



final report

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Frontier Magazine Readership & Evaluation Research Phase I: Qualitative Findings

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***FRONTIER* MAGAZINE READERSHIP & EVALUATION RESEARCH PHASE I: QUALITATIVE FINDINGS**

Prepared for:

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Project 2599

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EXECUTIVE SUMMARY

Frontier – Preliminary SWOT Analysis

Strengths

- Informative, professional, well laid out, easy to read, good photography
- Good editorial mix, relevant cover-lines
- Magazine generally improves perceptions of MLA
- Slogan *Expanding Horizons* is meeting MLA's communications objectives
- Perfect format (size, weight, length)
- Appropriate for northern beef producers
- Most very likely to read next issue (loyalty)

Weaknesses

- Low prompted awareness, evidenced by high screen-out levels in recruitment (test this in Phase II)
- Too basic for experienced beef producers and larger properties - more depth required
- Seen as targeted toward younger beef producers, smaller properties & start ups
- The *Key Points* inset box is often missed, lead intros are weak and lack impact
- Background colours in inset boxes make it difficult to read at night
- Not enough WA information

Opportunities

- Future editorial topics – education, \$ assistance, environmental programs, cattle management issues
- Consider 1 in-depth 4 page spread feature (or occasional supplement) per issue, targeted at more experienced beef producers
- Change position (higher on page, or left/right hand side) and font size of *Key Points* inset box; make lead intros bigger, bolder and darker
- Consider increasing print size in articles slightly
- Increase coverage of WA, highlight state diffs.
- Consider increasing female contributions.

Threats

- Market context – the current drought puts extraordinary pressure on *Frontier* to be seen as adding value and 'spending money wisely'
- External factors (especially the drought and relevant economic issues) prevents ideas in *Frontier* from being acted upon

FRONTIER
SUGGESTIONS FOR CHANGE
AND FUTURE EDITORIAL

Frontier - Suggestions for Change

Future Editorial Direction

- Maintain the current range of topics but also consider including future topics (as long as *Frontier* the appropriate vehicle)
- Be more aware of (or make reference to) state differences, esp. WA
- Increase WA coverage
- Consider a 4 page in-depth feature (or supplement), targeting **more experienced** beef producers
- Provide references to research library (for detailed scientific reports)

Design Aspects

- **Front Cover Photography:** consider making photography more directly related to cover-lines (if the photo is not relevant it will alienate the reader)
- **Cover-lines:** Increase desire to open by making cover-lines bigger, bolder and more eye-catching. Consider changing position on page (higher, or RHS).
- **Article layout:** Increase size and darkness of lead intros. Be selective when using background colours. Change the position and font size of Key Points inset boxes. Consider increasing print size in articles (slightly).

Other Points

- Consider bringing forward the **mailing date** to ensure relevance to seasons in all states.
- Introduce the **ring binder**. Also consider perforated information pages (where relevant).

Future Editorial Direction

Opportunities for future editorial include training, financial assistance, environmental management programs, animal health/welfare issues and more emphasis on WA

Suggestions for future editorial included:

Training:

- Information on 'schools & courses' is desired – specific reference was made to *Grazing for Profits*, *Marketing for Livestock (KLR Marketing)* and *Low Stress Stock Handling*. Also consider including in the magazine more information on topics discussed in these courses.

Financial Assistance:

- Information on where you can get government or financial assistance for further study, property management (eg help me update my cattle yard, fencing) or environmental programs (eg Landcare)

Environmental Topics:

- Weed control (especially low chemical but effective weed control options) – specific reference was made to rat tail grass, lantana, rosewood and parkinsonia
- Erosion prevention; water management
- Baiting dingoes and dealing with wallabies
- Red deer crossing the tic line/carrying tics (DPI issue?)

Future Editorial Direction (cont'd)

Naturally the Editorial Committee needs to decide whether *Frontier* is the most appropriate 'vehicle' for some of the topics

Animal Health/Welfare:

- Low stress stock handling (comparing traditional vs. new ways of handling stock)
- Cattle trucking (eg is it better to transport night vs. day?)
- Bleeding of cattle (& prevention of *Red Water*)
- Immunisation against diseases such as *pestivirus*
- More detail on water medication (including comparing devices that do it)
- Cross breeding of cattle; bull breeding and selection of (John Bertram)
- DNA and the effect on meat quality
- Ear-tagging – the importance of doing it properly
- Stock theft prevention

Locations to Profile:

WA readers did not feel that northern WA was adequately represented in the magazine.

