

# Northern muster

Information for rural business in north Queensland

Producing quality food and fibre  
for a healthy bottom line



## in this edition

Tails dropping off – have you seen this in your cattle?	2
DPI&F welcomes Rebecca to FNQ beef team	6
Herd budgeting results from Research to Reality and Value in Beef	8
Research to Reality builds momentum	9
Market report – November 2007	10
Grazing management will help bring back pasture killed by frost	12
Closed season: Barramundi to be off limits from November 1	13
Bull selection workshops in far north Queensland	14
Bureau of Meteorology cyclone forecast	15
Nutrition EDGE Workshop	16
Breeding EDGE Workshop	17
The Equine Influenza Green Zone – Advice for horse owners	18
DPI&F warns of leaf hopper damage far northern pastures	19
HORSE PROPERTY REGISTRATION – a requirement for ALL horse owners	20
Responsibilities of owning livestock	20
New DPI&F hybrids yields a-mazing results for Tablelands	21
Dalrymple dairy	24
Big head in horses	25
Molasses based supplements for horses	25
Sulphur – too little or too much?	26
Molasses based supplements for weaners	27

Issue 17 December 2007

## editorial

Welcome to the 2007 Christmas edition of the *Northern muster*. A significant part of north Queensland received 'out of season' winter rain, which was very positive. Currently, the drought, the Australian dollar, fuel prices and other influences are having an affect on the cattle market, making life quite interesting.

This issue includes: The Climate outlook; Market report; Equine Influenza update; LPA reminder; Dalrymple Diary; stock supplement information; notices on invaluable workshops and a range of project updates.

We take this opportunity to thank all of our advertisers for their support during the year, as without these organisations we would not be able to bring you the *Northern muster*. Thank you also to our contributors and production team.

We wish everyone a safe and enjoyable festive season. I we hope that the new year provides much needed rain to support the pastures that underpin our industry.

Please take the time to complete the Feedback Sheet to ensure the *Northern muster* remains an informative part of your business.

Enjoy this edition and remember to use the DPI&F Business Information Centre for advice, information and as an easy way to contact DPI&F staff. Phone 13 25 23.

Alan Laing  
Editor



# Tails dropping off – have you seen this in your cattle?

The FNQ beef team recently received a phone call from a northern producer who had a number of cows lose their tails. A member of the beef team also had a previous experience with this occurring in bulls on the family property that caused the death of one bull and the amputation of another's tail. Subsequent investigation has revealed a possible cause of these cases to be by a bacterial infection as a result of a crushing injury to the tail.

Crushing injuries are common in growing pigs that adopt an abnormal behaviour of tail biting when housed in intensive conditions. The crushing injury caused by the biting behaviour compromises the skin on the tail as an effective barrier to infection through bruising, swelling and abrasions. Thus, allowing *Staphylococcus* and *Streptococcus* bacteria, which normally live on the skin without causing disease, to invade and cause infection. This condition is referred to as greasy pig disease, or exudative epidermatitis.

Despite lack of scientific evidence, it is proposed that a similar mode of infection may occur in cattle when they have a crushing injury on their tail

after being transported in road trains, a hurried closing of a slide gate, bull fighting, another animal standing on their tail whilst laying down etc. The proximity of the injured area to the animal's faeces and the naturally occurring *Staphylococcus* and *Streptococcus* bacteria on the skin could predispose to contamination and subsequent infection of the wound. This infection may then extend up the tail as either a moist infection with a gangrenous appearance and the presence of pus, or a dry rot in which the tail may shrivel.

This infection could prove fatal from subsequent blood poisoning, or meningitis, if the bacteria enters the spinal cord and travels to the brain. Animals may recover from the infection but a portion of their tail that is dead tissue may drop off. However, if the infected animal is a more valued breeding animal, you may consider treatment. It is advised you consult your local veterinarian for professional advice if you are considering treating such an infection.

Are there any fellow producers in the reading audience that have had any experience with this condition in their cattle? If so, please contact me on (07) 4091 9416.

**Rebecca Matthews**  
DPI&F Beef Extension Officer,  
Kairi Research Station

## REPRODUCTION OF ARTICLES

'The Queensland Department of Primary Industries and Fisheries welcomes reproduction of articles appearing in this newsletter, providing the source is acknowledged and requests that technical information be confirmed with the Editor prior to publication to ensure that recommendations are still accurate at the time of printing.'

Advertisements are accepted for publication on the understanding that they comply with the relevant provisions of the Trade Practices Act and with the Australian Association of National Advertisers Code of Practice.

The Editor reserves the right to refuse or withdraw any advertisement at his own discretion. No endorsement by the Queensland Department of Primary Industries and Fisheries is intended or implied by the advertisement of any product in the *Northern muster*.

