Katherine Rural Review

DEPARTMENT OF PRIMARY INDUSTRY AND RESOURCES

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Inside this issue:

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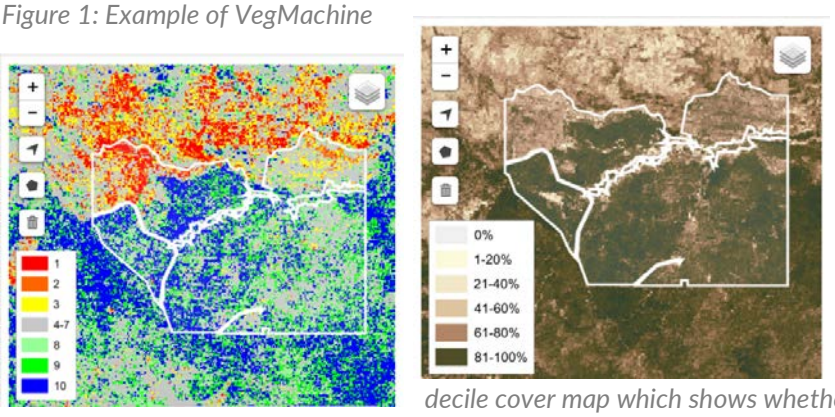
VegMachine - Looking at the ground from the sky

Robyn Cowley, Rangeland Scientist, Darwin

Wouldn't it be nice to see how the ground cover has changed on your place over the last 30 years without having to leave your desk? Satellites (Landsat) have been taking pictures of your property for thirty years and the good news is that now you can access these images too, on an easy to use website called VegMachine at https://vegmachine.net/#.

VegMachine lets you look at ground cover of selected areas through time. The areas to look at can either be defined by imported files or you can draw your own area on the website. At its most basic, you can look at maps of cover across your place for a selected date. Options include total ground cover, woody cover (persistent green), as well as decile cover which indicates whether the cover is above or below average compared to the historical record (Figure 1).

Figure 1: Example of VegMachine



decile cover map which shows whether there is more (green to blue) or less (yellow to red) cover than average (left) and total ground cover (right) for Kidman Springs in the summer of 2017.

But the real strength of VegMachine is the summary of cover through time for different areas using the polygon comparison tool. To demonstrate I have compared the ground cover changes on our research station Kidman Springs to similar pastoral land around it (Figure 2).

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NORTHERN TERRITORY GOVERNMENT

The first thing you notice is that the ground cover has increased since the early 1990s when there was an extended dry period. Since then the cover on both Kidman and the surrounding pastoral land has usually ranged between 70 and 90%.

Ground cover can also vary with land type. Here the land types compared were a similar mix of land types, so we can assume differences are more likely due to management. But the good news is that both Kidman and the surrounding pastoral land has had pretty high ground cover since the mid 1990s. Kidman has had similar or slightly higher ground cover than the surrounding pastoral land since the mid 1990s. This could be due to lower grazing pressure or less fire, or both, on the research station.

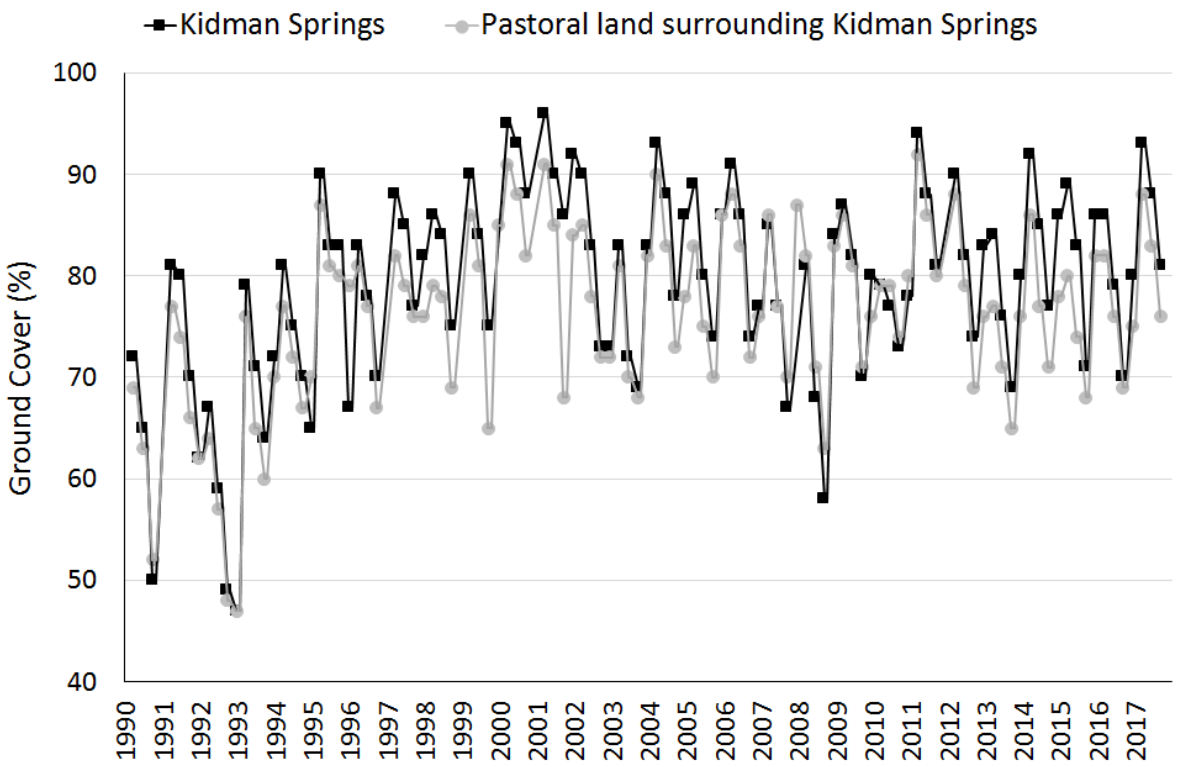

Figure 2: Change in ground cover through time downloaded from VegMachine on Kidman Springs and surrounding grazed land.

