

## Barkly BeefUp Forum

MONDAY 24 JULY 2023

## 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

MLA's BeefUp Forums are held throughout northern Australia and are developed by regional Working Groups in collaboration with the BeefUp Coordinator (AA\&P Events) and MLA. Thank you to the Barkly Regional Beef Research Committee, AACo and the Department of Industry, Tourism and Trade (NT) for their support in planning this event.

MLA's BeefUp Forums have been developed to:

- give you an opportunity to see and hear about what MLA and industry partners are delivering
- highlight current and completed research that is relevant to you
- give you a chance to participate in regional research, development and adoption (RD\&A)
- 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

## AACo Brunette Downs Station

Barkly NT

## Forum Coordinator Contact

Natalie Bell

AA\&P Events
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## 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

| Time | Sunday 23rd July |
| :---: | :---: |
| 3.00pm <br> onwards | Arrive to Brunette Downs |
| 6.00pm | Casual Dinner |
| Time | Monday $24^{\text {th }}$ July |
| 7:00am | Breakfast |
| 8:00am | Registration |
| 8:30am | Welcome from AACo Cheyne Williams - AACo. |
| 8:40am | RBRC welcome <br> Matthew Barrett - BRAC |
| 8:45am | MLA RD\&A and market update <br> Sally Leigo, Program Manager - Meat \& Livestock Australia |
| 9:15am | Barkly region update <br> Tim Schatz - Department of Industry, Tourism and Trade (NT) |
| 9:30 am | Paddock Power: understanding the cost of development against production Dionne Walsh, Managing Director - Range IQ Pty Ltd |
| 10:10 am | Morning Tea |
| 10.40am | The Northern Beef Report - insights on the profit drivers of Barkly businesses Michael Wellington - Bush Agribusiness |
|  | AgTech in Action |
| 11:30am | AgTech in action <br> Facilitator: Claire Mahony, Head of New Ventures and Innovation - AACo <br> Australian Feedbase Monitor - Phil Tickle - CiboLabs and Dan Chapman - AACo <br> Rangelands Team <br> Immersive technologies - Kat Bidstrup and Tim Gentle - Think Digital <br> eNVD and integrity systems - Renelle Jeffrey - ISC |
| 12:30pm | AgTech, where to next? Panel discussion Where could your technology go in the future? <br> Facilitator: Claire Mahony - AACo |
| 12:55pm | MC wrap-up field trip instructions |
| 1:10pm | Lunch (1 hour) |
|  | Paddock Tour |
| 2:10pm | AACo \& MLA 'Horns and Health' project overview Matt Kelly, Senior Research Analyst - AACo |
|  | Paddock tour <br> Michael McGowan, Professor Livestock Medicine - The University of Queensland <br> Bull assessment, disease testing, visual assessment and crush side semen test, reproductive diseases, UQ PCR testing, development of vaccines. <br> Mark Peart - uDose (DIT AgTech) <br> Field demonstrations |
| 5:00pm | Return from paddock tour |
| 6.00pm | Dinner |


| Time | Tuesday $\mathbf{2 5}^{\text {th }}$ July |
| :---: | :---: |
| 8:00am | Welcome \& housekeeping Eleanor Fordyce - Emcee |
| 8:30am | Understanding practical finance in the business <br> Michael Wellington - Bush Agribusiness <br> - Reading spreadsheets <br> - Practical application of financial skills <br> - How you manage financial investment over the long term |
| 9:30am | Introduction to biosecurity - current risks, paperwork and trucking requirements Hayley Bennett - Department of Industry, Tourism and Trade (NT) |
| 10:00 am | Morning Tea |
| 10.30am | Best practice cattle management Toby Wass - Wass Veterinary Services |
| 12:30pm | Lunch (1 hour) |
| 1:00pm | Post mortem activity <br> Toby Wass - Wass Veterinary Services |
| 3:30pm | Grazing Fundamentals Dionne Walsh - GIS |
|  | Wednesday $\mathbf{2 6}^{\text {th }}$ July |
| 7:00am | Grazing Fundamentals Dionne Walsh - GIS |
| 10:00am | Morning Tea |
| 10:30pm | Grazing Fundamentals Dionne Walsh - GIS |
| 12:00pm | Lunch |
| 12:30pm | Grazing Fundamentals Dionne Walsh - GIS |
| 2:30pm | End of day |

## RBRC Representatives



Matthew Barrett<br>Chair, Barkly Regional Beef Research Committee<br>E: matthew.barrett@paraway.com.au

Matt grew up in Central Queensland on his family property where they had a small breeding and fattening program. Apart from a bit of time mining, work overseas and in the cotton industry he has spent most of his working live in the large-scale beef cattle industry.