If you know of anyone who would like to receive the *Northern muster* drop us a note at:

Department of Primary Industries and Fisheries  
PO Box 15  
Ayr Qld 4807  
Telephone: 07 4720 5100  
Facsimile: 07 4720 5198

Email : Debra.Hanfing@dpi.qld.gov.au  
Tanya.Firth@dpi.qld.gov.au  
Alan.Laing@dpi.qld.gov.au

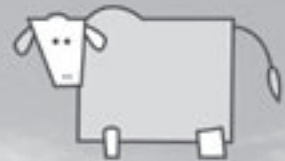
ISBN 1441.7804

# Were they vaccinated? When were they vaccinated? Do you know?



## Remove the doubt about botulism with an annual vaccination program

Annual vaccination is a practical and effective use of your time. Management issues are simplified, the risk of waning immunity is reduced, maternal antibody production is maximised and costly losses are prevented. And there's a greater probability of achieving botulism coverage of the entire herd.



**Longrange™**  
**Ultravac™ Botulinum**



PROTECTING NORTHERN CATTLE FOR MORE THAN 40 YEARS

For more information about protecting your herd against botulism contact your Pfizer professional sales representative.  
Pfizer Australia Pty Ltd. 38-42 Wharf Road, West Ryde NSW 2114. Freecall: 1800 335 374. ™Trademark of Pfizer Australia. OGD07 HEALTHWORLD PFAH0034



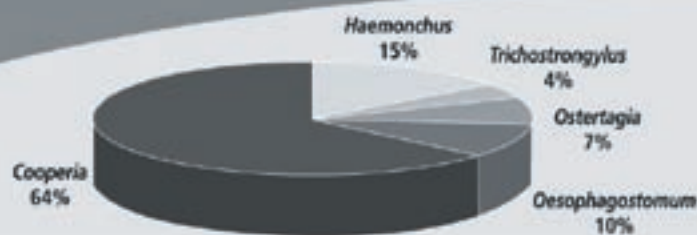
ANIMAL HEALTH

[www.pfizeranimalhealth.com.au](http://www.pfizeranimalhealth.com.au)

# Dectomax\* controls mixed infections like no other drench

- Cattle are free from parasites for longer
- Reduced parasite contamination of pastures
- Tick and lice control

Worm species contributing to mixed infections in Northern Australia Cattle



Injections – days of persistent activity

Internal Parasite	DECTOMAX	Cyductin <sup>†</sup>	Ivomec <sup>†</sup>	Virbamec <sup>†</sup> (Abamectin)
Cooperia spp.	21 days	NO CLAIM	7 days	7 days
Haemonchus placei	21 days	14 days	NO CLAIM	7 days
Oesophagostomum radiatum	21 days	NO CLAIM	NO CLAIM	7 days

Pour-ons – days of persistent activity

Internal Parasites	DECTOMAX	Paramax <sup>†</sup>	Cyductin <sup>†</sup>	Ivomec <sup>†</sup>
Cooperia spp.	35 days	14 days	NO CLAIM	14 days
Haemonchus placei	35 days	NO CLAIM	28 days	NO CLAIM
Oesophagostomum radiatum	21 days	21 days	42 days	21 days



For more information talk to your Pfizer Professional Sales Representative, Dectomax supplier or phone Pfizer Animal Health on 1800 335 374.

<sup>†</sup> Registered Trademarks. Pfizer Australia Pty Ltd, 38-42 Wharf Road, West Ryde NSW 2114.

\*Registered Pfizer trademark. © Pfizer 2006.



ANIMAL HEALTH

# Which implant is best?

## Differences between implants

There are a number of important differences between various implants, including their mode of action, formulation and length of payout. Compudose 400 contains 43.9 mg oestradiol-17 $\beta$ , a naturally-occurring oestrogen (female hormone) in a medicated silicone rubber matrix that slowly releases the active ingredient over 400 days. Compudose-G and revalor<sup>†</sup>-G both contain 60 mg trenbolone acetate (TBA), a synthetic androgen (male hormone), and 12 mg oestradiol-17 $\beta$  in a compressed pellet formulation that has a payout period of about 100 days.

A recent large scale trial conducted in Queensland<sup>1</sup> conclusively demonstrated that:

- Compudose 400 provides superior long-term liveweight gain advantages and economic returns compared to TBA combination implants;
- TBA combination implants provide superior short-term liveweight gain advantages, but these benefits can be lost unless cattle are reimplanted or marketed; and,
- Multiple-implant strategies can achieve even higher liveweight gain advantages than single-implant strategies.

