NORTHERN TERRITORY GOVERNMENT

mla MEAT & LIVESTOCK AUSTRALIA

beefup FORUM

Kidman Springs, NT

TUESDAY 20 – WEDNESDAY 21 AUGUST 2024

Hear about the latest on-farm R&D

•

Have your say on R&D priorities in your region

•

Gain insights, tools and next steps to beef up your business

Welcome

BeefUp Forums are held throughout northern Australia and are developed by regional Working Groups. The Kidman Springs BeefUp Forum is brought to you by Meat & Livestock Australia (MLA) and the Northern Territory Department of Industry, Tourism and Trade (NT DITT) with support from the working group consisting of members from the Katherine Pastoral Industry Advisory Committee.

Thank you also to our event sponsors – Cooperative Research Centre for Developing Northern Australia (CRCNA), University of New England, Future Drought Fund, Zoetis and Northern Hub.

MLA's BeefUp Forums have been developed to:

- give you an opportunity to see and hear about what industry is delivering in R&D, adoption programs and support services
- highlight current and completed research that is relevant to you
- hear about your regional RD&A priorities
- provide practical tools and information to beef up your business.

BeefUp forums are about helping northern beef producers identify ways to improve the productivity and profitability of their beef enterprises. After today, use this booklet to find the information, tools and contacts you need to put your ideas into action.

Event location

Victoria River Research Station

Kidman Springs, Buchanan Hwy, NT

Forum coordinator contacts

Sarah Hassall
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MEAT & LIVESTOCK AUSTRALIA

About MLA

Meat & Livestock Australia Limited (MLA) delivers research, development and marketing services to Australia's cattle, sheep and goat producers. MLA has approximately 50,000 livestock producer members who have stakeholder entitlements in the company.

Program

Tuesday 20 August	
9.00am	**Arrival and registrations**
	Morning tea with sponsors
Opportunities for the NT beef industry	
10.30am	**Welcome** **Phil Hausler** – NT DITT
10:45am	**MLA Live export investments update** **Peter Dundon** – Program Manager – Live Exports, MLA
11.00am	**Markets panel** – Discussion with Q&A, facilitated by Kari Moffat, Cattle Australia **Rodd Dyer** – FocusGroupGo Asia Pacific **Ross Ainsworth** – NT DITT **Peter Dundon** – MLA
Enhancing breeder productivity in the NT	
12:00pm	**Finding the 'sweet spot' for pastures and reproduction** **Robyn Cowley** – NT DITT **Dan Chapman** – Australian Agricultural Company (AACo) **Steve Petty** – CAIT **Mike Bailey** – Newry Station
1:00pm	**Lunch**
1:30pm	**Paddock Tour** **Crops for Cattle** **Tim Schatz** – NT DITT **Shruburn's 30th Birthday Party** **Tom Stockwell & Rodd Dyer** – Sunday Creek Station and FocusGroupGo Asia Pacific **Robyn Cowley** – NT DITT **Afternoon Tea** **Selected Brahmans: Where to Next?** **Gretel Bailey-Preston** – NT DITT **Legume Demonstration Site** **Arthur Cameron** – NT DITT **Live Technology Demonstrations** AK Sky Services, Virtual Fencing (Gallagher)
5:30pm	**Networking drinks,** sponsored by Zoetis **Dinner**

Wednesday 21 August	
7:00am	**Breakfast**
8:00am	**Cattle Australia update** **Kari Moffat** – Northern NT representative, Cattle Australia
8:20am	**Animal wellbeing update** **Michael Laurence** – Program Manager – Animal Wellbeing, MLA
8:40am	**Genetics and reproduction panel** – Discussion with Q&A, facilitated by Gretel Bailey, Preston, NT DITT **Elsie Dodd** – UQ – Genomics R&D **Brad Inglis** – Sturt Plains Station **Whitney Dollemore** – Northern BreedAssist
9:30am	**Easy P and the importance of phosphorus in breeding animals** **Tim Schatz** – NT DITT
9:50am	**Morning tea**
Nutrition opportunities	
10:20am	**Silage production and feeding in the NT** **Benjamin Wratten** – General Manager, Northern Assets – AAM Investment Group
10.40am	**Legume establishment trials** **Mary Williams** – NT DITT
11:00am	**Improved pastures in the NT panel** – Discussion with Q&A, facilitated by Rusty Richter, Heytesbury Pastoral **Arthur Cameron** – NT DITT **Matt Dennis** – E.E Muirs **Dan Chapman** – Australian Agricultural Company (AACo)
Biosecurity	
11:50am	**Lumpy skin disease (LSD) and foot-and-mouth disease (FMD) update** **Ross Ainsworth** – NT DITT
Paddock power	
12:20pm	**Decisions in the paddock** **Christie Pearson** – NT DITT
12:50pm	**Event wrap-up and lunch served** (take away for those wanting to hit the road)

MLA Representatives

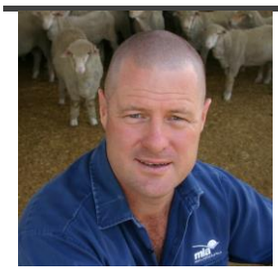
Sarah Hassall

Project Manager – Northern Beef Adoption

E: shassall@mla.com.au

Bio:

Sarah joined MLA in August 2021 as the Genetics Project Officer, supporting the investment of research and development across the genetics portfolio. In May 2024, she began in her role as the Project Manager for Northern Beef Adoption, which focuses on supporting on-farm adoption of new research, technologies and practices. She works closely with industry partners across WA, NT and Queensland to deliver programs including BeefUp forums, EDGEnetwork workshops and FutureBeef.



Peter Dundon

Manager – Livestock Exports

E: pdundon@mla.com.au

Bio:

Peter Dundon manages the Livestock Export Program for MLA. He returned to Australia in 2012, after living and working in the Middle East for seven years. During that time he was training stockmen, truck drivers, slaughtermen and feedlot staff in the proper handling, slaughter and management of sheep and cattle. His work in the Middle East involved improving the welfare of livestock in overseas markets as well as supporting market access and trade development. Peter manages MLA's in-market activities, primarily through three bases that MLA has in Dubai, Vietnam and Indonesia. He's also actively involved in the livestock transport sector. Peter will run through MLA's in-market activities in our key export markets.

Michael Laurence

Program Manager – Animal Wellbeing

E: mlaurence@mla.com.au

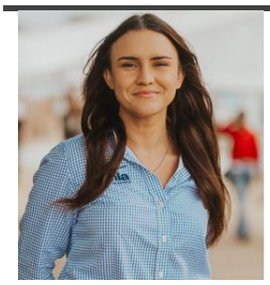
Bio:

Michael joined MLA in March 2020. He is the Program Manager of the Animal Wellbeing portfolio where he has responsibility for research and adoption investments in animal health, welfare and biosecurity.

Michael has been a cattle veterinarian for 24 years and has practiced in rural Australia and the UK.

He was head of production animal medicine as an academic at Murdoch University for 14 years up to his appointment at MLA. His research focus during this time was on the measurement of the

pain of surgical husbandry as well as disease management in intensive supply chains. Michael continues to supervise PhD students and conduct research and has a passion for translating improvement in on-farm animal welfare into measurable value for producers.



Madison Coster

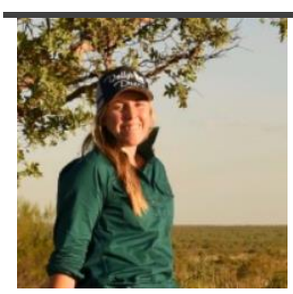
Event Coordinator – Adoption Programs

E: mcoster@mla.com.au

Bio:

Madison joined MLA in April 2024 as an Event Coordinator for the Adoption programs. In her role she supports the Adoption, Community and Events teams, helping to plan and execute a range of industry events. Madison plays a key role in implementing major events such as Beef Australia and LambEx and brings with her, a passion for the livestock industry and a commitment to engaging with producers across the country.

