

# CQ BEEF

Better Economic and Environmental Futures

CQ Issue 11 APR 2011



## Management following the 2010–11 wet season

Mick Sullivan, DEEDI, Rockhampton

The 2010–11 summer has been memorable with a very welcome early seasonal break and then large areas of Queensland affected by severe flooding and Cyclone Yasi. Except for flooded country it has been an excellent summer for grass growth and cattle production. Many areas have also experienced above average autumn rain.

The good conditions have provided herds with an excellent opportunity to recover from the severe 2009 dry season. However, it is important to manage breeder herds on the basis that the good conditions will not continue and prevent the problems that can develop following very wet years.

Now is the time to implement herd management strategies that will ensure breeding cows are in condition score 3 or better at the end of the dry season. It is also a good time to plan grazing management to ensure (a) ground cover of 50% or better is maintained and (b) a plan is in place to spell paddocks in spring to improve composition and speed recovery following flooding.

**Grazing management** Spelling flood damaged country is critical to its recovery. With the growing season ending it is timely to assess pasture yields and plan grazing. Flood damage will have affected the short term carrying capacity of some country. Spelling damaged country over the next growing season is the best strategy to achieve a speedy recovery. A full spring and summer spell is best but where this is not practical, spelling to allow a minimum of six weeks growing in spring will give good results.

**Feed quality** A long growing season often produces a big body of low quality feed. This exaggerates the seasonal reduction in feed quality and diets can fall below maintenance relatively early in the dry season. Faecal NIRS is a useful tool to assess how your feed quality is going. The low conception rates experienced on many properties in 2010 were due to very poor feed quality in the 2009 dry season.

### Key points

- **Grazing management including spelling is critical to the recovery of flood damaged pastures.**
- **Monitoring feed quality and animal condition is critical as above average rainfall often results in a large quantity of low quality feed over the dry season. Faecal NIRS enables timely assessment of feed quality.**
- **Delaying weaning could result in major losses of breeder body condition and lower conception rates in the 2011–12 mating.**
- **Pregnancy testing (best done 2–3 months after the bulls have been removed) will identify if conception problems have occurred due to the effects of flooding or disease and enable planning for reduced future turnoff numbers.**



## Editorial

Welcome to the April 2011 CQ *BEEF* newsletter. The 2010-11 summer has been very challenging with exceptional rainfall and destructive flooding. Included in this edition are two case studies of the recovery of pastures in the Belyando post the 2008 floods compiled by Emerald based Pasture Agronomist Paul Jones. Very wet years often produce challenges in the following dry so Mick Sullivan has an article on management considerations post a big wet season.

Amy Burroughs has provided an article on buffalo fly control options and we have an article which addresses some of the potential health problems associated with leptospirosis. The Grazing Best Management Practice project is an important new initiative of FBA, AgForce and DEEDI. Lindy Symes the project leader provides an update. This edition's producer profile visits the Ballentine family who are members of the Moura group. We hope you enjoy our 11th issue.

Byrony Daniels, CQ *BEEF* editor

Please use the feedback sheet provided to let us know of any topics you would like covered in the newsletter. Alternatively if you know of anybody who would like to receive the newsletter, ask them to fill out their details and return the feedback sheet.

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**Weaning** With cows in good condition and plenty of paddock feed it is tempting to delay weaning. Mustering difficulties can also delay weaning in very wet years. However, the 2011-12 conception rates will be primarily determined by breeder body condition in late 2011. Late weaning in combination with lower quality feed is the major cause of dramatic drops in breeder condition and cows being in light condition at the start of mating. Weaning saves 10-12 kg of cow liveweight per month. A weight loss of 30 kg equals a drop of one condition score.

**Pregnancy testing** Floods put cattle under considerable stress and the mixing of mobs can spread disease. This combination could have affected conception rates. Timely pregnancy testing enables conception rates to be determined and strategies put in place to deal with impact of a smaller 2011-12 calving on future sales. Early detection of conception problems is critical to identifying possible causes.



## Stocktake Balancing supply and demand

### Key features of *Stocktake*

- Paddock based assessment with recognition of the different land types within the paddock.
- Grazing land monitoring in terms of ecosystem health and long-term paddock productivity.
- Managing and interpreting data in a way that is useful for business planning.
- Quantifying the potential for improvement in productivity.
- Forage budgeting. E.g. How long is the feed going to last with the present number of cattle/sheep in the paddock?

### Workshop cost

- The Stocktake workshop is a one-day course and costs \$330 per business (for up to two people from the business).
- Workshop costs cover the training course run by experienced FutureBeef extension officers, all resource materials, morning tea and lunch.
- Stocktake is FarmReady approved # FTRCo272, see [www.farmready.gov.au](http://www.farmready.gov.au) for information on eligibility and forms to apply for this funding.

