

Technology for a better farm

Walk Over Weighing Field Day

Master the the technology you already have, make sense of your data for better decisions & see Walk Over Weighing technology in action

**27 July 2019
'Echo Hills' Roma**

This event is supported by the Queensland Government through GrazingFutures and Tackling Regional Adversity through Integrated Care initiatives to improve drought preparedness and resilience



Presenter Details

Anthony Dunn - Echo Hills Overview

Echo Hills Farming Co - Manager

Tim Emery - Herd Recording Results

Tropical Beef Technology Services (TBTS)

Mobile: 0408 707 155

Email: tim@tbts.une.edu.au

Website: <http://tbts.une.edu.au/>

Col Paton - Managing the Feedbase

EchoRich Grazing

Mobile: 0427 006 235

Email: info@ecorichgrazing.com.au

Website: <http://www.ecorichgrazing.com.au/>

Phil Tickle - Automating Forage Budgeting

Cibo Labs

Mobile: 0437 593 037

Email: info@cibolabs.com.au

Website: <https://www.cibolabs.com.au/>

Mary O'Brien - Are you bogged mate?

Are you bogged mate?

Mobile: 0427 358 806

Email: mary@areyouboggedmate.com.au

Website: <https://www.areyouboggedmate.com.au/>

Tim Driver - Walk Over Weighing

Tru-Test Livestock Management

Website: <https://livestock.tru-test.com/en-au>

Dr Tim Driscoll - Outback Health

Clinical Lead, Outback Mental Health

Royal Flying Doctor Service (RFDS)

Mobile: 0438 324 226

Email: tdriscoll@rfdsqld.com.au

Website: <https://www.flyingdoctor.org.au/>



Other Contacts:

Department of Agriculture & Fisheries (GrazingFutures):

Andrea McKenzie

Senior Beef & Sheep Extension Officer
Hood St, Charleville QLD 4470
Phone: (07) 4530 1262
Email: Andrea.McKenzie@daf.qld.gov.au
Website: <https://www.daf.qld.gov.au/>

Caitlyn Frazer

Beef & Sheep Extension Officer
Hood St, Charleville QLD 4470
Phone: (07) 4530 1263
Email: Caitlyn.Frazer@daf.qld.gov.au

Southern Queensland Landscapes:

Maree Tulley

Senior Project Officer
21 Major St, Roma QLD 4455
Phone: 0428 759 235
Email: maree.tulley@sqlandscapes.org.au
Website: <https://sqlandscapes.org.au/>

Lachlan Marshall

Project Officer
266 Margaret St, Toowoomba QLD 4350
Phone: 0427 056 443
Email: lachlan.marshall@sqlandscapes.org.au

ConnectAg:

Rhonda Toms-Morgan

Consultant
8 Lewis St, Roma QLD 4455
Phone: 0407 678 574
Email: rhondatoms@bigpond.com

Rural Financial Counselling Service:

42b Wyndham St, Roma QLD 4455
Phone: (07) 4622 4858
Email: admin@rfcssq.org.au
Website: www.rfcssq.org.au



Echo Hills Overview

Anthony Dunn

Echo Hills Farming Co - Manager

The experience so far...

Key Learnings

- Follow the training instruction manual as it has been tried and proven
- Only use high quality spear traps that are of a proven design as it is critical to allow cattle to water on and off with ease
- Allow enough time to get the best results out of the WOW unit. The time taken to use the unit should not be underestimated



Walk Over Weighing Opportunities

- The ability to draft cattle to sell in dry times without mustering the whole mob to the yards
- Automated performance information
- Ability to best utilise feed available and know when nutrition changes occur
- Targeted nutrition supplementation
- Paddock rotation automation
- Reduced weight loss through in-paddock drafting



Training your cattle

- Cattle are trained to pass over the system (inc. spear trap training) over a 3 week period
- If only capturing weight data is required then the training period can be shortened to 5-7 days
- No physical mustering or yard pressure needs to be used in the training method
- Training is achieved through understanding cattle behaviour, principles of low stress stock handling and yard design
- Tru-Test technical staff are available to help guide you through the training procedure



