Alice Springs Rural Review

DEPARTMENT OF **PRIMARY INDUSTRY AND RESOURCES**



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Undoolya Field Day

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A great turn-out of local beef producers, stock agents, politicians, NRM and local department staff were at the Undoolya Field Day on the 3rd November. All were in attendance to learn more about the Precision Pastoral Management System (PPMS), which has been under development over the past five years. The research and development of this technology has been part of a collaborative research project that the DPIR has had with the Cooperative Research Centre for Remote Economic Participation's (CRC-REP).



Minister Vowles was one of many who packed a breezeway at Undoolya Station homestead to listen to the day's presenters

Attendees spent the morning of the field day listening to presentations from beef industry leaders on the economic and land management challenges beef producers face, with the PPMT Project team then demonstrating how the PPMS can be used to address some of these challenges. The Hon. Ken Vowles MLA, Minister for Primary Industry and Resources addressed the crowd, as did Chansey Paech MLA, both of whom enjoyed meeting with and talking to local producers.

After lunch the attendees headed out to Undoolya's Number 5 paddock to see the RLMS (automated weighing system) in action. This provided the group with the opportunity to talk with Tim Driver from Precision Pastoral and Ben Hayes from Undoolya Station about the practicalities of installing the RLMS and how to train the cattle to being automatically weighed and drafted. On returning to the homestead, attendees were run through how they could do their own cost-benefit analysis. A panel



UNDOOLYA FIELD DAY



session allowed the group to raise final questions to the presenters and Nicole and Ben Hayes (Undoolya Station).

This was the last of five field days delivered across Northern Australia by the PPMT Project team. It was very fitting that the final field day was held in Central Australia where the concept for Precision Pastoralism was born. The opportunities that this

type of technology offers beef producers will only continue to grow, as many in the industry view that the next productivity gains will come from agricultural technology and the use of big

AZRI CUP revived after 25 years!

It's been many years since the Arid Zone Research Institute hosted the AZRI Cup.

"It was in 1991, when this department beat the Conservation Commission of the NT (now Parks and Wildlife). That's a long time between competitions," said Stuart Smith, Manager of the Horticulture Development Project.

"This is a major AZRI Cup and isn't tied to any one particular sport—it's gone to various sports over the years, and this year it was for volleyball," said Stuart, who is also Chairperson of Volleyball NT, which supplied the event with balls and nets." (Mmm, did he also arrange the referees?)

The showdown was a merry event, complete with cold beverages and a barbeque dinner.

Over 50 competitors vied for the cup, with six players on each of eight creatively-named teams.

It was a close race in the semi-finals; but the grand final wasn't close at all as the Generic Volleyball Pun sprinted ahead and never looked back.

Entry fees and other collected monies totalled \$235; Guide Dogs NT was the winning team's charity of choice.







Conference attendees at Humboldt Freie Universitat zu Berlin

Cattle knowledge boosted by Berlin conference

Pastoral Production Officer Dr Jocelyn Coventry recently returned from Berlin, where she attended the joint International Conference of the Association of Institutions for Tropical Veterinary Medicine and the Society of Tropical Veterinary Medicine.

"My main reason for attending was to share and update knowledge relevant to livestock health and production in the global regions between the Tropics of Cancer and Capricorn," said Jocelyn.

The conference had a scientific program and workshops featuring broad-based issues for both the livestock resource (genetic resources, biodiversity, animal production and welfare) and the human resource (pastoralism on arid lands, socioeconomic assessment of animal health interventions, training and capacity building).

"In my current work as a Pastoral Production Officer and as an NT-registered veterinarian, I undertake research and extension in extensive cattle production, including applied cattle research into herd dynamics, herd health and performance recording on the department's Old Man Plains Research Station. Much of the conference program and its workshops applied to my current and future work.

"I presented a poster titled: 'Muscle glycogen at slaughter is higher with higher growth rates in extensively-managed cattle'. This was an output from research that has been undertaken by the department in collaboration with Murdoch University's School of Veterinary and Life Sciences. It showcased the department's cooperative research to an international audience.

"The conference was a huge success. It was great to get department support to access networking opportunities such as this, and to build on the knowledge that I can bring to my work with the department", added Jocelyn.

For more information about the conference, contact http://www.aitvm-stvm2016.com/scientific-program/index.html

The editor's musings...

We finished the year with the last of the Precision Pastoral Management Tools Project field days held at Undoolya Station. Through trialling this project at five stations across North Australia, the value of introducing remote technology to the pastoral industry has been undeniably demonstrated.

Congratulations go to Sally Leigo, who received a Chief Minister's Medal for the capable manner in which she has been leading this highly innovative, collaborative and now internationally recognised project.

Other achievements over the last quarter to be celebrated are the three groups at AZRI who have been nominated for the Chief Executive's STAR awards for exceptional services and Coral Allan's 30-year service medal at the same event. The Quality Graze Project received high recommendation at the NT NRM awards night, while at the same ceremony Curtain Springs Station took out a prestigious tourism award. Another Alice Springs 'local' Tracey Hayes was listed as one of the most influential women in Australia.