### For further information please contact:

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[jane.hamilton@deedi.qld.gov.au](mailto:jane.hamilton@deedi.qld.gov.au)

### Upcoming Stocktake workshops

#### Rockhampton

Date: Tuesday 26 July 2011  
Venue: To be confirmed  
Time: 8:30 am to 4:00 pm

#### Biloela

Date: Wednesday 27 July 2011  
Venue: To be confirmed  
Time: 8:30 am to 4:00 pm

#### Middlemount

Date: Thursday 28 July 2011  
Venue: To be confirmed  
Time: 8:30 am to 4:00 pm

#### Emerald

Date: Friday 29 July 2011  
Venue: To be confirmed  
Time: 8:30 am to 4:00 pm

Each workshop is limited to 18 participants so early registration is essential!

A monitoring package that 'takes stock' of your grazing resources and points to improved management decisions.

This one-day practical training workshop steps participants through the technical concepts and demonstrates field assessment techniques and database use.

**D**uring the current warm and wet conditions of a Queensland summer, buffalo fly infestation is a common sight for many producers. This article will discuss:

- Factors to consider when deciding whether or not to treat for buffalo fly.
- Treatment options available to control buffalo fly infestations.

### *What is buffalo fly and why is it an issue in beef cattle production systems?*

Buffalo fly (*Haematobia irritans exigua*) is a common pest of beef cattle in Queensland. Infestations have the potential to reduce production. Moreover fly worry is an important animal welfare issue as cattle become irritated; showing signs of restlessness and reduced feed intake.

### *Factors to consider when deciding whether or not to treat for buffalo fly*

It is hard to predict what effect fly infestations will have on your animals. Individual cattle vary in their response to buffalo fly infestations according to how sensitive they are to the insect.

The decision to treat for buffalo fly should take into consideration the following factors:

- How many animals are affected?
- What is the degree of affliction? Are there large numbers of flies present on animals?
- Are your bulls worried by flies?
- Do you have dark coloured animals? (dark coloured animals have been shown to attract higher fly numbers).
- Are there any animal welfare issues? Are animals restless?
- Are there lesions/pinkeye developing in your cattle?
- Are animals hard to muster and work through the yards?
- Does there seem to be a loss in production due to fly worry?
- The efficacy of control methods on your property.

- Costs associated with the treatment such as mustering.

The general advice is to treat animals when there are more than 200 flies per animal (100 on each side) or when more susceptible cattle, such as bulls, show fly worry. Certainly if you feel that animals are suffering or lesions and/or pinkeye are developing, then treatment should be undertaken. If no economic benefit would be gained from treating for buffalo fly (so long as animal welfare is not being compromised) then the decision not to treat would be justified.

### *Chemical vs non-chemical control methods*

There are several treatment options available to control buffalo fly. These include non-chemical and chemical methods. It is important with non-chemical methods to ensure that they are practical on your property. Chemical methods have the issues of resistance and residues associated with them. Correct application of registered products for the control of buffalo fly is a critical component in the strategy to delay the development of resistance. Failure to observe the directions in regard to mixing rates, application method and frequency of application will increase the risk of resistance developing.

Under-dosing animals also contributes to developing resistance to chemicals. Alternating the class of chemical used from year to year is another way to reduce the risk of resistance developing. It is also important to abide by withholding periods and export slaughter intervals to reduce the risk of chemical residues in meat products. Keep in mind that some chemicals that are used to treat buffalo flies also kill dung beetles.

### *Treatment options available to control buffalo fly infestations*

The following table lists the non-chemical and chemical treatment options for buffalo fly. The advantages and disadvantages associated with each method are also listed. All products are currently registered for use in Queensland.

