CQ Beef
Information for rural business in Central Queensland

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Cover image taken by Queensland Country Life photographer Sarah Coulton at Peter and Vicki Howard’s property, Duckponds, just outside of Emerald.
The business of beef

The majority of producers are skilled in running their beef business, but some struggle when it comes to managing their beef business.

- What are the key profit drivers for the beef business?
- What is my cost of production?
- How do I gauge if my business is truly sustainable?

These are the questions CQ graziers have been asking themselves, after attending the Grazing BMP + People and Business workshops run this year.

The workshops, run throughout the catchment from Clermont in the north to Injune in the south, were attended by 110 graziers from 87 businesses.

Guest presenter at the workshops, Steve Banney of Steved & Banney Agribusiness, challenged attendees to:

- Identify the profit drivers for their business
- Analyse their economic sustainability
- Understand the difference between compliance and management accounts
- Calculate some key performance indicators for their business
- Learn how to become profitable.

Unfortunately many grazing businesses rely upon their accounting records to provide them with information about the financial health of their business.

The problem with accounting records is that they are designed to minimise tax, rather than provide a true picture of how a business is operating.

Management accounts take into consideration market values and the realistic depreciation of assets so that the business can work out its return on assets and total business return. Along with accurate cattle records, good management accounts are fundamental to a successful beef business.

Completing the people and business module is a good starting point before looking into the other four BMP modules—grazing land management, soil health, animal production and animal health and welfare. After completing the people and business module, participants have a good understanding of how to improve both their people and business knowledge and skills.

Upcoming people and business workshops to be held in the catchment are:

- Injune - August 11
- Taroom - August 12
- Theodore - August 13
- Bukundlang - August 25
- Emerald - August 26
- Rolleston - August 27

For further information, contact Jo Gangemi on 0477 345 843.

KEY POINTS

- Good business decisions are based on good information.

Producers with well-organised management records have the data needed to analyse their business.

Grazing businesses that know their profit drivers and cost of production can make more effective business decisions. Accounting records designed to minimise taxation liability are not designed to analyse business performance.

Joanne Gangemi
FutureBeef, DAF and MLA
0477 345 843

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What can be done about Indian couch in sown pasture

Introduced species impacts negatively on stocking rates and liveweight gains

INDIAN couch ([Bothriochloa pertusa]) is a hardy perennial grass that was introduced into Australia due to its potential grazing value as a pasture, for urban lawns and ovals, and for soil conservation in areas of high erosion.

Indian couch is now naturalised throughout grazing lands in central Queensland, and is reducing stocking rates and animal liveweight gain especially where high production sown grasses, for example panics, Rhodes, buffel were once the dominant species.

This spread has been due to a range of factors, including both seasons (long dry spells or very wet periods) and management (over stocking for too long), however soil fertility (sown pasture rundown) also plays a significant yet relatively unknown role.

One of the symptoms of pasture rundown (caused by reduced availability of nitrogen in the soil) is a change in pasture composition away from fertility demanding grasses (panics, Rhodes, buffel) to species that are more tolerant of low fertility.

Indian couch is well adapted to a wide range of soils and environments. It is very tolerant of low soil fertility and grazing pressure, and is an aggressive coloniser spreading by both seed and runners. While Indian couch has been present in many paddocks for many years, after recent wet summers numerous producers are now reporting Indian couch has vigorously invaded rundown buffel grass pastures where its presence was previously unnoticed.

This example demonstrates the complex interaction of seasonal conditions and pasture rundown, even when conservative stocking rates are utilised. So what can be done about this invasion in a sown pasture?

Nitrogen supply is normally the most limiting factor to productivity of a sown grass pasture. The options therefore are to improve nitrogen supply from either releasing unavailable N forms through cultivation, fertilising with an N fertiliser or incorporate legumes into the pasture.

Economic analysis by DAFF in the Sown Pasture Rundown Project show the most profitable long term option is to include an adapted legume into the pasture. A practical example of how legumes are improving nitrogen supply to maintain the vigour and production of a buffel grass pasture is from a trial currently under way near Moura.

In 1997 one paddock was planted to buffel grass only (cv Biloela and Gayndah), and the adjacent paddock was sown to buffel (same cultivars) and Caatinga stylo (cv Primar and Unica). After establishment both paddocks were dominated by Biloela buffel. After 15 years the grass-legume paddock was dominated by the sown species (i.e buffel and stylo) while the grass-only paddock has much higher levels of Indian couch and other grasses that are more tolerant of low fertility (e.g native blue grasses, Sabi grass) (Table 1).