You might want to compare individual paddocks, or land types to see how they are tracking through time on your place. Because seasons cause changes in ground cover, comparing cover trends through time on different areas (e.g. near vs. far from water, grazed vs. ungrazed) can help to distinguish seasonal from management related trends. Knowing what has happened with seasons, fire and grazing management will help you to interpret the possible causes of ground cover changes in different areas. Is ground cover decreasing more through time on some areas? That could mean that stocking rates are too high, or fire frequency is higher. Is ground cover increasing more in some areas? That could suggest that management is allowing recovery of pastures.

I compared an exclosure on Kidman Springs that has not been grazed since 1973 (45 years) to the same land type surrounding the exclosure that was always grazed (Figure 3). Until about 2004 the grazed areas in Conkerberry paddock often had lower ground cover than the ungrazed exclosure. Since then ground cover

in the grazed and ungrazed areas has tracked pretty closely. This could represent recovery of the grazed area.

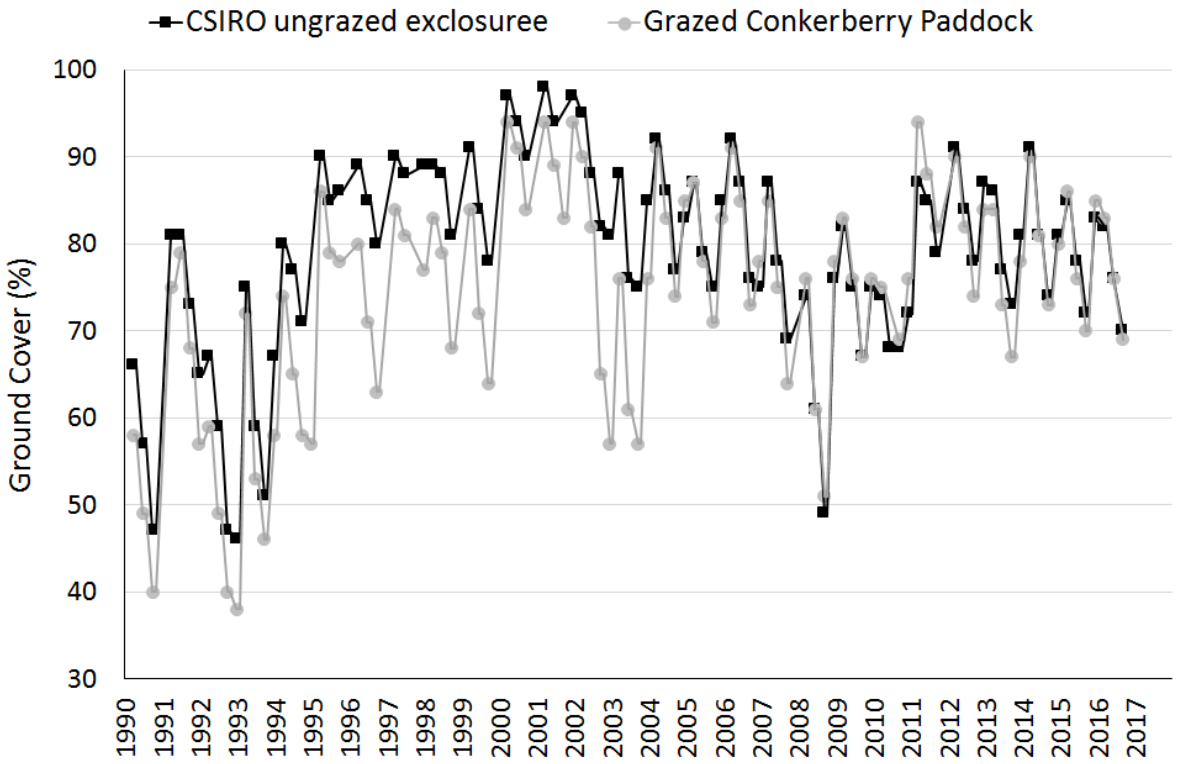

Figure 3: Ground cover change through time on a grazed and ungrazed part of Kidman Springs red soil.

To see some short example videos of how to use VegMachine click the following links.

- www.facebook.com/vegmachine/videos/2063416797269064/
- www.facebook.com/vegmachine/videos/2068441680099909/

Also, click on the help button on the VegMachine site to get an excellent easy to follow manual about how to use it.

To get a file of your station boundary to use in VegMachine email dale.jenner@nt.gov.au.

Have fun!

What's the big deal about ground cover?

Ground cover protects the soil from erosion. It also reduces soil evaporation, which leaves more water in the soil for growing grass. Good cover gives your land the best chance to capture and keep the rain that falls, so you maximise the growth of your pastures.

North Australian grazing industry to benefit from new climate project

A new project will help the grazing industry across Northern Australia better manage drought and climate risks through a range of research, development and extension activities.

The $8 million Northern Australian Climate Program (NACP) is a partnership between the Queensland Government, Meat and Livestock Australia (MLA) and the University of Southern Queensland (USQ) with extra on-ground support coming from the Northern Territory (NT DPIR) and Western Australia (DAFWA, Rangelands NRM).

NACP will improve seasonal and longer-term climate forecasting and develop tools and information systems, and provide support to use these forecasts.