NT DITT Representatives



Stacey Holzapfel

Pastoral Extension Officer

E: stacey.holzapfel@nt.gov.au

Mary Williams

Pastoral Extension Officer

E: mary.williams1@nt.gov.au

Speakers and presentations

Welcome

Philip Hausler

Senior Executive Director

NT DITT

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Notes

Meat & Livestock Australia and Northern Territory Department of Industry, Tourism and Trade would like to thank our sponsors for their contributions:

CRCNA

Northern Hub

Australian Government
Department of Agriculture, Fisheries and Forestry

Future Drought Fund

une
University of New England

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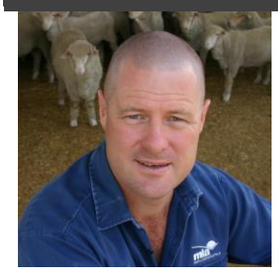
Tuesday 20 August – Day 1

Opportunities for the NT beef industry

MLA Live Export Investments Update



Peter Dundon

Program Manager – Live Exports

MLA

E: pdundon@mla.com.au

Notes

Markets Panel

Kari Moffat

Regional Consultative Committee Member

Cattle Australia

E: kari.moffat@aamig.com.au

Bio:

Kari Moffat, based in Darwin, is the Sustainability Manager for AAM Investment Group. With a decade of experience in northern beef supply chains, Kari has focused her career on animal welfare and sustainability.

Kari is a member of the Cattle Australia Regional Consultative Committee for Zone 10 in the NT, which provides a direct line of communication between producers and Cattle Australia.

Rodd Dyer

Director

FocusGroupCo Asia Pacific

E: rodd@focusgroupgo.com

Bio:

Rodd is an agri-food, agribusiness, and international development professional, with over twenty years' experience working as a program manager, researcher, and consultant throughout Australia, Southeast Asia, the Pacific, and China. Rodd spent seven years as the Agribusiness Research Program Manager with the Australian Centre for International Agriculture Research (ACIAR). Prior to that he spent six years with Meat & Livestock Australia as Project Manager for the Northern Beef Program. Rodd's broad practical experience has been shaped by nine years working as a researcher in the Northern Territory of Australia, two years as a beef cattle technical officer in northern Queensland and two years with one of Australia's largest pastoral companies.

Rodd is co-founder and Director of FocusGroupGo Asia Pacific (FGG AP), a small Vietnam-based research, project management and consultancy company. Since 2018, FGG has successfully completed over forty projects throughout the Asia Pacific.

Key messages:

- Major changes are underway in beef trading and consumption in Vietnam and other countries in Asia, with increased acceptance of and reliance of imported frozen beef, particularly frozen Indian Buffalo Meat (IBM), but also higher quality beef.
- The formalisation and restriction of cross-border cattle trade from Mekong countries to China has led to major drops in regional cattle prices, particularly in Myanmar and Thailand, which are now a major source of supply to Vietnam.
- Australia live-export cattle in Vietnam now must compete with lower priced cattle exported from Myanmar and Thailand and imported frozen beef.
- Despite the highly competitive trading conditions that exist, opportunities still exist for Australian cattle and live-export businesses in Vietnam, and emerging countries such as Laos, but with a focus on value, quality, safety and consistency of supply.
- A longer-term view to market supply and demand requirements in Vietnam and surrounding countries is needed. Higher, more stable returns require investing and developing partnerships and alliances with businesses further down the supply chain such as lot feeding, processing and value adding. Supporting further importation of quality productive breeders is also an opportunity.

Next steps:

For information about regional market developments in Asia, including monthly cattle prices across Vietnam and Laos see Asia Beef Network Market News: asiabeef.network/market-news.html

Ross Ainsworth

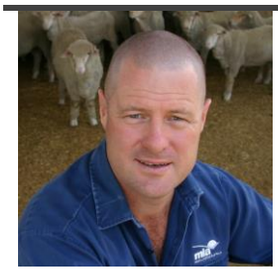
Regional Veterinary Officer Katherine/Darwin

NT DITT

E: ross.ainsworth@nt.gov.au

Bio:

- Graduated Veterinary Science 1975
- Govt and private vet until 1980 – Veterinary Officer Alice Springs DPI
- 1981–87 – Veterinary Officer Katherine BTEC
- 1987–1991 – Tipperary Station NT
- 1991–2011 – Live export veterinary contractor based in Darwin
- 2011–2023 – Vet consultant SE Asia and elsewhere primarily associated with supporting Australian live export cattle post arrival in their destination country
- 2024 – 6-month contract RVO Katherine/Darwin.



Peter Dundon

Program Manager – Live Exports, MLA

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Key messages:

- FMD and LSD are now in Indonesia.
- While appropriate biosecurity measures can provide good protection from FMD transmission, there is nothing that we can do to prevent the movement of insects potentially infected with the LSD virus from being transmitted to Australia on prevailing winds.
- Given this, early detection is our best weapon in minimising the impact of LSD in the event that it does come to Australia.

Next steps:

Promote awareness of LSD to assist with early detection.

Notes

My action items:

Enhancing breeder productivity in the NT

Finding the 'sweet spot' for pastures and reproduction

Robyn Cowley

Senior Rangeland Scientist

NT DITT

E: robyn.cowley@nt.gov.au

Bio:

Robyn has been with the Department for more than 20 years working on rangeland research relevant to the sustainable use of the pastoral feedbase.

She works across the NT on grazing and fire research and combines models with real data to get more out of our research and more realistic and practical answers from the models.

She likes tennis and switching off in her down time.

Session overview:

What if you could get the same number of weaners from fewer breeders? Getting your breeder numbers right can make all the difference to their performance. Too many and there's not enough quality pastures for their needs, they have poorer body condition, take longer to fall pregnant, weaning rates fall and that's less $$ in the bank. Too few and you are missing an opportunity to grow more beef and that's also less $$ in the bank. How can you find that sweet spot that will look after the pastures, the breeders and your profits?

The Sweet Spot project took a couple of different approaches to answer this question. We looked at existing breeder research datasets from across northern Australia and compared their performance to the pasture utilisation (the proportion of total pasture grown that is eaten) of their paddocks. Pregnancy and weaning rates both declined with higher pasture utilisation.

We also used a bioeconomic model (CLEM) to look at the long-term effects of pasture utilisation rates on pasture, breeder performance, production and profits. Over the longer-term, stocking to safe utilisation rates led to the best production and profits.

But how does this play out in the real world? A panel of people who have had a go at this on stations in the Victoria River District will talk about how they adjusted stock numbers to improve their breeder performance, and how this affected their pastures, production and profits.

Key messages:

- Pregnancy and weaning rates decline if stocking rates are too high.
- Sometimes reducing total stock numbers can lead to more calves, better growth rates and profits, plus better land condition.
- Finding that sweet spot for your paddocks can make all the difference for your breeder production and profitability.

Dan Chapman

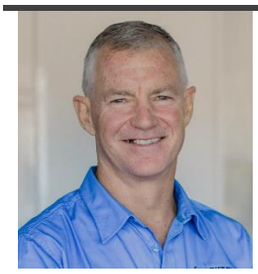
Rangelands Manager

Australian Agricultural Company (AACo)

E: dchapman@aaco.com.au

Bio:

Dan graduated with an Environmental planning degree in 2011 when he moved to Katherine. Dan has worked for local government, Territory Natural Resource Management and has spent the last eight years working for AACo. His current role sees him managing AACo's rangelands program across the company's portfolio of 6.4 million hectares. The program includes forage budgeting, carrying capacity assessments, weed and fire management, as well as numerous research projects.