Methods	Advantages	Disadvantages
<b>Non-chemical control methods</b>		
<b>Dung beetles</b>	<ul style="list-style-type: none"> <li>No chemicals used</li> <li>Biological control</li> <li>Low cost method</li> </ul>	<ul style="list-style-type: none"> <li>Initial establishment was poor – beetles were either unsuited to area or didn't spread so only a few species are present</li> <li>New species have to be physically introduced</li> <li>Dry periods reduce numbers</li> <li>Killed by some broad spectrum endectocides</li> <li>Cane toads reduce numbers</li> <li>Lag time before beetle numbers build up to useful levels for control.</li> </ul>
<b>Buffalo fly tunnel trap</b>	<ul style="list-style-type: none"> <li>No chemicals used</li> <li>Self application</li> </ul>	<ul style="list-style-type: none"> <li>Initial cost</li> <li>May need to train stock to use trap</li> <li>Animals need to use the trap regularly, ideally twice per day.</li> </ul>
<b>Chemical control methods</b>		
<b>Backline sprays</b> SP – Cypafly, Sumifly OP – Supona, and Nucidol 200 EC <b>Dips, sprayraces and full body sprays</b> SP/OP – Barricade S, Blockade S and Tixaflly	<ul style="list-style-type: none"> <li>Gives instant relief</li> <li>Treatment can include tick control</li> </ul>	<ul style="list-style-type: none"> <li>Resistance to SPs is widespread</li> <li>Residues if withholding period (WHP) and export slaughter interval (ESI) not adhered to</li> <li>Problems with chemical concentration</li> <li>Problems with thorough application.</li> </ul>
<b>Insecticide-impregnated eartags</b> <i>(N.B. You should integrate eartags with other control methods over non-peak times)</i> OP – Optimiser, Warrior, Patriot, Terminator and Rabon SP – PYthon	<ul style="list-style-type: none"> <li>Effective up to 16 weeks</li> <li>No WHP</li> </ul>	<ul style="list-style-type: none"> <li>Extra handling for tag application</li> <li>Tags must be removed after the designated time period or before slaughter</li> <li>Resistance is possible if misused.</li> </ul>
<b>Pour-on</b> SP – Cooper's Coopafly, Brute Pour-on Ivermectin – Ivomec Pour-on	<ul style="list-style-type: none"> <li>Ease of application</li> <li>Some pour-ons treat for other parasites (i.e. worms, lice and ticks)</li> </ul>	<ul style="list-style-type: none"> <li>Longer ESI</li> <li>Resistance to SPs is widespread</li> <li>Some pour-ons may be toxic to dung beetles for a time.</li> </ul>
<b>Backrubbers and rubbing posts</b> OP – Supona, Nucidol 200 EC	<ul style="list-style-type: none"> <li>Low cost</li> <li>Self treatment</li> </ul>	<ul style="list-style-type: none"> <li>Residues if WHP and ESI not adhered to</li> <li>No control over the amount of chemical rubbed on individual cattle</li> <li>Some restrictions on the use on lactating dairy cattle.</li> </ul>



Peggy Rohan  
DEEDI, Emerald

## BreedObject selection indexes

Estimated Breeding Values (EBVs) are a very useful tool when it comes to selecting animals that will improve the genetics of your herd. It is easy to choose one particular trait and compare two different animals based on their EBVs for that one trait; however your commercial production system will have a number of different traits that contribute to driving the profitability of your herd. So how do you compare animals based on their performance over a number of different traits? The answer is BreedObject Selection Indexes.

BreedObject Selection Indexes are a tool designed to help you combine a number of EBVs

into one simple value, called a \$Index. Just like other EBVs, the \$Index EBV assesses the genetic potential for progeny performance, however the \$Index EBV is based on a combination of traits rather than just one.

When using Selection Indexes, the first thing you need to do is to think about the traits that are most important to your production system – is your business profit driven by high fertility or do you place more emphasis on growth or carcass traits? Once you have decided which EBVs are most relevant to your herd, BreedObject is designed to help you decide what emphasis to place on each EBV. It will also

help you to manage genetic trade-offs, e.g. calving ease versus growth rate or fertility versus carcass traits.

Each of the major Breed Societies have already created their own \$Indexes based on typical herds, target markets and production systems so you have the option of choosing the index that is closest to your situation. Alternatively, you can create your own \$Index based on the traits you want to emphasise by answering a series of simple questions on the BreedObject website ([www.breedobject.com](http://www.breedobject.com)). BreedObject calculates the optimum mix of EBVs for a given production system. It assigns an economic weighting to each selected EBV (i.e. the EBVs that you have decided are most relevant to your production purpose). The weighted EBVs are then combined into one single EBV – the \$Index. The \$Indexes can then be compared in order to rank animals (e.g. sale bulls or potential AI sires) on their genetics as they apply to your particular situation. If your operation has more than one production purpose then you can rank potential stock to see how they would perform under more than one \$Index.

The difference between \$Index values indicates the benefit that one animal will provide over another when used for a specific production purpose. For example see table 1.

Philip Mann is a Technical Officer for Tropical Beef Technology Services (TBTS) based in Rockhampton. Philip works with a number of property owners in central Queensland that use BreedObject Selection Indexes to great advantage, both in their stud and commercial businesses. Typically these producers will use the existing Selection Indexes specific to their breed and market, however some have also created their own \$Indexes – this allows them to rank animals based on the existing \$Index and then re-rank them using their own \$Index to see if the rankings change with a different EBV emphasis.

Philip's tip for BreedObject Selection Indexes is to use the \$Index values as an initial sort to identify the most profitable animals for your target production system or market. Once you have sorted the potential stock on their \$Index and discarded the less profitable animals, it is important to look at the individual EBVs that contribute to each animal's \$Index value. Some animals may have the same \$Index value however the individual EBVs that contribute to their \$Index value can vary significantly.