As both paddocks have been conservatively stocked since sowing, this result is most likely due to greater N availability from the legume allowing buffel to remain competitive, whereas lack of N in the grass paddock means the competitive advantage shifts to grasses with greater tolerance of low fertility.

We know that soil nitrogen supply can have a significant role in determining grass species dynamics in a pasture. But what can be done if the sown pasture is dominated by Indian couch, or if Indian couch only forms a small percentage of the pasture?

In summary, Indian couch is a hardy perennial grass species that many cases has taken some time to naturalise across central Queensland. Solutions to reduce its impact on grazing production will take time and effort, but by knowing how it grows and what can be done to improve the competitive advantage of other grass species will go a long way to reduce the invasion of Indian couch.

APPENDIX

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As both paddocks have been conservatively

### TABLE 1 (below): Composition, dry matter (DM) yield and frequency in grass only and grass plus legume (Caatinga stylo) paddocks.

<table>
<thead>
<tr>
<th>Pasture species</th>
<th>% dry matter yield</th>
<th>Grass only</th>
<th>Grass + Legume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caatinga stylo</td>
<td>3</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Buffel cv. Biloela</td>
<td>32</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Buffel cv. Gayndah</td>
<td>22</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Qld bluegrass</td>
<td>16</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Indian couch</td>
<td>15</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Forest bluegrass</td>
<td>5</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Windmill grass</td>
<td>2</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Sabi grass</td>
<td>2</td>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>

**Promotion runs from 1 May 2014 to 30 September 2014**

For further details contact your local reseller. 

*Promotion runs from 1 May 2014 to 30 September 2014*
TO provide a better understanding of beef industry practices, DAFF has been surveying beef producers in selected regions. This information will be used to better target research and extension activities. Herd and grazing management information was collected in 2011 and 2012 from 213 producers in the Burnett Mary, Fitzroy, Mackay Whitsunday and Burdekin regions. This article covers the vaccines being given to some key classes of stock.

BULLS

The survey showed that despite bull vibriosis vaccination, being a long standing recommendation, over half the producers in the four regions were not vaccinating their bulls for vibriosis (Figure 1). As bulls transmit the disease, there is considerable risk of vibriosis reducing pregnancy rates in herds where bulls are not vaccinated. In most situations an effective bull vaccination program prevents reproductive losses. Maiden heifers are the most susceptible breeder group as they will not have been served by the bull and will not have been exposed to the bug. In herds with unvaccinated bulls, it is commonly detected by low heifer conception rates and delayed conceptions.

The data in Figure 1 shows very low levels of bull vaccination with either a leptospirosis or “7 in 1” vaccine in all regions. While leptospirosis naturally doesn’t cause abortion in bulls, they can become asymptomatic carriers and transmit the organism. Females need to be vaccinated against it to prevent the disease causing late term abortions and new born calf deaths; and it is most effectively managed if all animals in the breeding herd are vaccinated. Protection can be provided by using a leptospirosis vaccine or a “7 in 1” vaccine which also provides protection against the clostridial diseases (black leg, tetanus, p uly kidney, black disease and enterotoxaemia). The choice of a leptospirosis only or a “7 in 1” vaccine for bulls should be based on the risk the clostridial diseases present in the property situation. Your local veterinarian or beef cattle advisor can provide advice.

The surveys also show very low levels of bull Three Day vaccination. Three Day sickness can cause loss of fertility in bulls and in severe cases, it can kill valuable bulls – especially older and heavier animals that have never been exposed to the disease before. Three Day vaccination is particularly important where single sire mating groups are used and when bulls have been imported from the southern states.

BREEDERS AND REPLACEMENT HEIFERS

Leptospirosis vaccination of breeding females can prevent it causing late term abortions and new born calf deaths; it is also a critical strategy for reducing the risk of transmission to humans. Humans can be exposed to the leptospira organisms when they come into contact with cattle urine and foetal tissue. Vaccination rates for leptospirosis for both breeders and replacement heifers were low. Across the four regions, the percentage of producers not using a leptospirosis vaccine or “7 in 1” vaccine for breeders ranged from 57 per cent to 86pc (Figure 2). For replacement heifers it ranged from 49pc to 77pc of producers. Vaccination is best performed at pregnancy test time as the protection inferred by the vaccine lasts only about 12 months and vaccinating early pregnant animals ensures they have maximum antibody protection when they most need it.