- Perhaps use the same topic but compare and contrast across South Kimberley, Central Kimberley and Northern Kimberley properties to see differences and successes.
- Be more aware of differences in WA – for example, cattle might be handled through the stock yard only twice a year, there is no access to molasses in WA.

INTRODUCTION

Background & Business Objectives

Taverner Research was commissioned by Meat & Livestock Australia (MLA) in 2005 to assess the viability for a new magazine targeted towards northern beef producers

The research indicated a strong need for such a magazine, and MLA have since developed and published *Frontier*

Magazine Information

Price and Circulation:

- *Frontier* is a free magazine, automatically mailed to all MLA members who are northern beef producers in Queensland, the Northern Territory and the Pilbara and Kimberley regions of WA. It is delivered as a companion publication to *Feedback*.

Frequency of Publication:

- Quarterly, in alignment with seasons, first issue Autumn 2006
- 20pp in length, A4 size

***Frontier* positions itself as: “The magazine that brings the Australian cattle industry research to life with expert on-property advice and successful producer stories”**

Research Objectives

How does *Frontier* perform in terms of meeting MLA's overall member communications objectives:

- Increase members' awareness of MLA's R&D activities; and
 - Increase members' perceived value of MLA

Specific Research Objectives

Undertake research to comprehensively evaluate *Frontier* magazine in terms of:

- Overall Readership
- First Impressions and Reactions
- Publisher Awareness and Positioning (impact on MLA perceptions)
- Magazine Objectives
- Actionability – Changes Implemented On-Property
- Target Audience
- Tone (Style)
- Editorial Content and Readership - Winter 2007
- Front Cover Design
- Article Layout
- Future Editorial Direction
- Channel and Frequency of Publication
- Retention, Storage and Post-Issue Referral

Methodology

Method Summary

- n=10 in depth telephone interviews with northern beef producers from MLA's subscription list, **who had read at least one article** in a recent Frontier issue

Recruitment Criteria:

- Locations: Qld (n=6), NT (n=2) and Northern WA (Kimberley & Pilbara regions only, n=2)
- Properties: Meet minimum herd size criteria – QLD: min 300 head (and spread of small/med/large herds), WA minimum 1,000 head, NT min 2,000 head of beef
- Aged 18 yrs plus, mix of gender
- Must be currently involved in property management and have some control over, or responsibility for, the initiation and implementation of **new** property management practices
- Recruited whether or not they like the magazine as long as all criteria met

Research Format

- Free-flowing interview, 40-45 mins
- Recorded on Digital Voice Recorder, with permission from interviewee

Fieldwork

- Conducted September 2007, by Deborah Dunn

Incentive

- \$50 per participant (3 requested donation to RFDS, 1 to WA Cancer Council)

Stimulus Material

- *Frontier* Magazine Winter 2007 issue – in 2 cases Autumn issue discussed

Sample Profile

Male, QLD, 10,000 head

Female, QLD, 1,000 head

Female, QLD, 500 head

Male, QLD, 300 head

Male, QLD, 2,000 head

Female, QLD, 30,000 head

Female, NT, 2,000 head

Female, NT, 28,000 head

Male, WA, 4,500 head

Male, WA, 7,000 head

Areas Covered in QLD Included: Somerset Dam, Mitchell, Anduramba, Roma, Wutul, Longreach

DETAILED FINDINGS

Market Context

Grim Times for Northern Beef Producers means focus on survival

Beef producers are **suffering** from the drought:

- There is *more* time spent dealing with the drought and therefore *less* time for reading and implementing new things
- The bigger properties are cutting down on staff (e.g. one stock camp vs. two)
- Many long term owners are packing up and leaving and there are fewer 'start ups'
- 'Plummeting' beef prices are a big issue
- Many are growing weaners for the first time/selling cattle much younger than before (~2 yrs)

Life is *hard*:

- Incomes are often zero
- Help is limited and often reliant on family members
- Wives are looking for answers to help their husbands deal with the drought
- No holidays for years, not even days off
- Often travel far just to get the mail (esp. WA)

There are *other* challenges:

- eg regulations for Euro market

FRONTIER: OVERALL EVALUATION

Please note that this research is exploratory in nature and is not intended to be statistically representative of MLA's northern beef producer subscription list.

