holding together cells and transporting energy.

Inadequate dietary intake of P for short periods of time may be overcome by the cattle's ability to recycle P in the saliva and rumen and the absorption of P from bones. However, cattle grazing P deficient situations for longer periods will lead to reduced pasture intake and therefore, reduced energy intake. It is unclear whether it is the limitation of the mineral itself or the reduced energy intakes, however, limiting P has been responsible for sub-clinical deficiency appearing as reduced reproduction rates and milk yield in breeders and as a result lower weaning weights, growth and feed conversion in growing cattle. Severe P deficiency will lead to peg leg (thin/brittle bones) and osteomalacia (softening of the bones). In these cases you will often see animals chewing on unusual materials such as soil, wood, flesh and bones in an attempt to source P. However, these acute forms of P deficiency aren't as widespread as sub-clinical P deficiency, which is more economically important to the pastoral industry.

Higher reproductive responses to P supplementation have been shown in younger breeders (1st and 2nd calf heifers) than older breeders. The reduced response in older animals possibly is due to the reduced requirement of P for growth and therefore greater body reserves.

## **Sources of Phosphorus**

There are many commercial P sources available to producers differing in quality and price. One of the most important factors to look into is the bioavailability, which is a measure of how easily the animal can absorb the P from the supplement.

### *Rock Phosphate*

The cheapest form of P that can be sourced is de-fluorinated rock phosphate. However, from this type of P supplement only about 2.5% of the P present can be absorbed. Hence, a rock phosphate supplement is barely absorbed by the animal, it is also unpalatable to stock and can be high in fluorine if it is just straight rock phosphate and as a result, it is not a good P supplement.

### *Monocalcium Phosphates (MDCP)*

Many commercial licks contain P as monocalcium phosphates (MDCP). This source of P has a much higher availability to the animal than rock phosphates, around 80% are absorbed by cattle. Most of the commercial supplements that contain MDCP contain between 18-21% P which is readily available to cattle, approximately 85% of the P in these forms is digested and absorbed by the animal. As a result, MDCP is the preferred and most efficient source of P for cattle supplementation.

## **Phosphorus Requirements**

The amount of P required by an animal will vary according to the stage of growth, pregnancy, lactation and weight of the animal. For example, a 200kg steer growing at 600g/d requires 11g P/day, whereas, a 450kg lactating breeder holding condition requires 20g P/day. These calculations are estimates for the amount of P required by these animals to meet maximum production. However, the amount of P supplement you would provide to an animal should only be that above what the pasture is supplying. The normal recommendation for P supplementation is 5 g/hd/day for growing cattle and 10 g/hd/day for lactating breeders

## **Phosphorus status of your animals**

Measuring the P status of cattle is still difficult. Soil P maps have their application at a regional and property scale. However their usefulness at a small scale is limited because of large spatial variation. Another problem is that laboratory analysis of soil P is not accurate below 5 parts per million. That does not enable us to distinguish between acute and marginal deficiency which makes the economic return on supplementation hard to predict. Bone analysis is no longer in common use as it is invasive, difficult and impractical on a large scale.

The Department in partnership with the University of Queensland are currently preparing a trial to investigate the benefit:cost of P supplementation and to validate improved methods of diagnosing P status.

If you would like to learn more about North Australian beef nutrition and supplementation please register your interest with the Department in attending a Nutrition EDGE course.

**References:**

Dixon and Coates, (2010), "A review of phosphorus nutrition of cattle in Northern Australian grazing systems", unpublished review.

Suttle, N, (2010), "Mineral Nutrition of Livestock 4<sup>th</sup> Edition", *CAB International*, London, UK

Witt and Owens, (1983), "Phosphorus: ruminal availability and effects on digestion", *Journal of Animal Science*, 56(4): 930-937