

Barkly Beef

DEPARTMENT OF PRIMARY INDUSTRY AND RESOURCES



MARCH 2019

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Note from the Editor

As we are all aware, the New Year has unfortunately not yielded much in the way of a wet season on the Barkly. Therefore, in this edition we have a series of articles to assist you with your decision making, including early weaning, the current feed outlook for March, drought support that is available in the Northern Territory (NT) and the current climate outlook.

Please note that the 2019 Barkly Herd Management Forum has been postponed to later in the year; a revised advert will be sent out when the dates are set.

But it's not all doom and gloom. Kieren McCosker has provided an update on the phosphorus work being carried out at the Katherine Research Station. Whitney Dollemore has some advice on bull selection in the lead up to the annual DPIR Brahman and Composite Bull Sale which will be held in June. And there are the Katherine and Douglas Daly Research Station's Field Days coming up in April.

It's not just DPIR though, also in this edition:

- The Department of Environment and Natural Resources (DENR) have released the revised Western Davenport Water Allocation Plan and are also calling for landholders to take part in the Parthenium survey.
- Geoscience Australia have provided some insight into the Exploring For The Future (EFTF) program.
- Territory Natural Resource Management (TNRM) are running a three day erosion control workshop down in Alice Springs in April.

And the edition is wrapped up with the ever reliable Animal Health News, courtesy of the Biosecurity Team, as well as the Pastoral Market Update.

The Barkly DPIR team would also like to wish Casey Collier the best of luck in her new career teaching Agriculture at the Tennant Creek High School.

Enjoy the read

Jane Douglas

Early weaning in drought conditions

Tim Schatz

Many parts of the NT have had disappointingly low rainfall totals over the 2018/19 wet season so far. In fact graphs from the CliMate application show that many properties are on track to have one of their worst wet seasons in the last 50 years. The graphs printed below show how the current wet season (the red line) compares to previous wet seasons and the average (the dark blue line) over the last 50 years for three locations.

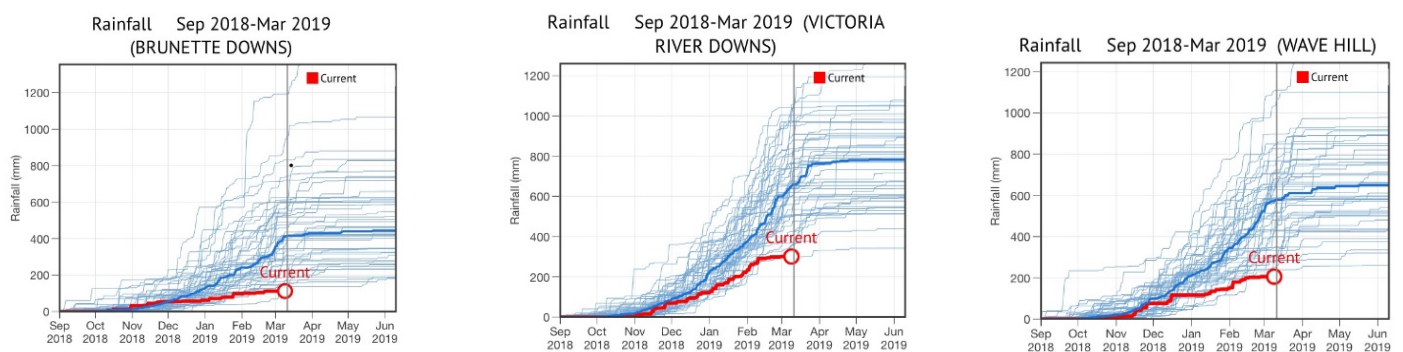


Figure 1 Rainfall for the current wet season compared to average and previous seasons, for Brunette Downs, Victoria River Downs and Wave Hill

During tough years when there is not much pasture available for cattle it is often a good management practice to start weaning calves earlier than normal to reduce the nutritional demands on cows. When cows are lactating, a lot of nutrients leave their body in the milk. When they don't get enough nutrients from the pasture, they mobilise nutrients from their own body reserves to produce milk and as a result lose body condition. When this happens over an extended time they can become so poor that they stop cycling (resulting in low pregnancy rates) and can even be at risk of dying. This is especially the case in first lactation heifers and so they should be the first group weaned.

Weaning calves removes this nutrient drain and preserves the body condition of cows. It has been said that weaning a calf is equivalent to giving a cow a supplement of 2 kg of grain or 3 kg of fortified molasses every day. However, it is cheaper and easier to wean and feed calves than to supplementary feed cows with calves at foot for survival, particularly when not all cows in the mob require feeding (e.g. dry cows in reasonable condition).

While early weaning preserves the body condition of cows, some of the calves will need extra management if they are very young when weaned. Research in the NT has found that calves that are heavier than 100 kg at weaning do not require special supplementation provided they have access to good pasture. However calves that are lighter than 100 kg at weaning should receive some extra supplementation. In crisis situations calves can be weaned quite young (e.g. down to 60 kg) however they will require special nutritional management and supplementary feeding. Calves weighing between 60-100 kg at weaning should be fed highly palatable calf meal or pellets. In extreme cases where calves less than 60 kg have to be weaned, they will require milk replacer and high quality baby calf meal or pellets. Basically the smaller the calf at weaning, the higher the nutritional requirement will be. Also it is a good idea to divide calves into groups based on weight and age for targeted supplementation and management.

What to feed weaners of different ages:

Weaners: 1 to 4-5 weeks old

Ideally calves should not be weaned this young but in extreme circumstances it may be necessary, or orphaned calves may need to be fed. At this young age, a milk replacer is required as the rumen is not developed enough for baby calves to survive on a non-milk diet. It is important to feed milk from a teat rather than let calves drink directly from a bucket, because the suckling action closes off the oesophagus groove which prevents milk getting into the undeveloped rumen where it can ferment and cause scouring. Milk replacer should be fed at about 10 per cent of body weight per day, and calves need only be fed once a day from about one week of age. They should also be provided with ad lib (as much as they want) access to good quality hay and a high energy, high protein (18-21% crude protein (CP)), grain-based ration.

Weaners: 5 to 10 weeks of age

Most calves weigh between 50-75 kg at four to six weeks of age and 85-100 kg at 10 weeks. At this stage, there is generally no need for a milk replacer but rather a high energy (12-12.5MJ/kg Dry Matter (DM)), high protein (16-20% CP) grain-based diet with ad lib access to good quality hay is adequate. There are specifically designed calf pellets or meals available for early weaned calves of this age and they often contain a coccidiostat to prevent scours.

If possible, calves of this age should gain 0.5 to 0.8 kg per head (hd) per day to ensure normal development and performance later in life. Intake of the grain based diet is likely to be 1 to 2.5 kg/hd/day across the weight range. Molasses based diets are not preferred for very young weaners as their digestive systems are not well enough developed (resulting in scours). However it can be used if other options are not available or the molasses mix is only a component of the diet. Urea should not be fed to very young calves as it can be toxic.

Weaners: 5 months and older

Typically weaners of this age weigh more than 100 kg and are considered 'normal' weaners and so don't require special supplementary feeding as long as they have access to sufficient good quality pasture. However, supplementary feeding is still likely to be required if drought conditions have persisted. Suitable options include various commercial weaner mixes, molasses mixes, grain mixes, straight protein meal and whole cottonseed.

Weaner health

The health of weaners should be monitored closely and interventions made when necessary. It is a good idea to vaccinate for clostridial diseases (e.g. with "5-in-1") at the first opportunity and to give a booster six weeks later. A botulism vaccination is also recommended at weaning. Early weaners are more susceptible to coccidiosis which causes ill-thrift, scours and even death in acute cases. Typical signs of the disease are blood stained faeces (scours), weakness and dehydration. If calves survive the five to six days of the disease, they become immune, but severely affected calves will remain poor doers. Prevention of coccidiosis through adequate hygiene, nutrition and the use of coccidiostats (e.g. Rumensin) is the best approach. Note that rumen modifiers such as Rumensin can be toxic if an animal ingests too much, so it is important to mix it in evenly.

Scours can also be caused by other microorganisms and digestive upsets. It is important to provide adequate hygiene and to treat affected animals promptly. Dehydration is common and can be managed through the use of electrolytes. Treatment for non-digestive upset scours usually consists of a program of oral treatments and perhaps antibiotics. Young stressed weaners may also be more susceptible to other sicknesses such as respiratory problems and pink-eye. These should be treated appropriately when observed. Consult your veterinarian if in doubt about the prevention and treatment of health problems in early weaned calves.

More information:

There are some very good sources of information available on the internet for free download.

The Meat Livestock Australia booklet "**Weaner management in northern beef herds**" can be downloaded from [their website](#) then search publications for: *Weaner management in northern beef herds*

"**Dry season management of a beef business - A guide to planning, managing and supplementary feeding**" is a Queensland Department of Agriculture and Fisheries publication that is available from [the FutureBeef website](#), and there is other information about weaning and supplementation in the knowledge centre section of the FutureBeef website.