Overall Readership

People read what's relevant .. but women generally seem more likely to read

How much is read?

- Many read only what's relevant to them - articles that look interesting or that are about *people* or *properties* that they know or can relate to.

"My wife reads it from cover to cover."

Male. QLD. 300 head.

How many previous issues are read?

- Most had at least looked through the last 3 issues (before Winter 2007), some had read them all cover to cover.

"I highlighted bits that were quite relevant and I put it on the desk beside my husband's bed to read it...like there was just pin pointing stuff, didn't drag on, there was just really good little bits and pieces in the articles."

Female. NT. 28,000 head.

Who reads it?

- For properties owned by a husband and wife team, **women** appear to be more likely to read it, and to read *more* of it
- When asked about this women agreed that they read much more than their husbands, are 'hungry' for information to help their husbands, and often highlight articles or points for their husband to read.
- For bigger properties with staff, the magazine is passed around (eg stock camp)

Q: *"Will you pass it on?"* A:

"Yes, it will go over to the kitchens and whoever would like to can have a bit of read (station with a stock camp and large # staff)."

Female. NT. 28,000 head.

Overall Readership (cont'd)

Read at home. Portability is not an issue. But for some (older males), paper type and background colours make reading harder at night

Where is it read? Is portability an issue?

- *Frontier* is generally read in the home, most commonly over a cup of coffee, in the kitchen or at night in bed.
 - Those that read it in bed (most commonly older males) are concerned about the background colours (see p13) and the glossy paper causing reflection.
 - Even for those that wear glasses or contacts font size does not seem to be an issue
- Only a few take it out with them 'in the ute'.
Portability is not a problem (the magazine is a good size, weight and length), therefore the format is appropriate.

"I have trouble reading at night because of the shiny paper"

Male. QLD. 300 head.

"It is handy and it is not a thing that falls to bits"

Male. QLD. 10,000 head.

First Impressions & Reactions - Positives

Overall positive reactions & impressions – Informative, Professional, Well Designed

- ✓ Most are very positive towards the magazine (keep in mind that all interviewees had to have read at least one article)

It is generally seen as:

- ✓ Informative
- ✓ Concise
- ✓ Professional
- ✓ Well laid out, easy to read
- ✓ Has good photography
- ✓ Has a good mix of articles
- ✓ Relevant (communicated via cover-lines, photography, and real *people* in real *locations*)
- ✓ Serious in tone - scientific – ‘facts and figures’, but still easy to read (good balance)
- ✓ Not overly self-promotional of MLA, but still a promotional tool for R&D
- ✓ Reinforces current property management practices and motivates future practices

“It’s full of articles that would definitely relate to your situation ... I think it is interesting to know what is happening in all around the country and yeah it’s definitely really good.”

Female. NT. 28,000 head.

“The pictures are good, they are to the point of what they do, the producer information, the little thing with the contacts, I think it is very well structured, a great little magazine.”

Female. NT. 28,000 head.

“It reinforces what I already know.”

Male. QLD. 2,000 head.

“Good stories.”

Female. QLD. 500 head.

“It is interesting to see where the properties are, the locations, and what they do and how much rain they get...It is interesting to me because I am interested in the business, it is my life.”

Male. QLD. 10,000 head.

First Impressions & Reactions - Negatives

The negative readers (few) have political views of MLA – all this aside, the magazine is seen as too basic for experienced beef producers

- For those that **don't** like the magazine, this is due more to their (political) views on MLA than the magazine per se

"It's a waste of money, and you can tell them I said that."

AND

Female. QLD. 1,000 head

- These producers tend to be very experienced (and often have large herd sizes/properties)when probed and asked to put their political views aside they see it as too basic and targeted towards **less experienced** or **younger producers** (this needs to be quantified in Phase II).

"It reads like a Year 10 assignment. Too basic. Like telling a bus driver how to drive a bus."

Female. QLD. 1,000 head

"You could use it for the 'kids', by 'kids' I mean under 25 yrs, it would be a useful tool for them, they might learn something."

Female. QLD. 30,000 head

"It's ok, but not enough depth/detail. Eg the research work – would like much more results, more information. Don't glide across it. Maybe more pages, longer articles. I'm not online, so don't know where all these reports go. Is there a library?"