The practical management options delivered by the project will help producers build resilience and increase business productivity, leading to more profitable and sustainable grazing businesses.

Research within NACP includes working with national and international climate modellers to improve seasonal forecasts for Northern Australia, improving predictions of multi-year droughts and wet season onset, and quantifying the development of fast developing, or 'flash' droughts.

Figure 4 Pasture identification at Ruby Plains near Halls Creek, DPIRD. Photo credit: Rope Wortley

Development activities will focus on boosting productivity in our variable climate through better climate risk management tools, digital technologies and producer networks. Extension programs will focus on directly engaging with producers to improve knowledge and skills to support proactive management of climate variability.

Figure 5 Waiting for the rain near Julia Creek Photo credit: Steve O'Connor

NACP is one of the nine projects of the $17.5m Drought and Climate Adaptation Program (DCAP). DCAP is bringing together the best climate scientists, climate advisers, and cutting-edge researchers in the state, nationally and globally to work with the government and industry leaders to help Queensland primary producers better manage drought and climate impacts.

Further information on NACP is available at http://statements.qld.gov.au/Statement/2018/1/17/north-australian-grazing-industry-to-benefit-from-new-climate-project

Annual Bull Auction

AuctionPlus (Elders Katherine)
10am Wednesday 20 June 2018
DEPARTMENT OF **PRIMARY INDUSTRY AND RESOURCES**

41 Bulls in top 10% LiveEx Index

There will be 83 bulls presented for auction:

- 4 – 2013 bulls
- 1 – 2014 bull
- 12 – 2015 bulls
- 66 – 2016 bulls

10 PH bulls available

For more information please contact:

Whitney Dollemore – Katherine Research Station T: 8973 9749 E:whitney.dollemore@nt.gov.au
Paul McCormick – Elders Katherine T: 8972 2500 E: paul.mccormick@elders.com.au

DATE CLAIMER

Victoria River Research Station, Kidman Springs Field Day
Wednesday 15th August 2018
DEPARTMENT OF **PRIMARY INDUSTRY & RESOURCES**

The Biennial Victoria River Research Station Field Day will be held to enable local producers to hear about current research results and the future key focus areas.

More information is to be released soon.

For enquiries please contact:

Whitney Dollemore – Katherine Research Station T: 8973 9749 E:whitney.dollemore@nt.gov.au
Spud Thomas – Kidman Springs Station T: 8975 0762 E:spud.thomas@nt.gov.au

Breeding EDGE Workshop

Katherine, NT: 30 July – 1 August 2018

VENUE Katherine Research Station, Katherine
TIME 8:00am to 5:00pm

BREEDING EDGE IS A THREE-DAY WORKSHOP DESIGNED TO ASSIST PRODUCERS IMPROVE AND REFINE THEIR BREEDER HERD MANAGEMENT AND GENETIC IMPROVEMENT PLANS.

Participants will be able to develop a breeding herd management plan using genetic and reproductive knowledge and technologies, to achieve desired production targets.

Attending this workshop will help you to:

- identify where current breeder herd management program can be improved to reduce reproductive loss
- measure reproductive performance more accurately
- identify strategies and management to improve bull selection, retention, management and performance
- develop a management plan that incorporates practical, achievable strategies and a management program to meet your desired objective(s)
- gain a thorough understanding of genetic improvement for both breeding cattle and turnoff cattle

Prices (GST exclusive):

$1,750 + GST / One person from a business
$1,450 + GST / Two or more people from a business
Cost includes comprehensive set of workshop notes - a manual, workbook, electronic files and other material.

What you will learn:

- current herd performance – what measures matter most
- reproduction and reproduction loss
- managing the breeders - systems
- bull fertility and management
- identifying "not so obvious" bull faults that impact reproduction
- reproductive diseases and diseases impacting reproduction
- breeder herd management plans
- genetic improvement of your herd (including breeding objectives)
- genetic principles and selection tools
- selection and selection criteria for traits important to you
- breeds and breeding systems

Deliverers:

- Felicity Hamlyn-Hill - Beef Enterprise Advisory Services Pty Ltd
- Whitney Dollemore - NT Dept. of Primary Industry and Resources
- Tim Emery - Tropical Beef Technology Services (TBTS)

To register contact:
Felicity Hamlyn-Hill
M: 0428 113 732 or
E: felicityhamlyn-hill@bigpond.com

AUSTRALIAN CATTLE VETERINARIANS

Beef Enterprise Advisory Services Pty Ltd
Working with producers for more productive and profitable beef businesses

mla MEAT & LIVESTOCK AUSTRALIA EDGE NETWORK

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2 - 4 JULY 2018

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NT FARMERS

Livestock disease investigations

The Department of Primary Industry and Resources (DPIR) provides a free disease investigation service to livestock owners for diagnosis of notifiable emergency, exotic and endemic disease, including zoonotic diseases. Berrimah Veterinary Laboratories provide free diagnostic testing for exclusion of notifiable disease for all disease investigations, and subsidies are available to private veterinarians for significant disease investigations in livestock. The Northern Australia Enhanced Disease Surveillance program has been introduced from 2017-2019 on a trial basis providing increased subsidies for cattle and buffalo disease events reported to and investigated by private veterinarians. This program recognises the higher costs and challenges associated with conducting disease investigations in more remote regions.

During January to March 2018, 55 livestock disease investigations were conducted to rule out emergency diseases or investigate suspect notifiable diseases across the Northern Territory (NT). Figure 1 shows the number of investigations by species of livestock.