Also [this webpage on early weaning](#) at the Queensland Department of Agriculture and Fisheries website provides good information which has been used in producing this article:

March 2019 Pastoral Feed Outlook

Dionne Walsh and Dale Jenner

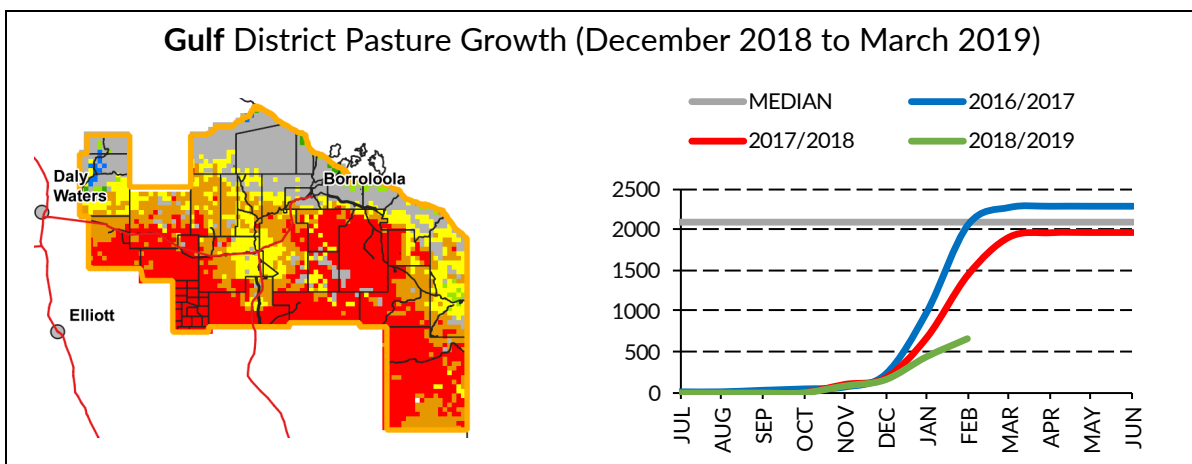
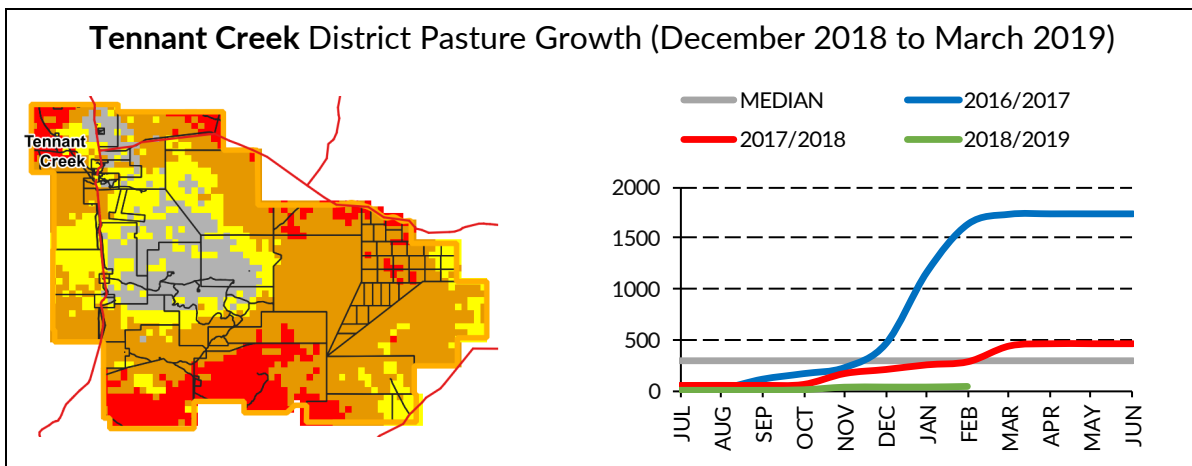
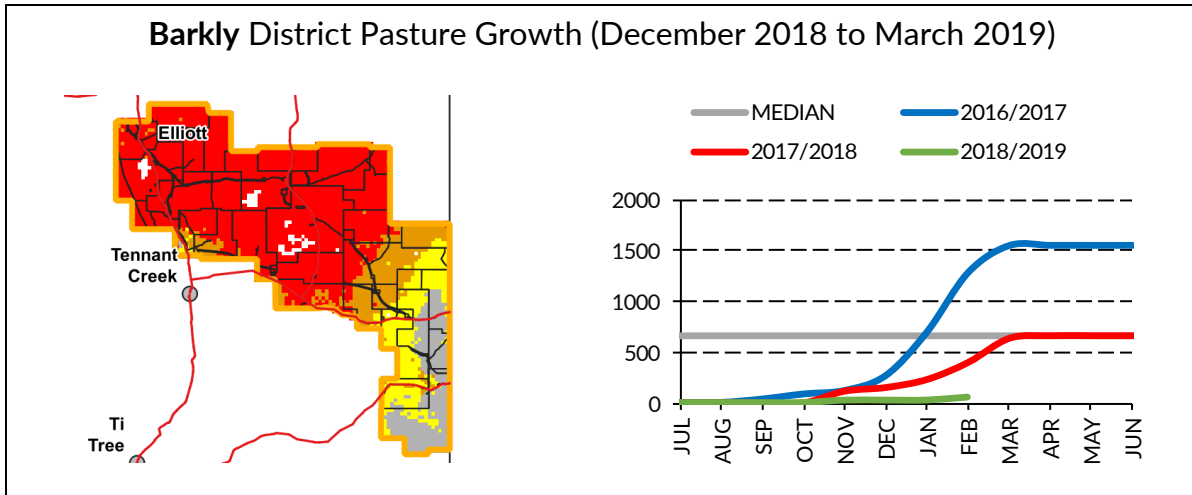
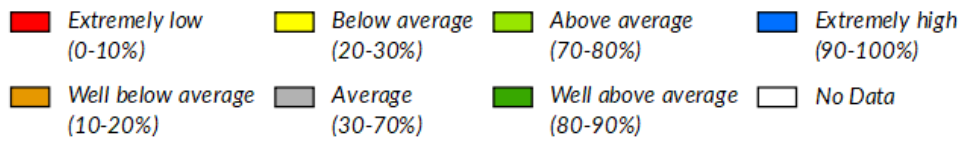
DPIR publishes a Pastoral Feed Outlook every quarter. The next edition is out now. If you would like to automatically receive the Pastoral Feed Outlook when it is released, click on the "subscribe" button on our [department webpage](#).

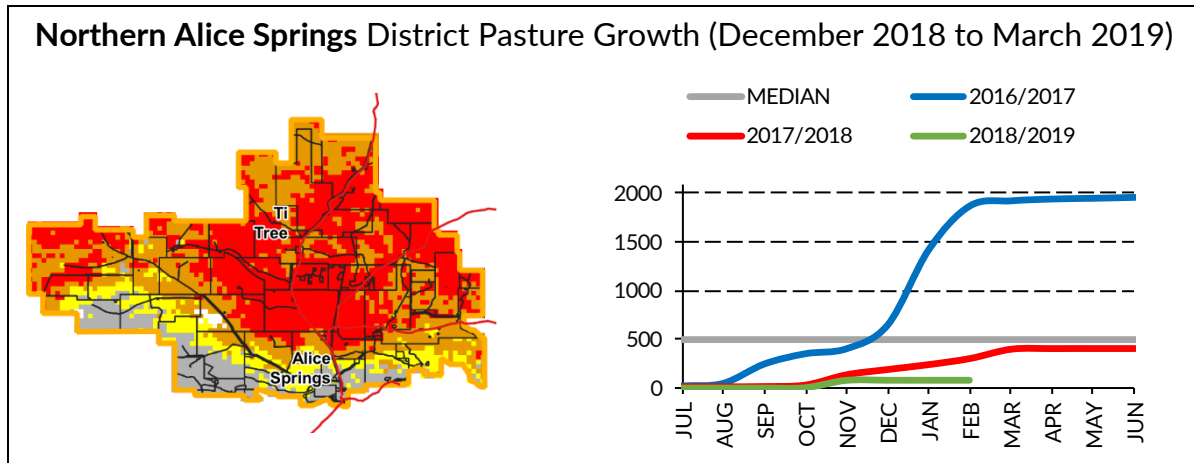
The Pastoral Feed Outlook includes information on:

- the current estimated feed supply
- recent and anticipated pasture growth and how these compare to long-term records
- the seasonal outlook for the coming months
- emerging drought conditions
- the risk of wildfire.

It will come as no surprise to most that the wet season in the region has been very poor. But the images below help to visualise the extent of the issue and highlight that the pasture growth experienced this wet season is some of the lowest on record since 1957 (areas in red). Unfortunately the outlook for the coming three months is not very positive – hotter and drier than average conditions are expected to persist over much of the NT.

Map colours indicate how the past 3 months compare to the same period in all years since 1957





If you have any questions about the Pastoral Feed Outlook, please contact Dionne Walsh – dionne.walsh@nt.gov.au.