Male. QLD. 300 head

FRONTIER **PERFORMANCE vs. OBJECTIVES**

Publisher Awareness & Positioning

Most readers are aware that *Frontier* is published by MLA

Who is the publisher?

- Most were aware that *Frontier* is published by MLA.
- In one case, an interview was replaced, as the respondent thought we were referring to *Cattle* magazine and had confused it with *Frontier*.

What does *Frontier* say about MLA as an organisation?

- Represents the industry Australia wide
- Passes on the 'truth' about research (unbiased)
- Lots of facts and figures but do tell a story
- MLA is trying to protect the beef industry
- MLA are innovative

Awareness of MLA's involvement with the R&D in the magazine

- Most were aware that the R&D content was MLA related

"I think it represents the industry and it seems to be very focused on innovations and passing on the truth about the research that has been carried out and what worked and what didn't and they seem to have factual information and figures and upcoming reviews and I think it's very good."

Female. NT. 2,000 head

"I just put (it) as they are protecting the meat business and the cattle industry and they are trying to give us some help."

Male. QLD. 10,000 head

"I think it says they're organised, trying to keep in touch and keep people informed, I think it is positive for the MLA."

Female. QLD. 500 head

"It is good to see all the research that is coming out of what they do and what they offer."

Female. NT. 28,000 head

"They're into research and development. It's one way of showcasing the information – getting R&D into the coalface."

Male. QLD. 2,000 head

Magazine Objectives

Frontier is meeting its positioning & objectives

“Frontier is a quarterly magazine that offers northern beef producers practical, easy to read information to improve on-property profits and sustainability.”

“Frontier – the magazine that brings the Australian cattle industry research to life with expert on-property advice and successful producer stories.”

- The two objectives above were read out to all participants. Most agreed that the objectives were ‘on the mark’.
- Where opinions differed, key words that struck a nerve were ‘*profits*’ and bringing research ‘*to life*’.

Actionability – Changes Implemented On-Property

Few changes are made directly as a result of reading *Frontier*. *Frontier* does, however, reinforce current practices and acts as a *motivator* for the future

- Given the drought many property managers are finding it hard to have the **time** to implement new practices.
- Few changes are made directly as a result of reading *Frontier*, but many thought they would do so in the future assuming conditions are right.
- There is considerable variation in locations, climates, property sizes/types – so changes would only be made if **applicable** to the reader's property. Examples included:
 - rotational watering instead of cell grazing
 - introduce water medication
 - improve heifer pregnancy rates
 - try different types of weed control
- *Frontier* does however, act as a strong 'reinforcer' – readers are relieved to know other people are doing the same (or that they are doing what's recommended) and glad to get a sense of what worked or didn't work.

"Well if they suggest something and I think it's going to be of help, I will do it."

Male. QLD. 10,000 head

"It's always got new articles coming through about different people and what they are doing and I guess it just keeps you a bit more inspired and just different ideas really, and it is nice to see some good stories."

Female. QLD. 500 head

Who are your readers?

Frontier is definitely seen to be targeted towards northern beef producers (both male and female), but be careful of alienating the more experienced readers

- Most stated that the magazine was targeted toward northern beef producers. However, experienced producers with larger herds felt that it was targeted to less experienced producers with smaller properties.
 - Suggest test in Phase II the hypothesis that *“The more experienced the beef producer the less relevant the magazine.”*
- Despite the apparent gender bias in readership, the magazine is still targeted to the right audience, that is, it does not come across as ‘too blokey’. However, it could benefit from more female contributions.

Q. *In terms of who the magazine is targeting, do you think the magazine is targeted equally to men and women or doesn't it matter?*

R. A: *“I think if a woman is involved and she wants to find more information, I think it is relevant. It would be pretty good to see more female contributions.”*

Q: *“I am just trying to get the sense of whether the boys or the males are actually reading the magazine, do you think they only read it when prompted?”*

A. *“Yes, like my husband will see it and he will flick through it but unless I say ‘Oh did you see that article?’, I am more likely to read an article than what he is. I guess because they are doing much physical work and a lot of the time it is the women doing the office work as well.”*

Female. QLD. 500 head

FRONTIER
CURRENT EDITORIAL & DESIGN EVALUATION

Editorial Content & Readership – Winter 2007

Seen as having a good editorial mix for most

- Good mix of content
- Useful articles
- Informative
- Provides validation & reinforcement

The most popular articles in the Winter 2007 issue were:

- Better Grazing Systems at Pigeon Hole (p6)
- Wambiana Station – overcoming the humps in managing parkinsonia (p15)
- Pasture benefits from rotating water points (p11)
- Feeding Fertility (p8)

“It was really good, full of information, the information was very concise and to the point and I say you can use it.”