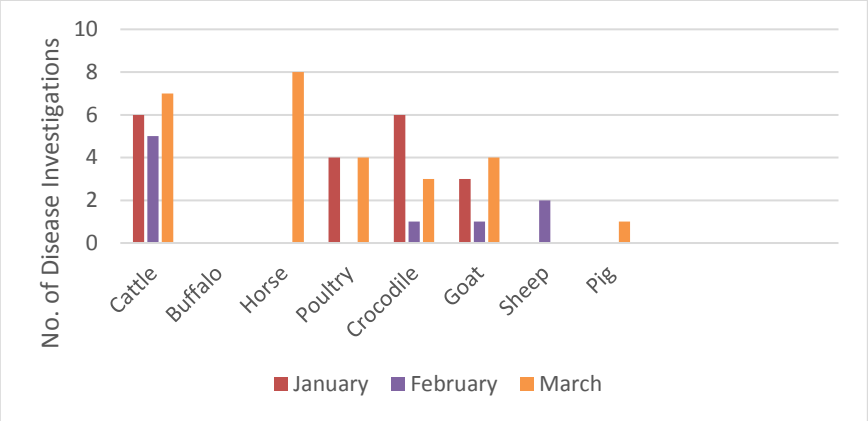


Figure 10: Livestock disease investigations by species for January to March 2018

Berrimah Veterinary Laboratories processed 119 livestock sample submissions, including samples to substantiate proof of disease freedom certifications, for accreditation programs and targeted surveillance to support market access. The following case reports are a selection of disease incident field investigations during the quarter.

Botulism in weaner cattle during the wet season

In late January a pastoral property outside of Darwin reported several cattle laying down and lethargic. The cattle were in a paddock of approximately 500 weaners. Despite supportive care, most affected animals did not improve and died within three days. Deaths continued into mid-February, with affected animals found lying down and lethargic. At least 12 head died or were euthanised.

Although the property had previously managed several cases of botulism in their cattle with vaccination, this group of cattle had not been vaccinated. A phosphorus supplement was available and the cattle had been treated for internal and external parasites using a backline treatment. Notably, the weather had been

particularly wet in the previous few weeks, with the area receiving over 1000mm of rainfall for January (average of 468mm).

Initial blood and faecal sampling of an affected steer and an affected heifer showed a possible bacterial infection and mild muscle damage in both animals. The faecal egg count was within normal limits, suggesting internal parasites were not the cause. Bovine Ephemeral Fever (BEF) and polymerase chain reaction (PCR) testing for BEF virus was negative, and the BEF serological test for antibodies was positive in both animals. This indicates previous exposure, but not current infection with BEF virus. Weaner cattle within the National Arbovirus Monitoring Program activity zone commonly have antibodies against the BEF virus.

The Darwin Regional Veterinary Officer attended the property and performed an autopsy on a euthanised steer and a heifer which had died 12 hours previously. The heifer was one year old and in good condition. A fragment of bone was found in the omasum (third stomach), and a full range of samples were collected. While there was marked decomposition of the tissues of the heifer, no obvious abnormalities were observed on histology. The steer was two years old and in good condition. It had been sitting for 24 hours, was bright in demeanour and there was no evidence of tongue paralysis. Similarly, fragments of bone were found in the rumen during autopsy. This steer also displayed antibodies to BEF, though tests of splenic tissue from the heifer and blood from the steer indicated that the exposure was not recent.

Based on a combination of the clinical signs, history of botulism on the property, lack of vaccination of the affected animals, the presence of bone fragments in the gastrointestinal tract and no significant findings on microscopic histology, a diagnosis of botulism was made. Botulism toxicity is very difficult to prove conclusively but it is a major risk to NT cattle.

Given the recent wet weather and large wildlife population in the area (agile wallabies), it is likely the unvaccinated weaner cattle had access to cattle or wildlife carcases with the botulinum toxin produced by the bacterium, *Clostridium botulinum*. The bacteria can multiply rapidly in carcases with the warm and moist conditions of the Top End wet season and produce spores that can survive in the environment for years as a future disease threat. Despite mineral supplementation cattle will often persist in carcase consumption exposing themselves to a major source of toxin.

There is no treatment for botulism in cattle and most affected cattle are euthanised or die of respiratory failure. In this case, advice was given to immediately vaccinate the remaining cattle with botulism vaccine and to ensure that carcases were removed from paddocks and buried or burnt where possible. Mortalities on the property ceased two weeks after the cattle were vaccinated which is possible further proof of botulism. The property has now implemented a vaccination program for future young stock.

Acute neurological disease in grower pigs fed vegetable food scraps

In late March, after several weeks of particularly wet and humid weather, a hobby farmer outside Darwin reported acute neurological disease in a litter of 3 month old grower pigs. The pigs were normal when fed in the evening, but the next morning 6 out of 10 young pigs were found lying on their sides and paddling with their legs. The six adult pigs in the same and neighbouring pens were unaffected. There had been no recent management changes on the property.

On examination, the affected pigs were somewhat aware of their surroundings, and were able to weakly struggle when restrained, but were unable to get up. They exhibited severe whole body tremors and appeared particularly sensitive to noise and movement. Two affected pigs were euthanised and autopsy was performed. Both piglets were in good body condition, with stomachs full of mixed material consisting of foetid brown mashed material including various vegetables and fine roots. Remaining intestinal tracts of

both pigs were full of normal contents. The pigs were normally hydrated, with abundant urine in their bladders.

Figure 11: Recumbent pig

Blood chemistry analysis did not show any significant changes, with electrolytes, minerals and kidney and liver parameters within normal limits. Both grower pigs showed an increase in the number of white blood cells that respond to bacterial infections. On histological examination, a mild to moderate inflammation of the brain was observed in both pigs. A culture of swabs taken from the brainstem at necropsy from both pigs was negative, including in culture media specific for *Haemophilus parasuis* (Glässers Disease – which can cause convulsions), and there were no systemic lesions suggestive of septicaemia. Infection with exotic Aujesky's Disease was excluded via testing of multiple tissue samples at the Australian Animal Health Laboratory in Geelong, Victoria.