Matt has been working in Northern Australia for the past 20 years on stations in the channel country, Qld Gulf and Barkly Tablelands. He is currently the Station Manager for Paraway Pastoral Company at Rocklands station, Camooweal. Rocklands is Paraway's largest breeding operation running 24,000 breeders. They are a brahman based herd but recently have heavy influence from Santa and Angus genetics. Matt is married to Tina and they have 3 children.


## Eleanor Fordyce

Pastoral Production Officer, Livestock Industries
Department of Industry, Tourism and Trade
E: eleanor.fordyce@nt.gov.au


## MLA Representatives



## Harriet Bawden

Project Manager - Northern Beef Adoption
Meat \& Livestock Australia
E: hbawden@mla.com.au
Harriet is an agricultural communications and extension professional with a focus on supporting on-farm adoption of new research, technologies and practices. She is currently the Project Manager for Northern Beef Adoption at MLA. Harriet works closely with industry and project partners across Queensland, NT and northern WA to deliver programs including BeefUp forums, integrated producer Demonstration Sites, the EDGEnetwork and FutureBeef.


## Sally Leigo

Program Manager - Producer Adoption
Meat \& Livestock Australia
E: sleigo@mla.com.au
Sally is the Program Manager for MLA's Producer Adoption program, which aims to put in the hands of producers the latest research, technology and best practices to increase production and profitability of red meat businesses. Prior to joining MLA, Sally worked in the NT for close to 16 years delivering research and extension projects, with 13 years based in Alice Springs working with local beef producers.

## Speakers and Presentations

## Welcome



## Cheyne Williams

AACo
E: chwilliams@aaco.com.au
Bio:
Cheyne Williams is the manager for AACo.'s Barkly breeding property flagship, Brunette Downs.
Cheyne has previously worked with Paraway Pastoral Co where he was a station manager for 13 years, managing Davenport Downs in the Channel Country, Clonagh north of Cloncurry and Malvern Hills near Blackall.

## RBRC Welcome



Matthew Barrett<br>Chair, Barkly Regional Beef Research Committee<br>E: matthew.barrett@paraway.com.au

## MLA RD\&A and market update

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Sally Leigo

Program Manager
Meat \& Livestock Australia
E: sleigo@mla.com.au
Bio:
Sally is the Program Manager for MLA's Producer Adoption program, which aims to put in the hands of producers the latest research, technology and best practices to increase production and profitability of red meat businesses. Prior to joining MLA, Sally worked in the NT for close to 16 years delivering research and extension projects, with 13 years based in Alice Springs working with local beef producers.

## Session overview:

This presentation will provide an overview of the research and development (R\&D) investments that MLA is making across the red meat supply chain to improve the prosperity of the industry. The presentation will look at the current operating environment for the red meat industry, drawing on the latest market insights to understand some of the current and future drivers for red meat sales, and progressing on to the supply chain initiatives MLA is undertaking to double the value of red meat sales. Finally, the update will highlight how MLA is addressing some of the industry's priorities as outlined by the Red Meat Advisory Council, including achieving carbon neutrality by 2030 (CN30), doubling the value of red meat sales, doubling the investment in adoption and ensuring that red meat is the trusted source of high quality protein for consumers.

Key messages:

- Australian beef represents $4 \%$ of global beef production but $11 \%$ of global beef exports, competing with countries like the USA, Brazil, Argentina and India.
- Global retailers are driving sustainability requirements and international consumers associate sustainability more with Australian red meat than with New Zealand or the USA.
- International and domestic consumers are looking for a sustainable and affordable red meat product.


## Next steps:

- Pick up a copy of the Northern Beef Producers Resource Guide to see what information is available for you.
- Register for your next MLA adoption event or activity via MLA's events calendar: mle.com.au/events

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# CN3O Cataon Neatal 2030 

## Want to know more about how the Australian red meat industry will become carbon neutral by 2030? Here are the answers to some of the frequently asked questions MLA receives from producers, industry stakeholders and the wider community.

When was the target set? In 2017, MLA commilted to support
 the Red Meat Advisory Council's goal to achieve net zero emissions by 2030.

## Will the CN30 target restrict productivity?



No. The CN30 target and productivity are complimentary goals. While the target is based on a herd size cap ( 28 million cattle, 75 million sheep) the goal can accommodate herd and flock increases through increased carbon efficiency in production.

What progress has been made to date?
The red meat sector has reduced its emissions by $64.9 \%$ from 2005 baseline levels according to latest modelling by CSIRO.

Why is 2005 the baseline year for the target?