Female. NT. 28,000 head

“It reinforces what I already know – like a check or reminder.”

Male. QLD. 2,000 head

Q. “Which article was most relevant to you?” A:

“The fertility feeding, like the spiking with calves heifers, we would like to do a lot more with, you know they were saying how to get your cows to get that second calf....it is quite relevant to what we are trying to achieve here and I thought it was very good.....The Pigeon Hole stuff....we knew that anyway, we have a fair bit to do with that. There was a bit of interesting stuff on the parkinsonia and stuff like that.”

Female. NT. 28,000 head

Tone

It's serious and scientific, but still easy to read

- **Serious** in tone (*"It's all about the business, not the Birdsville races"*)
 - Not 'newsy' or 'frivolous' or 'dry'
 - Factual
 - Contains scientific data (facts and figures, R&D)
 - But the balance of charts and figures vs. text is about right
 - The key "*human*" (read "emotional") component is that the articles talk about *real* people and *real* locations, and show photos of *real* people and *real* locations

"... Yes, you get a general introduction and general idea and then go from there, I don't think you want it more serious really because it is such a small magazine, well I think anyway, to give too much detail at the start I think. "

Female. QLD. 500 head

- Balanced in that it reports negative results (*what doesn't work*) as well as the positive

Front Cover Design

The desire to open the magazine is driven by the *relevance* of the front cover-lines and photography

- Readership is driven by the **relevance** of the cover-lines and photography on the front cover. These and these alone capture and focus the attention of the reader
- The front cover does not generate a sense of buzz or excitement about the magazine (esp. if plain, brown)
- The front cover photography works well, but **only** when the content demonstrates relevance to the reader (*“I don’t use horses, so went straight to the articles to see if there was anything I’d bother looking at.”* – Male, WA, 4500 head)
- The slogan (where noticed) is communicating effectively - about helping beef producers increase their knowledge and expand their outlook on the way they manage their cattle property

FRONTIER 
EXPANDING HORIZONS



Suggest make cover-lines bigger and bolder (or move up page) and consider making photographs more directly related to cover-lines

Article Layout

Generally the article layout is well received but a few adjustments could maximise readability and impact

- Generally the article layout is well received. Success appears to be driven by:
 - article **relevance** to the reader
 - appropriate **photography** (helps to demonstrate relevance)
 - The use of **inset boxes** – *Producer Information* and *More Information* are very popular.
- However, the *Key Points* inset box is often missed (but liked when noticed)
- Lead intros are often weak and lack impact. These are also often missed – they could be larger and bolder and dark (black fonts are easier to read)

Consider changing the position of the Key Points inset box and increasing font size. Put more emphasis on lead intros.

BREEDER MANAGEMENT

Feeding fertility

MAKING SURE EVERY FERTILE SECOND-CALF HEIFER DELIVERS A CALF CAN BE ONE OF THE SINGLE BIGGEST PRODUCTIVITY GAINS A PASTORALIST CAN MAKE – BUT IT TAKES FEED AND SOME SERIOUS MANAGEMENT.

Part of the solution lies in 'spike feeding', a strategy in which first-calf heifers are given supplementary feed rations to ensure they are able to contribute to good weaner weight and cycle for their next pregnancy.

Geoff Fordyce, Charters Towers-based veterinarian with Queensland Department of Fisheries, said the stress, her ovaries don't fully develop and her bodily processes to shut down, but also the last to fire up again in good times.

Particularly in the tropical north, first-calf heifers have to simultaneously contend with feed scarcity at the break of the season, a hungry calf, and their own growing bodies – a combination of factors that Dr Fordyce says regularly interrupts ovarian function. Often this can contribute to weaning percentages from second-calf heifers that are typically 50 per cent or less.