Herd Recording Results

Tim Emery

Tropical Beef Technology Services (TBTS)

Benefits of NLIS technology & associated costs

Benefits	Costs
<p>1. Common direct benefits in the yards (which increase with increasing cattle numbers) include:</p> <p>Fast accurate data collection</p> <ul style="list-style-type: none"> • know it is the right animal • large time savings for large numbers • reduced labour • Less stress/risk for people and stock <p>Crush side data, analysis and decisions</p> <ul style="list-style-type: none"> • saves time if no need to go and analyse data and reprocess cattle • automatic drafting – easier, faster • efficient data entry e.g. treatments, QA <p>2. Potential benefits with remote management:</p> <ul style="list-style-type: none"> • paddock weights, drafting, weaning, targeted supplements, mothering up... <p>3. Flow on benefits from better records:</p> <p>Performance data for management and marketing decisions</p> <ul style="list-style-type: none"> • cull non performers, more feed for better performers • better market compliance & income • data as marketing tool to customers • measure paddock performance <p>Better records</p> <ul style="list-style-type: none"> • know what stock are where and value • run budgets and income projections • QA data eg for LPA • historical benchmarking data <p>The flow on benefits can be gained irrespective of NLIS tags, however the main benefits from the tags is fast accurate data and the management benefits from time savings, accuracy, instant crush side data analysis, cattle handling and labour savings.</p>	<p>Lost / non reading tags and loss of associated records</p> <p>Cost to set up and maintain</p> <ul style="list-style-type: none"> • equipment – readers, scales, draft gates, computer, software and repairs • getting it right, learning curve, time and costs overcoming problems and malfunctions, consultancy • time lost in yards with lost tags, systems failures • opportunity costs of investment <p>For small cattle numbers the costs become proportionally very high (and vice versa)</p> <p>Associated costs include lost data if not backed up however this is a risk irrespective of if NLIS tags are used for collecting data.</p>

Demonstrating the management benefits of using NLIS technology' (T. Emery & R. Sneath 2010)

BONUS TBTS TIP

How do I get started with genetics?

MLA's new Genetics Hub will provide you with clear information on how better breeding values can help you accelerate your herd's or flock's productivity. Listed below are three short informative videos that you are able to watch (genetics.mla.com.au) to help you get started with using Estimated Breeding Values (EBV's).

- Episode 1: What are Estimated Breeding Values?
- Episode 2: How do I set a breeding objective for my beef herd?
- Episode 3: What are beef indexes?



Managing the Feedbase

Col Paton

EchoRich Grazing



To do a forage budget you need to know:

Feed Supply

- Use pasture photo standards, cuts and further estimations to work out how much feed you have in the paddock
- Subtract the pasture that will be trampled or detached during the dry season, usually about 15% of total pasture although it can be higher with more intensive grazing systems
- Subtract the unpalatable species, such as wire grasses, and the unpalatable 3Ps (old grey pasture from a previous season), neither of which will be eaten by stock
- Subtract the residual, at least 1,000 kg/ha of pasture, or preferably 1,250 kg/ha in buffel country
- What's left will be the available feed for stock

Animal Demand

- The number, size and class of stock you have in the paddock will determine the demand in kg/ha.
- Convert the cattle numbers to Adult Equivalents (AEs). One AE eats about 10 kg of pasture dry matter per day.
- Or you can estimate the intake of the class of stock as a percentage of body weight ranging from about 1.5% to 2.5%. Using about 2.2% gives a margin for safety.

Forage budgets can also be used to plan a **rotational grazing system**. A rotational grazing forage budget has been used on Echo Hills to plan how long to graze each paddock. Using about 10% of feed on offer is best for both individual cattle weight gains and land condition.