To all these achievers, and those that I may have missed, congratulations and thank you for your unselfish service to Central Australia.

During the past year we have lost a

number of stalwarts of the pastoral industry, some through tragic accident, but we also welcomed a couple of new entrants to the industry with a definite generation change gradually taking place. The challenge is now for the established pastoralists to guide these new individuals in such a way that they benefit from the vast experience built up over generations of pastoralism in Central Australia, but also create the freedom to experiment with new initiatives and ideas essential to ensure the industry remains vibrant and relevant in a very competitive and constantly changing

With these thoughts I wish you all an enjoyable and peaceful Christmas and as aptly referred to in the talk on resilience by Martin Pentecost on page 10, "look after yourself and take this time to recharge the batteries mentally and physically".

Regards, Pieter

environment.

It is that time of year for many events, including SNAKE BITES!

With the recent change in weather there have been increased sightings of snakes in both Central Australia and the Top End.

The Northern Territory hosts a wide variety of venomous and non-venomous snakes. Snakes generally will not attack people unless provoked or disturbed, and should be left along if sighted. It is important to have a good understanding of the snakes that may inhabit your environment.

Signs of a snake bite are not always visible but may leave puncture marks, bleeding or scratches.

Symptoms developing within an hour may include headache, impaired vision, nausea, vomiting, diarrhoea, breathing difficulties, drowsiness, faintness, and problems speaking or swallowing.

In a medical emergency call 000 for an ambulance and apply First Aid applicable to snake bites.

Please take the time to read the First Aid treatment of snake bites provided by St John Ambulance Australia and the brochure on 'Common Snakes in the Northern Territory'.

- * First Aid Treatment of Snake Bites
- * Common Snakes in the Northern Territory

Please stay safe and enjoy all the holidays have to offer. Merry Christmas!

Managing pastures for production and profit in central Australia

Highlights from a presentation given at the Undoolya Field Day by Dionne Walsh, Department of Primary Industry and Resources, Rangelands Program Leader -- dionne.walsh@nt.gov.au

Take home messages:

- pastures are a valuable (but sometimes underappreciated) asset
- kilograms of beef turned off is a key profit driver in extensive grazing businesses
- to optimise the kilos turned off you need to ensure your productive country is well watered, you have appropriate genetics and your cattle are well nourished
- when you manage stocking rates you manage nutrition.

What is native pasture worth?

A thousand steers eat about 3,000 tonnes of grass a year. To picture this, that's the same as about 11,700 round bales of hay. At an indicative price of \$50 per bale for native grass hay, the pasture to feed this mob of steers is worth over \$500,000 a year. Multiply that up over all the cattle on a typical station and you can see that grass is a very valuable asset indeed.

Optimising kilograms turned off

You get paid for the kilograms you sell, not how many head you run. In rain-fed native and naturalised pasture systems there is a biological limit to how many kilograms of beef can be produced. This is determined by carrying capacity and cattle productivity. The carrying capacity of a piece of country is driven by the amount of palatable pasture (which is determined by the type of country, how well watered paddocks are, rainfall and the health of the pastures). The DPIR has considerable expertise in this area and can help you to calculate the current and potential carrying capacity of your paddocks and station.

Beef production (kilos) is optimised when your country is well watered, you get good live weight gains, brand a lot of weaners and minimise deaths. Biological rates (weight gain, reproduction and mortalities) are driven by genetics and NUTRITION. In the absence of irrigation, fertilisers and superior pasture species, the biggest way that pastoralists can influence nutrition in any given year is through balancing supply (feed) and

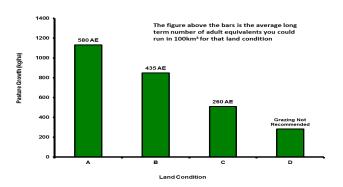
demand (animal numbers), augmented by supplementation where required. So when you manage stocking rate you are actually managing nutrition.

Managing supply and demand

In central Australia, there can be a thirty-fold difference in pasture growth from year to year just due to rainfall. For example, in 2008, open woodland in good land condition only grew about 110 kg of grass per hectare. In the good year of 2011 these same pastures grew 3,400 kg/ha. Short of keeping pastures in the best land condition possible, there is little that pastoralists can do to influence supply. The demand side of the equation is much more under your control, and all the better if every mouth is contributing to production!

Taking too much grass hurts your hip pocket

If you push pastures by grazing them too hard too often, ground cover and grass production decreases. This leads to more bare patches for weeds and undesirable grasses to invade, increased run-off and soil erosion. But perhaps



more seriously for the pastoral business, it decreases the amount of palatable pasture that grows, which directly reduces the number of cattle you can run. Letting your good condition country turn to poor condition HALVES the number of cattle you can carry. For example, (see above table) on Todd land system (flood out country) you can see how land condition affects pasture growth and carrying capacity.





