Steve Petty

Director

CAIT

Bio:

Steve has 32 years' experience in the northern pastoral and agricultural industries focused on efficient and profitable business management, business development as well as the implementation of innovative technology in rural production systems. Steve has skills and experience in project management, rural, agricultural and pastoral development.

In addition to Steve's practical knowledge, he has developed and managed world class research and development projects in Northern Australia. Steve has a PhD, is an Associate Professor with the University of Queensland and is linked to many key industry groups. Steve uses his technical and scientific knowledge to build practical and sustainable solutions for businesses in rural Australia.

Michael Bailey

Manager

CAIT

E: newrystation@outlook.com

Bio:

Michael Bailey is the current Manager of Newry Station.

Breeding quality, fertile Brahman cattle is the main enterprise that Newry Station is focused on.

Achieving the correct ratio of carrying capacity and stocking rates is Newry Station's priority. This will be achieved in part by creating more water points to spread the cattle out across previously unusable country.

Notes

My action items:

EDGE*network*®

MEAT & LIVESTOCK AUSTRALIA EDGE NETWORK

MLA's EDGE*network*® (EDGE) delivers northern research & development and helps red meat producers improve productivity and profitability. Face-to-face workshops allow producers to develop new skills, learn from others in the industry and access the latest research, leading to effective practice change in their businesses.

Grazing fundamentals EDGE

Foundations for grazing production

A one-day workshop to give you a broad understanding of grazing production system components and the core, scientifically-backed principles to optimise grazing land productivity.

Breeding EDGE

Build a more reproductive herd

A three-day workshop to evaluate the performance of your breeding program and identify strategies for higher productivity and reduced reproductive loss.

Nutrition EDGE

Nutrition fundamentals to hit production goals

A three-day workshop to understand optimal use of supplements and the nutrition required to reduce mortality, improve fertility and boost weight gains in your herd.

Business EDGE

Know your business, grow your business

A two-day workshop to enhance your financial management and improve business efficiency and profitability. You will also develop strategies to deal with financial risk and external market factors.

Grazing land management EDGE

Strategies for long-lasting grazing potential

A three-day workshop to thoroughly understand your grazing environment and strategically manage your grazing business to optimise land condition and productivity in the long-term.

Carbon EDGE

Taking carbon from a concept to an action plan

Carbon EDGE is a new two-day training program for the red meat industry, providing participants with an understanding of the opportunities for emissions reduction and carbon storage activities in a livestock grazing business.

Head to **mla.com.au/events** to see the latest EDGE*network* events happening near you

Crops for cattle

Tim Schatz

Director Livestock Industries

NT DITT

E: tim.schatz@nt.gov.au

Bio:

Tim grew up in the NT and gained experience on a number of cattle properties in the NT and Queensland. After graduating with a Rural Science degree from the University of New England, he started his career in beef research with the Queensland DPI. He has worked for NT DITT since 2001 and currently oversees the Department's livestock research program as well as leading several research projects. Areas of beef research that he has specialised in include; heifer fertility, phosphorus nutrition, genetics, crossbreeding, rotational grazing and calf loss.

Session overview:

The Crops for Cattle project aims to foster integration of the northern cropping and cattle production systems and intensification of the northern cattle industry. It is investigating the feasibility and profitability of supplementary feeding strategies using crops grown in northern Australia to increase weight gains of cattle during the dry season, to achieve a higher proportion of steers being turned off after one post weaning wet season and more efficient heifer performance (due to heavier pre-mating weights). The project is a partnership between the Cooperative Research Centre for North Australia (CRCNA) and the Northern Territory (NT) Department of Industry, Tourism and Trade (DITT), and will run from December 2023 to October 2026.

Feeding trials are being conducted on eight commercial properties and two DITT research stations to document the increases in dry season liveweight gain (LWG) that can be achieved through different feeding strategies using crop products and feeds produced in northern Australia. This data will be used for economic evaluation of the strategies. The whole-of-herd impacts of increased dry season growth will be examined on the structure, productivity and profitability of cattle herds in northern Australia.

This will enable an assessment of the effects of variation in the sale price of cattle ($/kg) and supplement cost ($/t) on the profitability of the feeding strategies. One of the outputs will be grids showing the feed prices at which dry season feeding options become profitable at different cattle prices, for feeds that give different amounts of dry season LWG. This will ensure that the findings of the project remain relevant when cattle and feed prices fluctuate.

The potential for the feeding strategies to become approved methods for obtaining carbon credits will also be explored.

The feeding trial conducted at VRRS in 2023 compared the weight gain of a group of 2023 weaners fed soybean-based pellets (Ridley) in the paddock for 97 days from 6/9/2023 to similar weaners than only received mineral supplementation. The pellets were 31.8% protein and were fed at a rate of 1.27 kg/head/day. The FED group gained an average of 54kg over the 97-day feeding period (0.56kg/day), while the CONTROL group gained an average of 10kg (0.10kg/day) over the same period. The cost of the pellets (excluding transport and labour) was $1.21/kg and on average the animals consumed a total of 123.6kg of pellets each over the 97 days. At this feed price, the cost of gain for the extra 44kg LW gain was $149.52. Therefore, the cattle price would need to be above $3.40/kg for the strategy to be profitable, although it remains to be seen how much of the benefit will be retained after the wet season when the animals would normally be sold. This sort of information will be used to assess the profitability of the different feeding strategies being studied in the project under different feed cost/cattle price combinations.

Key messages:

The Crops for Cattle project is determining the profitability of various dry season feeding strategies under different feed cost/cattle price combinations.

Shruburn's 30th birthday party

Tom Stockwell

Sunday Creek Station

Session overview:

The Shruburn fire experiment has been running for 30 years. We've invited the people who started it all back in the 1990s, Tom Stockwell and Rodd Dyer to tell us what prompted the development of the project, how it started and the early days of the experiment and what questions they hoped to answer.

The Shruburn fire experiment looks at the impact of different fire intervals and season of fire on woody cover and pastures on two land types.

Fire season – Burnt early (June), late dry (October) or unburnt

Fire interval – Burnt every 2, 4 or 6 years or unburnt

Land type	Alluvial Ribbon – Bluegrass grassland	Red earth Eucalypt woodland
Main pasture species	Ribbon grass and Curly bluegrass	Black spear grass, Bottlewashers
Main trees and shrubs	Rosewood, Bauhinia and Conkerberry	Inland bloodwood, Silver box, Hakea and Conkerberry

Rainfall during the fire experiment was higher than during the decades preceding it **(Figure 1)**. Before 1993, 65% of years had below median rainfall, but since 1993 only 34% of years have been below median. Six out of the seven years before Shruburn started had below median rainfall and the woody cover was low everywhere, on both the red and black soils **(Figure 2)**. Tree cover increased during the fire experiment until around 2009, dipped with drier years between 2010 and 2013 and declined in 2019–2020 when there were three consecutive years with below median rainfall **(Figure 1, Figure 2).**