Drought support in the Northern Territory

- The Northern Territory Government (NTG) does not have a **formal drought declaration process**. However Department of Primary Industry and Resources (DPIR) officers based throughout the Territory track rainfall and pasture growth conditions. Quarterly updates are provided through the Pastoral Feed Outlook available [on the DPIR website](#).
- The Australian Government has made funding available to producers who have been affected by drought conditions. **Drought Concessional Loans** of up to \$1 million are delivered through the national Regional Investment Corporation (RIC). Further information is available at [the RIC website](#) or by calling 1800 875 675.
- **Rural Financial Counselling Services (RFCS)** are available to support producers with free independent and confidential support and business analysis, including help with applications for available government financial assistance schemes. RFCS are provided by Rural Business Support (RBS) based in Adelaide, with Counsellors making regular visits to the NT to meet with clients. RBS can be contacted on 1800 836 211.
- The **Farm Household Allowance (FHA)** provides assistance to farming families experiencing financial hardship. The FHA is administered by the Department of Human Services and further information is available at [the Department of Human Services website](#).
- DPIR will soon open the **On-Farm Emergency Water Infrastructure Rebate Scheme** in the Territory. This scheme is available to eligible producers to implement new water infrastructure for livestock watering with a rebate of up to 25 per cent of costs available. For further information visit [the NTG website](#) or contact Mr David Collinson, DPIR Industry Support Officer, on 8936 4089 or email david.collinson@nt.gov.au. Producers are encouraged to visit the **National Farmers Federation Farm Hub** for a comprehensive list of support schemes available for the Territory at [the Farm Hub website](#).

Northern Australia Climate Program

Climate Outlook – February to April 2019 - Barkly Tableland

Alison Kain, Climate Mate - Barkly, 0409 281 649, alison.kain@usq.edu.au

Summary

- Rainfall forecast is likely to be below average for the rest of the season and temperatures are very likely to continue being above average.
- Bureau of Meteorology (BoM) have an El Niño Watch in place which suggests a 50 per cent chance of El Niño forming during the 2019 autumn/winter period (the United States have declared a weak El Niño). El Niño in winter can mean a late, dry wet season.
- The Madden-Julian Oscillation (MJO) has moved well away from Australia and conditions now indicate a break in the monsoon.
- The chance of exceeding median pasture growth is only 10-30% for most of the Barkly. This is due to a combination of past rainfall, soil moisture, predicted rain and temperatures.
- *If pasture growth does occur in the coming month or two, it is unlikely to develop much bulk before the dry season. It is important that stressed pastures are not grazed heavily as this can lead to tussock death with a subsequent decline in long-term pasture condition and a reduced ability for pastures to respond in subsequent wet seasons.*

Workshops and emails

Attending the Barkly Climate Workshops (see advertisement in this issue of Barkly Beef) and signing on to receive email updates with the NACP Climate Mate for the Barkly means you get some interesting information on the main climate drivers. Learning how El Niño, the Southern Oscillation Index (SOI) and the MJO work means that you have a better understanding of how forecasts are made and what that means to your business.

For example: We hear a lot about El Niño during winter, when it often has a strong impact on the southern winter rainfall zones. While El Niño doesn't impact the Barkly during the dry season, it is often linked to a late start to the wet season. Currently, BoM is forecasting a 50% chance of El Niño forming this winter/dry season. If it does, this might mean a late start to the 2019/2020 wet season. *This is definitely NOT a forecast and it is very important to note that skill for predicting El Niño during Autumn is low, however understanding how some of these climate drivers can affect your region might help when making long term management decisions.*

This month's featured climate driver

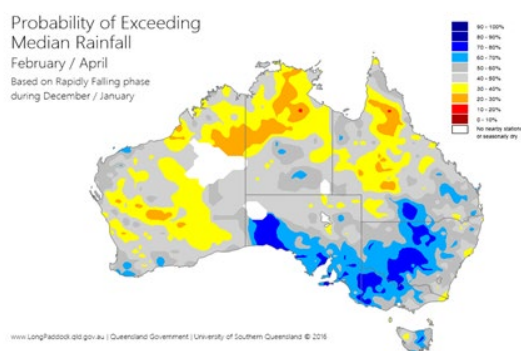
What is the Southern Oscillation Index (SOI)?

The SOI is a measure of the difference in atmospheric pressure between Darwin and Tahiti. It is an indicator of the formation of El Niño (negative SOI) and La Niña (positive SOI). Rather than a daily measurement, SOI is described as a trend over 30 days.

- Sustained positive SOI values (above +8) are linked with La Niña.
- Sustained negative SOI values (below -8) are linked with El Niño.

What does it mean for rain forecasts?

The map below (see Figure 1) shows the probability of getting more than the median rainfall for February to April. It is derived from a forecasting system utilising SOI phases. This map is produced using a statistical model which looks at data from many past years of records and makes a forecast for this season based on what happened in years where similar conditions were experienced.



What does it mean for the Barkly?

There is only a 30-40 per cent chance that the Barkly will receive more than the median rainfall for the three month total for February to April. So that means a 60-70 per cent chance that the total rainfall will be less than the median. It's probably reasonable to plan on the dry weather continuing for the remainder of the season.

Figure 2 Probability of exceeding median rainfall

Managing grazing in dry conditions

Where conditions are expected to remain drier than usual and/or feed is likely to be impacted, now is a good time to start considering management options. Strategies that can be implemented include:

Radical weaning

- Involves weaning calves down to approximately 80kg. This greatly reduces the nutritional demand on the breeder, allowing her to maintain body condition longer into the dry season and potentially increasing her chances of re-conceiving next year.
- Reducing the nutritional demand also reduces grazing pressure which helps preserve pasture.
- Requires a comprehensive management plan for calves i.e. a good quality ration (specially formulated calf pellets), good quality roughage (hay or native pasture) and plenty of clean water.

Supplement and fodder

- Availability of hay and supplements may become limited; liaise with potential providers early.
- Dry season supplementation is only effective if animals have a body of feed in front of them, so careful pasture budgeting will be required.

Some useful websites with dry season management plans

MLA has some very specific checklists and online tools to help crunch numbers for decision making [on their website](#).

The Future Beef website has lots of information. Search this [Future Beef website document](#) for dry season management plans.

Northern Australia Climate Program

Climate Variability and Grazing Risk Management

Save the Date!

When and Where?
Tennant Creek: 8th April
Brunette Downs: 9th April
(Dates to be confirmed in early March. Register for interest now.)

What is it?
A **FREE** half day workshop, including tea and lunch, featuring:
The Bureau of Meteorology
University of Southern Queensland
Local Climate Mate

Bringing BoM to the Bush

Why come along?

- Learn about the **latest developments** in seasonal climate forecasting and how they apply to our region
- Learn about the **key climate drivers** for northern Australia
- Learn how to **find, use and assess** relevant climate tools such as seasonal forecasts

RSVP
Alison Kain 0409 281 649 alison.kain@usq.edu.au

Does supplementing cows with phosphorus during pregnancy change weaner performance?

Kieren McCosker, Senior Livestock Scientist, NT Department of Primary Industry and Resources, Phone 08 8973 9771

Phosphorus (P) often restricts beef production in northern Australia. When an animal's P demand cannot be met either from the diet or by mobilising body reserves, dietary intake and growth are typically dramatically reduced. Therefore, it is currently recommended that heifers and cows grazing low P areas be supplemented during late pregnancy and while lactating.

A trial currently running on Victoria River Research Station (also known as Kidman Springs) in the Northern Territory (NT) has reported substantial reproduction and productivity gains from P supplementation. See more at the Future Beef website. Work by Dixon shows that pre-weaning calf growth is also constrained when cows are on low P diets during late pregnancy and lactation. To investigate post-weaning performance, a pen study was recently conducted at the Katherine Research Station, NT measuring the effect of P supplementation with cows during pregnancy and lactation on weaner weight and on weaner growth when fed high and low P content diets.

Four year old Brahman cows grazing P deficient paddocks on Kidman Springs were used to supply the trial weaners. In June 2018, 43 calves were weaned off cows which received a P supplement during pregnancy and lactation (CowP+) and thirty mixed-sex calves were weaned from cows with no P supplement (CowP-).

In September (at eight to 10 months of age), after co-grazing native pastures on Kidman Springs, the weaners were relocated to Katherine Research Station and randomly allocated to either a low P (WnrP-, 0.5 g P/kg DM) or high P (WnrP+, 2.8 g P/kg DM) weaner diet group. Each treatment was replicated three times, with each replicate equal to a pen of two to four animals; the treatment groups were:

- Steers from -P cows, fed -P pellet
- Steers from -P cows, fed +P pellet
- Steers from +P cows, fed -P pellet
- Steers from +P cows, fed +P pellet
- Heifers from -P cows, fed -P pellet
- Heifers from -P cows, fed +P pellet
- Heifers from +P cows, fed -P pellet
- Heifers from +P cows, fed +P pellet

The weaners had unlimited access to the experimental pellet for 64 days with their changes in weight measured. Liveweight was recorded after a 15 hour curfew at the start and end of the pen experiment, with interim uncurfewed weights recorded weekly.