Just like other EBVs, the \$Index value is a tool

## Key points

- **BreedObject helps you to rank animals in terms of their suitability for your herd based on EBVs that you select.**
- **Use a standard \$Index for your breed or create your own to suit your production system and target market.**
- **\$Indexes help you to manage genetic trade-offs, e.g. fertility vs. carcass traits or calving ease vs. growth.**
- **\$Indexes should be used in conjunction with visual assessment and BBSE.**

that should always be used in combination with visual assessment of structural attributes and, in the case of bulls, a thorough Bull Breeding Soundness Evaluation.

If you would like any assistance in using the BreedObject website or creating your own custom Selection Index, feel free to contact Philip Mann at TBTS. Ph: 07 4927 6066, Mobile: 0427 018 982 or email: [philip@tbts.une.edu.au](mailto:philip@tbts.une.edu.au)

Table 1.

**Arnie has a \$Index of \$70**



**Bruce has a \$Index of \$40**



Each sire passes half of his genes onto his progeny (the other half come from the dam).

The difference in net profit from the progeny of the bulls:

$$\begin{aligned}
 &= \frac{1}{2} \times \text{difference in Index} \\
 &= \frac{1}{2} \times (70-40) \\
 &= \$15 \text{ per cow mated}
 \end{aligned}
 \quad \text{(Assuming they were joined to equivalent cows)}$$

If the two bulls were each joined to 200 cows during their breeding life, this would equate to a difference of  $(200 \times \$15) = \$3000$ .

# Leptospirosis in cattle and humans

Leptospirosis is an important public health and animal health issue. The disease can infect family members, employees, consultants or visitors coming in contact with infected cattle. The productivity of the herd can be significantly reduced if infected with leptospirosis.

## Cattle

### *What is leptospirosis?*

Leptospirosis, or leptospirosis, is a bacterial infection that colonises in the kidney and genital tract of its host. Leptospire can be shed from these organs into the urine for more than 12 months, consequently releasing more bacteria into the environment. The bacteria can also be shed in milk but pasteurisation will kill the organism. Therefore, any milk from unvaccinated cows that is not pasteurised may contain Leptospire and transmit infection.

### *What causes leptospirosis?*

*L. hardjobovis*1 and *L. Pomona*2 are the most common types of bacteria causing leptospirosis in Australian beef and dairy cattle. There are however several other less common serotypes found in cattle.

### *How are cattle affected?*

The clinical signs of *L. hardjobovis* infections may be seen in pregnant or lactation cows. Most cattle show no obvious signs of infection to *L. hardjobovis* but may be shedding the bacteria. Infection has been reported to cause abortion, usually from four months gestation to term. Infection can also result in the birth of weak or stillborn calves. Sudden milk drop and fever, infertility and mastitis are also clinical signs of infection. A flaccid udder with all four quarters affected may also occur. Infection by *L. pomona* can cause an acute septicaemia in calves which may result in high mortalities. 'Red water', anaemia and jaundice may also occur. Adult cows may abort.

### *What conditions are favourable for leptospirosis?*

Survival of leptospire in the environment depends on moisture conditions in the contaminated area. This includes wetter areas around dairies, waterways and irrigated pastures. Leptospire will survive for at least six months in water saturated soil, several months in running water and several weeks in stagnant water. Restricting access to wet areas will aid in controlling the spread of leptospire. As this is not always possible, vaccination offers the best protection. Introduced stock can be a source

of herd infection, however closed herds are not completely safe either as water from other properties could carry the bacteria.

### *How is leptospirosis diagnosed in cattle?*

The diagnosis of leptospirosis is difficult and consultation with a veterinarian is required. Blood tests are not always diagnostic in cattle as the antibody levels may have fallen rapidly. Microscopic agglutination test (MAT) is used to measure antibody levels. The best way to diagnose infection is to culture the bacteria from an aborted foetus, placenta or infected milk. However this is not usually very successful as leptospire are difficult to culture.

## Humans

### *Leptospirosis in humans*

Humans contract leptospirosis from specific host animals. In people, the disease causes a 'flu-like' illness that ranges in severity from mild to severe. In Australia, the two most common forms of leptospirosis which affect humans are *L. hardjobovis* and *L. pomona*.

### *How do people contract leptospirosis?*

Lepto is contracted through direct contact with infected urine, placental material or water. Leptospire organisms can enter the human body through the mucous membranes of the eyes and mouth, damaged skin due to abrasions, or water logged feet.

### *Are many people affected?*

Leptospirosis is a notifiable disease in Australia, with over 200 human cases reported to the Communicable Diseases Network last year. However medical research sources suggest that the true number of cases is much greater than this. Many sufferers do not seek medical attention or diagnostic tests are not completed.