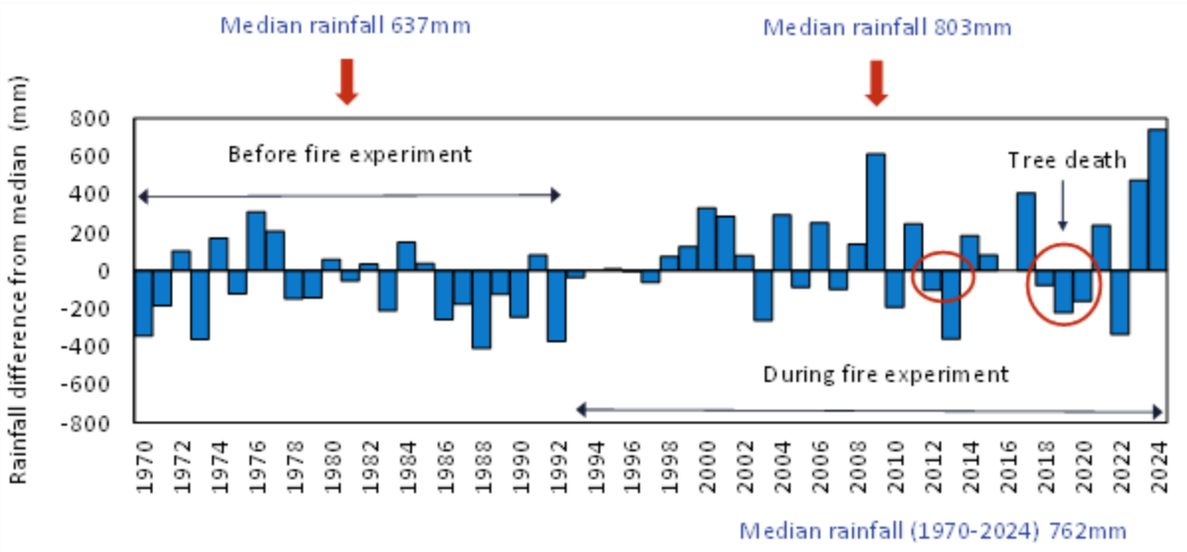


Figure 1: Rainfall since 1970 at Kidman Springs

Tree cover declined more on the red soil than on the black soil, but the woody plants are bouncing back with the recent wetter years **(Figure 2–Figure 3)**. Fire slowed the increase in woody cover, but on the red soil you need hot late dry season fires to affect woody cover. In 2023 the four yearly fire treatments (early or late burnt on black soil, but only late burnt on red soil) had less than half the woody cover as unburnt plots (tree basal area 2 vs 5m^2/ha **(Figure 3)**).

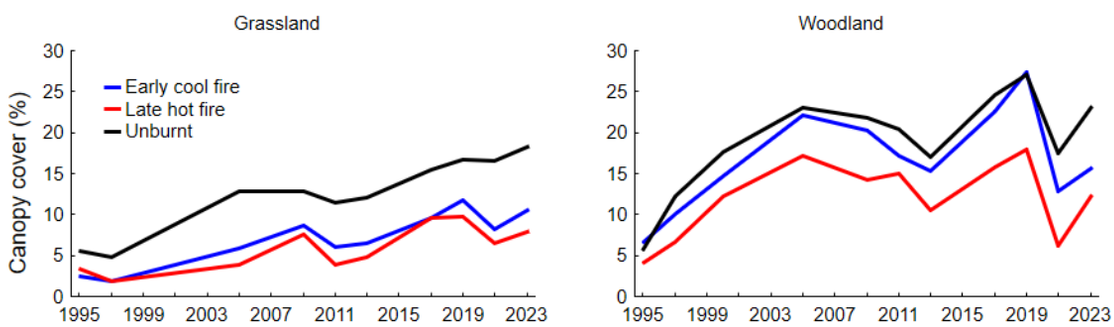


Figure 2: Canopy cover of woody plants at the fire experiment from aerial photos, satellite imagery and ground data

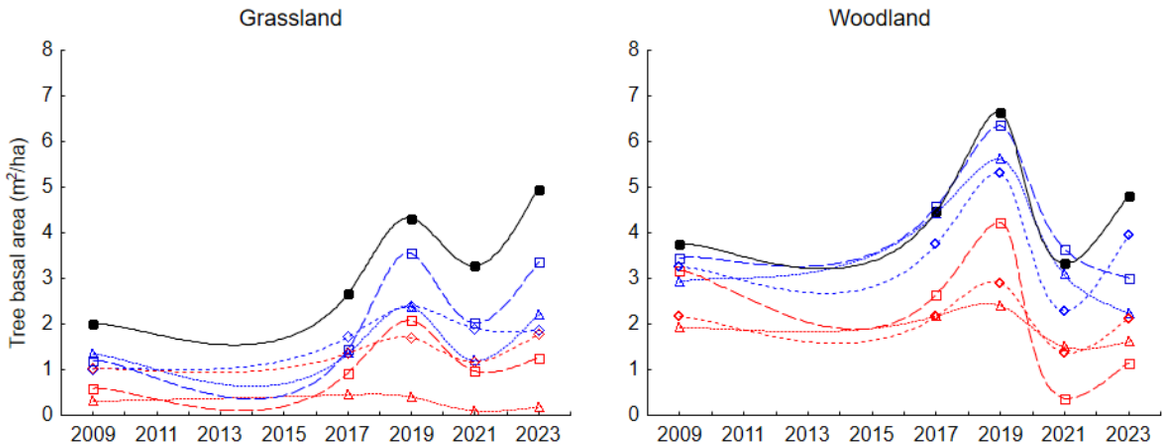


Figure 3: Tree basal area at the fire experiment Early 2 Late 2 Early 4 Late 4 Early 6 Late 6 Unburnt

Pasture composition has also changed during the trial, even on the unburnt plots. The higher rainfall is likely what has driven change from an arid short grass to Black speargrass on the red soil **(Figure 4)**. On the black soil we saw a decline in Flinders grass and an increase in Canegrass, again possibly driven by wetter years **(Figure 5)**.