Emissions are compared against the baseline year of 2005 as this is the year that Australia committed to a $26-28 \%$ reduction by 2030 on a 2005 baseline under the Paris Agreement.

Will all farms have to become carbon neutral?


No, the industry goal can be achieved without every individual producer becoming carbon neutral. However, it will require significant adoption of carbon efficient practices by a large majority of industry to achieve this collective goal.

Does carbon neutrality only refer to carbon?
 What about other greenhouse gases like methane?
The term carbon neutral encompasses the 3 key greenhouse gases, carbon dioxide $\left(\mathrm{CO}_{2}\right)$, nitrous oxide $\left(\mathrm{N}_{2} \mathrm{O}\right)$ and methane $\left(\mathrm{CH}_{4}\right)$.

How can I lower emissions on-farm while maintaining productivity?
Focus on improving the emissions intensity of your business. Emissions intensity refers to the amount of emissions produced per kilogram of liveweight. The more efficiently we can produce meat, the better our intensity. Management decisions that improve reproduction rate, improve rate of weight gain or decrease time to turn off can all improve the emissions intensity per kilogram of liveweight of your operation, which is great for CN3O and productivity.

What carbon farming practices are eligible to earn carbon credits?
Not all methods that have a positive impact on emissions and productivity are eligible to generate carbon credits. Under the Carbon Farming Initiative, only methods approved by the Emissions Reduction Fund (ERF) and the Clean Energy Regulator are eligible to earn ACCUs. You can view approved methods online at the ERF website. A 5 -minute survey via CSIRO's LOOC-C tool can also guide you on the most suitable methods for your business and region. Some of the most common project methods for Carbon
 Farming projects in livestock are revegetation, avoided clearing, soil carbon improvement and herd management.

## What is a carbon credit?

A carbon credit represents 1 tonne of carbon dioxide equivalent abated or stored. In Australia, the financial product for carbon is an Australian Carbon Credit Unit (ACCU) which is issued by the Clean Energy Regulator through the Emissions Reduction Scheme.

## What is carbon off-setting?

Offsetting is the practice of obtaining
 carbon credits to neutralise some or all emissions produced by a business. Credits are traded through a regulated marketplace. Offsets are used when a business wants to lower it's carbon footprint but is unable to do so through practice changes. Landholders can generate carbon credits through audited
carbon farming projects, which may be sold to third parties as offsets or kept to offset the farm's own emissions.

## What is carbon in-setting?

 Insetting refers to the building of carbon within a supply chain or property, without formal carbon credits. Carbon stocks in soil and vegetation on-farm are recognized in the calculation of a farm enterprise's carbon account. Demonstrating healthy carbon stock and net emissions balance could be beneficial to access trade, supply chain and other financial benefits.
## Where should I start?

Understand your sources and sinks of carbon on farm through MLA's Carbon 101
 online training. Progress through the learning modules at your own pace to understand what management decisions can improve your productivity, profitability and carbon efficiency. There is also step-by-step guide to completing a carbon account to estimate the net emissions profile of your property. Use your own data to explore your property's emissions profile with MLA's Carbon Calculator.

## I want to register a

 carbon farming project. Where should I start?- Complete a carbon account of your business, online or with an independent consultant.
- Consider your capacity to lodge the project yourself, or if you'd prefer to engage a carbon project developer to manage.
- Understand the feasibility of your project - expected carbon credit yield relative to any capital, costs and commission fees. Get second opinions.
- Have any contracts reviewed by a trusted advisor. Understand the implications and what they mean for your cash flow or autonomy.
- Check the carbon developer is a signatory to the Carbon Market Institute Code of Conduct.


# NT DITT Barkly region update 



## Tim Schatz

Director Livestock Industries
Department of Industry, Tourism and Trade, Northern Territory
Government
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 are; heifer fertility, phosphorus nutrition, genetics, crossbreeding, rotational grazing and calf loss.

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My action items:

## North Australia Beef Research Council

## DRIVING INNOVATION \& PROSPERITY

NABRC connects producers, researchers and industry stakeholders to drive improved production in Australia's northern grassfed beef industry.

As an independent association, NABRC breaks down barriers between research scientists and grassroots producers to enrich research and enhance adoption.

We draw on the knowledge, insight and expertise of our vast network to prioritise and influence RD\&E/A efforts in northern Australia.

## GET INVOLVED

NABRC is made up of 11 Regional Beef Research Committees across northern Australia.

By engaging with their local RBRCs, producers can highlight issues their region faces and help set the research priorities for agencies like Meat \& Livestock Australia.