Minister Vowles toured AZRI

The Hon. Ken Vowles, MLA, Minister for Primary Industry and Resources, spent a Friday afternoon in

November at the department's Arid Zone Research Institute.

The minister toured the facility to meet staff and familiarise himself with AZRI operations (from mining regulation to geological survey, plant and livestock industries, biosecurity and the water laboratory, as well as horticultural crops and the paddocks down to the Todd River on the farm proper).

An afternoon tea followed at the social club.

He was accompanied by Steve Rossingh, his Chief of Staff.



Kinjal Patel, Water Microbiology Technical Officer, with Minister Vowles

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DECLARATION OF A FIRE DANGER AREA AND FIRE DANGER PERIOD

The Executive Director, Bushfires NT Department of Environment and Natural Resources hereby gives notice that a Fire Danger Period is declared for the period 23 November 2016 to 31 March 2017 in the part of the Northern Territory that lies south of the 20th parallel of latitude.

The 20th parallel crosses the Northern Territory approximately 40km south of Tennant Creek. The major effect of this declaration is that, throughout the declared area, a permit to burn is now required before any burning is conducted, and a person must not leave an area before thoroughly extinguishing any fire they have lit. There are substantial penalties for failing to comply with these requirements.

For more information contact Bushfires NT on 8952 3066

www.nt.gov.au/bushfires





Coral Allan: a 30-year milestone achieved!

On 31 October, a ceremony was held in Alice Springs for NT public sector employees. Among the 19 employees acknowledged for their service milestones, Coral Allan (Livestock Industries Development Group) was recognised with the 30-year service award.

In 1985, Coral began her public service career with the Conservation Commission (CCNT) in the administration stream of records management. The office was based on Gap Road, which is now home to the Centralian Advocate. At that time it was the Head office for the CCNT. Coral fondly recalls the



Minister McCarthy presented the achievement award

vibrancy and excitement of the department, and how much she learned from very experienced officers and other wonderful staff.

Two years later, in 1987, Coral had an opportunity to change departments and positions and join the Department of Primary Production (at AZRI). The department was larger and busier, with laboratories, four veterinarians, nine stock inspectors, as well as rangeland and weeds officers.

In 1989, she returned to Parks and Wildlife (CCNT) in the new Tom Hare building at AZRI. It was a hive of activity with about 60 staff members. Many of the positions are no longer or fall under other departments now. Interestingly though, AZRI is again the head office for Parks and Wildlife.

"Caring for the land has always been a priority and a personal interest," said Coral. Parks and Wildlife recognised this quality and gave her the opportunity to work as a park ranger at Simpson's Gap National Park.

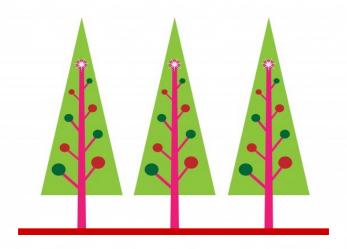
In 1994, she returned to DPIF and joined the Rangeland Section. There were eight in the team, which slowly dwindled until only she remained.

"It is hard to believe it has been almost 31 years. It has been an exciting journey, meeting many great people along the way, and learning many skills. Working across a couple of departments has been a very positive experience, one I recommend to others. Learning and synthesising various bits of information makes a great picture in your mind."

When asked what her most challenging moment was, her eyes twinkled, as she thought a moment.

"I think it may have been to leave a happy working environment and to take on a new role and learn lots of new skills. I'm still learning... perhaps that is what is most important".

Coral, from all of us at AZRI and the department, congratulations on your milestone, and thank you for your years of service.



The NT's wild dog population: a study to determine the extent of the problem.

The department is asking Northern Territory stations to keep notes about their perceptions of wild dog behaviour. Ultimately, it is about developing a system to stop young cattle from being hounded (and even worse) by these carnivores; however, to establish a system, hard evidence is required, so capturing the frequency and other 'damage' data is needed before a best practice solution can be worked out. After all, the health and longevity of our breeding herds are most important.

Data will then be analysed to paint a picture of overall regional, and more detailed, property estimates for the frequency that mauled young cattle appear at muster. Young cattle with signs of dog attacks will be described, and the associations between risk factors (cow-age class, baiting attributes, location, proximity to a national park, etc.) considered. Equally of interest, is assessing the predictability of reproductive failure rates using indicators of wild dog activity, as well as gauging the effectiveness of practices to regulate the control of wild dogs.

Using a variety of information gathering, collaborating stations will be asked to report on the number of calves and weaners observed with wild-dog bite damage. A draft version of the webbased form is available at www.surveymonkey.com/r/ dogbite. There will be various other options to capture data or historical records. And of course, project staff will be available to lend a hand.

This team ensures anonymity. The data compiled, regardless of being oral, written, or electronic, will be identified with only a code within a database, and the key is held only by the project manager. All findings on individual properties will only be reported directly to the property owner/manager. External reporting will only occur after written permission from the property owner/manager. The copyright for all data collected will be held by the project exclusively.