Useful resources for Grazing Land Management:

The Long Paddock - <http://www.longpaddock.qld.gov.au/>

- To get objective data for your property and feedbase, use your lot & plan to get: rainfall & pasture reports, ground cover reports, indicative land type reports, foliage projected cover reports and more from the FORAGE tab.

FutureBeef - <https://futurebeef.com.au/>

- Instructional videos on how to do a forage budget by Col Paton - <https://bit.ly/2y5n9bl>
- Use photo standards to compare and estimate how many kg/ha of pasture you have available - <https://bit.ly/2XZhyDr>
- Use land type sheets to find practical information to help you assess your country's capabilities and limitations - <https://bit.ly/2M5KMcw>

Stocktake Plus App - <http://www.stocktakeplus.com.au/>

- Free phone app used to record paddock photos and land condition ratings and helps to calculate paddock carrying capacities and forage budgets.

Automating Forage Budgeting

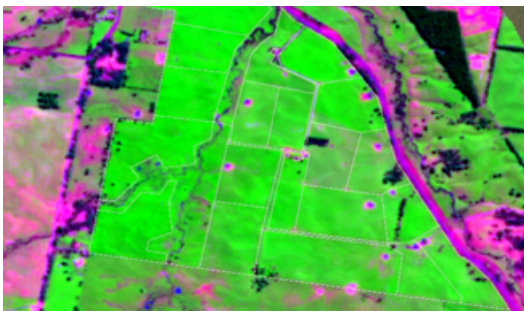
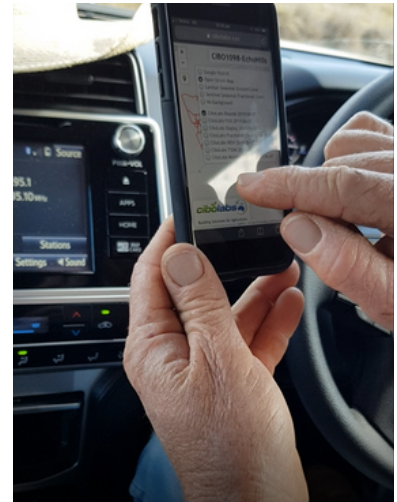
Phil Tickle

Cibo Labs

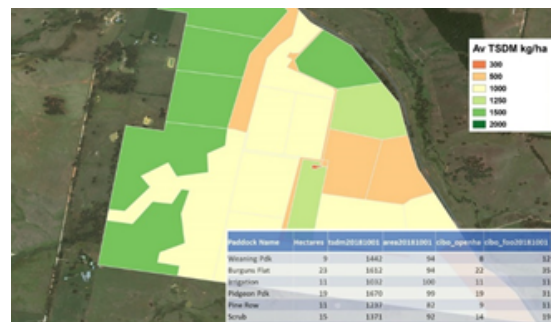
Cibo Labs is creating the environment for a producer to bring together information on productivity, profitability and natural capital at paddock or property scales, every week or month for a fraction of current costs.

The Cibo Labs service can be as simple as a “print ready” map and a spreadsheet, or a near-real-time plug-in delivering weekly estimates of pasture biomass directly into third-party farm software on a mobile device.

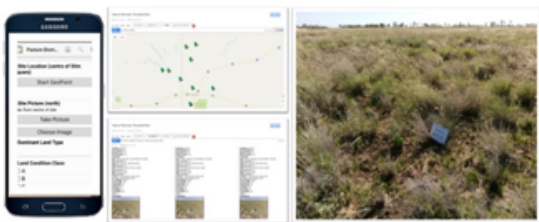
A new approach to estimating pasture biomass



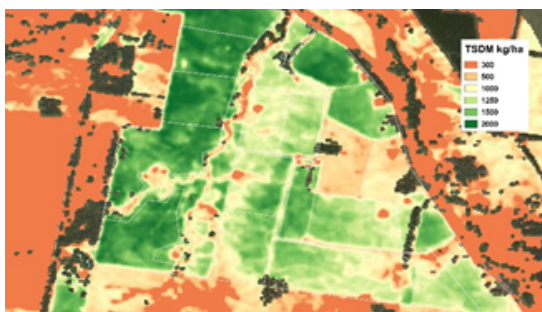
1) 10m satellite imagery with 13 spectral bands captured every 5 days. Each image has clouds & cloud shadows removed.