The choice of a leptospirosis only or a “7 in 1” vaccine for breeders should be based on the risk the clostridial diseases present in the property situation. If these diseases do not present a risk to breeding

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females, leptospirosis vaccine is cheaper than a "7 in 1" product. Heifer selection and management strategies are also a consideration. Where yearling mating is undertaken, using a "7 in 1" vaccine at branding and weaning means that the heifers are ready for mating at the end of their weaning year without any additional handling. With two year old joining, there is more time to fit vaccinations in with handling and heifer selection and a program of two initial doses of leptospirosis vaccine prior to joining can be a cheaper option. Your local veterinarian or beef cattle advisor can provide advice on the appropriate strategy for your situation.

WEANERS

Figure 3 shows that the percentage of producers vaccinating weaners against clostridial diseases ranges from 85pc in the Burnett Mary to 57pc in the Burdekin. Tetanus is the most common risk for calves everywhere, while blackleg can cause serious losses in low lying areas and especially after floods. The higher risk in the southern and eastern parts of Queensland is reflected in the higher vaccination rates in the Burnett Mary. The choice of "5 in 1" or "7 in 1" should be based on the class of animal and its future role in the herd and management. There is little value vaccinating steers with "7 in 1" as leptospirosis cannot affect their productivity and there is far less chance of humans being exposed to urine when handling steers. However, as discussed earlier using a "7 in 1" vaccine may be the most effective strategy for heifers.

The relatively low rates of tick fever vaccination is an interesting finding as it means large numbers of cattle in these regions are potentially at risk of tick fever. While many of these cattle will have regular exposure to ticks it does not necessarily mean they have developed resistance to tick fever. In 2013, there were a number of serious cases of tick fever in central Queensland.

Another consideration is that the Brahman content of herds has tended to reduce over the last 10 years, potentially increasing the risk. Vaccination is particularly important in the marginal tick areas and when tick burdens become light. Tick fever vaccine is a relatively dear product but a good investment as it confers lifetime immunity. While the product only has a three day shelf life and has to be dispatched from Brisbane, the fact that producers in very isolated areas have been using it for years indicates the logistic issues are manageable. The easiest approach is to plan to give weaners the vaccination the day they are turned out to the weaner paddock after the weaner handling period.

Emily Barbi
DAFF Rockhampton
07 4923 6226

ABOVE: Figure 2. Percentage of producers vaccinating breeders and replacement heifers with leptospirosis or "7 in 1" vaccine in the Burnett Mary (BM), Fitzroy (FZ), Mackay Whitsunday (MW) and Burdekin (BK) regions.

LEFT: Figure 3. Percentage of producers undertaking key weaner vaccinations in the Burnett Mary (BM), Fitzroy (FZ), Mackay Whitsunday (MW) and Burdekin (BK) regions.
Timing and balance are crucial in a beef business

A written plan will ensure that activities happen when they should

YOUR beef business will be more profitable and easier to run if you get the timing of important management operations right.

A written plan can be the difference between the best of intentions and activities happening when they should.

To help you get it all down on paper we have included two planners – including one that is already filled out as an example plan for a breeder herd in the Emerald area.

The other larger planner is yours to adapt to your business and stick on the fridge or the office door as a reminder.

In a control-mated herd it is important to get calves dropping at the right time of year as the system depends on cows having enough body condition to get pregnant when the bulls go back in.

As the cows have to calve and lactate at the end of the dry season it is critical not to have cows calving too soon as they can lose too much condition.

This problem is particularly serious in years with tough dry seasons and or a late seasonal break such as 2009, 2012 and 2013.

For good re-conception rates cows need to be in store to forward store condition (BCS 3-4) at the end of the dry season when they calve. If they are not this year you need to have a good look at how you can improve next year.

We aim to have the bulk of calves arriving six to eight weeks before your green date. Your green date is the date at which there is a 70 per cent chance of having 50 ml of rain over three days.

To check your green date on Rainman and analyse rainfall patterns in your area, contact your local beef extension officer.

It is important to have a good stocktake of the condition of the pasture and the cattle and do a pasture budget at the end of the wet season. Knowing how much feed you have in front of you enables better and more timely decisions on stock numbers and marketing.