On questioning, the owner reported that they had ceased feeding the piglets a weaner pellet ration a few weeks previously, as the stored food had become mouldy. The current ration for the piglets and adults had consisted of scrap food sourced from a local Foodbank, which was collected every three days and stored in a cool room on the property. These scraps consisted of a various types of fruit, vegetables and bread, and given the recent high humidity, it is likely some of the scraps were mouldy. This feed is permitted and is not defined as 'swill'.

Based on clinical history, histological evidence and access to feed scraps which were likely mouldy, a diagnosis of toxicity due to tremorgenic mycotoxin was made. Mycotoxins are toxic substances produced by a fungus. Tremorgens are mycotoxins which can produce tremors or seizures in animals which consume toxic amounts of contaminated foodstuff.

Advice was given to immediately discard the remaining food scraps and treat the affected pigs with supportive therapy. 24 hours after the first signs were observed, the owner was surprised to find the remaining 4 affected pigs had made a complete recovery; this is consistent with exposure to a sub-lethal dose of tremorgenic mycotoxin. The owner has since commenced feeding a commercial grower pig pellet ration and there have been no further issues on the property.

Feeding of swill - food scraps which contain meat, meat products or anything that has been in contact with meat is not permitted and can cause extoic diseases in pigs, which may also infect other livestock. Feeding swill to pigs is believed to have caused the outbreak of Foot-and-Mouth (FMD) disease in the UK in 2001.

In addition to FMD; Classical and African Swine Fever and Transmissible Gastroenteritis can be carried and transmitted by feeding swill to pigs.

If you notice any unusual symptoms in your pigs, contact your Regional Biosecurity Office to arrange investigation or report it to the Emergency Animal Disease Watch Hotline 1800 675 888

ALERT: Akabane risk to cattle herds in Central Australia

Akabane virus causes a disease which results in abortions, stillbirth and deformities in the foetus of livestock. It primarily affects cattle and is transmitted by the biting midge (*Culicoides brevitarsis*).

In May 2018, Akabane virus exposure was detected in the sentinel cattle herd at Arid Zone Research Institute (AZRI) in Alice Springs. Akabane has not been detected in sentinel cattle in the Alice Springs region since 1974, when 60% of the sentinel cattle tested positive. At that time, insect trapping did not identify the biting midge and therefore other vectors may have been involved in the transmission of the virus between these cattle.

Since 1975, sentinel cattle at AZRI have been monitored continuously for Akabane virus exposure and inspect traps have been set to monitor the presence of potential Akabane insect vectors. For the past 43 years, there has been no evidence of Akabane exposure or the presence of the biting midge, *Culicoides brevitarsis* at AZRI. This is also supported by the negative Akabane results from serosurvey cattle on pastoral properties which have participated in the National Arbovirus Monitoring Program (NAMP). Information on NAMP can be found athttps://www.animalhealthaustralia.com.au/what-we-do/disease-surveillance/national-arbovirus-monitoring-program/

Cattle producers are being asked to monitor calves born to cows and heifers this year for any symptoms consistent with Akabane disease and to participate in the NAMP program to determine whether their herd has been exposed.

Human infection with Akabane virus has never been reported.

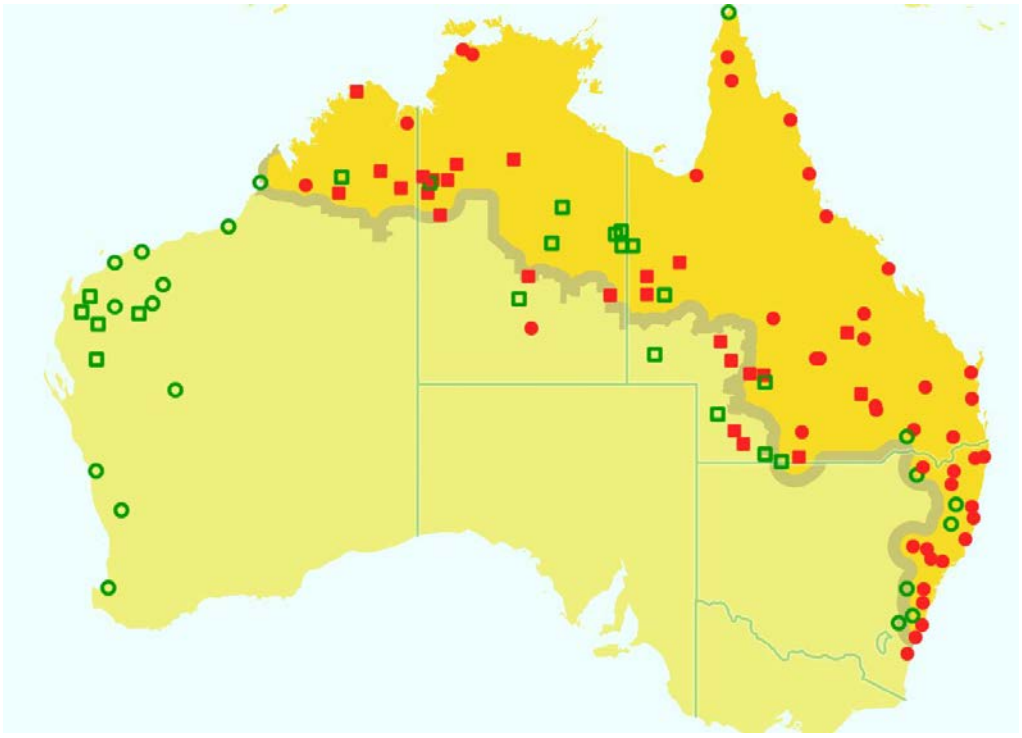


Figure 12: Akabane exposure distribution in 2016/2017 based on sentinel and serosurvey herds

Symptoms

No clinical signs are seen in adult cattle. Infection of cattle results in a transient viraemia causing a rise in Akabane antibodies. It affects the nervous system of the foetus in pregnant females.