"Spike feeding of heifers in their first pregnancy may not appear right, as they often are in the best condition of any animals in the herd," Dr Fordyce said.

"But it is these heifers which lose condition rapidly after calving and then have major problems cycling again. His own research suggests that pregnancy rates of first-calf heifers can be boosted 15 per cent by spike feeding, even in good years.

To ensure maximum pregnancy rates when joined as first-calf heifers, pregnant replacement maiden heifers need adequate nutrition going into their pregnancy.

Whole cottonseed, cottonseed meal or high-quality spelled pastures are also effective for spike feeding strategies.

In order to deliver this ration, Dr Fordyce said, heifers have to be properly managed. They need to be kept in good condition, and they need to have regular access to the supplement, which should be topped up regularly.

"Spike feeding isn't basic management. It's more like third level management, after the pastoralist has addressed issues of feed and water availability, weaning, supplementation and vaccination strategies."

"To be able to effectively spike feed, heifers need to be in good condition, and they need to have regular access to the supplement, which should be topped up regularly.

LEAD INTRO WEAK

Dr Fordyce notes, "The simple message is that it is better to try and hold fat on the cow's back before calving than to try and put it back on after calving."

Condition at calving can also have a strong bearing on the survival of the heifer herself. If she is in poor condition and cycling is delayed, the subsequent calf may not be old enough to wean before the onset of the next dry season, compromising pregnancy rates through to the next calving.

Energy is a key requirement – metabolic rate can be fulfilled.

That needs to be balanced with a protein ration, like 100 per cent urea or a protein meal, in order for the animal to effectively use the energy.

KEY POINTS OFTEN MISSED

- First-calf heifers are often unable to deliver a second pregnancy the following year because nutritional stress has shut down ovarian functions.
- Spike feeding refers specifically to the practice of supplementing pregnant females in the last trimester of pregnancy.
- 'Spike feeding' helps maintain better condition through calf-rearing, and enhances subsequent conception rates.
- The strategy requires tight management of joining times and cow classes.

MORE INFORMATION

> Dr Geoffrey Fordyce, QDPIRF
Phone: 07 4754 6133
Email: geoffry.fordyce@dpi.qld.gov.au

> For more information on spike feeding, you can download the QDPIRF note 'Spike feeding for the north Queensland beef industry' at www2.dpi.qld.gov.au/beef/3152.html

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GRAZING MANAGEMENT

Better grazing systems at Pigeon Hole

INTERIM RESULTS FROM A SUSTAINABLE GRAZING PROJECT AT PIGEON HOLE STATION IN THE VICTORIA RIVER DISTRICT SUGGEST THAT WET SEASON SPELLING IS AN ECONOMICALLY VIABLE OPTION FOR NORTHERN PRODUCERS AIMING TO INCREASE BEEF PRODUCTION.

Heytesbury Beef and Meat & Livestock Australia implemented a five-year research project to investigate how changes in grazing management might increase profitability through more effective pasture utilisation and higher animal production while maintaining rangeland condition and minimising impacts on biodiversity.

Dr Leigh Hunt from CSIRO Sustainable Ecosystems, part of the Pigeon Hole project research team, explained some of the underlying issues.

"Additional to the cost-price squeeze that affects northern beef producers there is wide recognition that a large part of the landscape isn't actually being used by cattle," he said.

"Basically the property poorly developed. Large areas have relatively few fencing and watering points, so cattle can only use parts of the landscape.

"This work hopes to distribute grazing pressure more widely to make better use of the forage, run more animals and increase returns."

There are six broad components to the Pigeon Hole project – grazing management systems, optimum pasture utilisation levels, grazing distribution, remote water point monitoring, biodiversity impacts, and economic impacts.

Different grazing systems

Dr Steve Petty, Heytesbury Beef's Pigeon Hole project leader, explained the grazing management systems component.

"The traditional approach to grazing management is to set stock; to run cattle continuously in large paddocks with little change in the numbers of cattle run between years," he said.

"Under set stocking systems in extensive areas of northern Australia, the best that we could hope for was to utilise between 10 and 20 per cent of the grass that grows each year.

Whereas more intensive systems can, in theory, utilise up to 30 to 50 per cent of the grass and do that on a sustainable basis.

"Our objective was to test various systems and see if we could achieve sustainable stocking rates significantly higher than an set stocked system."