Weaning saves 10-15 kg of breeder body weight per month in the early-mid dry season and 5-10 kg per month in the late dry season.

The difference of a body condition score of three and a score of two is 30 to 50 kg liveweight. Weaning is the most effective tool for managing breeder body condition as it has twice the impact of dry season urea supplementation on cow liveweight.

A pregnancy test early in the dry season (same muster as weaning) will identify animals that can be sold and have more feed over the dry season for the remaining pregnant cows.

Understanding the cattle tick life cycle and strategically timing tick treatments to manage the spring rise in tick numbers when hatched larvae are climbing grass ready to attach themselves to passing hosts will save chemical and labour.

The life span of larvae ranges from two or three weeks in hot dry seasons to five or six months over some winters. Strategic spelling of pastures is also important in tick management.
If you need some help with your tick management plan call the DAFF call centre 13 25 23 and ask to speak with your local Biosecurity Queensland officer. Having a plan for the turnoff of dry animals will help you make important decisions.

An animal turned off late in the year before Christmas may benefit from supplementation, whereas supplementation may be wasted on an animal turned off in the new year after the benefit of the wet season and compensatory gain.

Bull vaccinations should be given at least two months before joining. *Vibriosis* vaccination is critical for bulls and a *leptospirosis* vaccination is recommended for breeding females. It also reduces the risk of humans contracting *leptospirosis*.

*Breeding soundness evaluations (BBSEs)* should also be performed two months before joining as stress will have a short-term affect on bull fertility.

**FOR ASSISTANCE:**

If you need help with your plan please contact your local beef extension officer:

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mick Sullivan</td>
<td>07 49 360 239</td>
</tr>
<tr>
<td>Ken Murphy</td>
<td>07 49 236 237</td>
</tr>
<tr>
<td>Matt Brown</td>
<td>07 49 360 324</td>
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<tr>
<td>Jo Gangemi</td>
<td>07 49 929 178</td>
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<tr>
<td>Ross Dott</td>
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</tbody>
</table>

*Notes*

1. Only heifers selected for breeding service at Loganbank and Proserpine.
2. Only steers reared on stations are selected and ratio intact.
3. Ewe lambs will require 3 doses of vaccine with re-treatment by breeder, if required.

An example Emerald breeder herd calendar of operations.

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### Hard Management Calendar Template

<table>
<thead>
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<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
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<th>Sep</th>
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<td>protein &amp; energy</td>
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<td>protein &amp; energy</td>
<td>Good</td>
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Your fridge or office door herd management planner
Clermont Cattlemen’s Challenge 2013/14 results

Clermont challenge showcases district’s beef industry

THE 2013/14 Clermont Cattlemen’s Challenge wrapped up at the Clermont Show on May 27.

The Challenge is a popular competition that showcases the district’s beef industry. The Challenge comprises 5 official classes and three unofficial classes:

OFFICIAL CLASSES:
- Weaner judging - pen of 5 steers most suitable to grow for the 100 day grain fed market;
- Grain fed steer judging - pen of 3 grain fed steers most suitable for the 100 day grain fed market;
- Carcase competition - single carcase most suitable for the 100 day grain fed market;
- Weight gain - pen of 3 steers with the highest overall weight gain;
- Eating quality - taste test competition (judges choice).

ADDITIONAL CLASSES:
- Highest weight gain on grass (9 months)
- Highest weight gain on grain (100 days)
- Eating quality - taste test competition (consumers choice)

Each official class provides 5 points to the exhibitor that wins first place, 4 points for second, 3 points for third, 2 points for fourth and 1 point for fifth. The points are tallied up and the exhibitor that gains the highest point score is crowned the ‘Clermont Challenge Cattle King’. No points are allocated for the additional classes, but prizes are awarded to the winners of these classes.


CLERMONT CATTLEMEN’S CHALLENGE ACTIVITIES

With 17 exhibitors each entering 5 steers there was a total of 85 steers in the 2013/14 Clermont Cattlemen’s Challenge.

WEANER JUDGING (OFFICIAL CLASS)

Weaner judging took place at the 2013 Clermont show in May 2013. First place was awarded to Greg and Alicia Magee of St Omer, second to Laurel Hills and third to Trelwaney. The average weight of the weaner steers was 294kg (range; 230-355kg).