Figure 3 Steers from P+ cows fed P+ weaner diet



Figure 4 Heifers from P+ cows fed P- weaner diet

Preliminary results

- At the beginning of the experiment weaners from P supplemented cows were heavier than from unsupplemented cows. On average, heifers from P+ cows were 6.4 kg (174.5 vs. 168.1) and steers were 23.9 kg (183.2 vs. 159.3) heavier, than weaners from P- cows. These differences are thought to reflect differences in cow body condition score at calving and milk quantity.
- Weaner diet in the pens had a highly significant effect on growth ($P < 0.001$), which was independent of cow diet.
- Overall, the average growth of weaners on the P+ diet was 40.9kg greater than the P- weaner diet. The growth of weaners on the P- weaner diet appeared to plateau after approximately 4 weeks of receiving the diet.
- Differences in growth are likely to be due to reduced intake of weaners on the P- weaner diet.

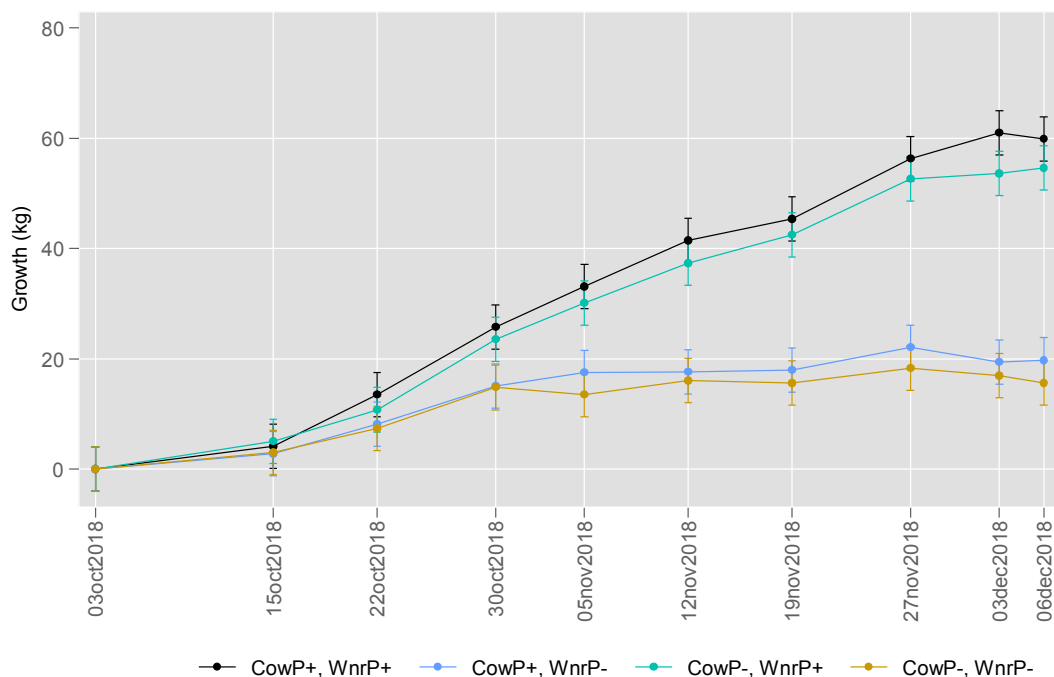


Figure 5 Growth of weaners fed high and low P diets

Throughout the trial information on changes in hip height, feed intake and blood samples for measurement of Plasma Inorganic Phosphorus (PiP) have also been collected and plan to be analysed during 2019.

The preliminary results suggest that the P content of cow diet during pregnancy and lactation influenced initial weaner weight, but had little or no effect on post-weaning performance. Weaner diets low in P were shown to significantly affect the post-weaning performance of young cattle. The finding from this study demonstrates the dominating effect of nutrition on weaner performance as well as the persistence of weight losses imposed to calves prior to weaning.

Kieren McCosker
 Senior Livestock Scientist
 Phone 08 8973 9771
 Email: Kieren.McCosker@nt.gov.au

The bull for tomorrow...

Whitney Dollemore, Pastoral Research Officer, NT Department of Primary Industry and Resources

One of many important decisions you will make this year will be which bulls to remove from your herd and the purchase of replacement bulls. Bull selection is a decision which will affect your herd performance and profitability for the next 10 years if you retain females from your own herd as replacement breeders.

It can be difficult to accurately predict the exact features of the animals that will be most desirable to turnoff to market ten years from now, but there are some traits that are equally as important now as they will be in the future. The environment is likely to become more extreme in the future and so a cow that is unproductive under current conditions will remain so in the future. Fertility and functionality are never going to be undesirable in the breeding game and so, selecting bulls for environmental adaptation, functionality and fertility should be a good place to invest in the long term. That being said, growth cannot be ignored either. We are and will continue in the future to be paid on kilograms turned off our property. The faster market weight is reached the more kilograms are turned off each year.

The biggest challenge to a bull buyer is how to rank traits by level of importance to maximise profitability of the breeding operation. Running a larger number of less productive females can make up the turnoff numbers for a period of time but is not a good long-term sustainable strategy to balance pasture utilisation and animal turnoff. If running more cows, there is greater competition for pasture and so it is harder for cows to maintain body condition resulting in lower reproductive performance and hence, less weaners produced over a lifetime. Moderate-sized cows may produce calves with lower weaning weights but will produce more weaners and hence, more kilograms turned off per area of land as there are less cows eating grass without producing a weaner each year.

There is then the question of the genetic ability of a cow to produce a weaner each year. Some cows have the genetics to reconceive whilst lactating and others will only cycle after lactation is stopped (weaning). Selecting a bull that will produce daughters with the ability to cycle whilst lactating can shorten the inter-calving interval from 18 to 12 months if cow body condition is maintained by matching stocking rate to carrying capacity and setting the heifer up in the first instance to calve at the correct time of the year i.e. the wet season.

Growth to turnoff (e.g. 350kg at 18 months old) can be balanced with fertility; just because you select for one doesn't mean you have to completely sacrifice the other. There are animals that have good growth up to 18 months old but then produce a mature cow that is below the average. These animals are called "curve benders" and are worth their weight in gold! But...they can be hard to spot on face value. Estimated Breeding Values (EBVs) can give a bull buyer the information to identify the curve benders and are the ideal way to objectively select bulls that meet your criteria. EBVs alone are not sufficient and a BullCheck for breeding soundness with the per cent normal sperm being reported is also required to guarantee you are buying a premium product that is going to give you the bull you want today for the cow you need tomorrow.

If you would like any information on creating a breeding objective for your business or selection of bulls to meet your breeding objective please contact Whitney Dollemore at Katherine Research Station on (08) 8973 9749 or email whitney.dollemore@nt.gov.au.

Department of Primary Industry and Resources

ANNUAL BULL SALES

18 June 2019

Quality Brahman and Composite
bulls from the DPIR select herds.

Register with auctionsplus.com.au.

Contact Whitney Dollemore Ph: (08) 8973 9749 E: whitney.dollemore@nt.gov.au



Postponed

DEPARTMENT OF PRIMARY INDUSTRY & RESOURCES

BARKLY HERD MANAGEMENT FORUM

Due to the current season, the decision has been made to postpone the 2019 BHMF. New dates will be released later in the year.

CONTACT NT DPIR TENNANT CREEK OFFICE:

Jane Douglas
Ph. 08 8962 4483
Jane.Douglas@nt.gov.au



Western Davenport Water Allocation Plan

The new Western Davenport Water Allocation Plan 2018-2021 has been finalised.

The plan covers the Western Davenport Water Control District, an area of almost 24,500 square kilometres, located approximately 150km south of Tennant Creek.

There was an extensive consultation period, which involved talking with the Water Advisory Committee, Traditional owners, landholders, other key stakeholders and general public.

As a result, the plan will continue to support the region's economic development, while protecting and maintaining environmental and cultural values.

For more information [visit the DENR website](#).

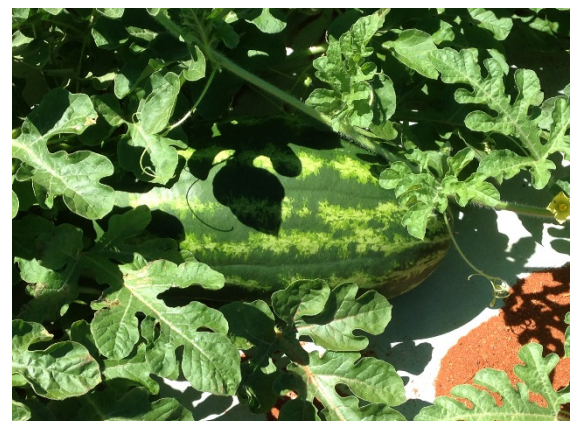


Figure 6 Desert Melons is the largest farm in the Western Davenport water plan area

Exploring for the Future (EFTF) program

As part of a wider Australian Government initiative to boost exploration for resources in northern Australia, Geoscience Australia (GA) is leading the four-year Exploring for the Future (EFTF) program to help identify potential mineral, energy, and groundwater resources across the region.



Figure 7 Installing Magnetotelluric data collection equipment in the Northern Territory to better understand geological structure deep below the ground.