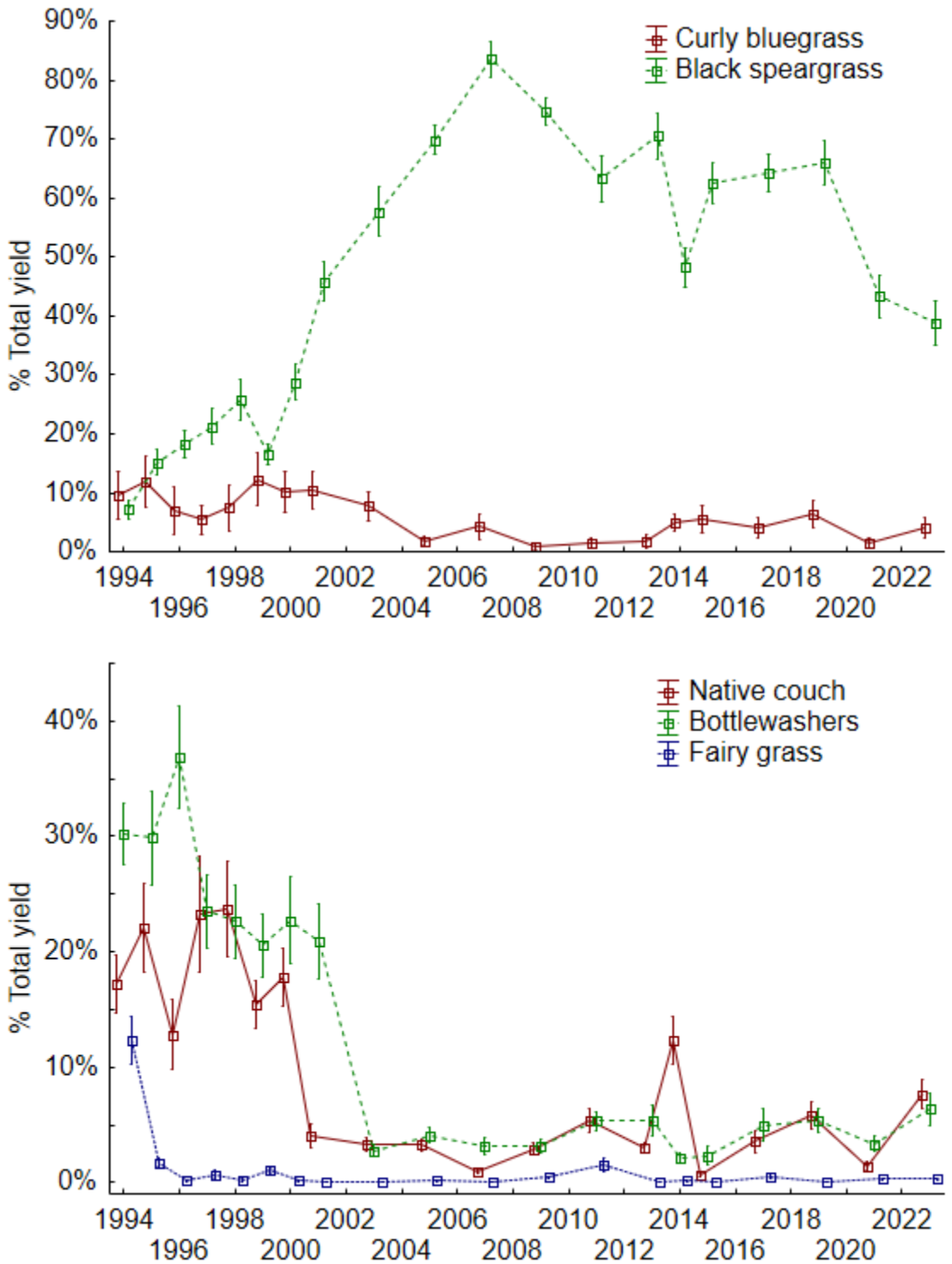


Figure 4: Change in pasture species on the red soil woodland fire plots (average all treatments)

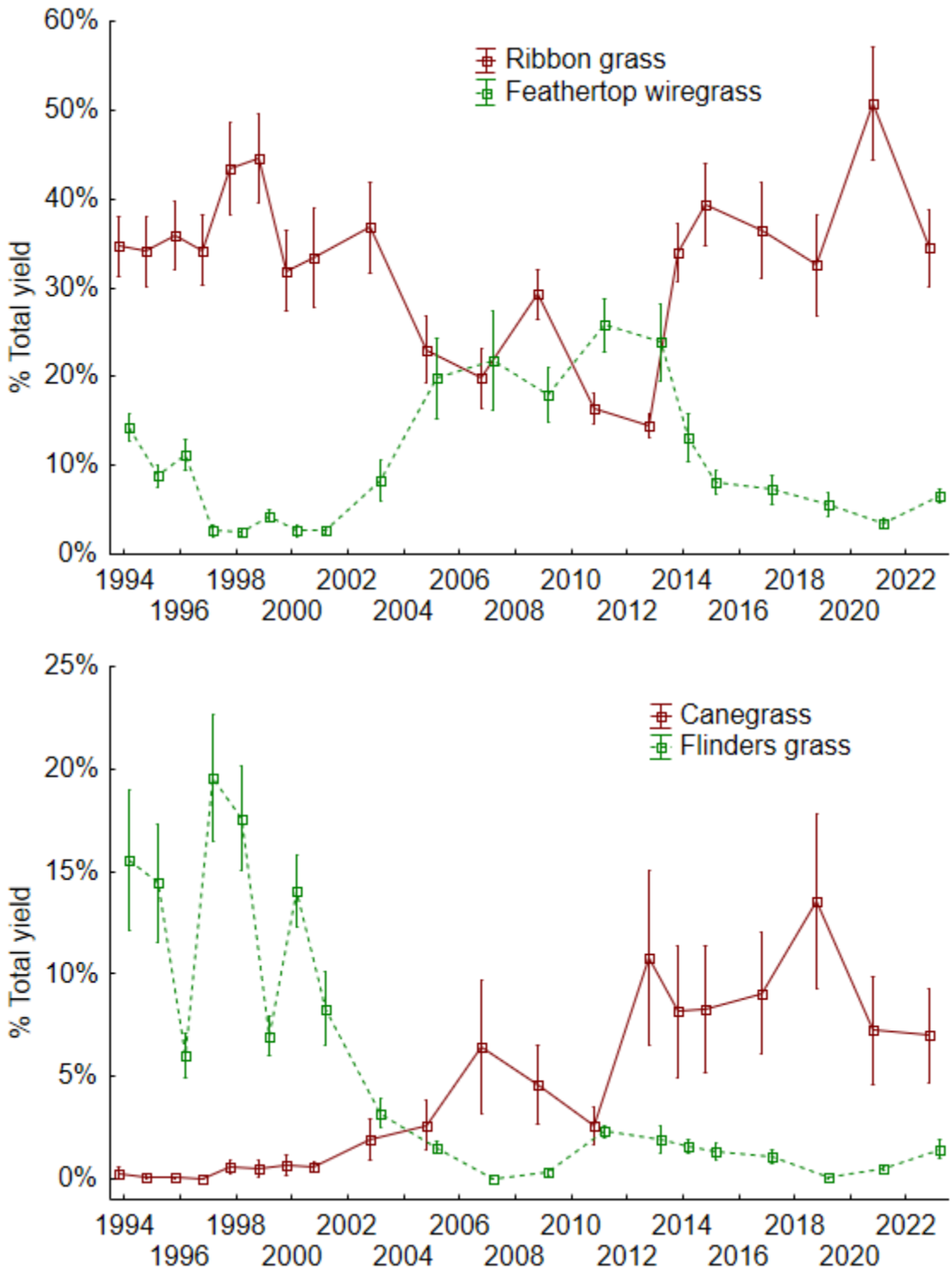


Figure 5: Change in pasture species on the black soil grassland fire plots (average all treatments)

We were seeing a decline in palatable perennial grasses on the black soil so we fenced the fire plots in 2013 to allow us to spell the paddocks from grazing after fire over the wet season every second year, but still graze the rest of the paddock. The pasture condition improved dramatically within a couple of years with Ribbon grass bouncing back **(Figure 5)**.

Some of the unanticipated findings along the way, and ways the experiment has contributed to our understanding of the impacts of fire in grazed tropical savannas are:

- During a period of unusually high rainfall between 1993 and 2010 woody cover increased everywhere except on the most severe fire treatments on the black soil.

- The wet years may also have contributed to pasture species changes with more lack speargrass and less arid short-grasses on the red soil and more Canegrass and less Flinders grass on the black soil.
- The dry years between 2019 to 2020 killed a lot of trees and shrubs everywhere across all fire treatments, but more so on the red soil.
- Woody plants had a bigger negative effect on pasture growth on black soils than red.
- Tree death occurred when there were two dry years in a row.

Key messages:

- Perennial grasses do well if burnt, as long as they are not grazed while regrowing
- Don't graze pastures while they are still regrowing post fire
- Four yearly fire is enough to manage woody cover, but make sure you have enough fuel for an effective fire, and you need hot fires on the red soil
- Woody plant death occurred whenever there was two consecutive dry years
- Woody plants had a more negative effect on pasture growth on the black soils than the red soils, so burning alluvial land types might give you the best returns in pasture growth

Rodd Dyer

Director
FocusGroupCo Asia Pacific

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Robyn Cowley

Senior Rangeland Scientist
NT DITT
E: robyn.cowley@nt.gov.au

Notes:

My action items:

Selected Brahmans: Where to next?