The disease in calves appears as:

- Abortions at any time with a combination of the following:
    - early infection of the **foetus** results in calves born with arthrogryposis (deficiency of the cerebral cortex part of the brain leading to congenital joint contracture in two or more areas of the body with failure of muscle development). The condition is commonly referred to as 'Crooked Calf Disease'. Hydranencephaly (replacement of brain tissue by a fluid-filled sac) may also occur.
    - infection at **3-4 months** foetal age shows hydranencephaly only in calves. The condition is commonly referred to as 'Dummy Calf Syndrome'. Calves can rise and walk, but are blind, have no basic reflexes and lack intelligence.
    - infection at an older foetal age (**5-6 months**) results in calves with arthrogryposis (due to the failure of muscle development). These skeletal deformities in more advanced pregnancies are the first seen in an outbreak.

There may be calving problems due to calf limb deformity. When born alive, their teeth, coat and hooves are fully mature but they are small, underweight, weak and often unable to stand.

Infection and immunity before pregnancy can occur in areas where the vector is present, so no signs of the disease are seen.

If you have calves with these symptoms, contact your Regional Biosecurity office or private vet to investigate. Blood samples can be collected from other cattle in the herd to identify whether the herd has been exposed to Akabane virus.

How it is spread

The disease is transmitted by blood-feeding insects, mostly *Culicoides brevitarsis* (biting midges), but other vectors could exist. Consequently, Akabane is endemic in the northern regions of Northern Territory with a similar distribution to the Bluetongue Virus (BTV) which shares the same vector.

When suitable weather conditions allow the midges to extend their normal range into areas with susceptible animals, and these animals have not previously been infected, clinical signs may be seen in the next calving season.

Monitoring

The National Arbovirus Monitoring Program (NAMP) monitors the seasonal distribution of not only BTV, but also Akabane virus and BEF. Younger animals (less than 18 months of age) are bled to determine the exposure of the herd in the most recent season.

Diagnosis of Akabane virus can often be made by clinical signs in the calf and can be confirmed by antibodies in the blood of the calf, cow or heifer.

Control

There are no options for treatment or control because of the nature of the disease and the method of disease spread. If Akabane is endemic in an area, breeding stock should be introduced to the area at an early age to gain immunity.

Participating in NAMP provides information about the presence or absence of the midge which transits the Akabane virus, as well as the insect vectors for BEF and BTV. This can be used to inform the cattle industry more accurately on the location of the risk, and improve awareness for the disease and ensure that suspect cases are investigated by government or private veterinarians. The consequence of the disease on calving can have a significant economic impact on a pastoral property.

Review of the Australian Standards for Export of Livestock

The Department of Agriculture and Water Resources has commenced a review of the Australian Standards for the Export of Livestock (ASEL). The review will be conducted in 3 separate stages with each stage taking several months.

Stage 1 related to the format and content of ASEL. Nineteen submissions were received from individuals, businesses, industry, animal welfare organisations and government departments. The committee will use the submissions to recommend format improvements for the standards and set the direction for the rest of the review in **Stage 2** and **Stage 3**.

Submissions can be viewed at http://www.agriculture.gov.au/animal/welfare/export-trade/review-asel

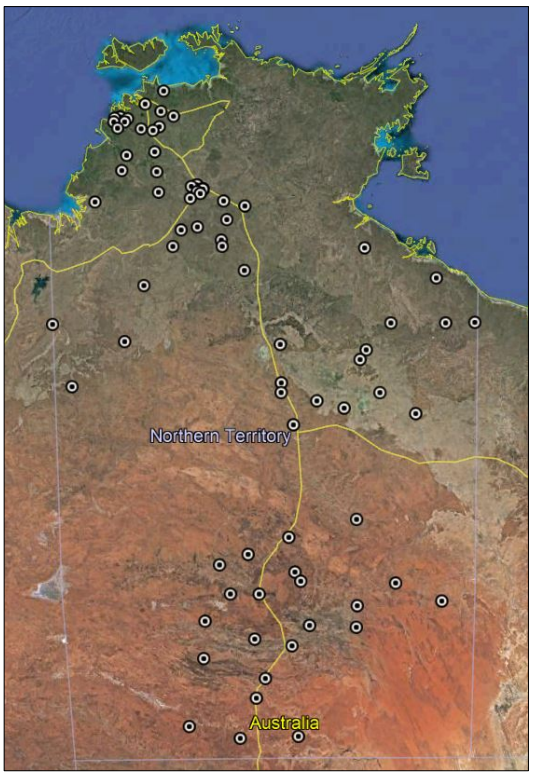


Figure 4. Map of distributed NABS post mortem sample collection kits (May 2018)

The ASEL review is important because all cattle and buffalo destined for live export must comply with ASEL. Of note, ASEL sets the identification, pregnancy testing and spaying standards for export cattle and buffalo. There has been ongoing concerns raised about cattle not being adequately identified and their pregnancy testing status being incorrectly reported. NT Government currently administers the accreditation of non-veterinarians who pregnancy test NT cattle and buffalo for export. The ASEL review provides the opportunity for feedback from stakeholders; including producers, agents, exporters and veterinarians on whether State and Territory Government agencies should be involved in the accreditation process under ASEL as well as the ability to be involved and provide feedback on any other ASEL component to influence the outcomes of the review.