EFTF is generating new geoscience data on existing and potential resource-rich regions to reduce risk for private investors, and improve the likelihood of important discoveries.

The organisation's leading scientists and technicians are using innovative tools and techniques to gather new data and information including: airborne electromagnetic surveys, stratigraphic drilling, deep seismic reflection and gravity surveys, geochemistry, and magnetotelluric mapping. Combining all these datasets will mean northern Australia is one of the most thoroughly mapped parts of the Earth's crust.

Geoscience Australia is working with a range of stakeholders, including state and territory government agencies, local councils, pastoral leaseholders, local indigenous groups, and Land Councils to deliver the program.

The new information will help to improve government, industry and community understanding of the potential resources available. For example, new groundwater information will support Australia's environmental outcomes. The program is integrating several methods to build a comprehensive picture of groundwater resources in several targeted areas, ensuring communities have access to water supply, and the development of sustainable agriculture is supported.

A recent release of soil geochemistry data over completed between Mt Isa and Tennant Creek reveal new potential areas for copper, zinc and nickel. The data are also valuable for agricultural management and environmental monitoring. Farmers can use the data and maps to assess soil fertility and inform sustainable crop production and cattle grazing management over areas such as the Barkly Tableland region of the Northern Territory and Queensland.

The data will be made publicly available and published on an ongoing basis through the Exploring for the Future website.

For further information: www.ga.gov.au/eftf

Phone: +61 2 6249 9111 (Mon-Fri, 9:00am to 5:00pm AEST)

Email: eftf@ga.gov.au



Figure 8 Vibroseis trucks alongside the Barkly Highway, Queensland, working on the South Nicholson Basin seismic line.

Katherine & Douglas Daly Field Days



Northern Territory Agriculture: Pathways to Potential KATHERINE AND DOUGLAS DALY FIELD DAYS

Join us at Northern Territory Agriculture: Pathways to Potential, two jampacked field days at two unique Department of Primary Industry and Resources (DPIR) research stations. The field days will have a strong focus on industry development and highlight the potential of diversified farming systems in the Northern Territory (NT).

Meet industry members, view trade displays, hear from producers regarding their experience with diversification and learn about new emerging industries.

Both field days will include a number of presentations in the morning, including:

- Cotton Australia, Adam Kay - overview of the southern cotton industry, addressing misinformation.
- Tipperary Station, David Connelly - a producer's perspective of diversification and integrating cropping and horticulture into an existing pastoral business.
- Darwin Port, Peter Dummett - an overview of how the shipping industry works including considerations for potential exporters and importers.
- Department of Environment and Natural Resources - getting my project off the ground.
- Louie Dreyfus Company, Tony Geitz - cotton market opportunities, the Australian position in the global market place and an introduction to the pricing of Australian cotton.
- Archer Daniels Midland, Damian Bradford - grain market opportunities from Northern Australia
- Feed Central, Cieran Maxwell - national hay market and opportunities for hay in the NT.

Afternoons will provide attendees with the option to view current DPIR research.

KATHERINE RESEARCH STATION

Tuesday 9 April

~ Livestock ~ Cropping ~ Horticulture ~

- information about birthing sensors and how they are assisting with calf loss research in northern Australia
- preview DPIR's sale select Brahman and composite bulls
- the latest research in beef cattle genetics in northern Australia
- aspects of cover crops, integrated pest management and cucumber green mottle mosaic virus for melon cropping systems
- opportunities for learning about and ordering new mango varieties
- cotton, soybeans, forage and grain sorghum, dryland rice and various species of pasture grass for seed production
- infield discussions with DPIR and other agronomists, market specialists, regulatory bodies and seed suppliers.

&

DOUGLAS DALY RESEARCH FARM

Wednesday 10 April

~ Livestock ~ Improved pastures ~ Forage crops ~

- impact of maternal phosphorus status and subsequent weaner performance
- using livestock to assist in the control of gamba grass and subsequent livestock performance
- update on the current fly tag trials and how they are performing in the Douglas Daly region
- update on the select Brahman females and where the herd is heading next
- irrigated Leucaena and grazing with mixed pasture inter rows
- infield discussions with The Leucaena Network
- improved pastures such as Nugal and Mulato varieties
- cotton
- potential legume pastures including desmanthus, lucerne, cowpea, blue pea, and burgundy bean production.
- infield discussions with DPIR and other agronomists, seed suppliers and market specialists.

Please confirm attendance for catering purposes and find out more by contacting:

Joy Sherlock, Senior Extension Agronomist | joy.sherlock@nt.gov.au | 0436 425 441 | dpiir.nt.gov.au

The field days are proudly presented by the Department of Primary Industry and Resources with support from the Department of Environment and Natural Resources, the Northern Territory Farmers Association and the Northern Territory Cattlemen's Association.

MAJOR SPONSORS



Parthenium survey

Landholders in the Barkly region are being urged to complete a survey which will help protect the industry from parthenium weed (*Parthenium hysterophorus*).

As a result of an outbreak of parthenium weed near Katherine late last year, the Weeds Management Branch has been conducting an intensive management program in the Katherine and Barkly regions.

The survey is part of the work weeds officers are doing to identify the potential risk the weed poses to other pastoral operations.

Officers have been speaking to landholders to help them better assess the risk of parthenium weed spread across the Territory by helping them with early identification and communicating the potential impact of the weed on their business and the Territory economy.

The weed is a major problem in rangeland and cropping areas of Queensland where it costs farmers and graziers more than \$22 million in reduced production and increased management costs.

All landholders in the Barkly region who have not yet had the opportunity to complete the survey or would like to talk to a weeds officer, they can do so by ringing 8973 8857 or for more information [visit the weeds page of the NTG website](#).



Figure 9 *Parthenium* (*Parthenium hysterophorus*)

TERRITORY NATURAL RESOURCE MANAGEMENT

NATURAL PROCESS EROSION CONTROL COURSE

Territory Natural Resource Management has partnered with RegenAG's erosion mitigation expert Craig Sponholtz of Watershed Artisans to deliver a 3-day intensive natural process erosion control course.

This course teaches farmers and land managers how to set restoration priorities that align with your management objectives. It will empower participants to make a positive difference in your own watersheds by emphasising an understanding of root causes and healing processes, rather than simply addressing the symptoms of degradation.



Photo: Barron Catchment Care

WHAT'S COVERED?

- Introduction to the Landscape Assessment Framework
- Recognising the symptoms and causes of degraded land
- Identifying regenerative natural processes
- Understanding how humans effect and are affected by the landscape
- Designing resilient solutions for landscape problems
- Understanding management options for degraded land
- How to heal degraded land by harvesting runoff
- Deciding what is doable what should be done first
- Planning and preparing to complete a successful project
- Maintaining a project to ensure its long-term success

For a taste of what will be covered in the field, check the [Erosion Control Field Guide](#) developed by Craig.

THIS COURSE IS OPEN TO EVERYONE. SPACES ARE LIMITED!

WHAT YOU GET

- 3-day intensive course in a small class setting with internationally recognised erosion specialist
- Both theory and practical experience in arid land erosion situations
- Savings of over \$600 per person through funding from the Australian Governments Smart Farm Small Grants
- Morning tea, lunch, afternoon tea each day (+ dinner & breakfast at Hale River Homestead)
- Free camping at Hale River Homestead (option to pay for bed)

PRESENTER CRAIG SPONHOLTZ

Craig Sponholtz is an internationally recognised stream and wetland restoration designer, contractor, and educator. He is the founder and owner of Watershed

Artisans, Inc. and has led the assessment, design, and construction of watershed restoration and habitat improvement projects in waterways around the world. He specialises in creating restoration projects that re-establish hydrogeological processes and enhance the resilience of riparian ecosystems.

WHEN: 9th – 10th – 11th April
8.30am – 5pm daily

WHERE: Corkwood Room – Desert Knowledge
Precinct Centre
South Stuart Highway
Alice Springs, NT

and

Hale River Homestead (overnight
Wednesday 10th April)
Arltunga Road (1,281km)
Alice Springs, NT

COST: \$300 +GST per person
Camping Wednesday Night – No
additional cost
Bed Wednesday Night - \$60

RSVP: www.territorynrm.org.au/events

FOR MORE INFORMATION

E: events@territorynrm.org.au

P: (08) 8942 8300



Photos: Barron Catchment Care

Come clean, go clean!



Guidelines for farm biosecurity

Farm biosecurity is a set of measures designed to protect properties from the entry and spread of pests and diseases. It includes trying to prevent new pests and diseases from arriving, and helping to control outbreaks if they occur. It relies on assessing the risks of bringing pests and diseases onto your farm and how to prevent that from occurring.

Farm biosecurity is everybody's responsibility, but starts with you at the farm gate. It does not have to be complex or expensive to implement.

There are a range of **simple everyday practices** you can put in place to protect your farm and minimise the spread of pests and disease.



To protect your industry and livelihood,
help prevent the spread of unwanted
pests and diseases;

Come clean, go clean!