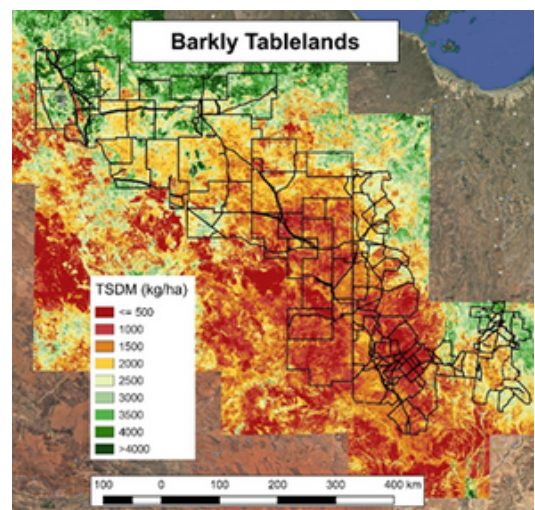
4) Feed on Offer per paddock provided as a simple “traffic light” map and spreadsheet, or as a plug-in to farm software.



2) Simple Apps for managers to collect, store and share on-ground data in real time.



3) Machine learning systems used to estimate total standing dry matter (TSDM) per hectare. Trees and other non-productive areas removed.



5) The Cibo Labs approach will work on 100 hectare or 1 million hectare properties.

Are you bogged mate?

Mary O'Brien

Are you bogged mate? aims to boost awareness and start a conversation with the broader community about the rising issue of depression and suicide rates among men in rural areas. They are confronting the challenges that country men face on a daily basis, talking about mental health, and lighting the path to support.



Need help getting out of the mud?

There's people out there that can give you a tow.

Beyond Blue

Phone: 1300 224 636

Website: www.beyondblue.org.au

After hours online chat available

Lifeline Australia

Phone: 13 11 14

Website: www.lifeline.org.au

After hours online chat available

Don't feel like talking to someone on the phone?

You can send text messages to:

Aussie Helpers

Phone: 0431 234 988

Website: www.aussiehelpers.org.au/need-help/

Worried your mate is bogged?

Look for the warning signs:

- quitting activities that were previously important
- withdrawing from friends and family
- putting affairs in order e.g. giving away possessions, especially those that have special significance for the person
- anxiety or agitation

Give your mate a hand

- Support groups aren't just there for people experiencing a rough patch, it's also for affected friends and family.
- Unsure what to do next? Talk to the professionals so you are as prepared as you can be.

Why would your mate get bogged?

There are multitudes of factors that lead to depression in rural men - droughts, floods, rising input costs, pressure from banks etc. There are a lot of challenges living in the bush and it takes guts to speak out if you're bogged.

For comprehensive information and advice please visit <https://www.areyouboggedmate.com.au/>



Walk Over Weighing

Tim Driver

Tru-Test Livestock Management

Remote WOW System

The capability of the Remote Walk Over Weighing (WOW) system to remotely identify, weigh and draft individual animals within a cattle herd has been made possible through the adoption of automated technologies. The Remote WOW is solar powered and can transmit data from a remote location to support timely, profitable management decision-making within a beef enterprise.