There is no simple answer to the question, "Which is the best implant?", but rather which is the correct implant and strategy to use in a particular situation.

## Choosing the correct implant and strategy

When developing the most suitable implant strategy for your operation, consideration should be given to the following factors: implant type, gender, pasture availability/quality, anticipated time to turn-off and target market. If implanting heifers, further consideration must be given to the stage of sexual maturity and whether the animal is entire or speyed. Heifers to be retained for breeding should not be implanted. Producers seeking to maximise growth rates from branding right through to turn-off may also consider multiple, or whole-of-life, implant strategies.

**For more information,  
contact Elanco Animal Health  
on 1800 226 324**

**References:** <sup>1</sup>NAPCO "Coorabulka" trial <sup>2</sup>BF6912 \*Elanco®, Compudose® and the diagonal colour bar are trademarks of Eli Lilly and Company. ©Compudose is a trademark for Elanco's brand of oestradiol <sup>†</sup>Trademark name WORDSMITH25047NM



## Compudose 400 is the first choice when sustained growth is required:

- Maximises growth rates for at least 400 days
- Superior long-term performance and profit
- Proven average liveweight gain advantage of 16.1%<sup>2</sup>
- Implant at branding or 400 days before anticipated turn-off
- 200 and 100-day formulations also available

## Compudose-G is the first choice for finishing grassfed cattle on good pastures:

- Functional life of less than 100 days
- Short-acting - may require additional muster to implant
- Two active ingredients for maximum growth
- Implant 90–120 days before anticipated turn-off
- Should only be used under good pasture conditions

## The implant specialists

No matter what your target market, the strategic use of Compudose implants can maximise the profitability of your beef operation. Your nearest Elanco Animal Health representative can help you to determine the best implant strategy, including "whole of life" strategies, for your target market.

**ELANCO\***

**Compudose® 400**

**It works**

## DPI&F welcomes Rebecca to FNQ beef team

A fresh young face in the Department of Primary Industries and Fisheries is already fitting in well as an important and enthusiastic member of the Far North Queensland beef team.

Beef extension officer Rebecca Matthews brings excellent credentials, youth and experience to the team based at the DPI&F's Kairi Research Station near Atherton.

She started with the team in early July and has her sleeves rolled up for a series of projects in the Far North and in the Gulf to help improve beef production from behind the producer's gate to the consumer's plate.

Rebecca grew up on a beef cattle property on the Burdekin River north of Charters Towers.

After studying by correspondence and at boarding school, she undertook a four-year degree in agricultural science at the University of Queensland majoring in animal science.

She graduated last year with First Class Honours and won the Australian Society of Animal Production



*Rebecca Matthews was welcomed to the DPI&F's FNQ beef team by senior extension officer Joe Rolfe. Mr Rolfe said Rebecca would bring enthusiasm and youth to the team in its efforts to progress the beef industry throughout the far north.*

Animal Science Prize for her fourth-year project investigating effects of nutrition on skeletal growth.

Her studies included a six-month stint in the United States which included a month's practical experience on a Montana ranch and five months' study at Texas A&M University (Agricultural and Mechanical).

'I learnt a lot at A&M because its agricultural courses were practical,' Rebecca said.

'The experience on the Montana ranch was invaluable as it was so different to Queensland. Here we run 10,000 head of cattle on large stations. In Montana ranches are much smaller with fewer cattle, but soils there are more fertile.

'Feedlots are a huge part of the beef industry in the US.' Before taking up the DPI&F position at Kairi, Rebecca was a trainee manager in at a feedlot near Emerald.

In welcoming Rebecca to the team, DPI&F senior extension officer Kev Shaw said her role would have a whole-of-industry focus.

'She will work with the beef team in conducting research, development and extension across the Far North Queensland beef industry, along the supply chain from the beef producer to the consumer,' Mr Shaw said.

'We need to look at the supply chain as a whole, rather than individual stages of production, to understand how to improve these linkages for maximum profits.'

DPI&F extension officer Joe Rolfe said Rebecca had already brought enthusiasm to the team in the past month.

'We now have a team comprising people with different skills to effectively engage with our project partners, clients and producers across the industry,' Mr Rolfe said.

Other FNQ beef team members were senior extension officer Jim Kernot and extension officer Bernie English.

**David Anthony**  
Senior Media Officer Ph (07) 4044 1676

more than just  
a bean counter

At Duesburys we understand the challenges facing today's small business and are on hand to help with practical business solutions through Business Analysis and Consultation, Estate and Succession Planning.

Call Andre, Lindsay or Bronwyn  
for a consultation on 4092 1677.