### *Who is at risk?*

A strong occupational link has been identified for many leptospirosis sufferers. Dairy farmers, beef producers, abattoir workers, meat inspectors, relief milkers, veterinarians, artificial inseminators (AI), herd testers, stock agents, stock transporters and visitors to farms have all been diagnosed with leptospirosis. Contact with infected animal urine can be a frequent occupational hazard for many workers. Beef and dairy producers and their employees are at risk during normal cattle handling activities. Veterinarians, herd testers and AI technicians are at high risk. There is however a potential leptospirosis risk to anyone working with or near cattle. Even people that do not actually

work with cattle, but handle contaminated material, clothing or equipment can be at risk of contracting leptospirosis.

### *The occupational, health, safety and legal issues*

Leptospirosis is an important issue for all cattle industry related employers when considering their occupation health and safety obligations. Recently in NZ, there was a case where a dairy farmer was fined \$15,000 for failing to ensure the safety of his contract milker and an employee who caught leptospirosis from his unvaccinated herd. Increasing Occupational Health and Safety regulations require farmers to provide a safe environment for their employees, however the safety of the family and people visiting the farm should also be carefully considered.

### *What are the symptoms of lepto in humans?*

**Profound fatigue:** many sufferers complain they are unable to 'do anything' initially. Usually, several weeks' rest is required and some sufferers have reported needing rest periods after each job for many months.

**Severe headache:** especially behind the eyes, is often reported. The headache can be so severe, very strong pain killers are required to provide relief. Many sufferers report total bed rest is necessary.

**High fever:** is typical of leptospirosis. Many sufferers report night sweats with a specific odour. This symptom is often reported during recurrences months or years after the initial illness.

**Muscular aches and pains:** can be mild or severe. Bed rest may be required of some sufferers can continue working with difficulty. Many sufferers complain of generalised aches and pains, especially in the legs.

**Sore eyes:** with increased sensitivity to light. Sufferers may be more comfortable in a darkened room. Sufferers have described their eyes feeling as if there is grit in them. The whites of the eyes can become inflamed and red.

**Nausea and vomiting:** have been reported. However, not all sufferers have reported these symptoms.

**Pregnancy:** Leptospirosis can cause serious problems for pregnant women. The very high fever of the expectant mother with leptospirosis may be dangerous to the foetus resulting in abortion, or the foetus may itself develop leptospirosis. Leptospirosis can prove fatal to a human foetus.

### *How do you treat leptospirosis in humans?*

Consult your doctor immediately, and always mention the possible risk of leptospirosis.

The severity and duration of the illness can be lessened with the prompt use of antibiotics. Severe leptospirosis cases will be treated in a hospital. Duration of the stay can vary from several days to weeks.

### *What are the long term effects of leptospirosis?*

Typically the sufferer becomes ill but with medical treatment, has returned to light duties by three weeks. However, others have reported being unable to resume a full work load for six months or more. Relapses can occur especially during periods of high stress and work loads.

### *What are the social and economic effects of human leptospirosis?*

In a typical case, leptospirosis can result in one or two weeks hospitalisation followed by another four weeks rest. During that time, the family work load falls to other people. In most situations, people also have other commitments which then need to be carried out by others, which may also involve costs. Relapses can occur for many years which continue to add to the cost of others carrying on with the work. In all cases, apart from the pain and suffering experienced by the leptospirosis sufferer, other family members will also experience increased work, stress and possible financial pressures.

### *Prevention of lepto in humans:*

Infectious material needs to be prevented from entering the human body. This can best be achieved through a combination of activities.

1. Preventing animal products from becoming infectious by the implementation of a correct cattle vaccination program against leptospirosis.
2. Using protective clothing when involved in high risk activities. These include wearing protective glasses, covering all cuts and abrasions with waterproof dressings, gloves, aprons and waterproof boots.
3. Barrier methods in dairy sheds such as splash guards, urine drainage channels, moving away from urinating animals and limiting access of people to high risk areas.

These methods help protect humans from infection, however by far the best form of protection for people is to prevent the disease in the cattle. Vaccination of the herd offers the best form of prevention. An ongoing vaccination program is required to prevent cattle from contaminating the environment and thus putting people at risk.

Reprinted from an article by CSL Veterinary

For further information contact your general practitioner or veterinary surgeon.

The recovery of pastures from the most recent flood events will be measured by Paul Jones (DEEDI, Emerald) and Stuart Buck (DEEDI, Biloela) who have been setting up monitoring sites on properties in the hardest hit areas. The information from these sites will assist producers in managing their pastures following future flood events.

## Graziers' experiences post flood

### Bruce Cobb *Mellaluka* on the Belyando River, Clermont

**B**ruce has experienced several floods at *Mellaluka*. He says 'floods and buffel death hits you hard – both emotionally and financially. You need to assess your priorities and focus on re-establishing the buffel pasture. That's your bread and butter!'