Accurate & Timely Management Decisions

The use of the Remote WOW has allowed for a more accurate herd profile to be created and is able to inform accurate and timely management decisions. The herd profile consists of the following (Echo Hills results displayed):

- average weight for the herd and individual animals to be tracked over time (see Figure 1)
- frequency of individual animals visiting the trough, which allows a count of animals and assists with attrition management (see Figure 2)
- herd distribution monitoring, allowing for more profitable management of livestock logistics, such as turning off animals at the correct weight for specific markets (see Figure 3)

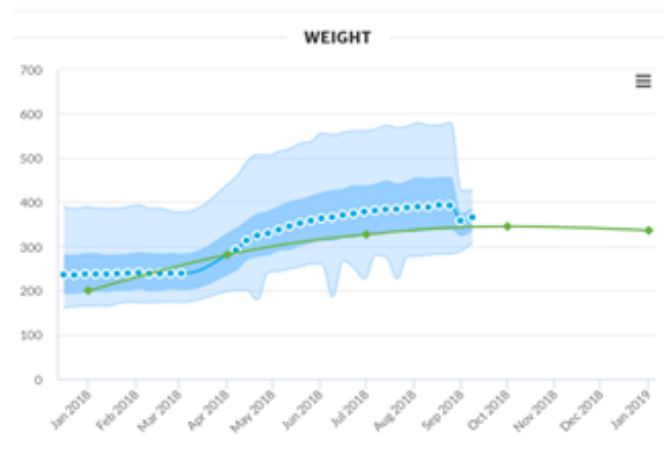