- Identify needs that may be solved by research, development, education, extension and training.
- Assess their relative importance and the potential benefits to the region.
- Provide input to assist the development of research proposals.
- Facilitate the dissemination of research results to producers in the region and to provide feedback on the adoption of new technologies.



## BARKLY RESEARCH ADVISORY COMMITTEE (BRAC)

## CONTACT US:

Chair
Matt Barrett
m:0428 564985

e: matthew.barrett@paraway.com.au
Secretary - Elle Fordyce
NT DITT, Tennant Creek
m: 0456752319
e: brac.ditt@nt.gov.au

Paddock Power: understanding cost of development against production


Dr Dionne Walsh

Managing Director
Range IQ Pty Ltd
E: dionne@rangeiq.com.au
Bio: Dr Dionne Walsh has more than 25 years' experience as a researcher and advisor in rangeland management. Her areas of expertise include livestock carrying capacity, land condition monitoring, infrastructure planning and advising on profitable grazing management systems. She has worked with livestock producers across the Northern Territory, Queensland, Western Australia and South Australia.

In 2021, Dionne started her own company, Range IQ Pty Ltd, to provide advisory services to the pastoral industry and natural resource managers (www.rangeiq.com.au).
Dionne's professional approach is best summarised by her favourite saying: "when the practical experience of producers collides with good science, great things happen!"

## Session overview:

Paddock Power provides a simple way to:

- keep your own property maps up to date
- plan new water points, fences or pipelines and cost them out before you build them
- compare different infrastructure development options to see which one/s will deliver the best "bang for buck"
- generate reports to take to owners, shareholders or banks to secure funding for your development plans.

With funding support from Meat \& Livestock Australia, the NT Department of Industry, Tourism \& Trade has collaborated with Range IQ, Trailmarker, Holmes \& Company and Bush AgriBusiness to develop two user-friendly tools.

## Why did we develop the Paddock Power tools?

Many paddocks in northern Australia are too big and under-watered to achieve optimum livestock productivity. Large areas of rangelands with few water points leads to both over- and underutilisation of forage (depending on distance from water) and limited opportunities to manage livestock herds for optimum animal and pasture performance.

To overcome these problems, the owners and managers of large properties are actively installing additional fencing and water points. However, the impacts of any given infrastructure development on pastures, livestock and business performance are often still based on "gut feel".
Given the expense of development at scale, producers have told us that they require evidencebased planning to better articulate the costs and benefits of proposed infrastructure investments to owners and financiers.

How can you use this tool to improve your decision-making?
The first step is to map your development plans using the Mapping Tool. You then enter data generated from the Mapping Tool and your own records into the Investment Calculator. The Investment Calculator compares the costs and benefits of your selected infrastructure development options and evaluates their financial performance in the context of your specific land types, carrying capacity, cost base and livestock productivity.

The tools are supported by a one-day training workshop in your region, or via one-to-one support from skilled users.

## Key messages:

1. Many paddocks in northern Australia are too big and under-watered to achieve optimum land and livestock productivity.
2. Infrastructure development at scale is expensive, so it pays to get it right before you build it.
3. The Paddock Power tools allow you to plan new water points, fences or pipelines and evaluate which options will deliver the best "bang for buck".

## Next steps:

Curious to know more? Contact us if you are ready to start using Paddock Power for data-driven decision-making in your business.

NT DITT:
Darwin - Caz Pettit - caroline.pettit@nt.gov.au
Katherine - Christie Pearson - christie.pearson@nt.gov.au
Tennant Creek - Elle Fordyce - Eleanor.fordyce@nt.gov.au
Alice Springs - Alison Kain - alison.kain@nt.gov.au
Range IQ: Dr. Dionne Walsh - dionne@rangeiq.com.au

## Notes

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My action items:
The Northern Beef Report -
insights on the profit drivers of Barkly businesses
Associate
Bush AgriBusiness
experiences. He began his career with Bush AgriBusiness after completing a Bachelor of
Agricultural Science and worked with numerous family, corporate, and indigenous owned
agribusinesses. He then completed a PhD on irrigation schemes in southern Africa. Michael has
contributed to a range of academic and industry publications and maintains interests in Australian
broadacre agriculture and international agricultural development.

## Session overview:

The Barkly region is characterised by large enterprises with economies of scale. This means that overhead expenses per animal unit are generally not a constraint to business performance. Rather, productivity (kg beef/Adult Equivalent) determines the variation in business performance within the region. The large scale of businesses in the Barkly Tableland contribute to its status as one of the best performing beef regions in Australia with an average Operating Return of 3.8\%, compared with a national average of $0.5 \%$. How does this compare with returns to other forms of capital, and the current inflation rate?