Gretel Bailey-Preston

Livestock Research Officer
NT DITT

E: Gretel.baileypreston@nt.gov.au

Bio:

Gretel is a Livestock Research Officer based at the Katherine Research Station and has been in the role for six years. She is involved in the Selected Brahman and Composite breeding programs which are part of the Repronomics 2 project and is also involved in the Buffalo Supply Chain Welfare project. Gretel has a Bachelor's degree in Rural Science with honours and is currently completing her Masters in Science in Agriculture.

Next steps:

Visit the FutureBeef website (futurebeef.com.au).

Contact Gretel or Tim Schatz (tim.schatz@nt.gov.au).

Legume Demonstration Site

Arthur Cameron

Principal Pastures Agronomist
NT DITT

E: Arthur.cameron@nt.gov.au

Bio:

Arthur is the Principal Pastures Agronomist in the NT, currently focused on extension.

In his time in the NT (since 1976), Arthur has been involved in the research and extension of all aspects of native and introduced pastures from soils and fertilisers, through species and seed production to grazing value, animal production and carrying capacity.

He has a degree in Agricultural Science and a Research Masters in Agricultural Science on the seed production of tropical grasses. Arthur has over 40 years of experience with tropical pastures, including working on forage projects in South-East Asia.

Key messages:

Select adapted species and cultivars to sow – and sow at the right time.

Do not attempt too large an area. Do a smaller area and do it well.

Manage a new pasture to ensure it survives the first dry season. Graze lightly, if you graze at all.

Next steps:

Consider why you want a pasture. What is the purpose?

Consider the most desirable adapted species and cultivars.

Consider the most suitable site/soil.

Consider the costs and possible returns.

Live technology demonstrations

Alex Kaiserman

Owner
AK Sky Services

Bio:

Alex runs AK Sky Services, a drone services provider based in Katherine, NT. While consumer drones have become ubiquitous, AK Sky Services provides insights and data that go beyond simply flying around taking photos and videos.

They are able to create accurate digital twins of landscapes, assets and infrastructure that helps managers understand current condition, track change over time and evaluate effectiveness of inputs.

Recent projects have used AI to identify, and measure weed spread through an area as well as using heavy lift drones to apply chemical spray and fertiliser in agricultural operations.

Session overview:

This session will be an introduction to the XAG P100Pro agricultural spraying and spreading drone.

It will include information on qualifications, regulations and CASA accreditation required for producers to start using drones while remaining compliant.

A practical flight demonstration will show the main features of the drone and how automation can effectively apply products in different situations

Nat James

Territory Manager
Gallagher Australia

E: nat.james@gallagher.com

Bio:

Nathaniel James is the Territory Manager for Gallagher Animal Management WA/NT, specialising in animal performance traceability and containment. He previously owned and operated pastoral stations and feedlots in WA with vertical supply into Asian resellers.

Notes

My action items:

Meat & Livestock Australia and Northern Territory Department of Industry, Tourism and Trade would like to thank our sponsors for their contributions:

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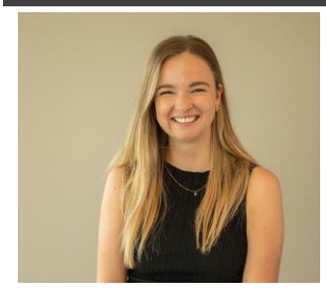
Wednesday, 21 August – Day 2

Cattle Australia Update



Kari Moffat

Regional Consultative Committee Member
Cattle Australia
E: kari.moffat@aamig.com.au

Session overview:

Cattle Australia (CA) is the national peak body for the grassfed cattle industry, providing a visible, unified, and influential voice for all Australian cattle producers.

CA is responsible for developing and driving contemporary policy, guiding research, development, and adoption (RD&A) and marketing investment for the sector, and advocating on all matters important to the Australian cattle industry.

Our democratically elected representatives provide a direct link to Australia's more than 52,000 grass-fed cattle producers, to ensure producers themselves are pivotal in the identification of priorities, formation of policy and roll-out of advocacy efforts.

To help the agriculture sector realise the shared goal of $100 billion by 2030, the grass-fed cattle sector needs to elevate its national policy priorities and advocacy efforts, while better connecting with consumers and the public to highlight the intrinsic link all Australians share with primary food production.

A united and strongly represented industry is the best way to meet current and future challenges, and we strive to work directly with grass-fed cattle producers to identify their greatest concerns, issues or priorities, and advocate to governments, supply chains and other stakeholders for outcomes.

Our 2024 priority areas include:

1. Advocating for effective biosecurity systems
2. Improving trade and market access
3. Demonstrating leadership in environmental stewardship
4. Maintaining Australia's strong animal health and welfare reputation
5. Ensuring people feel good about eating beef
6. Engaging with grass-fed cattle producers
7. Accountability of where levy funds are invested

Key messages:

1. Cattle Australia (CA) is the national peak body for the grassfed cattle industry, providing a visible, unified and influential voice for all Australian cattle producers.
2. To help the agriculture sector realise the shared goal of $100 billion by 2030, the grassfed cattle sector needs to elevate its national policy priorities and advocacy efforts, while better connecting with consumers and the public to highlight the intrinsic link all Australians share with primary production.
3. A united and strongly represented industry is the best way to meet current and future challenges, and we strive to work directly with grass-fed cattle producers to identify their greatest concerns, issues or priorities.

Next steps:

If you would like to learn more about the work of Cattle Australia or find out how to get involved, check out cattleaustralia.com.au, speak to your Regional Consultative Committee representative, or reach out to our Membership and Sponsorship Officers:

- Sara Cue – Northern Australia: 0400 059 945
- Sam Parish – Southern Australia: 0418 832 086

Notes

Animal welfare, genetics and reproduction

Animal wellbeing update

Michael Laurence

Program Manager – Animal Wellbeing

MLA

E: mlaurence@mla.com.au

Notes

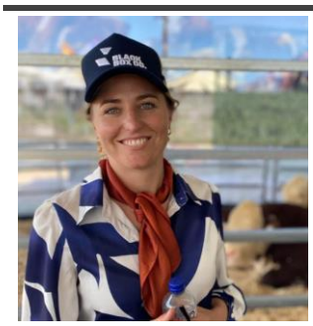
My action items:

Genetics and reproduction panel

Gretel Bailey-Preston

Livestock Research Officer
NT DITT

E: Gretel.baileypreston@nt.gov.au



Elsie Dodd

Beef Liaison Officer on UQs Northern Geonomics Project
UQ/Black Box Co

E: e.dodd@uq.edu.au or elsie@blackboxco.com.au

Bio:

Elsie Dodd works on the University of Queensland's Northern Genomics project as the Beef Liaison Officer, which involves collecting herding research data and reporting genomic results. The genomics project run by Professor Ben Hayes has developed multi-breed and composite genomic breeding values (GBVs) for northern Australian cattle. GBVs have now been commercialised with Black Box Co under the name RePRO BI. Elsie has an Agricultural Science degree and experience in cattle nutrition, genomics and climate science.

Key messages:

1. GBVs are available now through Black Box Co. Contact Elsie or go to blackboxco.com.au/genomics-store
2. GBVs are suitable for all cattle in northern Australia, even the 'liquorice all sorts'.
3. Key use of GBVs is for bull selection to build a team of bulls to improve herd fertility.

Next steps:

GBVs are available now through Black Box Co. Contact Elsie or go to blackboxco.com.au/genomics-store

Brad Inglis

Owner/Manager
Sturt Plains

E: apn.sturtplains@bigpond.com

Bio:

Brad is the owner/manager of Sturt Plains Station with his Partner Lisa Dyer. They run a sustainable/productive high-grade Grey Brahman Herd and sell commercial bulls, replacement heifers and export/trade steers. Brad has 23 years' experience in the northern beef industry.