Bruce's experiences suggest that three days of inundation seems to be the critical time period for buffel. If the inundation is longer, then there is a significant mortality of buffel. The health and vigour of the buffel prior to flooding has an affect on post flood recovery so Bruce recommends conservative grazing to give a strong pasture with good ground cover.

The 1990 and 2008 floods were in autumn and summer, both with a resultant high mortality, so time of the year did not appear to have an impact on mortality rates. A reasonable growing season prior to 2008 meant the pasture was healthy, and after the flood, recovery was enhanced.

One week after the 2008 flood, 50 mm rain fell and there was good growth of Flinders grass and hoop Mitchell grass. These native grasses assisted with maintaining good ground cover and providing competition to reduce parthenium growth and population. The buffel grass had good ground cover prior to the flood, and contributed to a viable seedbank. It was not necessary to reseed with buffel. Bruce seeded a paddock with silk sorghum and some persisted for two years, however he would not recommend silk because of its competition with buffel grass for re-establishment.

In the spring following the January 2008 flood, Bruce controlled parthenium seedlings with a chemical application. Bruce thought that this was one of the most effective management strategies for enhancing the pasture recovery. The big benefit was prevention of competition for establishing buffel.

Bruce manages with a conservative stocking rate to ensure a good body of feed, seed set and ground cover, that is, good land condition, to enhance recovery of pastures after a flood.

Bruce Cobb is happy to be contacted to talk about his experiences with flood damaged buffel pastures. He can be contacted on 4983 5149.

The photos below show a flood site on Medway Creek, one month and 18 months after the 2008 flood. The period of inundation is unknown. Good land condition and grazing management have contributed to a good recovery of the buffel pasture.

For pasture species to sow on regularly flooded country, refer to these farm notes available from the DEEDI web site, or call the DEEDI Information Centre on 13 25 23

Pastures information in general. [http://www.dpi.qld.gov.au/26\\_11438.htm](http://www.dpi.qld.gov.au/26_11438.htm)

Floren bluegrass. [http://www.dpi.qld.gov.au/26\\_18054.htm](http://www.dpi.qld.gov.au/26_18054.htm)

Bambatsi. [http://www.dpi.qld.gov.au/26\\_18054.htm](http://www.dpi.qld.gov.au/26_18054.htm)

Recovery of mitchell grass after drought. [http://www.dpi.qld.gov.au/26\\_18169.htm](http://www.dpi.qld.gov.au/26_18169.htm)





## Brett and Jane Kinnon *Alinya*

**B**rett and Jane Kinnon's *Alinya* property, west of Clermont on the Belyando River has very little high ground during a major flood. Buffel is the dominant pasture on the box country and the gidgee/brigalow scrubs land types. The 2008 flood came with no warning and left substantial damage to pastures, infrastructure and the stud cattle herd. Brett said 'It was like being in a tumble dryer. I didn't know when I was going to get out!' Fortunately, they were able to obtain agistment on a neighbouring property.

### Summary of Brett and Jane's experiences:

- Recovery has taken 12–24 months with good growing conditions
- Overall, the stocking rate has been reduced by 25% since the 2008 flood, and this has been critical to the pasture recovery
- Reseeding with buffel has worked well
- Improved native perennial grass composition has been a positive outcome.

Recovery of pastures at *Alinya* since the 2008 flood has taken two years, and now most of the pastures are back to 90% of their productive potential. Two good growing seasons have been integral to the recovery. Pasture recovery may take considerably longer if growing conditions are poor after a flood.

With nearly all of *Alinya* submerged during the 2008 flood, finding agistment nearby was critical for the welfare of the cattle and pasture recovery. Resting the pastures until the buffel had grown and set seed proved critical. Pasture spelling continued over the next two years with the average stocking rate reduced by 25%.

Reseeding buffel immediately after the 2008 flood has been beneficial at *Alinya*. While the full



recovery took two years, the seeded paddocks got a head start and were able to sustain grazing earlier than the non-seeded paddocks. Brett observed the submerged buffel grass seed had gone mouldy on the ground after the flood, so it was quite likely that the seed bank was significantly reduced.

The Kinnons believe that one positive to come out of the flood has been an improvement in the native pasture composition. Desert bluegrass and golden beard grass survived the flooding well. These native grasses then had a period when the growth was not restricted by buffel grass competition. Brett has one paddock where desert bluegrass is nearly half the composition of the pasture. Additionally, native millet, black speargrass and white speargrass are a lot more abundant.

Brett and Jane feel that this improvement in diversity will benefit production and sustainability. Native annual grasses and forbs have also been growing on scalded claypans that for the previous 25 years had very poor cover. Small buffel plants are also emerging and Brett is hoping that with time, perennial grasses will cover and stabilise the claypans.