If interested in participating in the study, or to learn more, call Kieren McCosker, Beef Production Scientist, phone: 0889739771 or by email: kieren.mccosker@nt.gov.au.

TASTE OF THE TERRITORY (taken from the 2001 ASRR Christmas edition) Mango & Lime Cheesecake Marion's Beef



Ingredients:

A good cut of beef, eg. Topside 1 x 20cm leaf of Vietnamese coriander hoi sin sauce

3 cloves of garlic, crushed a little ginger, grated

olive oil

Dice beef into serving portions. Chop the coriander finely and mix into the meat along with the garlic and ginger. Splash a little clive oil onto the meat and let stand, covered for about 1 hour in the fridge.

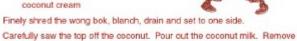
Cook on the BBQ or in a heavy-based frypan. Head the plate/pan to very hot, quickly cook the meat for 2-3 minutes. Add a little hoi sin sauce over the meat and cook for another 30 seconds.

Remove from the plate/pan and serve

Seafood Vakasoso

Ingredients:

- 2 cups cooked crab, fish or prawns
- 1 bunch of wong bok
- 1 medium onion, grated
- 1 medium tomato, chopped
- 1 large coconut



the flesh and grate. Mix the seafood with the tomato, onion, wong bok and 2 tbsp of grated coconut. Place ingredients in the coconut shell and add 1/2 cup of thick

coconut cream Select a saucepan of the right size of a similar diameter to the coconut, add enough water, set the coconut in the saucepan and steam for about

15 minutes.

Ingredients:

375g cream cheese 1/2 cup castor sugar

zest of one lime

11/2 tbsp cornflour

3 large eggs 300ml cream

2 large ripe mangos, pureed

Standard cheesecake base

Beat the cream cheese, castor sugar and lime zest until smooth. Beat cornflour, eggs and cream, then add the fruit. Pour into the chilled cheesecake base and bake at 220 degrees Celsius for 10 minutes, then 170

Camel in Beer

Ingredients:

1.25kg camel topside, cubed 25g hot mustard powder

20g brown sugar 2 garlic doves, crushed 300ml NT draught beer

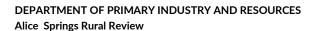
45g flour 100g shallots, finely chopped 2 stalks celery, finely chopped

2 medium carrots, finely chopped

Put the flour, mustard, seasoning and them the meat in a plastic bag, and shake. Place the meat in a casserole dish and add the prepared vegetables, sugar, NT draught beer and 150ml of water. Stir well

Push the bouquet garni into the centre of the pot. Cover and cook in an oven at low to medium heat for about 3 hours or until tender. It may be necessary to add small amounts of water if and when required

Before serving, remove the bouquet garni and season to taste. Mashed potatoes or savoury rice are excellent accompaniments



Steiner School, Year 3 class, visit the department at AZRI

The year 3 class and teachers from the Steiner school visited the department at AZRI in mid-September. The students had been learning about the cattle industry and how it contributes not only to our economy but to our dinner plates and barbeques as well. Under the topic of 'where their food comes' they also

explored other aspects of local food production. The students have their own vegetable garden at the school and do composting so are no strangers to producing their own food.



The horticultural staff hosted the students first with a trip around the date palms then onto the asparagus and garlic plots where the students



were encouraged to taste test the products. The bush tomato patch was next, followed by watching the bore being flushed for water quality testing and then looking at the table grapes and olive trees.



AZRI farm staff introduced the students to our sentinel cattle herd and chooks explaining the role they have here at the farm. The students



were very excited about getting up close to the young heifers and even managed to feed some hay to them over the fence.



After a break the students then went over to the cattle yards to see how stock are managed, moved around, weighed and trucked. They donned their cow masks made by staff and pretended to be a herd. There was much laughter and chatter as they made their way through the system and up the race to be trucked.

The classic of the day was when the students were in the race there was a nervous voice from one little fellow saying 'but I don't want to end up in the butcher's shop'.



Martin Pentecost BSc Grad Dip Bus AFB Director, Powers Agribusiness & Finance T: 07 4928 1555 | M: 0408 881 843 E: martin.pentecost@powers.net.au

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Martin has over 20 years of experience in Australia's beef cattle industry, having worked and consulted for companies such as Consolidated Pastoral Company, Australian Agricultural Company, Stanbroke Pastoral Company, Colonial Agriculture and MDH Pty Ltd, as well as some of the largest family-owned livestock operations in the country.

This article was presented at the MLA Beef Up Forum, Alice Springs on 28 July, 2016.