The trial evaluated set stocking alongside three other grazing management systems – set utilisation, rotational grazing with wet season spelling, and cell grazing.

The control set stocking system carried 15 animals per square kilometre, a rate set to be sustainable in 70 per cent of years.

"With this system you have the same cattle numbers every year but you

with the amount of grass that grows," Steve said.

LEAD INTO WEAK

the stocking level ended up being very similar to the set stocked control."

The third treatment was to implement wet season spelling for a six week period, which was expected to increase pasture utilisation to around 30 per

"We had a three-paddock rotation where every wet season one paddock got an early wet season spell, another got a late wet season spell and the third got none," Steve explained.

All of the paddocks were stocked during the dry season at the standard rate,

of the spell, the system spelling means the plants to flower and set seed and the spelling protects the plants when they are first regrowing at the beginning of the wet season, when they are particularly sensitive to grazing. This usually translates into a higher sustainable pasture utilisation rate and stocking rate.

This system required fencing for extra paddocks, new watering points and higher labour inputs for stock management and pasture monitoring.

The paddocks were stocked to achieve a conservative utilisation rate of 25 per cent, in an attempt to improve the condition of the pastures and maintain the productivity of the herd.

To date this system has achieved a

KEY POINTS

- Interim results from a sustainable grazing systems experiment indicate that wet season spelling is an economically viable option for sustainably increasing beef production.
- Practising rotational grazing with a six week spell over the wet season gives pasture across the whole paddock a chance to recover from grazing.
- A cell grazing system also increased beef production but was discontinued after four years when it proved logistically very difficult and uneconomical in this environment.



AERIAL VIEW OF COWS IN A CELL (LEFT), AND AT THE TROUGH (RIGHT), FOLLOWING THE TRIAL. HEYTESBURY HAVE DECIDED NOT TO CONTINUE CELL GRAZING BECAUSE THE LABOUR REQUIRED AND LOGISTICS TO MANAGE IT MADE IT DIFFICULT TO JUSTIFY ECONOMICALLY.

branding percentage of 74 per cent, similar to the set stocked system. Additional analysis is required to confirm the pasture response.

The fourth treatment, time control or cell grazing, was the most intensive grazing system to be trialled. As per guidelines from Resource Consulting Services, a 33km² paddock was subdivided by electric fencing into 26 paddocks of 1-2km² in size and the animals were moved based on pasture growth every two or three days in the wet season and every two or three weeks in the dry season.

The cell grazing system proved to be problematic to manage at Pigeon Hole Station.

Initially, there were high set up costs for labour and materials and then the stock management required a large input of skilled labour.

"We needed appropriately trained and skilled staff and also needed to retain these staff within this extensive environment," Steve said.

"During the wet season we attempted to plan to move animals to the most productive areas of the paddock, but this was a real challenge too.

"The storms would never come when we thought they would and we found it

PRODUCER INFORMATION

PRODUCER
Heytesbury Beef

LOCATION
Pigeon Hole Station, NT

ENTERPRISE Beef cattle

GOAL
To increase profitability through sustainable grazing management

LIVESTOCK 14,500 head

PASTURES
Native pasture including blue grass, Mitchell grass, Flinders grass, silky brown top and annual sorghum

SOIL TYPES Black basalt clay soil

ANNUAL RAINFALL 743mm

with a 25 per cent average. We've only done it for four years so it may require additional years to get those significant improvements in stocking or utilisation rate."

The branding percentage achieved in the cell grazing system was 65 per cent over the 2004 to 2006 period, which was lower than any of the other systems trialled.

In this experiment, Steve said that the moderate to high stocking densities and the moderate animal production did not compensate for the high infrastructure and management costs of running cell grazing.

These data suggest other grazing systems would be more viable in the VRD.

"We have chosen not to continue the cell grazing treatment because we've found that the labour required and logistics to manage it in this extensive environment has made it difficult to justify economically."

Animal production

The paddocks were stocked with a range of livestock. Each treatment had a core group of breeders, two age groups of steers (6-18 months and 18- some spayed heifers.

the growth rate of everything except bulls, as well as the fertility of the breeders and the mortality of all of those classes of animals," Steve said.

In terms of animal production, there was little difference between all of the systems.