ASEL supports continued live export market access, minimisation of adverse welfare outcomes and risks to industry.

Northern Australian Biosecurity Surveillance (NABS) project update

The Northern Australia Biosecurity Surveillance (NABS) project was formed in 2016 with funding from the Australian Government Agricultural Competitiveness White Paper. It is a collaboration between the Commonwealth and Queensland, Western Australia and Northern Territory Departments of Agriculture and Animal Health Australia. Current projects relevant to NT producers include:

Post mortem sample collection kits

- ll pastoral properties in the NT are being provided with a post-mortem sample collection kit during the annual property visits undertaken by the Livestock Biosecurity team. This kit can be used to collect samples for laboratory diagnosis in the event that livestock get sick or die.
- 80 kits have so far been distributed to pastoral properties in addition to the vets across the NT
- if you have not yet received a kit for your pastoral property, contact your regional Livestock Biosecurity Officer.

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

Significant Disease Investigation (SDI) vet network

- the SDI vet network is a network of private veterinary practices, veterinary laboratories and government veterinarians who work in northern Australia.
- the network aims to increase the number of investigations, as well as improve sampling and reporting outcomes of SDIs in cattle conducted across the north to benefit producers.
- the network offers vets access to subsidies to undertake eligible SDIs, post-mortem kits, case assistance and professional development and networking opportunities.
- the network was launched in February 2018 with the first NABS SDI Masterclass held in Townsville on 23-24 February 2018. The workshop focused on priority animal diseases for northern Australia and investigations of respiratory disease, vesicular disease and skin diseases and was attended by 35 representatives from across private veterinary clinics, veterinary laboratories and government-based animal health surveillance streams in northern Australia.
- a second NABS Masterclass was held in Alice Springs on 22 March 2018 focusing on reproductive disease and calf loss investigations.

Figure 5. Vets at the NABS SDI Masterclass held in Townsville in 23-24 Feb 2018

L to R Front Row: Lee Taylor, Peter Trembath, Jonathon Lee, Nina Kung, Beth Cookson, Lorna Melville, Sue Fitzpatrick, Bill Tranter, Max Woods, Jack Daniels **L to R Behind:** Ian Braithwaite, Dave Forshaw, Kevin Bell, Peter Lynch, Justin Little, Derek Lunau, Rachael O'Brien, Regan Lynch, Libby Harriman, Lisa Stevenson, Trevor Smith, Graham Mackereth, Ryan Cockrem, Ed Butterworth, Hamish Brett, Tristan Jubb, Ian Langstaff, Peter Letchford, Zane Squarci, Dave Morrell, Brendan Brieffies, Toby Wass

Moving horses & livestock below the tick line

Under the *Livestock Act*, all horses and livestock are required to be treated for cattle tick under the supervision of a Livestock Biosecurity Officer BEFORE any movement commences.

You must give at least three (3) days notice (72 hours) and you must then move the horse no more than two (2) days after the treatment.

The cattle tick line is located at Dunmarra. These conditions apply to all stock including cattle, buffaloes, horses, sheep, goats and camels. The reason for this regulation is to prevent the spread of cattle ticks.

For livestock moving out of the Parkhurst Zone, the Parkhurst cattle tick line is located at Pine Creek. These conditions apply to all stock including cattle, buffaloes, sheep, goats and camels except horses and donkeys which must be treated before moving over the cattle tick line at Dunmarra or the border to WA or Qld.

Animal Biosecurity Services	WEEKDAYS (no GST) - FEES	WEEKEND & PUBLIC HOLIDAYS - FEES
Cattle tick inspection and supervision of treatment *	$46.00 set visit fee + $1.15 per head	$103.00 set visit fee + $1.15 per head
Weekend **Horse** tick inspection & treatment (No Fee for weekday)	N/A	$149.00 set visit fee + $1.15 per head
Supply Health Certificate for interstate livestock movement	$33.00 per certificate	$66.00 per certificate
Supply Property of Origin Health Declaration	$33.00 per certificate	$66.00 per certificate
Investigations to follow up breaches of the *Livestock Act*	$34.00 per half hour	N/A
** if a tick inspection is for interstate movement a health certificate charge of $33.00 will also be added*		

Note: Payment by Credit Card is required at time of service.

Why are there no charges for horses during the week?
Horses are a secondary host and low risk species for cattle tick. Inspection and treatment for cattle tick is undertaken to protect the cattle industry. Horses are moved frequently within the Territory for work and events and will still be required to undergo inspection and treatments to meet movement requirements. Fees will only be charged for inspection and treatment of horses on weekends and public holidays.

What can you do to help prevent the spread of cattle tick?
- follow correct transport practices when moving animals on and off your property
- contact your local Livestock Biosecurity Officer for animal inspections or supervised treatments.