Figure 1: Herd average growth tracking



Figure 2: Number of EID's read over 1, 3 & 7 day period

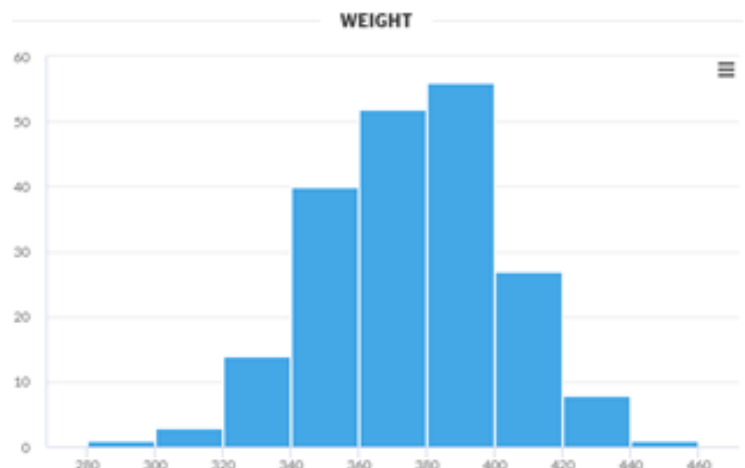


Figure 3: Herd Distribution Monitoring

Walk Over Weighing

Results from Echo Hills Trial Herd Average Weight Gain

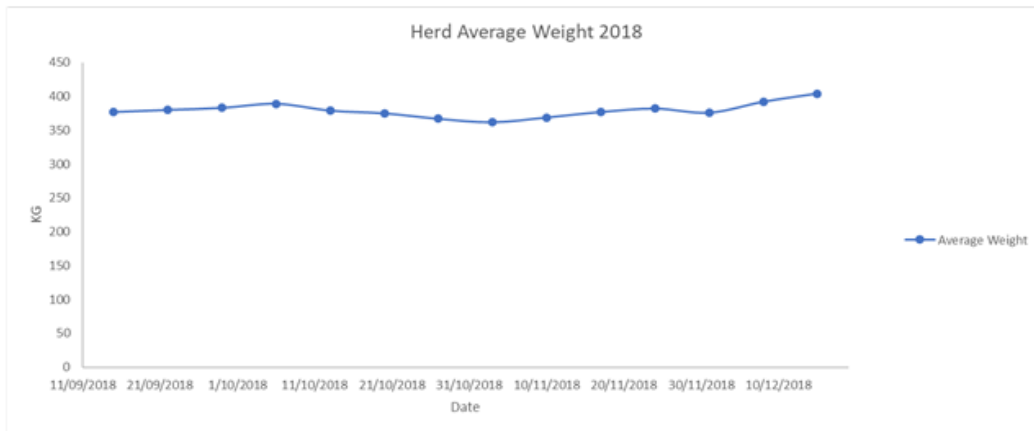


Figure 4: Weekly herd average data 2018

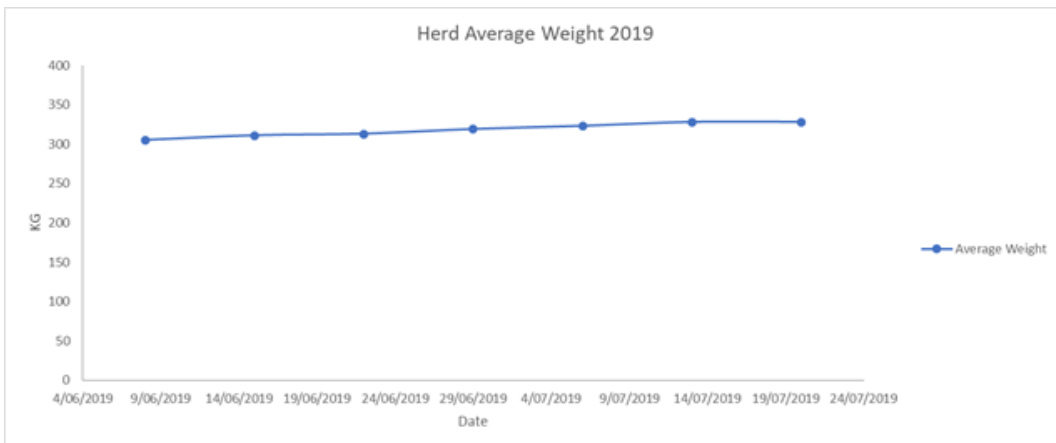


Figure 5: Weekly herd average data 2019

Individual Animal Data

The animals in the examples below are to demonstrate the variance in individual animal behaviour.

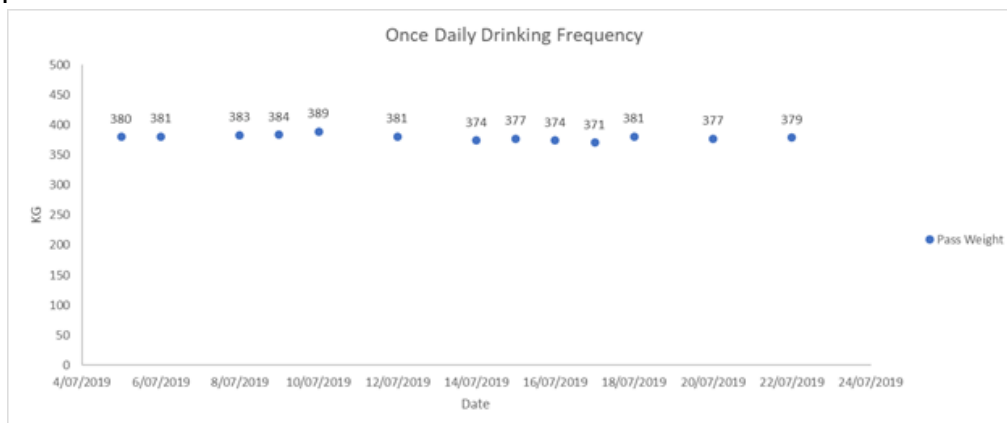


Figure 6: The animal above typically drinks once per day and exits via the Remote WOW. The weight values recorded are the weights post water intake.