The productivity measure ( kg beef/AE) is a proxy for the efficiency with which grass is converted to beef. It is expressed on an animal unit basis to allow comparison between enterprises and regions. Productivity is determined by three key performance measures: reproductive rate, sale weight (growth), and mortality rate.

Company stations on the Barkly are often components of a larger network of holdings across Australia and this can affect managers' abilities to control turnoff weight. Weaned, growing cattle are the most productive class in terms of lean meat production, so growing/backgrounding enterprises generally have higher productivity (kg beef/AE). This productivity is enhanced when light weaners are sourced as they have high growth rates relative to a low AE rating. However, this represents a cost to productivity on the breeder block. Managers and stock people working on breeding enterprises should be aware of the impacts of transfer weight on breeder herd productivity.

On the cost side, expenses must be spread over enough cattle (AE) to achieve a competitive cost base through 'economies of scale'. This is generally achieved at greater than 3,000 AE, beyond which there is no discernible benefit of greater scale. After scale, labour is the greatest determinant of costs per AE. Competitive costs are achieved when approximately 1,500 AE are run per full-time labour unit (FTE). Scale and labour efficiency are generally not a constraint to Barkly businesses, but it is useful for business managers and operators to be familiar with these figures.

Overall, the Barkly is a profitable location for beef production and is fortunate to have the benefits of scale. Performance can be improved by enhancing productivity (kg beef/AE) through better reproductive rates, sale weights (growth), and reduced mortality rates.

## Key messages:

- The Barkly region is characterised by large enterprises with economies of scale. This means that overhead expenses per animal unit are generally not a constraint to business performance.
- Productivity (kg beef/Adult Equivalent) determines the variation in business performance within the region.
- Productivity is determined by three key performance measures: reproductive rate, sale weight (growth), and mortality rate.


## Next steps:

The Bush AgriBusiness website provides information and resources such as background on the Australian Beef Report (stay tuned for the 2023 edition). MLA also provide information on the Business EDGE workshop.

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My action items:

## EDGEnetwork ${ }^{\circledR}$

MLA's EDGEnetwork ${ }^{\circledR}$ (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 <br> 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.


## 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.


## 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.



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.


Breeding EDGE

NETWORK

For more information about EDGE:
k mla.com.au/edge-network
To find an EDGE event near you:
k mla.com.au/events

To request an EDGE event in your area, send an email to:
Medgenetwork@mla.com.au

## AgTech in action



## Claire Mahony

Facilitator
Head of New Ventures and Innovation
AACo

E cmahony@aaco.com.au

Bio:
Claire grew up on a sheep and cattle property near Blackall before studying Animal Science at UQ and Texas A\&M and completing a Global Executive MBA through Monash. Claire has lived and worked in the US and Australia and been involved in business development in Ireland, the US, the UK and Brazil for various livestock products. Since starting with AACo. in 2022, Claire has developed an innovation portfolio to support AACo.'s strategic focus areas including methane mitigation, valuing nature, animal productivity, health and welfare and diversification by initiating both RD\&A projects and new business model initiatives to create value.


Phil Tickle

Australian Feedbase Monitor
Cibo Labs
E ptickle@cibolabs.com.au

Bio:
Phil is a co-founder and Managing Director of Cibo Labs. Phil grew up on mixed farming properties in southern NSW and has over 30 years professional experience in the application of geospatial and remote sensing technologies in agriculture and natural resource management. Cibo Labs was established in early 2018 with the mission to bring a completely new approach to monitoring Australia's grazing lands aimed underpinning more profitable farms and more sustainable landscapes. In 5 years Cibo Labs have established fully commercial services delivering estimates of pasture biomass and ground cover to over 70 million hectares on a weekly basis. In late 2022 Cibo Labs launched the Australian Feedbase Monitor (AFM) in partnership with MLA to provide satellite estimates of pasture biomass to every red meat producer in Australia

## Session overview:

Cibo Labs was founded in early 2018 to address the need for improved feedbase and land condition monitoring to support profitable and sustainable grazing management decisions.
The Australian Agriculture Company (AACo.'s) has been a significant supporter of these developments in collaboration with Cibo Labs which now underpin many management decisions across the company.

In early 2021, Cibo Labs and AACo. initiated an ambitious project with support from MLA that aimed to deliver significant benefits to both AACO. and the broader industry. The objectives included: refining the current pasture biomass and quality predictions; developing methods for mapping and monitoring surface water; the ability to automatically map land types; implementing and validating new methods for land condition prediction, and improved understanding of priorities and barriers to Agtech adoption.
The project has demonstrated the ability to use new sources of remote sensing data and methods to reliability map the presence and duration of surface water relevant to extensive grazing systems and ecosystem management.
Land condition has been mapped using spatio-temporal information across the AACo. estate, and across the Rangelands. Using Landscape Response Units, we were able to spatially predict ABCD Land Condition with an overall accuracy of $80 \%$ across AACo.'s northern properties.