Whitney Dollemore

Company Principal/Owner
North Breed Assist

Bio:

After completing a Bachelor of Animal Science at UQ, Whitney worked in the NT Primary Industries Department for 12 years while completing two more degrees. During this time, she was exposed to many varied experiences in grazing land management, nutrition and reproduction/genetic selection, culminating in management of the department breeding programs (Selected Brahmans, Composites) from 2011 to 2021. Based in Katherine, Whitney is a consultant working to assist beef businesses in their development of breeding objectives, understanding and implementation of EBVs, animal selection, data collection, collation and analysis and delivery of the MLA Breeding Edge program, BredWell FedWell and other genetics and reproduction extension.

Notes

My action items:

Meat & Livestock Australia and Northern Territory Department of Industry, Tourism and Trade would like to thank our sponsors for their contributions:

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Easy P and the Importance of Phosphorus in Breeding Animals

Tim Schatz

Director Livestock Industries
NT DITT

E: tim.schatz@nt.gov.au

Session overview:

The Easy P project aims to increase adoption of phosphorus (P) supplementation in northern Australia by showing that an easy to implement P supplementation strategy ("Easy P") is an efficient and effective method of supplementation, especially on properties where it is difficult to supplement during the wet season due to inaccessibility of country.

The research component of the project is being conducted on Victoria River Research Station (VRRS), and the Easy P strategy is being demonstrated on a commercial property (Bullo River) as a Producer Demonstration Site (PDS). The NT work is part of a larger Easy P project, being conducted in collaboration with QLD DAF and WA DPIRD.

Methodology

The following treatments are being compared over four years:

- "Traditional" – This treatment receives the supplementation program that is commonly used in northern Australia i.e. urea based mineral supplement (containing no P) in the dry season and P supplementation delivered regularly throughout the wet season.

- "Easy P" – This treatment has P included in the dry season supplement and then bulk P supplement is put out before the start of the wet season but no further supplement is fed until the next dry season.

In May 2020, 18-month-old Brahman heifers were stratified on weight and randomly allocated to either an Easy P (EP) or traditional supplementation (TS) treatment, to give two groups of similar number (EP = 90, TS = 91) and average weight (EP = 270.6kg, TS = 266.3kg). The treatments were managed in the same way except for the supplement treatment. The animals were mustered twice a year to record data and wean calves. Heifers were first mated at two-years-old and mating was from late December to early May.

Results

The growth, pregnancy rates and mean liveweight of calves weaned was similar in both treatments throughout the study. The average first lactation heifer weight was significantly heavier in EP in May 2022 ($P<0.05$), and the difference in first lactation heifer pregnancy rate approached significance with EP being higher (80% vs 67%, $P = 0.07$).

The overall performance of the treatments throughout the trial has not been statistically analysed yet, but in summary, the performance of cattle under the Easy P strategy was at least as good as, if not better than that under traditional wet season P supplementation.

Key messages:

1. The Easy P project has shown that an easy to implement Phosphorus (P) supplementation strategy is at least as effective (if not better than) traditional supplementation.
2. This is good news for producers in P deficient country where it is difficult to deliver supplement during the wet season.

Notes

Nutrition opportunities

Silage production and feeding in the NT

Benjamin Wratten

General Manager, Northern Assets
AAM Investment Group

Legume establishment trials

Mary Williams

Pastoral Extension Officer
NT DITT

E: mary.williams1@nt.gov.au

Bio:

Mary graduated with a Bachelor of Agricultural Science in 2018 and followed this with several years working on cattle stations before moving to Katherine to start her current role as a Pastoral Extension Officer. Mary is based at Katherine Research Station and her role has a focus on educating station staff about rangeland management and increasing industry awareness of current research.

Session overview:

The legume establishment demonstration started in 2023 and aims to investigate the sowing methodology and growth potential of several introduced legume varieties for the Victoria River District rainfall and climate. There is a high demand in the Northern Territory for ways to increase dietary protein, particularly in the late dry season when native grasses decline in quality. There are three components of this project:

1: Legume establishment demonstration in small plots investigating seedbed preparation and sowing timing

2: Weaner weight gain data on established legume dominated native pastures

3: Legume establishment on extensive pastoral properties to gain a broader understanding of introducing legumes into native pastures at a commercial scale.

The project has been extended for another 12 months and all three of these components will continue to be monitored as well as expanding the small plot demonstration site.

Key messages:

- Legume demonstration trial design
- Weaner weight gain data
- Challenges and what we hope to achieve from the project extension.

Next steps:

To learn more about the legume demonstration at Kidman Springs go to: futurebeef.com.au/resources/vrdlegumeestablishmentdemonstration

Follow @AgricultureNT to keep up to date with livestock Industries projects.

Notes

Improved pastures in the NT panel

Rusty Richter

Producer and General Manager
Heytesbury Pastoral

E: rusty.richter@heytesburycattle.com.au

Bio:

Rusty is the General Manager of operations for Heytesbury Pastoral Cattle Company and is based at Victoria River Downs Station. Having commenced in 1997 he has progressed through a number of positions before becoming part of the management team in 2005. Rusty has spent many years in the Northern pastoral industry working on stations in the Kimberley, Barkly and Victoria River region as well as the flood plains and export market in Darwin.

He plays a crucial role in Heytesbury Cattle Co's breeder operation, drawing on his experience to make informed decisions around breeder and grower management.

He has a passion for sustainable agriculture with a keen interest in efficient practices and leads a team of highly motivated managers across six stations.

Arthur Cameron

Principal Pastures Agronomist
NT DITT

E: Arthur.cameron@nt.gov.au

Matt Dennis

E.E Muir

Dan Chapman

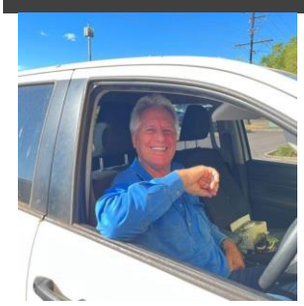
Rangelands Manager
Australian Agricultural Company

E: dchapman@aaco.com.au

Notes

Biosecurity

Lumpy skin and foot-and-mouth update



Ross Ainsworth

Regional Veterinary Officer Katherine/Darwin
NT DITT

E: Ross.ainsworth@nt.gov.au

Session overview:

Over the last five years, some of the world's nastiest animal diseases have arrived in Indonesia. Two of these, lumpy skin disease (LSD) and foot-and-mouth disease (FMD) represent an extreme threat to the northern Australian beef industry. One of the most important roles of the NT government is to promote awareness of these and other exotic diseases to ensure that the industry is aware of what they can do to assist to keep these diseases out of Australia and to recognise them quickly in the event that they do actually arrive in this country.

LSD represents the highest risk as it can be spread by biting insects which have the potential to travel from Indonesia to Australia on prevailing winds during the wet season. This presentation provides photographs of the disease as it is occurring in our neighbouring countries to assist industry to identify it and also outlines the very complex and confusing details surrounding its movement from Africa to Indonesia.

Key messages:

- FMD and LSD are now in Indonesia.
- While appropriate biosecurity measures can provide good protection from FMD transmission, there is nothing that we can do to prevent the movement of insects potentially infected with the LSD virus from being transmitted to Australia on prevailing winds.
- Given this, early detection is our best weapon in minimising the impact of LSD in the event that it does come to Australia.

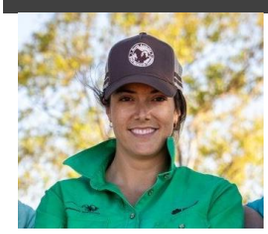
Next steps:

Promote awareness of LSD to assist with early detection.