3 days (72 hours) notice is required for **all horse sprays and livestock dipping.**

Bookings are made by contacting the Livestock Biosecurity Officer in your Region:

Darwin		**Katherine**	
Regional Livestock Biosecurity Officer	08 8999 2034	Regional Livestock Biosecurity Officer	08 8973 9767
Livestock Biosecurity Officer	08 8999 2030	Livestock Biosecurity Officer	08 8973 9765
Tennant Creek		**Alice Springs**	
Principal Livestock Biosecurity Officer	08 8962 4458	Regional Livestock Biosecurity Officer	08 8951 8125
Livestock Biosecurity Officer	08 8962 4492		

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

NORTHERN TERRITORY GOVERNMENT

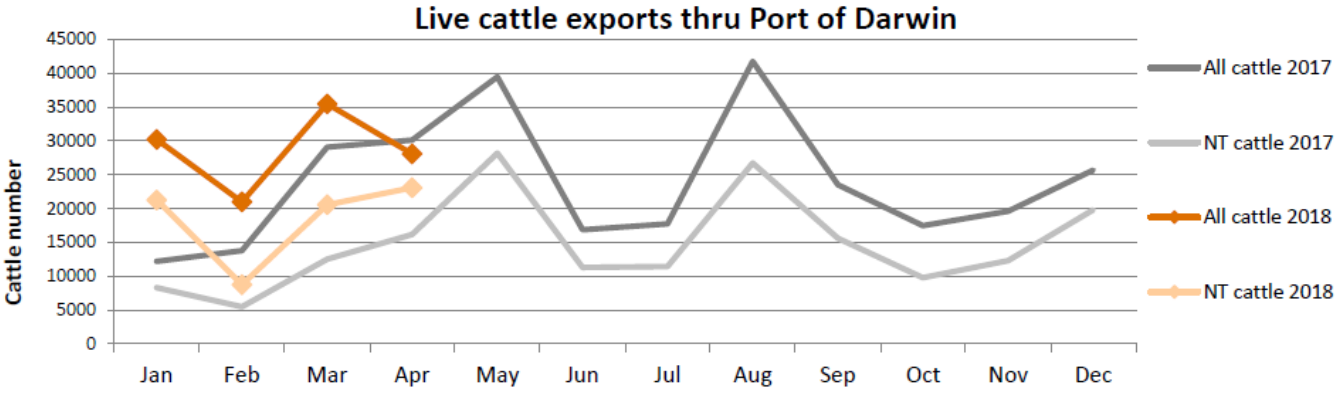
Pastoral Market Update

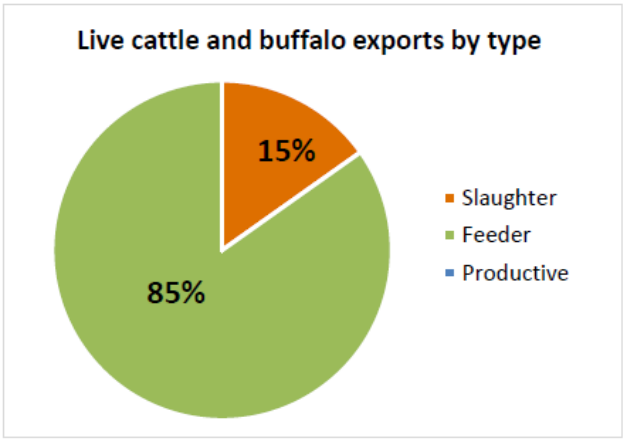
DEPARTMENT OF **PRIMARY INDUSTRY AND RESOURCES**

Live Exports via Darwin Port – APRIL 2018

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

Destination	Export of ALL CATTLE (including interstate)							Export of NT CATTLE (estimate only)						
	2016	2017	Last year to 30/04/17	YTD to 30/04/18	Apr	Last month	*Difference*	2016	2017	Last year to 30/04/17	YTD to 30/04/18	Apr	Last month	*Difference*
Brunei	3,379	2,793	896	1,596	700	0	700	2,314	1,701	481	949	576	374	202
Indonesia	296,230	226,304	72,807	95,349	21,495	27,118	-5,623	195,037	138,912	36,121	60,720	17,678	8,077	9,600
Philippines	4,697	0	0	0	0	0	0	3,236	0	0	0	0	0	0
Sabah	0	2,640	0	0	0	0	0	0	1,680	0	0	0	0	0
Sarawak	1,220	2,138	340	0	0	0	0	843	1,189	183	0	0	0	0
Malaysia	10,959	12,557	2,043	4,210	0	3,510	-3,510	7,476	7,671	973	2,324	0	292	-292
Vietnam	36,405	39,989	9,068	12,752	5,072	4,850	222	24,783	25,884	4,732	8,972	4,171	0	4,171
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	800	0	800	800	0	800	0	535	0	658	658	0	658
Cambodia	2,766	0	0	0	0	0	0	1,936	0	0	0	0	0	0
TOTAL	355,656	287,221	85,154	114,707	28,067	35,478	-7,411	235,625	177,574	42,490	73,624	23,083	8,743	14,340





OTHER LIVESTOCK

Destination	Buffalo		Goat		Camel	
	YTD	Apr	YTD	Apr	YTD	Apr
Brunei	0	0	0	0	0	0
Indonesia	1,058	387	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	349	0	0	0	0	0
Vietnam	155	61	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	1,562	448	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						
2011	2012	2013	2014	2015	2016	2017	2011	2012	2013	2014	2015	2016	2017
269,617	246,990	359,616	493,958	487,568	355,656	287,221	253,797	234,249	308,784	324,477	287,892	235,625	177,574

Subscribe or unsubscribe to the monthly Pastoral Market Update.

Katherine region events calendar

Event	Location	Date	
Annual Online Bull Auction	Online	Wednesday 20 June 2018	Whitney Dollemore whitney.dollemore@nt.gov.au 08 8973 9749
Northern Australian Food Futures Conference 2018	Darwin Convention Centre	2-4 July 2018	http://ntfarmers.org.au/food-futures
Breeding EDGE Workshop	Katherine	30 Jul-1 August 2018	Felicity Hamlyn-Hill felicityhamlyn-hill@bigpond.com 0428 113 732
Victoria River Research Station Field Day – Kidman Springs Field Day	Victoria River Research Station	15 August 2018	Whitney Dollemore whitney.dollemore@nt.gov.au 08 8973 9749

Please email us with updates of events happening in your area: krs.dpir@nt.gov.au

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