To be able to consistently map land condition at paddock scales for every extensive grazing property in Australia could be a game-changer for the industry. Having the capability to automatically estimate land condition, incorporate local knowledge from managers, and assess the impacts of land condition on stocking rate per paddock will allow producers to make more informed management and investment decisions on long-term carrying capacity, seasonal stock rates and grazing management, or infrastructure investment decisions aimed at improving sustainable production capacity over time.

## Key messages:

- The Australian Feedbase Monitor provides every livestock producer with free access to new levels of objective information on trends in pasture biomass over their entire farm.
- Combining traditional pasture assessment methods and satellite imagery can help producers better understand paddock variability in pasture growth, utilisation and land condition throughout the season to inform business and grazing management decisions.
- The new tools can help producers to get on the front foot by providing objective and transparent data to support emerging regulatory, supply chain, finance and consumer expectations.


## Nest steps:

1. Create a MyMLA account: https://www.mla.com.au/about-mla/mymla/
2. Link your LPA/PIC Account
3. Login into the AFM through MyMLA or directly through https://www.cibolabs.com.au/dashboard
4. Get in touch with Cibo Labs for more information https://www.cibolabs.com.au/

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## Dan Chapman

Rangelands Manager
AACo
E: dchapman@aaco.com.au
Bio:
Dan graduated with an Environmental Planning degree in 2011 where he moved to Katherine. Dan has worked for Local Government, Territory Natural Resource Management and has spent the last 6 years working for AACo. His current role sees him managing AACo's rangelands program across the company's portfolio of 6.4 million ha. The program includes forage budgeting, carry capacity assessments, weed and fire management as well as numerous research projects.

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## Kat Bidstrup

CEO | Founder
Think Digital
E kat@think.digital


## Tim Gentle

CEO | Founder
Think Digital
E tim@think.digital
Bio:
Founders of Think Digital, Tim Gentle and Kat Bidstrup both have strong links to agriculture, having grown up in regional Australia - Kat on a farm in the Clare Valley and Tim on a dairy farm in regional Victoria. In creating Think Digital, they have combined technical expertise with their passion to advance the agriculture, food and fibre industries.

Think Digital is one of Australia's leading innovative XR studios creating Immersive Technology (Virtual Reality + Augmented Reality) solutions for agriculture to assist with marketing, education, training and on farm productivity gains.

The studio mascot is the Think Digital Coach - a 14 metre "classroom on wheels" that travels around Australia delivering XR experiences at agricultural shows, schools, events, and conferences.

Our vision is to rethink how agriculture will solve complex problems now and, in the future, using emerging tech.

Session overview:
In this presentation, Kat and Tim will explain what virtual reality (VR) and augmented reality (AR) is, how it is being used extensively in other industries like Defence, Mining and Health and how we are applying this emerging technology in agriculture to solve key problems, including workforce attraction, training and retention, biosecurity, and education/community engagement. They will also be showcasing the AI mobile application that helps identify diseases in cattle.
You have the opportunity to try on a headset and immerse yourself in the technology to understand it firsthand and if it can help you.

## Nest steps:

- Become a test user of our Al Cattle Disease Application
- Consider VR and AR as a tool to help engage, train and retain
- Visit www.think.digital



## Renelle Jeffrey

Digital Adoption Program Manager ISC
Integrity Systems Company
E: rjeffrey@integritysystems.com.au

Bio:
Renelle Jeffrey is the Digital Adoption Program Manager for Integrity Systems Company. Renelle has $15+$ years developing and managing sustainable agriculture, sustainability, sheep productivity extension, producer adoption and innovation capability programs and projects.

Session overview:
National Vendor Declarations (NVD) communicate the food safety and treatment status of livestock every time an animal moves between properties, to saleyards or processors.

As NVDs are a legal document that are key to Australian red meat traceability and market access, Integrity Systems Company has developed the eNVD system to enhance the traceability of these systems.

The eNVD mobile app is available for LPA accredited producers, feedlots and value chain stakeholders to use. Digital consignments are fast, easy and more accurate than paper forms, delivering time and efficiency savings.