PRESENTATION: Resilient Rural Businesses

BUSINESS RESILIENCE

- The ability to quickly adapt to disruptions while maintaining continuous business operations and safeguarding people and assets.
- Goes beyond disaster recovery by offering post disaster strategies to avoid downtime, shore up vulnerabilities and maintain business operations in the face of additional disruptions

RESILIENT RURAL BUSINESSES

Scan business environment for changes, trends and opportunities

Scan the business environment for relevant changes or trends or emerging opportunities and threats. This includes business issues (prices, costs, demand shifts, supply chain issues); natural environmental issues (weather and climate, biodiversity, invasive species, ; social issues (community attitudes towards animal welfare, organic or "green" products, desire for local produce); and regulatory issues (effects of domestic and international regulatory issues)

2) Be Prepared for Disruption

Have contingency plans to cope with realistic, if unlikely, scenarios. Late season breaks challenge the growth potential of annual pastures, and therefore the carrying capacity of grazing enterprises. A contingency plan would envisage selling or agisting stock upon certain trigger-level shortfalls of rain by certain predefined dates being reached. Further contingency plans are made for severe drought and its implications.

3) Be Flexible

When a disruption occurs, a non-standard approach can be readily used. Flexibility can be acquired at some cost, often relatively low, by deliberately building redundancy into the system. An example is to have the capacity to make last minute changes, such as the foresight to have booked some feedlot space so that if the above mentioned agistment is not available there is still the option of moving cattle off property to value add.

PRESENTATION: Resilient Rural Businesses

4) Strong Networks

They have lots of rich, mutually-supportive and trustful relationships with other growers, suppliers, service providers and their family and employees. These networks have rich information flows. Social capital is high. People in the networks with needed expertise and information are highly regarded. As a result, when an opportunity arises to adopt a new practice the producer has ready access to information for an informed decision.

5) Experiment and Innovate

They do small-scale experiments all the time: to see if it works, or would be a better method. These then help in adapting to change in the future. For example, they do experiments with different breeds to take opportunistic advantage of potentially increasing changing markets. Then when larger scale changes are called for, they have information and experience concerning the options available. As a result, when the trade-off between market premium and yield shifts to favour higher yielding carcasses (or less Brahman content), they know which variety will work in their setting.

6) Know and Share Goals

The family, together with their employees take the time to build mutual understanding about the explicit goals and values used in the business. Employees and family members add to creativity and flexibility in dealing with a crisis, because they are engaged and motivated.

7) Look After Yourself

As a vital cog in the wheel of your business, take the time to recharge the batteries, physically and mentally.

ARID ZONE RESEARCH STATION CHRISTMAS CLOSURE

The Department of Primary Industry and Resources at Arid Zone Research Station front office will be closed from midday Friday 23 December 2016 to Monday 2 January 2017 inclusive.

Normal office hours will resume on Tuesday 3 January.

In an emergency during the closed period: Animal Health/Stock Movements at 0401 118 125 Animal Welfare at 0401 116 236 Other Emergencies at 0407 365 162

We wish you a very happy Christmas, and a safe and prosperous New Year!



Animal Biosecurity Branch Livestock Movement and Identification in the Northern Territory

Introduction

An efficient means of regulating livestock identification and movements is an essential component of any disease control system. The *livestock Act and Regulations* was implemented in 2009 and is the legislation that regulates livestock identification and movements in the NT. The Land Transport Standards (LTS) is administered by the Department of Primary Industry and Resources (DPIR).

Under the Livestock Act and Regulations, all livestock owners are required to comply with the following five components to enable the identification and movement of identifiable livestock.

- A Property Identification Code (PIC),
- Brands.
- NT Waybill
- NT Health Certificate/waybill,
- National Livestock Identification System (NLIS)
- Land Transport Standards (LTS) are the five components under the Livestock Act and Regulations that all livestock owners and transporters.

The Livestock Act defines 'identifiable livestock', which are: alpacas, llamas, bison, buffalo, cattle, camels, deer, emus, ostriches, goats, horses, mules, donkeys, pigs, poultry, pigeons and sheep. The identification and movement requirements for livestock in the NT provide information to support market access and traceability in the case of an animal disease or chemical residue incident.

Failure to comply with the NT Livestock Act and Regulations could result in penalties which may include an infringement notice being issued or prosecution.

Property Identification Code (PIC)

All parcels of land in the NT that have identifiable livestock are required to register for a PIC with the department.

PIC registration forms and further information on PIC's can be located at https://www.nt.gov.au/industry/agriculture/livestock/get-a-property-identification-code

NT PIC's can be searched online at http://pic.primaryindustry.nt.gov.au

Brands

Under the NT Livestock Act a NT registered brand is required on all cattle over 8 months of age. The brand is required to be legible and in the correct position as stated on the registered brand certificate.

It is an offence to apply an earmark to a head of cattle unless the animal has a legible brand applied.

NT Brands can be searched online at http://brand.primaryindustry.nt.gov.au/

Brand/earmark application forms and further information on brands can be located at $\frac{\text{https://nt.gov.au/industry/agriculture/livestock/brand-and-identify-livestock/livestock-brands-in-nt}{\text{nt}}$

NT Waybills

Prescribed travelling livestock that must have a waybill issued before the livestock begin travelling are; alpacas, llamas, bison, buffalo, camels, cattle, deer, goats, pigs and sheep.