HIGHEST WEIGHT GAIN ON GRASS (ADDITIONAL CLASS)

The steers were agisted at Wyena, Clermont, for the grass phase of the Challenge (27/5/13-7/2/14). The steers were weighed intermittently and diet quality was assessed monthly with Faecal NIRS. Diet quality was high over the grass phase (Dry Matter Digestibility 56-65 per cent; Crude protein 8.7-9.6pc). The average liveweight gain of the steers was 145kg (0.57 kg/hd/day) (Table 1). Steers entered by Jeff and Sarah Cook of Etonvale had the highest weight gain with a total gain of 184kg (0.72 kg/hd/day). These were followed by Tayglen (175kg, 0.68 kg/hd/day) and Merrigang (173kg, 0.68 kg/hd/day). The highest individual steer gain was 207kg (0.81kg/day) and the lowest 89kg (0.35 kg/day).

HIGHEST WEIGHT GAIN ON GRAIN (ADDITIONAL CLASS)

Steers were inducted into Paringa Feedlot, Capella, on 7 February 2014. The average weight of the steers on entry was 439kg (range: 345-532kg). Steers were grain fed for 100 days. The steers were weighed on 16 May 2014, after 98 days on feed. The average liveweight gain of the steers on grain was 214kg (2.18 kg/hd/day) (Table 1).

Steers entered by David and Kate Moller of Trelawney and Peter Turner of Carrie Downs had the highest weight gain on grain, with a total gain of 239kg (2.44 kg/hd/day). These were followed by Etonvale (237kg, 2.42 kg/hd/day) and Old Banchory/Clydevale (229kg, 2.37 kg/hd/day). Highest individual steer gain was 296kg (3.02 kg/day) and the lowest 116kg (1.18 kg/day).

PARINGA FEEDLOT FIELD DAY

A field day at Paringa Feedlot on 16 May 2014, was attended by approximately 50 locals as well as two...
The 17 steers selected for the carcase competition were transported to the JBS Swift Dinmore plant on 18 May 2014, and killed the morning of the 19 May 2014. The bodies were judged in accordance to the Challenge carcase specifications for nine carcase attributes (Table 2). The taste test competition was held at the Clermont Show.

## Carcase Competition
### OFFICIAL CLASS
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## Carcase Results
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<table>
<thead>
<tr>
<th>Block</th>
<th>Weight (kg)</th>
<th>Shoulder (cm)</th>
<th>Rump (cm)</th>
<th>Fat depth (mm)</th>
<th>Eye muscle area (cm²)</th>
<th>Fat Colour Score</th>
<th>Marbling Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>607</td>
<td>11.7</td>
<td>18.3</td>
<td>5.9</td>
<td>90</td>
<td>5</td>
<td>0.5</td>
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<tr>
<td>2</td>
<td>723</td>
<td>11.7</td>
<td>18.3</td>
<td>5.9</td>
<td>90</td>
<td>5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Carcase Attributes
- **Marbling Score**: 0.5
- **Eye Muscle Area**: 90 cm²
- **Fat Colour Score**: 5

### Tasting Process
The steaks were rested for 2 minutes before being cut into 2 cm cubes by professional butchers, and served. The judges provided an eating quality score out of 100 based on their perception of tenderness, juiciness, flavour and overall liking. The cube rolls were randomly assigned a number between 1 and 17, and the exhibitors names excluded from the competition. A panel of 4 judges consisted of Isaac Walker; Clermont beef producer Bill Moller, and Belyando Produce owner Daryl Manely. The judges scored the entries on a scale using a live polling system, which displayed the taste test results within minutes of the meat being consumed. Everyone had a great time guessing which steaks belonged to which exhibitor, and watching the positions of the meat change on the leader board as scoring progressed throughout the event. Carl and Andrea Moller of Springvale won the highest eating quality score from the consumers (73.3pc). This was closely followed by Wyena (73.0pc) and Calveston (72.9pc). The average eating quality score from the consumers was 61.4pc.

### Overall Weight Gain
Highest overall weight gain was won by Jeff and Sarah Cook of Etonvale for the second year in a row with an average weight gain of 440 kg (0.68 kg/day). This was followed by Wyena (71.0pc). The average eating quality score from the consumers was 61.4pc.