The eNVD mobile app means suppliers can:

- Complete and transfer livestock consignments offline.
- Use QR codes to transfer consignments a producer's mobile device to a transporter or receiver's device when there is no internet.
- Save time by answering questions once. Details are populated across multiple quality assurance and health declaration forms.
- Consignments created on the eNVD web-based platform are also available in the app and vice versa.


## Key messages:

Australia's red meat integrity system ensures the livestock industry can stand by what it sells.
Livestock Production Assurance (LPA), the National Livestock Identification System (NLIS) and National Vendor Declarations (NVDs) are the core foundations this system and mean customers around the world trust Australian red meat is safe, ethically produced and high quality.

The eNVD system increases the completeness and accuracy of information provided.

## Next steps:

Download the eNVD app via the Google Play or App Store and visit www.integritysystems.com.au/envd-app for more information and support.

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My action items:

## Australian Feedbase Monitor

## Information for producers

The Australian Feedbase Monitor provides:

- access to farm-level rolling monthly pasture biomass estimates for every Livestock

Production Assurance (LPA) account holder, updated every five days

- regionally calibrated predictions based on more than 6,000 sites, using world-leading satellite monitoring and data analysis systems
- data showing the trends in pasture growth and ground cover dating back to 2017
- support for more objective and accurate feed budgeting, leading to sustainable grazing management decisions.


## How will this tool help producers?

The Australian Feedbase Monitor will offer multiple benefits to producers and the wider red meat industry including:

- supporting more objective and timely grazing decisions allowing an increase in production and the ability to meet market specifications
- avoiding environmental or welfare issues in grazing enterprises due to increased ability to monitor and report on ground cover and pasture status and trends
- increased consumer confidence in the environmental stewardship of red meat producers.


## How to sign up

Want free access to the Australian Feedbase Monitor? The free subscription to this tool can only be accessed by MLA members via myMLA, so make sure you've registered for myMLA and linked it to your current Livestock Production Assurance (LPA) account: mymla.com.au.


Not an MLA member?
You can still access the tool if you're not currently an MLA member:

- apply to be an MLA member (this process can take up to two weeks) at mla.com.au/membership
- sign up for a paid subscription through Cibo Labs: support@cibolabs.com.au
mla.com.au/afm
AFM news and updates: Sign up for MLA's e-newsletter, The Weekly (mla.com.au/enews), subscribe to Feedback magazine (mla.com.au/feedback) or follow MLA on social media.
Help with using the AFM: support@cibolabs.com.au
MLA membership support: membership@mla.com.au or 1800023100


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My action items:


## Dr. Matt Kelly

Senior Research Analyst
Australian Agricultural Company
E: mkelly@aaco.com.au

## Bio:

Matthew Kelly is a geneticist at the Australian Agricultural Company (AACo). Over the past eight years, he has spearheaded AACo.'s breeding program and led key research projects such as 'Horns and Health', carcass measurement, and Asparagopsis research. Earlier, he played a crucial role in genetic evaluation and developing genomic predictions at the University of Queensland and Zoetis.

## Session overview:

The 'Horns and Health' project tackles two significant challenges confronting Northern Australian livestock production systems - horned cattle and the management of reproductive diseases in extensive cattle herds. By addressing these issues, AACo. aspires to boost reproductive performance, a critical profitability factor in northern production systems.

Reproductive performance is a primary determinant of profitability in all northern beef production systems, including AACo's. The project's first stage, presently in progress, is to ascertain the prevalence of four diseases (Vibriosis, Trichomoniasis, Pestivirus, and Leptospirosis) across our property portfolio. This information will guide the creation of a management program tailored to the intricacies of large-scale production systems and the movement of animals across our supply chain.

Our initial focus has been to significantly enhance the amount of testing and investment on disease control in the bull breeding units. These units are of particular importance as they supply cattle to all AACo. stations.

In addition, we're also working to transition to a polled breeding herd while preserving genetic progress. Breeding polled beef cattle primarily negates the need for dehorning, significantly enhancing animal welfare as dehorning is a stressful and painful process for the cattle. The absence of horns also improves safety for handlers and other cattle, reducing injury risks in the farm environment.

On the surface, breeding for poll appears straightforward due to the existence of a highly accurate test for the poll gene. However, in reality, adding poll into a breeding program requires careful consideration. It detracts emphasis from other economically significant traits and could increase the accumulation of inbreeding. Furthermore, during the introgression process, a proportion of animals that are genetically polled (carrying a single copy of the poll gene) may develop small horn-like scurs that need to be removed.