Notes

Paddock power

Decisions in the paddock



Christie Pearson

Livestock Team Leader, Livestock Industries
NT DITT

E: christie.pearson@nt.gov.au

Bio:

Christie completed a Bachelor of Science in Agriculture at the University of Sydney before moving to the NT in 2016. Since then, she has lived and worked on cattle stations in the VRD, completing her PhD in 2021, which focused on remote monitoring technologies and calf loss in northern Australia. She commenced her role with DITT in 2021, where she is involved with numerous research projects aimed at improving the productivity and sustainability of the northern beef cattle industry.

Session overview:

Many breeder paddocks in northern Australia are too large and under-watered to achieve optimum productivity. Large, poorly watered paddocks negatively impact both reproduction and profitability. They result in uneven feed utilisation, with areas close to water being overgrazed, while distant areas remain relatively unutilised. Large paddocks also increase the risk of incomplete musters and limit opportunities to implement herd segregation, controlled mating or tactical pasture management. Fencing and water development is expensive and producers have articulated that they need data around potential productivity increases to better demonstrate the business case of development to owners and financiers. This presentation covers the commercial property results from Rocklands and Brunette Downs, highlighting the challenges and opportunities for further investigation into the impacts of watered area on reproductive e performance and productivity as a whole. It provides details of data collected from breeder herds to quantify the effects of improving infrastructure on reproductive performance. Cattle performance data was recorded over a three-year period on Rocklands and one year on Brunette Downs.

Key messages:

- How is paddock size and water distribution impacting your performance?
- What strategies can we put in place to maximise productivity and sustainability?
- How can you find out the cost benefit of increasing infrastructure and how does this lead to better production?

Next steps:

Link to the webinar explaining how to use the Paddock Power Calculator and Tool-

Introducing 'Paddock Power' – a new computer tool for planning your paddock development. (youtube.com)

Slides can be found here

futurebeef.com.au/wp-content/uploads/2023/07/Paddock-Power-planning-your-paddock-development-PDF-2.90-MB.pdf

Access to online tool is free and comes with a user manual- contact your local DITT Livestock Officers for more info.

Notes

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Carbon EDGE

Taking carbon from a concept to an action plan

Carbon EDGE is a new two-day training program for the red meat industry, providing participants with an understanding of the opportunities for emissions reduction and carbon storage activities in a livestock grazing business.

Modules and key topics covered

1. Greenhouse gases 101

1. What is a greenhouse gas?
   - Why do we always talk about carbon?
   - Global warming potentials
   - Why are atmospheric greenhouse gas levels important?
   - Global trends, the Paris Agreement and Australia's commitments
2. Where do greenhouse gases come from in a livestock production system?
   - Scope 1, 2 and 3 emissions
   - Carbon, nitrogen and methane cycles in agriculture
3. Australian national and agricultural emissions profiles
   - National inventory
   - Typical emissions inventories in livestock-based systems
4. Emissions Reduction Fund and other policy drivers
   - Emissions Reduction Fund
   - International trade agreements
   - Australian red meat industry carbon neutral by 2030

2. Greenhouse gases 101

1. What is greenhouse gas accounting?
2. Quantifying emissions
   - Data preparation
   - Calculating emissions
   - Carbon Calculators
3. Interpreting your results
   - Tools for quantifying sequestration by vegetation or soils

3. On-farm emissions

Practices and technologies to reduce on-farm GHG emissions

1. Genetics and husbandry practices
   - Improving reproductive rates and decreasing mortality
   - Reproductive efficiency in cattle
   - Reproductive efficiency in sheep
   - Decreasing mortality
   - Mortality in cattle
   - Mortality in sheep
   - Increasing growth rates
   - Improving genetics
2. Grazing land management, forage types and diet
   - Grazing land management
   - Pasture and legumes
   - Dietary composition
   - Plant breeding
3. Feed additives
   - Vaccination
   - Early life programming
4. Fertiliser application
   - Right source
   - Right rate
   - Right time
   - Right place
5. Efficiency of fuel and energy usage
6. Renewable energy

4. On-farm sequestration

Increasing carbon sequestration

1. Trees
   - How does vegetation sequester carbon?
   - Opportunities for action
2. Healthy soils
   - What is soil organic matter (SOM)?
   - What is soil organic carbon (SOC)?
   - How much carbon is in my soil?
   - Limitations to building SOM and SOC
   - Management practices to increase soil carbon

5. Carbon credits and carbon neutrality

1. Managing your greenhouse gas account
   - Demonstrating your carbon position
2. Carbon farming projects
   - Australian Carbon Credit Units (ACCU) scheme
   - Registering a project with the ACCU scheme
   - Voluntary carbon market
   - Nature based markets

Carbon EDGE has been developed by Meat & Livestock Australia

Meat & Livestock Australia and Northern Territory Department of Industry, Tourism and Trade would like to thank our sponsors for their contributions:

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Department of Agriculture, Fisheries and Forestry

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Better your business

MEAT & LIVESTOCK AUSTRALIA

MLA offers red meat producers a range of educational resources, tools and programs to improve profitability

Training programs/workshops

MLA delivers a range of programs and workshops to equip producers with the latest best-practice knowledge:

mla EDGE NETWORK
MEAT & LIVESTOCK AUSTRALIA
mla.com.au/edgenetwork

bredwell fedwell
mla.com.au/bredwellfedwell

Profitable Grazing Systems
mla.com.au/pgs

Producer Demonstration Site
mla.com.au/pds

beefup FORUM
mla.com.au/beefup

meatup FORUM
mla.com.au/meatup

MLA resource hubs

MLA has compiled this series of hubs containing relevant resources on a range of on-farm topics:

- **Livestock:** Genetics, beef, sheep, goats
- **Feedbase:** Healthy soils, phosphorus, leucaena, pasture dieback, dung beetles
- **Sustainability:** Carbon neutral by 2030, dung beetles
- **Climate:** Climate, disaster recovery
- **Other resources:** Seasonal resources, COVID-19 resources and market insights hub, mental health, MLA's e-newsletters

The toolbox

Self-guided online tools and training packages to upskill anytime, anywhere. Topics include:

- assessing nodulation in legume pastures
- establishing a new pasture
- pain relief use in southern cattle
- pain relief use in sheep
- introduction to MateSel
- soil testing
- visual indicators of soil condition

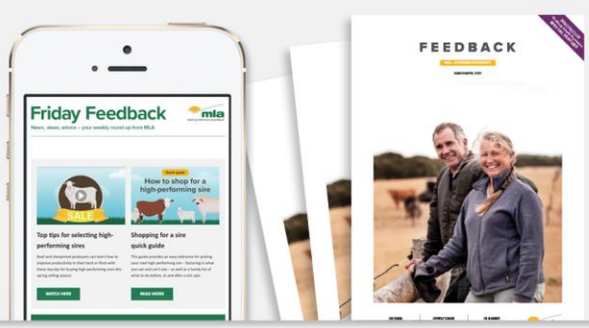
The toolbox | Online training, tools and resources

elearning.mla.com.au

Keep informed

Stay ahead with MLA resources:

- **Red meat industry events:** mla.com.au/news-and-events
- ***Feedback* magazine:** mla.com.au/feedback
- ***Feedback* podcast:** mla.com.au/feedback-podcast
- ***On the ground* podcast:** mla.com.au/on-the-ground
- **e-newsletters:** mla.com.au/enews



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- Discounted entry to MLA events
- Publications and information tools
- Subscription to MLA's *Feedback* magazine

To become an MLA member call **1800 023 100**, visit **mla.com.au/membership** or scan the QR code above.

Notes

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