### OVERALL WEIGHT GAIN
The steers selected for judging were transported to the Clermont Show on 25 May 2014. After an overnight wet curfew the steers were weighed. Average weight of the exhibitors' pens of steers was 659 kg (range: 667-723 kg). Highest overall weight gain was won by Jeff and Sarah Cook of Etonvale for the second year in a row with an average weight gain of 440 kg (0.68 kg/day) over the 364 days of the Challenge. Second place went to Parnu (567 kg gain, 0.59 kg/day) and Treliwney was third (400 kg gain: 0.58 kg/hr/day).

### GRAIN-FED STEER JUDGING
The steers were judged as a pen of 3 steers most suitable for the 100 day grain fed market. First place was awarded to Ross and Sam Martyn of Old Banchory, second place to Laurel Hills and third place to Tayglen. Overall Clermont Show Cattlemen’s Challenge competition results, Jeff and Sarah Cook of Etonvale, Clermont, were crowned the overall Clermont Show Challenge Cattle King and Queen. Jeff and Sarah gained 15 out of a possible 25 points, from the 5 official classes of the competition. Table 3 summarises the overall competition results.

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New research to assist Queensland’s grazing industry

GRAZIERS who rely on leucaena as a feed source for their herd will welcome new Queensland Government research exploring the shelf-life of the live bacterial inoculum that blocks the plant’s toxicity. The main toxin is mimosine, which is a non-protein amino acid of varying concentrations in the leucaena plant and occurring at highest concentrations in new leaf growth.

Department of Agriculture, Fisheries and Forestry staff from the Rumen Ecology Unit, located at the EcoSciences Precinct in Brisbane, have begun this research as part of a Meat & Livestock Australia-funded project.

DAFF has supplied graziers with the means to counter the toxic affects of the plant, in the form of a rumen bacterial inoculation, for the past 17 years. As part of the new research, the bacterial composition of the inoculum is being determined and historical samples are being used to investigate whether the inoculum has changed significantly over the past 17 years of production.

The inoculum contains Synergistes jonesii, a rumen bacterium that breaks down DHP, a toxic by-product of the ruminal breakdown of mimosine. Rumen contents from steers fed leucaena were initially used to start the first fermentation to produce the inoculum, while current batches are produced by subculturing from older batches.

The inoculum is mixed with cryoprotectant (glycerol) and stored frozen until it is shipped to producers. Rumen contents from steers fed leucaena were initially used to start the first fermentation to produce the inoculum, while current batches are produced by subculturing from older batches.

The results from these experiments will provide better information for maximising the survival of Synergistes jonesii/along the inoculum supply chain. This in turn will allow beef producers to maximise the benefits of the inoculum for increasing the production benefits of leucaena.

This article was run in The Leucaena Network News February 2014. Visit the Leucaena Network website for more information about leucaena www.leucaena.net.au.

DAFF research Dr Scott Godwin and technician Ms Anita Maguire discussing real time PCR results that determine the numbers of Synergistes jonesii present during a fermentation producing the bacterium inoculum.

Bucks for Brains - are you eligible for a $300 payment?

An incentive payment of $300 is available to cattle producers that have animals showing signs of the fatal disease Bovine Spongiform Encephalopathy (BSE).

Along with the incentive payment, eligible producers will also receive subsidised veterinary examinations and full laboratory investigations of alternative diagnoses.

Veterinarians collecting samples for the Bucks for Brains program will have funded opportunities to undertake investigations with new and existing clients, and access to incentive payments to help cover investigations, collecting and documenting submissions, and freight of samples to the laboratory. The full laboratory investigations available under this program assist veterinarians to provide a high quality service to their clients.

SIGNS OF BSE

Do you have a bull or heifer and are you worried about your flocks and your farm? Do you know whether your flocks and your farm are BSE free? If you have a bull or heifer in your flocks and you are unsure whether your farm is BSE free, you may be eligible for an incentive payment of $300.

The surveillance program requires Queensland to collect and test brain samples from a targeted number of cattle each year and we need your help to meet this target. The program also makes it possible to identify what disease cattle submitted may have been suffering from, and to prevent or treat those conditions in future.

What to do

If you think you have an eligible case, contact your local Biosecurity Queensland veterinarian or inspector to have the case assessed.

Veterinarians are encouraged to familiarise themselves with the eligibility criteria for the Bucks for Brains program and to take up opportunities to submit eligible cases. Veterinarians are invited to visit www.daff.qld.gov.au for information on submitting samples and documentation to the Biosafety Science Laboratory.