Farm hygiene

- Pests and diseases can spread easily through soil, water and plant material in contact with people, their footwear, clothes, vehicles, machinery and equipment.
- Ensuring people, vehicles and machinery in contact with plants/crops **come clean** is vital in reducing the risk of introducing unwanted pests and diseases to your property.

Remember:

- farm biosecurity is about keeping other properties clean too – ensure people, vehicles and machinery in contact with plants or crops **go clean**
- a footbath with decontaminate is an easy way to ensure footwear is kept clean
- visitors should use on-farm equipment, tools and boots if provided
- visitors using own equipment, should make sure it is clean before entering and exiting
- crop waste can harbour pests and diseases and should be collected and disposed of away from the growing area, including crop residues and prunings, as well as packing shed waste.

Signs and zones

- Whilst signs are not a physical barrier they should act as a clear guide.
- Never assume that all people know what to do when they arrive at your property.
- Use clear instructions and provide relevant contact details.
- Biosecurity signage should be placed at key access points, and used to direct visitors to designated parking or reception areas, and restrict access to growing areas.
- Create a map of your farm identifying the different zones. 'Outside' or 'dirty' versus 'clean', free access versus authorised personnel only.
- The growing area is in a 'clean' zone which is quarantined from the 'outside' zone of the farm.
- If possible place vehicle and footbath wash bays between the 'clean' and 'outside' zones.

Training, records and registers

- Train and inform farm staff and visitors on the biosecurity measures applied on the farm to ensure pests and diseases are not unknowingly brought onto the farm.
- Training and visitor access to growing areas should be recorded.
- Recording pest and disease monitoring activities can provide useful information for tracing back or tracing forward possible pest and disease incursions on the farm.
- A register of the source of plants, with details such as variety, supplier, specific plant details (i.e. seed batch numbers) and planting dates, will help to trace back or trace forward important details if required.

Surveillance, monitoring and control

- Pest and disease surveillance involves monitoring, recording and managing pests and diseases.
- Focus on high priority areas; such as growing areas, point of access, storage areas or wash down areas. Remember some weeds can also be hosts to certain pests and diseases, so these should be controlled.
- Regular monitoring and checks of your crops can provide early warning of suspect and known pests and diseases.
- Immediate reporting of a pest or disease incursion increases the chance of efficient control.
- Do not touch, move or transport a suspected or known infected plant material. You should contact the Department of Primary Industry and Resources (DPIR) Plant Biosecurity team who will provide protocols for handling and transport of samples. Incorrect handling could spread the pest further or make samples unfit for diagnosis.

For more information on farm biosecurity visit www.farmbiosecurity.com.au or contact the DPIR Plant Biosecurity team on 8999 2118 to help get you started

New Livestock Biosecurity Officer

Simone (Min) Andrews is the newest edition to the Livestock Biosecurity team in Katherine. You may know Min from her role as a Biosecurity Officer in the Kununurra/Kimberley region of Western Australia.

Min has spent majority of her life in the Kimberley region and has more than 20 years' experience in the Northern Beef Industry. Her experience and interest in this industry began when she started working in stock camps at a young age on Auvergne station and Newry Station. In 2009, Simone graduated with a Bachelor of Agribusiness from the University of New England. Over the years, Min followed her passion into a number of roles including managing the Charles Darwin University Katherine Campus Brahman stud, Technical Officer at Victoria River Research Station and for last four and a half years as a Biosecurity Officer for Department of Primary Industries and Regional Development in Kununurra Western Australia. As a Biosecurity officer in Kununurra Simone has acquired extensive knowledge in disease surveillance, protocols for cattle travelling across the Western Australia and Northern Territory border and livestock inspections.

Min looks forward to learning new tasks and expanding her knowledge in the beef industry.

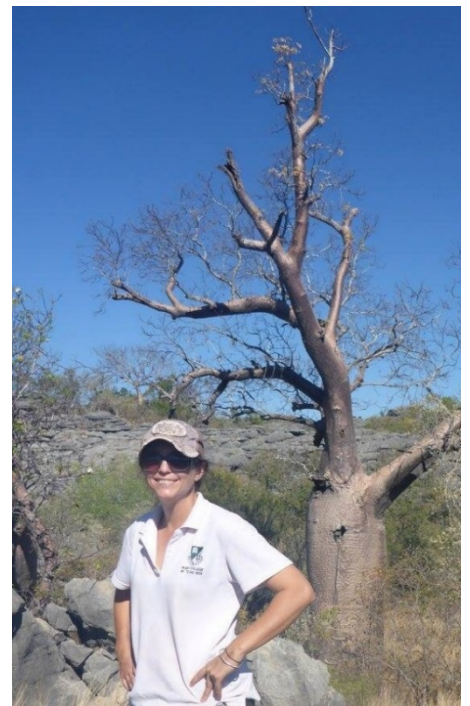


Figure 10 Simone (Min) Andrews

Livestock disease investigations

The department provides a free disease investigation service, including free diagnostic testing through the Berrimah Veterinary Laboratory, to livestock owners for diagnosis or exclusion of notifiable emergency, exotic and endemic disease, including zoonotic diseases. Subsidies are available for producers to contact private veterinarians for significant disease investigations in livestock.

Subsidies for disease investigation

- Subsidies of up to \$2,000 are available for disease investigations in cattle conducted by private vets until June 2019.
- For disease investigations in horses and other species, subsidies of up to \$250 are available.
- Remember that \$300 is available for cattle showing nervous signs where a post-mortem is performed and the brain collected for "Mad Cow" exclusion testing

Please contact your local vet or regional Livestock Biosecurity Officer for more information.

During October to December 2018, 74 livestock disease investigations were conducted to rule out emergency diseases or investigate suspect notifiable diseases across the NT.

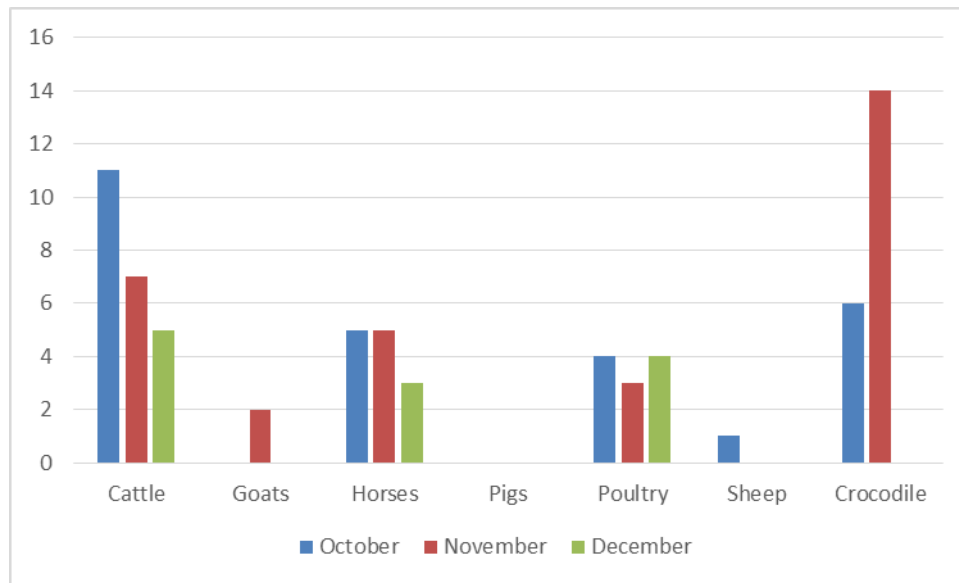


Figure 11 Livestock disease investigations in the NT, October to December 2018

E-Coli in pen feeding trial weaner

A weaner in a phosphorus pen feeding trial herd was noticed to be slow and swaying at a walk during weekly weighing of the animal group. The following day, the animal was off food, tucked up and depressed. A fever, together with nasal discharge and saliva drooling from the mouth were noted, with no visible damage to the nose, mouth or teeth. The breath smelled strongly of acetone, which is an indicator in ruminants of a negative energy crisis, and consequent formation of emergency energy supplies in the form of ketone bodies. The animal was treated symptomatically with electrolyte and fluid replacement and an anti-inflammatory injection; blood, throat and nasal swabs and faeces were submitted to Berrimah Veterinary Laboratory. However, the heifer was found dead the following morning.

On post mortem there was a strong smell of ketones throughout the carcass; ketoacidosis was suspected. One very small section of small intestine (< 5cm long) was severely inflamed (enteritis) without blockage or visible perforation. Another section of intestine contained what appeared to be a hair faecolith (also known as a hair concretion – a hard solid mass of hair). The kidneys and liver were friable to handle, tending to turn “mushy” when sections were cut in preparation for laboratory submission.

Laboratory examination of submitted tissues showed extensive necrosis (tissue death) and ulceration through the range of gastro-intestinal tissues submitted, with abundant bacteria in the walls of the gut tissues. Interestingly, lesions that were seen under the microscope were not limited to the section of small intestine that was seen to be inflamed with the naked eye. Septic thrombi (infected clots), indicative of widespread infection, were found in the spleen and kidney. The findings are consistent with severe bacterial enteritis (infection and subsequent changes to absorption through the intestinal wall) with spread of the causative organism throughout the body.