1 - A waybill must be issued for the primary livestock being moved by the owner, and

2 - A separate waybill must be issued for any other livestock (not owned by the primary livestock owner) if they are being moved as a part of the same consignment.

Obligations of the owner of the livestock are to;

- 1 Issue completed waybill/waybills for the travelling livestock,
- 2 Deliver completed waybill/waybills to the person in charge,
- 3 Send the copy of completed waybill/waybills to the department within 28 days after the date which the waybill was issued.
- 4 Keep a copy of the waybill for at least seven years.
- 5 At the request of an inspector during that period- show the inspector the copy.

Obligations of the person in charge are;

- 1 Sign the waybill;
- 2 Record on the waybill the date and time when the livestock begin travelling;
- 3 Have possession of the waybill during the entire period of travel;
- 4 At the request of an inspector at any time during the period of travel show the the waybill;
- 5 At the request of the owner of the property, while the livestock are within the boundaries of the property - show the property owner the waybill;
- 6 Deliver the livestock and waybill to the person named in the waybill to take delivery:
- 7 Record on the waybill the date and time when the livestock are delivered to the person named in the waybill to take delivery.

Further information on waybills can be located at:

https://nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/nt-waybills

NT Health Certificate/Waybill

All prescribed imported livestock entering NT are required to have a completed NT Health Certificate/Waybill issued before the livestock enter the NT.

Prescribed imported livestock are; alpacas, bison, buffalo, camels, cattle, deer, goats, horses, llamas mules, donkeys, pigeons, pigs, poultry, sheep and honeybees.

The NT Health Certificate/Waybill must be endorsed by a government inspector in the state they are originating from; this confirms the livestock meet the entry requirements into the NT.

The person in charge must have a completed copy of the NT Health Certificate/Waybill in their possession during the entire period of travel in the NT.

A completed copy of the NT Health Certificate/Waybill must be sent to the department prior to the livestock entering the NT. Details of where to send the completed copy can be found on the back of the NT health certificate.

A NT Health Certificate/Waybills must be retained for a period of seven years by the receiving livestock owner

Further information on NT Health Certificate & Waybill and the NT entry conditions for livestock can be located at https://nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/moving-livestock-into-the-nt

National Livestock Identification System (NLIS)

The NLIS system in Australia was introduced by Industry and enacted in State and Territory legislation, it commenced in the NT on 1st July 2007 and is Australia's system for identifying and tracing livestock for food safety, product integrity and market access purposes.

In the NT all cattle and buffalo must have an approved NLIS device and all sheep and goats must have an approved transaction tag attached to their right ear before they are moved off a property, regardless of where they are going. NLIS data for cattle and buffalo is recorded on the NLIS database.

IDENTIFICATION BEFORE MOVEMENT

The owner of the Property of Origin must ensure all livestock moving off the property have an NLIS device attached to the off side (right) ear before the livestock movement begins.

REPORTING REQUIREMENTS FOR THE OWNER OF THE PROPERTY OF DESTINATION

The owner of the property of destination must ensure that the NLIS information is entered on the NLIS database within 48 hours after the movement is completed.

Further information on NLIS requirements can be located at https://nt.gov.au/industry/agriculture/livestock/brand-and-identify-livestock/nlis-in-the-nt

Livestock Transport Standards (LTS)

The Livestock Transport Standards (LTS) were incorporated in NT Legislation and commenced in 2012.

The aims of the LTS are to have a consistent approach and responsibility across Australia for all persons involved in the handling, selecting, loading and transporting of livestock.

The LTS is in 2 sections:

Part A - General Standards (for each species.)

- 1 Responsibilities and Planning.
- 2 Stock handling competency.
- 3 Transport vehicles and facilities.
- 4 Pre-transport selection.
- 5 Loading, transport and unloading.
- 6 Humane Destruction.

Part B - "Species Specific" Standards

It is a requirement of the LTS that all persons, who are involved in the handling, selecting, spelling, loading and transporting of livestock at all venues, must only load and handle livestock that are fit for the intended journey.

Further information on LTS requirements can be located at

https://nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/livestock-welfare-and-land-transport-standards

Contacts

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Moving Livestock within the NT

When moving livestock within the NT, the following requirements apply:

Animal / Species	NT PIC	NT Waybill	Brands	NLIS Device	Transport standards apply	Treatment for Cattle Tick (When moving out of tick zones)
Cattle*	✓	✓	✓	✓	✓	✓
Buffalo	~	~	×	✓	✓	✓
Horses (incl. mules & donkeys)	V	×	×	×	√	√ + permit
Pigs	✓	✓	×	×	✓	×
Poultry	✓	×	×	×	√	×
Sheep & Goats	~	✓	×	✓	√	✓
Deer **	✓	✓	×	×	√	✓ + permit *
Camels	~	~	×	×	✓	✓
Alpacas & Llamas**	✓	✓	×	×	✓	✓ + permit *
Honeybees	✓	×	×	×		×

^{*} All cattle over the age 8 months must be branded

Moving Livestock into the NT from Interstate

When moving livestock into the NT from Interstate, the following requirements apply:

Animal / Species	Health Certificate & Waybill	NT PIC	Brands	NLIS Device	Johne's disease clearance	Transport standards apply	Treatment for Cattle Tick (When moving out of tick zones)
Cattle ***	✓	~	✓	✓	✓	✓	✓
Buffalo	✓	~	×	✓	✓	✓	✓
Horses (incl. mules & donkeys)	✓	✓	×	×	×	✓	√ + permit
Pigs	×	~	×	×	×	✓	×
Poultry	×	✓	×	×	×	✓	×
Sheep & Goats	✓	✓	×	√	√	✓	✓
Deer *	✓	✓	×	×	√	✓	✓ + permit *
Camels	✓	✓	×	×	√	✓	✓
Alpacas & Llamas *	√	✓	×	×	✓	✓	✓ + permit *
Honeybees**	✓	~	×	×	×		**

^{*} Permit from NT Parks and Wildlife may be required.

You do not need a permit to move pigs, pigeons and poultry.

http://brand.primaryindustry.nt.gov.au/ https://nt.gov.au/industry/agriculture/livestock http://pic.primaryindustry.nt.gov.au/ https://www.nlis.com.au/

^{**} Permit from NT Parks and Wildlife may be required

^{**} Must have health certificate confirming they do not have European foulbrood, American foulbrood and small hive beetle.

^{***} All cattle over the age 8 months, must be branded.



Pastoral Market Update



DEPARTMENT OF PRIMARY INDUSTRY AND RESOURCES

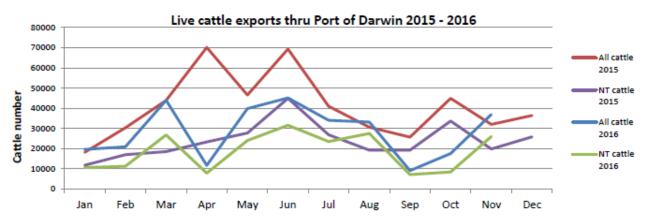
Live Cattle Exports via Darwin Port - NOVEMBER 2016

Please note: figures are for cattle exported through the Port of Darwin only; some NT cattle are exported through interstate ports.

	Export of ALL CATTLE (including interstate) from Darwin Port								Export of NT CATTLE from Darwin Port (estimate only)							
Destination	2014	2015	Last year to 30/11/15	YTD to 30/11/16	NOV	Last month	Difference	2014	2015	Last year to 30/11/15	YTD to 30/11/16	NOV	Last month	Difference		
Brunei	4,925	4,122	3,249	3,379	0	0	0	4,925	2,069	1,450	2,314	0	0	0		
Indonesia	386,183	341,759	311,704	257,176	34,151	17,582	16,569	251,232	197,155	175,816	167,426	24,042	0	24,042		
Philippines	16,080	23,611	21,561	4,697	0	0	0	11,221	13,559	12,103	3,236	0	0	0		
Sabah	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sarawak	0	300	300	1,220	0	0	0	0	0	0	843	0	0	0		
Malaysia	22,309	11,503	11,503	10,959	1,105	0	1,105	15,708	7,499	7,499	7,476	778	0	778		
Vietnam	64,461	100,119	96,682	31,737	1,644	0	1,644	41,391	63,998	61,558	21,483	1,157	7,158	-6,000		
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Thailand	0	6,154	6,154	0	0	0	0	0	3,610	3,610	0	0	0	0		
Cambodia	0	0	0	2,766	0	0	0	0	0	0	1,936	0	0	0		
TOTAL	493,958	487,568	451,153	311,934	36,900	17,582	19,318	324,477	287,892	262,037	204,714	25,978	7,158	18,820		

November at a glance

- . 36,900 cattle through the Darwin Port during November; 19,318 more than last month and 4,888 more than in Nov last year.
- . 25,978 NT cattle through the Darwin Port during November; 18,820 more than last month and 6,130 more than in Nov last year.



OTHER LIVESTOCK EXPORTS VIA DARWIN PORT

Includes NT and interstate stock.

Destination	Buff	alo	Go	at	Camel		
Destination	YTD NOV		YTD	NOV	YTD	NOV	
Brunei	599	0	0	0	0	0	
Indonesia	0	0	0	0	0	0	
Philippines	0	0	0	0	0	0	
Sabah	0	0	0	0	0	0	
Sarawak	0	0	0	0	0	0	
Malaysia	1,212	372	0	0	0	0	
Vietnam	3,981	300	0	0	0	0	
Egypt	0	0	0	0	0	0	
Thailand	0	0	0	0	0	0	
Cambodia	0	0	0	0	0	0	
TOTAL	5,792	672	0	0	0	0	

NT CATTLE MOVED INTERSTATE

Destination	Number
NSW	1,902
QLD	13,215
SA	6,393
VIC	1,249
WA	1,288
Total	24,047

NATIONAL CATTLE PRICES

www.mla.com.au/prices-and-markets

CURRENCY EXCHANGE RATES

www.oanda.com/currency/converter

TERRITORY

	Total Cattle, Port of Darwin								NT	Cattle, Po	ort of Dan	win			
2008	2009	2010	2011	2012	2013	2014	2015	2008 2009 2010 2011 2012 2013 2014 2015					2015		
364,944	347,314	295,605	269,617	246,990	359,616	493,958	487,568	295,539	304,818	272,749	253,797	234,249	308,784	324,477	287,892

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AussieGRASS Update for December 2016

Chris Materne, Pastoral Production, Alice Springs

Looking good across the entire southern half of the NT!