Walk Over Weighing

Results from Echo Hills Trial

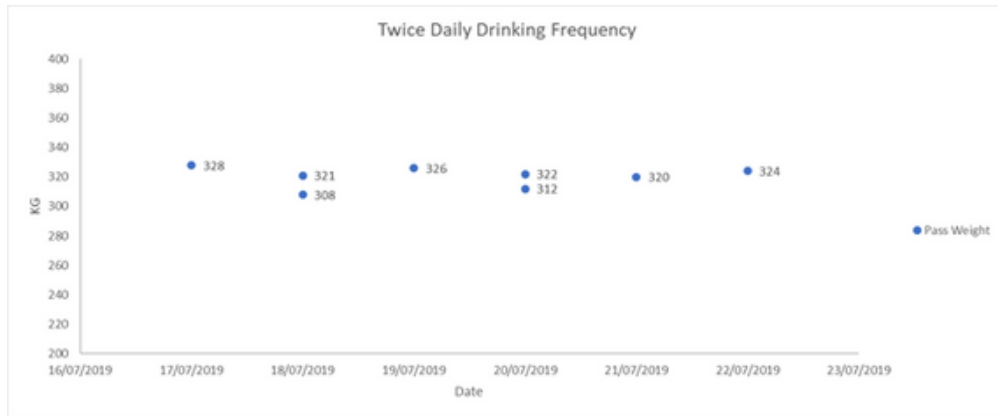


Figure 7: This animal alternates between a once daily and twice daily drinking pattern. On the 18/7 and 20/7 this animal accessed the water twice within the day and the weight values are collected as the animal exits via the Remote WOW. The weight change gives an insight to the amount of water gutful.

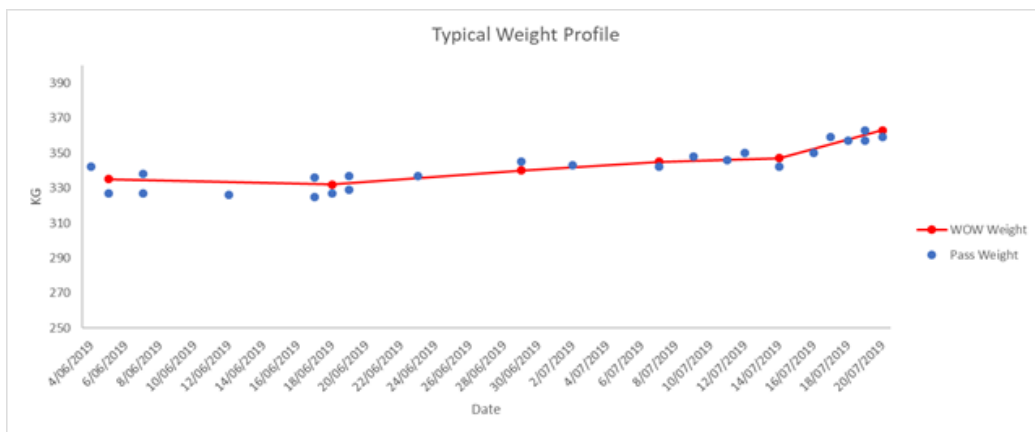


Figure 8: This animal represents a typical weight profile collected over time. The WOW algorithm assesses the pass weights and reports a “full” body weight that takes into consideration average gutful.

Water/Drinking Frequencies

The following data represents the variance in the number of visits animals make to water.