The clinical signs associated with this enteritis are consistent with infection by a subset of *E.coli* bacteria which produce Shiga toxins, causing severe illness in affected animals. Cattle are a recognised carrier of this bacteria, which is zoonotic, and a cause of haemorrhagic colitis (bloody diarrhoea) in humans. *E.coli* is capable of causing different disease syndromes in cattle, based on the specific toxins and virulence of the infecting strain. Enterotoxigenic strains typically cause disease in neonatal calves, while enterohaemorrhagic strains are associated with disease in older animals, as in this case. Disease tends to occur in isolated cases rather than herd outbreaks, as cattle carry the infective organism in the gastro-intestinal flora; a primary cause for the development of overwhelming infection was not identified in this case. No other animals in the pen trial were affected.

Tests on the blood confirmed ketoacidosis, which is likely secondary to the gastro-intestinal disease. A negative energy state in which ketone bodies are elevated can occur when carbohydrate reserves are depleted; in this case, this is a secondary effect following inappetence and depression. Changes in the liver were consistent with hepatic lipidosis, and are secondary changes consistent with ketoacidosis and severe debilitation.

These findings are interesting, as they highlight the fact that the clinical signs that can be seen (and in this case, smelled), may not in fact be the primary cause of disease or death. The results of laboratory testing also serve to emphasize the need to submit a range of tissue samples in order to reach a diagnosis; in this case, microscopic examination of the gut samples demonstrated severe disease that was not visible to the naked eye and would otherwise be missed.

Milk Fever

A property owner in the Darwin region reported two downer cows out of a herd of 12 *Bos taurus* cattle. The cows had been on the property for a few years, and there had been no recent management changes. The cows had had access to a bull. There was no supplement lick and there had been a number of recent storms. A cow was seen to be acting unusually, before being found down and then dead the next day. When a second cow was found down the regional Veterinary Officer and Livestock Biosecurity Officer were called to investigate.

On examination the cow was unable to move the legs or tail, and there was no deep pain response. There were no obvious signs of calving or trauma and the cow had a fever (40.2°C). There were normal cow pats near the cow and no signs of struggling. The cow was euthanased for post mortem examination. Post mortem showed the cow to be in late pregnancy. There was significant bruising in the muscles and other tissue, the urine was dark and the kidneys enlarged. The calf was a bull calf, and the liver broke up more easily than expected. A range of samples were taken for lab testing, which showed low calcium (hypocalcaemia), muscle damage and breakdown of the liver.

Based on the findings of the post mortem and the samples collected, a diagnosis of milk fever was made. Milk fever is uncommon in the NT, and is generally associated with dairy cattle that produce a large quantity of milk; however, it can also occur in beef cattle. Milk fever is caused by low calcium in the blood; this causes a decrease in muscle function which can result in weakness, recumbency, depression and ultimately death. Pasture usually contains enough calcium to meet the minimal requirements of cattle, however a dramatic increase in calcium requirements occurs with the onset of lactation in the cow.

For this small managed herd the following recommendations were given and no further losses were reported:

- After joining, keep cows on a low calcium diet (i.e. high in roughage and low in green feed) and make sure they don't become over fat.
- In the few weeks prior to calving, keep cows in a close paddock and observe them frequently. If down cows are noted and milk fever is suspected, consider administering a 3 in 1 or 4 in 1 vaccine treatment and contact a vet.
- Consider shortening the joining period so that approximate calving dates are known. This will make it easier to manage feeding and observation close to calving.

Tick Fever

Cattle ticks transmit organisms that cause tick fever, commonly known as 'red water' in cattle. Tick fever can result in loss of condition, mortalities, abortions and reduction in bull fertility. There are three types of tick fever organisms, *Babesia bovis*, *Babesia bigemina* and *Anaplasma marginale*.

Cattle that have been exposed to cattle tick at a young age build up lifelong immunity to these organisms, however, cattle from the tick free area that have never been exposed to cattle ticks will not have immunity. Cattle from the tick free area will require tick fever vaccination before moving in to a cattle tick infected area.

Clinical signs of tick fever

Signs of tick fever include:

- weakness
- depression
- sudden development of fever - temperature around 41° C (106° F). The fever stage usually lasts about a week.
- loss of appetite and rumination (chewing of cud) ceases
- The animal isolates itself from the herd; it is disinclined to move and stands with the head lowered and ears drooping.
- The coat may appear ruffled, breathing becomes rapid and jerky and heart beat is accelerated.
- The mucous membranes of the eyes, nose and mouth become yellow due to anaemia and jaundice.
- The animal exhibits incoordination of the hindquarters, muscle shivering and a tendency to charge when disturbed.
- Emaciation occurs.
- The animal passes red coloured urine.

Note: Most deaths occur in the third week, but may occur any time after 24 hours of infection. Death may be precipitated by exertion or excitement.

Despite the common name 'red water', red urine is only occasionally present and is seen late in the course of the disease. Cattle with *Babesia bovis* infections may be quite sick even if they do not show signs of anaemia and red urine.

Diagnosing tick fever

Tick fever is difficult to diagnose based on clinical signs alone. The best way to diagnose tick fever is through laboratory examination of blood smears.

Risk factors for tick fever

Breed

British and other *Bos taurus* cattle breeds are more susceptible to tick fever caused by *Babesia* organisms than Brahman (*Bos indicus*) breeds. Cross breeds (*Bos taurus* x *Bos indicus*) have intermediate susceptibility which will vary depending on the percentage of each breed type.

Both *Bos indicus* and *Bos taurus* breeds are highly susceptible to disease caused by *Anaplasma marginale*.

Age

There is a strong link between age and resistance with most outbreaks occurring in animals 18 to 36 months of age. Calves exposed to tick fever organisms between three to nine months of age rarely show clinical signs and develop a solid, long-lasting immunity.

Exposure

Cattle born and raised in areas where cattle ticks are endemic can develop natural immunity through exposure to ticks infected with tick fever.

However, exposure of calves to ticks infected with tick fever (and subsequent development of protective immunity) can be highly unpredictable. Exposure is influenced by factors such as breed, season and tick-control strategies.

Cattle from tick free areas should not be introduced into cattle tick infected areas without first receiving a tick fever vaccination. Ideally cattle will be vaccinated prior to nine months of age so they are set for later in life. The second best option is to ensure that cattle have been vaccinated at least two months prior to departure from tick free area to ensure that immunity has developed. If cattle need to be moved shortly after vaccination they should be moved either before day seven, or between days 21 to 30 after vaccination. This provides the less stress during the animals' peak reaction times.

Treatment

There are two types of tick fever vaccination, chilled trivalent vaccine and frozen trivalent vaccine. The more commonly used chilled trivalent vaccine is a live vaccine that contains strains of three tick fever parasites (*Babesia bovis*, *Babesia bigemina* and *Anaplasma marginale*). The frozen vaccine, also known as Combavac 3 in 1, is used in remote areas where it is not possible to get chilled vaccine delivered by the following day, or for properties where vaccine is needed to be kept on hand.

If used as directed, one dose of the live vaccines should provide lifelong immunity against all three parasites. The organisms in the vaccine multiply once injected in to the cattle, as would occur in a real life infection. The organisms in the vaccine are less infectious, allowing for immunity to develop without mortalities or serious production losses.

Ordering the vaccine

You can order vaccine directly from the Tick Fever Centre, through your local veterinarian or rural agency.

Chilled vaccine: Chilled vaccine is only produced on Tuesdays and Thursdays. Orders are not accepted on the day of dispatch but must be in by 4pm the day prior (Monday or Thursday) to production.

Frozen vaccine: Frozen vaccine is dispatched on Fridays, so orders must be received by 4pm on Wednesday.

References

Business Queensland 2016, *Tick Fever Vaccines for cattle*, Queensland Government, accessed 1st February 2019 <<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/livestock/cattle/tick-fever-vaccines> >

Department of Primary Industry and Resources 2016, *AgNote: Tick Fevers of Cattle*, Northern Territory Governments, accessed 19th February 2019 <https://dpir.nt.gov.au/_data/assets/pdf_file/0010/233488/713.pdf>



NT WAYBILL – 28 DAYS

OBLIGATIONS OF THE OWNER OF THE LIVESTOCK

1. A copy of the waybill *must* be forwarded to the Department *within 28 days* after the date on which the waybill was issued.
2. The owner *must* retain a copy of the waybill for at least 7 Years.
3. At the request of an Inspector during that period - the owner *must* produce the copy to the inspector.

NLIS REPORTING – 48 HOURS

NLIS REPORTING OBLIGATIONS FOR THE OWNER OF PROPERTY OF DESTINATION

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

If you are unsure or have any questions on any aspect of meeting your compliance obligations please contact your local livestock biosecurity officer.



Post mortem and disease investigation workshop

Veterinary officers Megan Pickering and Elizabeth Stedman from the Livestock Biosecurity Branch, delivered an interactive post mortem and disease investigation workshop for cattle producers in the Katherine Region. Hosted by the Riggs family at Lakefield Station on a blisteringly hot December day, the 24 participants eagerly engaged in the hands-on experience of sample collection and preservation in the field.