THE NATIONAL TSE SURVEILLANCE PROGRAM

The National TSE Surveillance Program helps demonstrate to trading partners and the World Organisation for Animal Health that Australia is free of transmissible spongiform encephalopathies (TSE), including BSE in cattle.

The occurrence of BSE here would also impact Australia’s ability to trade to the EU and to the World Organisation for Animal Health that Australia is free of transmissible spongiform encephalopathies (TSE).

The surveillance program requires Queensland to collect and test brain samples from a targeted number of cattle each year and we need your help to meet this target.

Do your bit to help maintain Australia’s favourable trading status by keeping a close eye on your animals for any signs of BSE. If you notice increased apprehension and nervousness in your cattle, a staggering gait, increased sensitivity to touch and sound or muscular tremors, act now. Cattle at least 30 months less than nine years old are eligible to participate in the Bucks for Brains program.

Consider the following points when deciding whether to submit sample:

1. The animal must be 30 months old or under and less than nine years old at the time of death.
2. The animal must be dead or euthanased.
3. The sample must be comprised of at least one brain.
4. The animal must not have been born on a property which had BSE.
5. The animal must not have been tested as part of a surveillance program.
6. The animal must not have been treated with an analogue of BSE.
7. The animal must not have been sexed or pregnancy tested.
8. The animal must not have been a stock purchase.
9. The animal must not have been processed for consumption.
10. The animal must not have been a companion animal or a pet.
11. The animal must not have been an offal product or a meat product.
12. The animal must not have been a product of an animal that has been tested as part of a surveillance program.

For information on submitting samples and documentation to the Biosafety Science Laboratory, visit www.daff.qld.gov.au.

The full laboratory investigations available under this program include examination of the brain, TSE screening tests, full laboratory investigations of alternative diagnoses, and access to incentive payments to help cover investigations, collecting and documenting submissions, and freight of samples to the laboratory. The full laboratory investigations are available under this program to assist veterinarians to provide a high quality service to their clients.

To find out more information, visit www.daff.qld.gov.au or call 13 25 23.

AVERAGE 1kg liveweight gain per beast per day on Leucaena

“WONDERGRAZE”

STOCKS AVAILABLE SCARIFIED WITH INNOCULANT AND FREIGHT SUPPLIED.

Email: leucseeds@bigpond.com

LEFT: Peter and Tim Larsen

RIGHT: Wondergraze seed supplied in 20kg lots scarified immediately prior to packing in sealed pails

TOP RIGHT: 2-year-old Wondergraze and Buffel

“CEDARS PARK”

Banana, 4702, Queensland, Australia

Ph: Peter & Jan (07) 4995 7228; Tim & Rhyll (07) 4995 7287

For more information, visit www.futurebeef.com.au or call 13 25 23.
Trialling two remote technologies

Producer group trial based at Richmond, NW Queensland

IN 2011 a producer group at Richmond in North West Queensland started trialling two remote technologies as part of a Meat and Livestock Australia Producer Demonstration Site (PDS).

The project, coordinated by Cloncurry-based FutureBeef extension officers Rebecca Gunther and Emma Hegarty, demonstrates using remote equipment to automatically collect animal weights, draft animals, and photographically monitor waters, livestock in the yards, and pasture condition.

The automated weighing and drafting unit allows livestock to be monitored remotely at water yards. Cattle are weighed every time they walk over the weigh bridge to exit the main water yard. Each animal’s NLIS tag is scanned with an Allflex panel reader and matched to their live weight, date, and time by a Tru Test XRX8000. This information is then sent to a website via mobile phone coverage using Observant software. Satellite and UHF frequency equipment is also available to use with the system if mobile coverage is not sufficient.

A drafting unit attaches to the weighing unit and can be used to automatically draft stock on live weight or NLIS tag number into different yards. This enables drafting on sale weight specifications or weaning weights or even to compare stock with or without access to a treatment or supplement in the yards.

The remote weighing and drafting technology has allowed pin point timing of key management practices by monitoring whether live weights are rising, levelling or dropping. The group has been able to specifically target the introduction of dry lick supplementation when live weights begin to plateau. The live weight data can then be used to see if there is a response to the supplement. Significant cost saving can be achieved by not supplementing too early and allowing pin point timing of key management practices for achieving the supplement. Significant cost saving can be achieved by not supplementing too early and allowing pin point timing of key management practices for achieving the supplement.