Brett Kinnon is happy to discuss his experiences with flood damaged pastures. He can be contacted on 4983 5391.



*Belyando River in flood, January 2008*



Lindy Symes  
DEEDI, Biloela

# A BMP program for the grazing industry

## **Background**

The beef industry was the only major agricultural industry without a Best Management Practice (BMP) program up until this year. We have now developed a program that can:

- Deliver best management principles to the grazing industry;
- Benchmark where industry is in relation to a range of BMPs; and
- Collate this information to demonstrate good land stewardship and improvement in practices to the wider community.

The Grazing BMP project has been modelled upon the successful Grains BMP program, a partnership between Fitzroy Basin Association (FBA), AgForce, and DEEDI. The same partners have again combined resources to develop and pilot the Grazing BMP, first in the Fitzroy NRM region, with the intent to expand the initiative across Queensland.

## **What is Grazing BMP?**

Grazing BMP is a new initiative to develop and implement a Best Management Practice program for the grazing industry in Queensland.

The program will enable:

- producers to identify and access training to improve knowledge and skills which will enable adoption of best practice;
- producers and industry to monitor and accurately report upon improvements in management practice at every level;
- producers to benchmark their own practices against industry accepted best practice, and design and implement actions to improve;
- stakeholders to demonstrate the outcomes of their work at catchment and industry scale.

## **How will it work?**

Modules for the program will be developed with oversight from a Landholder Reference Group. The Landholder Reference Group consists of producers from the Fitzroy, Burdekin and Burnett Mary catchments and staff from the funding partners. Module content will be developed by the best available technical resource personnel. Modules will be available for completion via the Grazing BMP website as well as standalone electronic (pdf forms) and hardcopy versions.

Producers will use the Grazing BMP website to conduct the self assessments during group workshops. Self assessments are recorded and

automatically link to action plans and further resources such as information and/or training options. The action planning component allows producers to record actions required to improve their BMP status. Working online enables producers to review or add to their assessments at any time. The online reporting functions mean that producers are also able to instantly compare how their own management relates to an industry accepted BMP, and where they sit in relation to others in their catchment or State. Individual data will only be available to those that enter it, with each producer being allocated a username and password to ensure the privacy of their information.

## **What's in it for landholders?**

This program is being designed to meet landholders' needs. The modules within the program will have relevant and useful information in one package about the best management principles at three different levels – above, minimum and below standard for the whole business, not just one component. You will be able to better identify training needs specific to your business by completing the self assessment of your enterprise. The action plans developed will assist you to focus on the most profitable and sustainable practices and where improvements can be made easily. The opportunity to align some actions with incentive funding available through regional NRM groups will also be available for producers in the Fitzroy catchment. Some of the other benefits of this program are that it will provide:

- On the spot responses and benchmarking against best practice;
- Demonstrate and document good land management and environmental stewardship;
- The opportunity for graziers to guide the development of the program and ensure that it's useful.

## **What's in it for Industry?**

Development of a Grazing BMP will enable industry to:

- Demonstrate to the wider community good land stewardship and improved environmental outcomes;
- Promote engagement and understanding of grazing best management principles;
- Report on industry practices being used and their implications;
- Identify what practices need promoting and

- where incentives funding should be targeted;
- Monitor the adoption of R&D and identify research needs;
- Links to other BMP's – Grains, Cotton to minimise duplication across industries.

Grazing BMP is in the very first stages of development, with the expectation of delivery to landholders in 2011. For more details please contact Lindy Symes (DEEDI, Biloela) on: phone 07 4992 9178, mobile 0428 104 248 or email [Lindy.Symes@deedi.qld.gov.au](mailto:Lindy.Symes@deedi.qld.gov.au).

## Myles and Julie Ballentine

Being a part of the CQ *BEEF* Moura Group has given Banana district cattle and grain producers Myles and Julie Ballentine the incentive and opportunity to reassess the direction and efficiency of their business.

Myles and Julie have taken responsibility for the day-to-day management of the four property 2571 hectare brigalow-softwood scrub aggregation as the Ballentine family work toward a long term succession plan.

Myles' parents, Bruce and Kaye, relocated from Victoria's mallee country in 1969 to take up the 536 ha cattle and grain block *Namgoori* and expanded their holding in 1975 with the purchase of the adjoining 535 ha *Purari*.

When Myles completed his education and returned home to work he was focussed on building on the asset. In 1992 in partnership with his parents, Myles purchased *Carisma*, a 750 ha district property.

When the opportunity arose in 2003 to buy *Glenlea*, a 750 ha block which adjoins *Carisma*, Myles did not hesitate to secure the former farming block in his own right.