Chris Materne, Pastoral Production, Alice Springs

AussieGRASS - December 2016 update

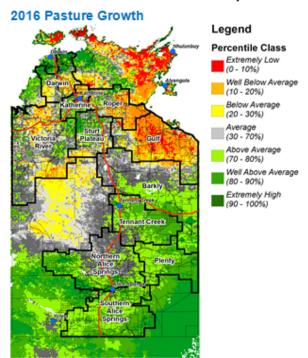


Figure 1: Past 12-months pasture growth relative to historical records since 1957 (1st December 2015 to 31st November 2016)

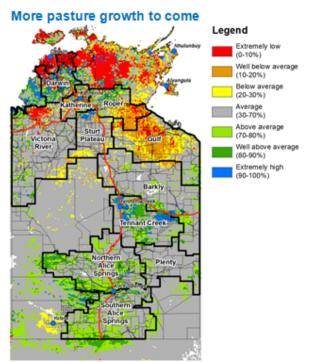
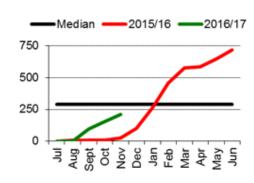
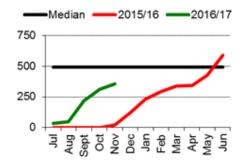


Figure 2: Chances of exceeding median growth over the next 3-months (December 2016 to February 2017)

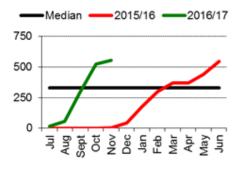
Tennant Creek district



Northern Alice Springs district



Plenty district



Southern Alice Springs district

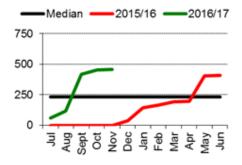


Figure 3: Median district pasture growth (kg/ha) - running total

Seasonal Update for December 2016

Chris Materne, Pastoral Production, Alice Springs

Northern Territory Seasonal Outlook as at December 2016

Sourced from the Australian Bureau of Meteorology

http://www.bom.gov.au/climate/outlooks/

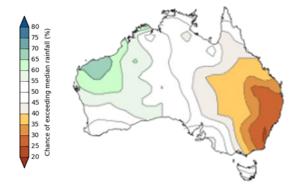
The national outlook for December 2016 to February 2017 period indicates that:

Drier than average conditions expected across the majority of the NT, in December.

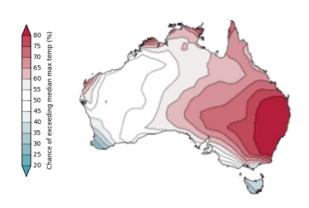
Average rainfall generally expected across the majority of the NT over the next three months period.

Warmer than normal days and nights more likely across the northern and eastern NT.

This outlook is strongly influenced by a climate driver called the Southern Annular Mode (also known as SAM). It is expected to be in a negative phase in December. When this happens in summertime, weather systems are further north than usual, meaning Australia experiences higher pressures than normal. This is typically associated with reduced rainfall and higher temperatures.



Chance of exceeding the median rainfall December 2016 to February 2017



Chance of exceeding the median max. temp. December 2016 to February 2017

Summary of current situation & trends - all districts - December 2016

KEY	Green = low risk	Orange = watch	Red = high risk
KEY	↑ = increasing trend	↓ = decreasing trend	↔ = steady

Indicator	Darwin	Katherine	VRD	Sturt Plateau	Roper	Gulf	Barkly	Tennant Creek	Northern Alice Springs	Plenty	Southern Alice Springs	Comments
2016/17 total pasture growth	1	↓	\downarrow	1	1	1	1	1	1	↑	1	Arrows indicate trend compared to the long-term median.
Current estimated standing biomass	\leftrightarrow	\	\	\	1	\downarrow	↓	1	1	↑	1	Arrows indicate trend since previous quarter.
Current seasonal outlook	\leftrightarrow	\	\	\	\	\	↓	1	1	*	1	Arrows indicate the trend since previous quarter and taking into account the forecasted model predictions.
Current fire risk	\	+	\leftrightarrow	\leftrightarrow	\leftrightarrow	\downarrow	↓	1	1	↑	1	Arrows indicate the trend since previous quarter.

For further information about this Outlook, please contact Chris Materne on 8951 8135 or Caroline Pettit on 8999 9014