The project has been very beneficial in demonstrating the practical application of the system, its potential, and its limitations. Importantly livestock need to be trained to use the spear traps which are an integral part of the system, as well as being trained to become accustomed to walking over the weigh bridge and waiting for their gate to open in front of them. Since large paddocks in extensive grazing operations have multiple waters, it may be necessary to set the system up in a large holding paddock with controlled water, or accept monitoring of just a percentage of livestock in the paddock.

Monitoring cameras were the second remote technology demonstrated. One camera was set above the “in” spear to monitor the water trough and tank levels in the main water yard, while a second camera was located two kilometres from water to monitor pasture condition.

Both cameras are programmed to take a set number of photos a day, that are uploaded via mobile phone coverage to a linked website. The cameras can also be instructed to take a photo on demand, via a link on the website. Satellite cameras are available for areas outside of mobile coverage.

The remote camera was found to be an excellent tool in increasing the amount of water runs required in day-to-day management. The ability to check the water trough levels daily on the website reduced the number of times required to check the trial paddock in person, saving a one hour drive round trip to the trial paddock each time.

It was estimated that such savings in labour and fuel could pay for the system in as little as 3 months. A satellite camera would take slightly longer, but payback time still measured in months, not years.

With labour costs at a premium, the project has been successful in demonstrating the potential of remote technologies to improve management efficiencies in beef enterprises. The technologies and applications will only improve in time.

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Beast about to exit the main water yard and cross walk over weigh bridge to be drafted one of three ways; bush and no water, or accept monitoring of just a percentage of livestock in the paddock.
The three-year MLA-funded Producer Demonstration Site (PDS), called ‘The economic performance of beef cattle finishing systems used on the North-Eastern Downs’ has concluded and provides interesting data for producers. The PDS was run on Ranald and Sally Ferrier’s property, Bannockburn, at Bell, which is managed by Steve Munge.

The demonstration compared the performance and economics of running cattle on improved grass pastures, elevated (predominantly frost-free) leucaena-grass pastures, oats and an on-farm feedlot. None of the cattle received a hormonal growth promotant (HGP) during the main trial period.

In 2011 eighty-seven head of mostly crossbred EU steers averaging 340kg on entry were assessed over a 364-day period. One quarter of the mob grazed improved pastures of bambatsi, gatton panic, rhodes and creeping bluegrass for the whole period. The others initially grazed Cunningham leucaena-grass pastures for six months until June before splitting three ways onto Drover oats, into the feedlot and back onto leucaena. This was repeated in 2012 over 320 days with 100 head of EU steers averaging 350kg on entry.

It was found that cattle on leucaena achieved a higher average daily gain than cattle on the sown grass pastures and were also able to be stocked at a higher rate. These combined factors resulted in double the live weight produced per hectare in 2011 and more than double in 2012. The average daily gain on leucaena-grass pastures was approximately 0.7kg/hd/day across both years and the steers on improved pastures averaged 0.59kg/hd/day in 2011 and 0.48kg/hd/day in 2012. During the winter of both years, steers on improved pastures lost 0.25kg/hd/day. Those on elevated leucaena, which retained some leaf during winter, however, added 0.1kg/hd/day in 2011 and 0.56kg/hd/day in 2012. Over summer live weight gains were similar on either grass or leucaena pastures.

To monitor diet quality regular NIRS faecal samples were collected. Generally the crude protein and dry matter digestibility was higher for steers on leucaena than on improved pastures. Levels of 15 per cent crude protein and 64pc dry matter digestibility were reached for steers on leucaena.

The economic performance of the finishing systems was compared annually on the partial return on livestock capital invested. The annual figure was also broken into two periods, that being prior to June while all cattle were on either leucaena or improved pastures, and then from June onwards after being designated to either leucaena, improved pastures, oats or the feedlot. As the partial return looked at the value added by the steers less variable costs but not all overheads, the results are relative to each other only. The analysis took into consideration the opportunity cost of the steer capital, pasture development and land capital, along with the costs of labour, treatments, feeding and selling. The analysis found that steers which were on leucaena first and then finished in the on-farm feedlot recorded the highest annual return, followed by steers that grazed leucaena year-round, then ones that grazed leucaena for six months and finished on oats. The steers which grazed improved pastures for the entire trial period recorded the lowest return in both years. Table two gives the returns for each system. These results are dependent on many factors, including rainfall, cattle performance, cattle prices and grain prices.