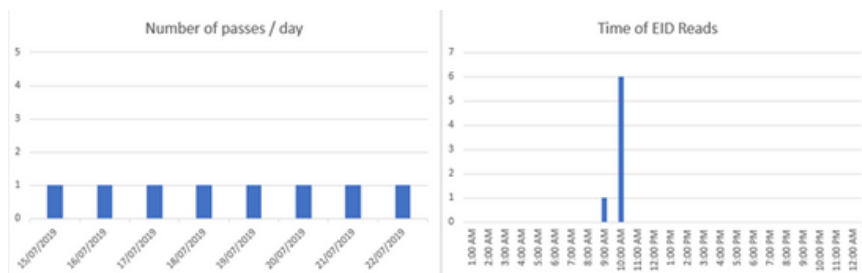


Figure 9: This animal is a once a day drinker and rigidly visits between 9-10am

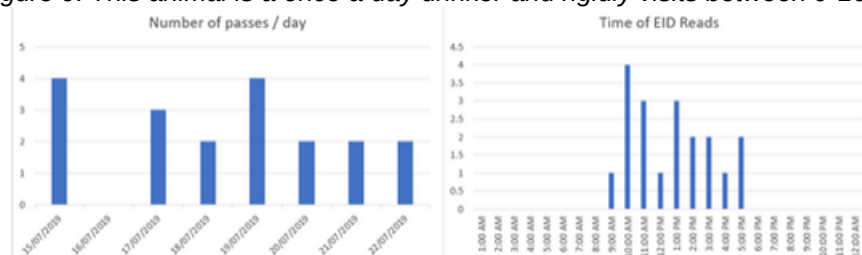


Figure 10: This animal consistently drinks multiple times per day and visits to water are spread out throughout the day

Outback Health

Dr Tim Driscoll

Royal Flying Doctor Service (RFDS)

The Royal Flying Doctor Service (RFDS) Mental Health Clinicians are specifically trained and available to assist people with a range of health and wellbeing issues.

Outback Mental Health Services Available

Drought Wellbeing Service

The Drought Wellbeing Service offers a confidential and safe environment for individuals to express their concerns and, more importantly, to help provide solutions and strategies to overcome these problems. To arrange a free appointment, or talk things through with one of our Mental Health Clinicians, contact your local RFDS team.

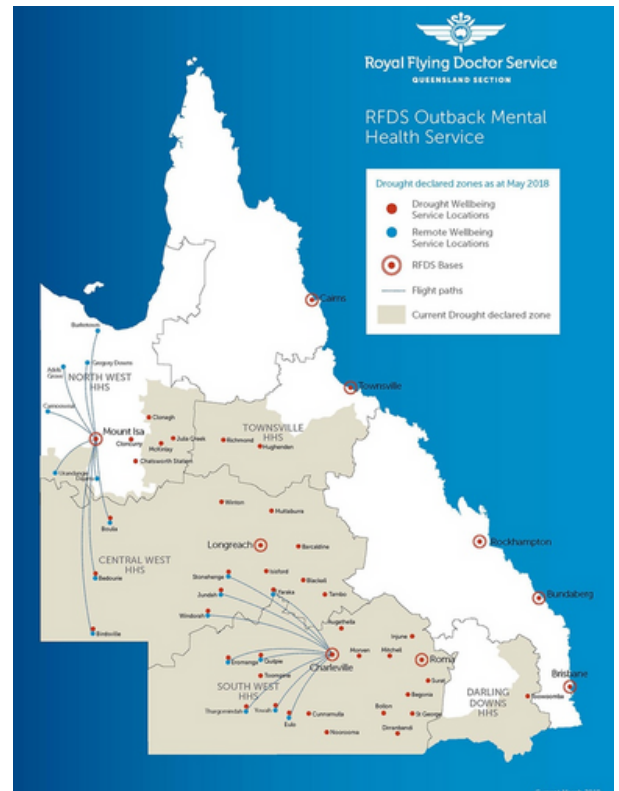
Remote Wellbeing Service

The Remote Wellbeing Service places a Mental Health Clinician in each of our primary health care clinics across North West, Central West and South West Queensland. The Remote Wellbeing Service provides face-to-face, one-on-one clinical counselling services with secondary services provided via the RFDS Telehealth phone line at no cost and with no referral.

Wellbeing Out West

The Wellbeing Out West Service provides free of charge mental health education, one-to-one counselling and support to people living and working in remote and rural parts of Queensland. The service is targeted towards anyone experiencing tough times because of worsening rural adversity out west.

For comprehensive information on services available and contacts please visit <https://www.flyingdoctor.org.au>



24 Hour Helplines

Beyond Blue: 1300 22 4636
Life Line: 13 11 14
Suicide Call Back: 1300 659 467
Mensline: 1300 78 99 78
Headspace: (12-25 y/o) 1800 650 890