Commencing with a theory session, the workshop covered potential biosecurity threats to Australian pastoral industries, the various mechanisms in place to protect livestock, the response systems and combined government/industry approaches that would be taken in the case of an exotic or emergency animal disease incursion, and the role of the producer in on-farm biosecurity and early disease detection and reporting. Extreme climatic conditions and extensive grazing practices in northern Australia pose significant challenges to effective disease investigation options, and the option for producers to collect meaningful samples in the early phases of a disease outbreak was welcomed.



Figure 12 Field Veterinary Officer Megan Pickering providing post mortem training

Two complete post mortems were then undertaken, where the practical aspects of tissue sampling were discussed around issues such as appropriate sample size, how to recognise normal versus abnormal tissues, tips and tricks on tissue handling to avoid excessive tissue damage or disruption in sample collection, and how to store, pack and dispatch both fresh and preserved tissues from the field.

At the conclusion of the workshop, participants from each station were presented with a sample collection kit. It is envisaged that such training will encourage and enable producers to confidently collect diagnostically meaningful samples in the early stages of a disease outbreak, which is a key factor in Northern Territory and Australian biosecurity preparedness strategies.

This workshop was funded by the Northern Australia Biosecurity Surveillance project through funding from the Australian Government Agricultural Competitiveness White Paper. The project is a collaboration between the Commonwealth and Queensland, Western Australia and Northern Territory Departments of Agriculture and Animal Health Australia.

Reminder



2018 Audit of NT Brands Register

Have you received the 2018 Audit of NT Brands Register form and Instructions?

Yes.

Have you completed the form as per instructions? and
Have you returned the form to LISA for processing?

No.

You must complete the Brands Audit form urgently.
If lost, please complete the attached by completing all
sections, sign & date, then return for processing.

Changes - If there are any changes to your Brands Registration
please write comments / notes on the Audit form so that the
appropriate paperwork can be sent to you.

For example -

Brand no longer being used - cancel brand, registered owner/s
changed (by marriage, death, company etc), Brand being used
on another proper/run etc

Please return Audit form via any of these options:

Email: adele.kluth@nt.gov.au or susan.gillis@nt.gov.au

Fax: 08 8999 2089 or 08 8973 9759 or 08 8962 4480

Post: DPIR, GPO Box 3000, Darwin NT 0801

Thank you for completing the 2018 Audit.

Various forms are available from our website

www.nt.gov.au/agriculture/livestock

DEPARTMENT OF PRIMARY INDUSTRY AND RESOURCES

Contact the Livestock Biosecurity team

Darwin

Regional Livestock Biosecurity Officer 08 8999 2034
Livestock Biosecurity Officer 08 8999 2030

Katherine

Regional Livestock Biosecurity Officer 08 8973 9767
Livestock Biosecurity Officer 08 8973 9765

Tennant Creek

Principal Livestock Biosecurity Officer 08 8962 4458
Livestock Biosecurity Officer 08 8962 4492

Alice Springs

Senior Field Veterinary Officer 08 8951 8181
Regional Livestock Biosecurity Officer 08 8951 8125

Department website: nt.gov.au/industry/agriculture/livestock

Pastoral Market Update



Pastoral Market Update

DEPARTMENT OF PRIMARY INDUSTRY AND RESOURCES



Live Exports via Darwin Port – JANUARY 2019

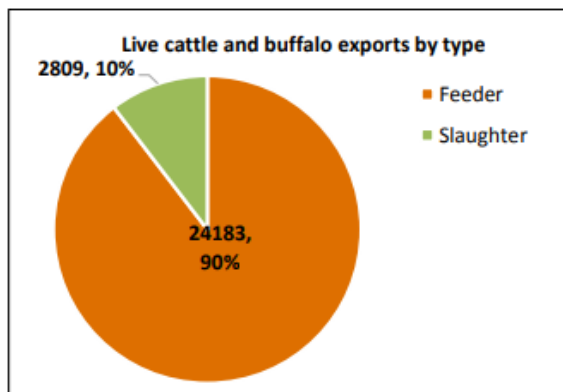
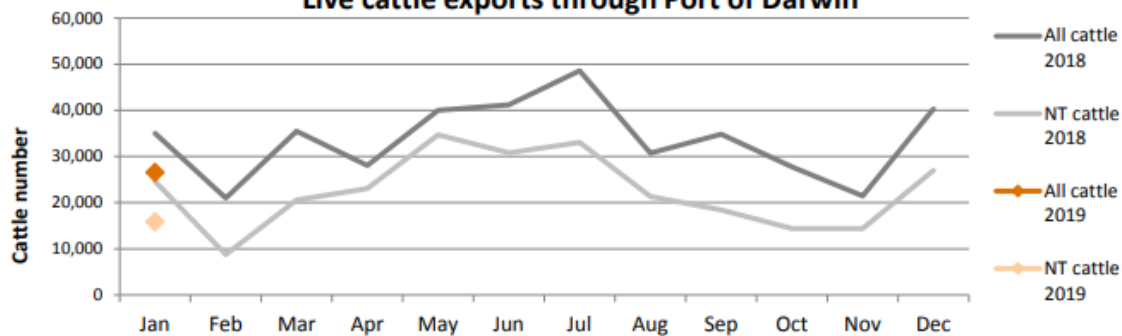
Please note: figures are for stock exported through the Port of Darwin only; some NT stock are exported through interstate ports

Please note: the NT Cattle figures here have been rounded respectively and may not tally to totals.

The figures listed below are correct as at January 31 2019 and are subject to change as further data becomes available.

| Destination | Export of ALL CATTLE (including interstate) | | | | | | | Export of NT CATTLE (estimate only) | | | | | | |
|--------------|---|----------------|-----------------------|-----------------|---------------|---------------|----------------|-------------------------------------|----------------|-----------------------|-----------------|---------------|---------------|----------------|
| | 2017 | 2018 | Last year to 31/01/18 | YTD to 31/12/19 | Jan | Last month | Difference | 2017 | 2018 | Last year to 31/01/18 | YTD to 31/12/19 | Jan | Last month | Difference |
| Brunei | 3,872 | 3,653 | 0 | 0 | 0 | 0 | 0 | 2,423 | 2,292 | 0 | 0 | 0 | 0 | 0 |
| Indonesia | 245,544 | 324,856 | 32,159 | 21,241 | 21,241 | 33,723 | -12,482 | 150,489 | 215,353 | 22,640 | 12,657 | 12,657 | 22,591 | -9,934 |
| Philippines | 0 | 10,482 | 0 | 0 | 0 | 0 | 0 | 0 | 7,262 | 0 | 0 | 0 | 0 | 0 |
| Sabah | 2,640 | 0 | 0 | 0 | 0 | 0 | 0 | 1,680 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sarawak | 2,743 | 2,106 | 0 | 0 | 0 | 996 | -996 | 1,594 | 1,631 | 0 | 0 | 0 | 667 | -667 |
| Malaysia | 13,257 | 11,813 | 0 | 0 | 0 | 0 | 0 | 8,109 | 7,848 | 0 | 0 | 0 | 0 | 0 |
| Vietnam | 39,989 | 49,771 | 2,830 | 5,338 | 5,338 | 4,672 | 666 | 25,884 | 35,342 | 1,992 | 3,181 | 3,181 | 3,130 | 51 |
| Egypt | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thailand | 800 | 1,720 | 0 | 0 | 0 | 920 | -920 | 535 | 1,274 | 0 | 0 | 0 | 616 | -616 |
| Cambodia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 308,845 | 404,401 | 34,989 | 26,579 | 26,579 | 40,311 | -13,732 | 190,715 | 271,001 | 24,632 | 15,837 | 15,837 | 27,004 | -11,167 |

Live cattle exports through Port of Darwin



OTHER LIVESTOCK

| Destination | Buffalo | | Goat | | Camel | |
|--------------|------------|------------|----------|----------|----------|----------|
| | YTD | Jan | YTD | Jan | YTD | Jan |
| Brunei | 0 | 0 | 0 | 0 | 0 | 0 |
| Indonesia | 167 | 167 | 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 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vietnam | 246 | 246 | 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 | 413 | 413 | 0 | 0 | 0 | 0 |

LIVESTOCK MOVEMENT STATISTICS

Reports for livestock movements from NT to Interstate, within NT and Interstate to NT are updated biannually - see

www.dpir.nt.gov.au/primary-industry/primary-industry-strategies-projects-and-research/livestock-movement-statistics

| Total of ALL CATTLE through Port of Darwin | | | | | | | | Total of NT CATTLE through Port of Darwin | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|--|---|---------|---------|---------|---------|---------|---------|--|
| 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | |
| 246,990 | 359,616 | 493,958 | 510,860 | 372,251 | 308,845 | 404,401 | | 234,249 | 308,784 | 324,477 | 295,738 | 236,511 | 190,715 | 271,001 | |

[Subscribe](#) or [unsubscribe](#) to the monthly Pastoral Market Update.

**POSTAGE
PAID
AUSTRALIA**

To:

If undeliverable, please return to:

Department of Primary Industry and
Resources
PO Box 159
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