Final outcomes

The researchers hope to have analysed the project data by early 2008 and plan to present the project findings as a series of grazing management and infrastructure guidelines for northern beef producers.

MORE INFORMATION

> Dr Steve Petty, Heytesbury Beef
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Email: steve@northerndevelopment.com.au

> For more information on the Pigeon Hole project, MLA has published a series of brochures on each section of the research. These are available from the MLA website www.mla.com.au under 'industry programs'.

VERY USEFUL

OFTEN MISSED

USEFUL IF YOU WANT MORE INFO

TABLE 1: Cost and benefits of grazing systems

	Commercial	Set stocked (intensified)	Wet season spell	Cell grazing
Total capital costs (\$/km ²)	11,400	16,574	16,229	17,135
Total capital costs (\$/AE)	950	727	892	899
Stocking rate (AE/km ²)	10	22	28	25
Operating costs (\$/AE)	80	74	80	131
Gross returns (\$/AE/year)	187	204	190	192
Gross returns (\$/km ² /year)	1,870	4,488	5,331	4,803
Net returns (\$/AE)	107	130	110	61
Net returns (\$/km ²)	1,070	2,860	3,091	1,528
ROIC* (%)	9	17	19	9

* ROIC calculated before interest, replacement capital and tax.
Commercial = c' 150km², >5km to water; Set stocked = c' 40km² paddock, <3km to water; wet season spell = c' 40km² paddock subdivided to spell 1/3 each wet; cell grazing = Time controlled grazing system.
One AE is the intake of an adult dry cow consuming enough feed to maintain a constant body weight of 420kg from one year to the next. The AE of a breeding cow is for the cow alone, not for a cow/calf unit.



FRONTIER **DISTRIBUTION**

Channel & Frequency of Publication

MAIL is the best channel – but perhaps move forward the mailing date to ensure seasonal relevance

Is the channel (mail) appropriate?

- Yes - mail is the most appropriate channel. Not all properties are online. Some wanted the option of downloading the articles online. A few asked if there is a research library for reports from the R&D research
- The condition on arrival is always good
- However, note delays in picking up the mail for remote properties (especially WA). If the issue mails late, and they are late getting it, the magazine *issue* is in danger of being irrelevant to the current or next season

“Probably a bit late to change anything this season, by the time I get it and get a chance to read it, but I’ll certainly keep it in mind for next year.”

Male. QLD. 2,000 head

Are you happy with getting four issues per year, in line with the four seasons?

- Most were happy with a quarterly publication in alignment with seasons
- A few would like it monthly

Retention, Storage & Post Issue Referral

The ring binder idea is well received



- Idea of A4 ring binder well received
- Filing/storage is usually undertaken by the 'wife'
- Many have noticed the holes punched
- Note: sending the ring binder may not necessarily encourage 'post' referral (that is, going back to previous magazine issues for reference). Consider sending out an Indexed Table of Contents (by Topic) with the binder to encourage this.

Some new ideas to consider:

- A perforated tear out information page?
- Free (MLA branded) set of highlighters?

PLANNING FOR PHASE II: QUANTITATIVE RESEARCH

Directions for Phase II: Quantitative Research

Objective

To quantitatively and statistically validate the findings from Phase I, as well as to create important readership, satisfaction, and readership outcomes benchmarks that provide a solid understanding of how Frontier is currently being used, and the impact it is having amongst the readership base across northern Australia

Directions for Phase II: Quantitative Research

Readership

- Assess 'true' readership: % read / % received (note, however, this would require that we decrease the minimum herd size requirements and randomly sample the list [to be discussed with MLA]
 - Test for gender bias in readership - the hypothesis that *women are more likely to read it than men* (need to ensure adequate numbers of each gender in the sample)
 - Assess prompted awareness: % aware of Frontier
- Measure proportions of people who are positive vs negative for both *Frontier* and MLA
- Test the hypothesis that *the more experienced the producer the less relevant the magazine*

Future Editorial Direction & Design Aspects

- Assess how much detail the bulk of readers desire – and test to what extent 'how-to' (instructions) are required for those that want more detail
- Include testing of future topics (top 3 spontaneous mentions)
- If assess print size, ask if they need glasses/contacts for reading
- If assess whether to put articles online, ask if online at home (and other Internet related questions such as Internet speed and type of connection)

APPENDIX

- Discussion Guide for Beef Producer Interviews