Myles married Julie in 2004. Julie, a former Moura school teacher who was raised on her family's NSW grazing property, shares Myles passion to develop an efficient, profitable business.

Today, Myles and Julie have two sons, Henry (3) and Spencer (18 months) with another addition due in May.

Bruce and Kaye semi-retired to Rockhampton in 2005 but remain involved in the business decision-making. Bruce ran a stud and commercial breeding herd of 350–400 Greyman breeders from the 1980s in conjunction with a grain growing enterprise.

After Myles and Julie teamed up with like-minded cattle producers to form the CQ *BEEF* Moura group in 2007 under the guidance of DEEDI Senior Beef Extension Officer Ken Murphy, they had the opportunity to analyse the strengths and weaknesses of their business.



## Producer profile

*Myles and Julie Ballentine with sons Henry (3 years) and Spencer (18 months) at Namgoori set for a days work on the Banana district grazing aggregation.*

While the family still retains 100 breeders, the decision was made three years ago to make the transition to concentrate on trading cattle by buying in predominantly 180–250 kg liveweight steers with a smaller percentage of heifers.

Myles said the breeding operation was mainly undertaken at *Carisma* and being well away from *Namgoori*, wild dogs were taking an increasing percentage of calves. The remaining 100 breeders have been relocated onto our home property to address the dog issue. The Greyman cows are joined to a mix of Brahman, Greyman and Brangus sires.

'Our aim is to source about 1100 head annually to target the premium EU accredited market rather the Jap ox trade and sell 300 kg carcass weight grain fed or pasture finished steers through Teys Bros Lakes Creek meatworks,' Myles said.

'We look for EU accredited Euro-*Bos indicus* crossbred cattle with the seasonal flexibility to turnoff direct to works or to background before on-selling to EU-accredited feedlots which preserves the premium.

'When we kicked off the project, there were times when it was difficult to buy the type of cattle we needed so having a percentage of homebred weaners has been useful.

'Our improved pastures are predominantly Callide Rhodes and buffel grass with the legumes butterfly pea and burgundy bean adapting well to the heavy clay soils.

‘To date we have contract planted 60 ha to Cunningham variety leucaena. The first 32 ha block was deep ripped with double rows planted on 10 m centres in September 2008.

‘We have grazed all classes of stock on the leucaena and consistently average daily liveweight gains of 1 kg/head. No cattle have been drenched with the rumen bug at *Namgoori* but it is a management tool we are considering to further lift weight gain.’

Myles said that four years ago they set up trench silage pits to conserve forage sorghum to supplement cattle during the winter months to maximise weight gains. In 2007, 700 tonnes was ensiled followed by 1800 t in 2008.

The silage reserve provides an opportunity to buy in cattle during the dry season when there is less market competition.

Following the Peter Andrews model, mobile paddock feeders were placed on the higher, less fertile paddocks to recycle nutrients into this soil and improve grass productivity – a strategy that has worked effectively.

To meet the EU carcase specifications, steers are fed for 100 days on a home-grown cracked grain sorghum and silage feedlot ration where they consistently achieve 1.75 kg/head daily gain.

In addition to the breeders at *Namgoori*, the cattle are run in three separate mobs comprising the heavy weight steers, steers in the backgrounding grow-out phase and the heifer component.

Paddocks are rotated based on visual assessment and the stockwater is supplied by five equipped bores supplemented by surface dams and seasonal creeks.

‘We have linked three of the bores into a 6 km pipeline servicing five paddocks. One is solar

powered, one is an electric submersible and the other is a windmill so irrespective the weather conditions, the water supply to a series of troughs is always secure,’ Myles said.

The Ballentine family hosted a CQ *BEEF* Moura Group on-property meeting late last year where Myles and Julie were able to highlight their successes and challenges. That meeting was the catalyst for a black wattle management field day held at *Carisma* that attracted 70 central Queensland landholders.

Myles has been a zero till farming advocate for 15 years but encroaching grass control issues have forced a move into minimum till.

He is an active Grains BMP participant which has helped him to hone his expertise in chemical spray application to boost overall production efficiency.

A modified 9 m Shearer trashworker behind a Versatile 875 tractor is the primary cultivation and planting rig and a trailing 25 m boom spray is used for weed control.

The Ballentine family crops 770 ha and recently completed planting a 303 ha grain sorghum summer crop with ample subsoil moisture for a 2011 winter crop.

Myles said that with a 1500 t on-farm grain storage capacity, he had an option to sell grain direct to port or to feedlots or hold grain to target higher value seasonal markets.

Myles and Julie are committed to their grazing and farming operation but make every effort to limit stress through the good and the bad times.

‘We are in this business to make money as efficiently as possible to deliver long term benefits that will ultimately enhance our family’s lifestyle,’ Myles said.

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