## Key messages.

1. The project seeks to tackle two major challenges in Northern Australian livestock production systems: managing reproductive diseases and transitioning to a polled cattle herd, both of which aim to improve reproductive performance and increase profitability.
2. AACo. is developing a disease testing, management, and interpretation framework across northern herds. The first step involves identifying the prevalence of four key diseases to inform the development of a tailored management program.
3. The transition to a polled breeding herd, while maintaining genetic progress, offers numerous benefits, including improved animal welfare, enhanced handler safety, and potential economic advantages. However, careful consideration is required due to the implications for other economically significant traits and potential inbreeding.

## Notes

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My action items:

## An introduction to

## Breeding and feeding to maximise profit

On the back of a decade of success, the BredWell FedWell workshops have been redeveloped to reflect evolving best practice genetics and nutrition management.

O Develop a customised breeding plan for your livestock enterprise aligned to your profit drivers
O Identify sires and select animals that help you meet your objectives
O Learn about feeding animals well to achieve your objective and maximise your genetic investment


## Informative

Presentations and discussions with deliverers and peers


Interactive
Practical and written activities hosted on-farm


Individualised
Learning outcomes you can apply in your own enterprise

So far, BWFW workshops have delivered $\$ 17.2 \mathrm{~m}$ in total net benefits to participating producers

\$2.98
net benefit per cow mated
sheep influenced by the BWFW workshop

net benefit per ewe joined

breeding
ewes

New workshops are available for all sheep types, southern cattle and northern cattle production systems. Register your interest to participate or host a workshop.



## Michael McGowan

Professor Livestock Medicine
The University of Queensland
E m.mcgowan@uq.edu.au
Bio:
Michael grew up on a small beef, fat-lamb and cereal crop farm near Tamworth, New South Wales. He is Professor of Livestock Medicine in the School of Veterinary Science at The University Queensland, Honorary Professor of Farm Animal Medicine and Surgery at The Royal Veterinary College, University of London and a diplomate of the European College of Animal Reproduction. Michael also led the MLA funded the Cash Cow project.

## Session overview:

This practical demonstration will cover how bull breeding soundness examinations are conducted, how samples are collected for venereal disease testing, what samples need to be collected for other infectious causes of reproductive loss, latest developments in infectious disease testing and work being conducted to develop a vaccine to control Trich.

## Field demonstrations



## Mark Peart

uDose
DIT AgTech
E mark@ditech.net.au

Bio:
Mark Peart grew up on a cattle property in rural Queensland. His early work in helicopter mustering on Northern Territory cattle stations nurtured both his love of aviation and passion for making Aussie agriculture a world-leading industry. He founded DIT AgTech in 2017 and takes pride in leading a happy and dedicated team. Mark lives in Crows Nest, outside Toowoomba, with his wife and four children. On the side, he runs ultramarathons and the occasional Ironman.

## Session overview:

Every day, over 100,000 head of Aussie cattle and sheep get their target dose of nutrients through DIT AgTech's uDOSE water supplementation systems.

Water supplementing, previously called 'water medication' is the process of delivering nutrients and minerals to livestock through their drinking water.

Operations across Australia are using water supplementing to boost production and animal welfare by tackling issues such as phosphorus deficiency, protein deficiency, stress during weaning, bloat, botulism and other livestock diseases caused by a deficiency of one or more critical nutrients.

The unique advantage of water supplementing is that it allows producers to deliver a target dose of supplements to stock, eliminating the intake inconsistencies that arise with lick blocks or dry lick.

Water supplementing has become particularly popular in extensive agriculture, allowing properties like Brunette to significantly reduce the workloads of staff and cut the labour costs of lick runs.
DIT AgTech, led by CEO and Founder Mark Peart, is the leading manufacturer and supplier of water supplementing systems in Australia.

## Key messages:

- Water supplementing gives producers peace of mind that every animal in the mob is getting the right dose of target nutrients, every day.
- Water supplement delivery systems are helping extensive livestock operations significantly reduce their labour and equipment costs.
- Water supplementing works best on properties with reticulated water systems, and most supplements are compatible with bore water.


## Notes

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My action items:

# Better your business 

## 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 метt anverockaustralla NETWORK mla.com.au/edgenetwork

mla.com.au/pgs

## beefup

mla.com.au/beefup
bredwellfedwell mla.com.au/bredwellfedwell

## 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



## 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



## Become an MLA member today

MLA membership is free to levy-paying producers of grass or grainfed cattle, sheep, lambs or goats. MLA members receive the following free or discounted products:

## Online training, tools and resources

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elearning.mla.com.au
elearning.mla.com.au
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Publications and information tools

EE $\begin{gathered}\text { Subscription to MLA's } \\ \text { Feedback magazine }\end{gathered}$
To become an MLA member call 1800023 100, visit mla.com.au/membership or scan the QR code above.

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