**Duesburys**  
Accountants & Advisors

## More energy from every mouthful



Rumensin helps your cattle to digest their food more efficiently, giving them more energy from every mouthful of pasture consumed. In fact, Rumensin is *scientifically-proven* to:

- improve feed efficiency
- improve growth rates
- improve reproductive performance
- and prevent coccidiosis.<sup>†</sup>

If your molasses or lick doesn't contain Rumensin, then you're not getting the most out of your investment in dry season supplementation. For more information, contact your local feedmill or Elanco Animal Health toll free on **1800 226 324**.

ELANCO\*

**Rumensin**<sup>®</sup>

<sup>†</sup>Rumensin is registered for improved feed efficiency and as an aid in the control of bloat in feedlot cattle; for improved feed efficiency and weight gain and reproductive performance in heifers; and as an aid in the prevention of coccidiosis caused by *Eimeria zuernii* and *Eimeria bovis*. \*Elanco®, Rumensin® and the diagonal colour bar are trademarks of Eli Lilly and Company. Rumensin® is a trademark for Elanco's brand of monensin sodium. WORDSMITH26043NM

# Herd budgeting results from Research to Reality and Value in Beef

Since early this year I have been running the profitability ruler over the herds of participants in both the Research to Reality (R2R) and Value in Beef (VIB) projects. *The aim has been to estimate profitability and to look for ways to improve it.* These notes explain the process behind the analysis, and some of the outcomes.

## Gross margins

The process begins with an overall analysis of enterprise profitability as measured by the gross margin (GM). The gross margin equals cattle trading profit, less the direct or variable costs. For our purposes, variable costs are defined as meeting the test 'one more animal, one more unit of cost'. Variable costs thus defined will include supplements, vaccines, tags etc, but not things like rates and rents, or even fencing repairs.

On this definition, we can say that running one more or one less animal (or adult equivalent) will increase or decrease net income by the calculated GM/animal (or AE). Likewise if we figure that the existing system is making \$120/AE GM, and the proposed system offers \$150, then for every AE of substitution, new for old, we increase total GM by \$30 (\$150-\$120). On account of how we have defined a gross margin, net profit will increase by exactly the same amount. For comparing management systems that use the same resources and incur the same overheads, comparing GMs is therefore a convenient and totally satisfactory shortcut.

In each instance we have used recent actual weaning and mortality rates, weights and prices, to construct a stable state representation of the herd – i.e. what it would look like if it had time to settle down around the weaning and mortality parameters. This was done with the *Bcowplus* program (part of Breedcow and Dynama).

*Bcowplus* estimates stable state herd structure and gross margin for the existing management system and the physical outcomes it is producing. This is for a self-replacing breeding herd turning off steers at any age.

## Age of male turnoff

*The single biggest mistake cattle producers can make is to get the age of male turnoff seriously wrong.* Using *Bcowplus* to compare steer turnoff at various ages can indicate where the best option lies.

*Bcowplus* analysis compares differing age of male turnoff after adjusting breeder numbers to maintain the same number of AE for each turnoff option. A stable 3,000 AE herd for example, at 80% weaning, selling weaners, would have 1,875 cows and heifers mated, but with three year old steer turnoff would have only 1,235.

People say to me 'but I haven't got room for bullocks (or steers)'. Older turnoff means having to make room by reducing breeder numbers.

The other one they fall for is the push for 'younger turnoff' in pursuit of better meat quality. *Younger turnoff at the same weight is a fine thing, but younger turnoff at lighter weight may not be.*

And then there is the (southern) fattener's vision of the north as a nursery of cheap stores for the crop fattening and feedlot industry – OK for buyers but not for sellers.

*For as long as I have been doing these analyses the profit centre in northern herds has been the steers. The only question is how long to keep them past weaning.*

The mental framework I use for explaining the age of turnoff issue is to think of the herd as two separate enterprises, with the breeder enterprise 'selling' weaner steers to the growing or fattening enterprise. Typically the breeder enterprise might be turning out a GM of \$100 or \$120 per AE, the main determinants being weaning rate and weaner steer price. Against this the steers might be doing \$150 or \$190 (or more).

Typically the return from growing a weaner for the first year is quite high, aided by a relatively low AE rating. We might expect GM/AE for the following years to be progressively lower, except when there is a premium at a certain weight. *The object is to ensure that each increment of steer growth contributes a GM/AE at least equal to the overall GM/AE up to that point.*

The *Bcowplus* program can show overall GM (including breeders) for each age of steer turnoff, allowing direct comparison of turnoff ages. By comparing and subtracting it can also split the GM between the AEs in breeders and the AEs in each age group of steers.

## Results

Combining the current R2R and VIB projects with earlier projects, over the past few years I have analysed herds with a wide range of GM outcomes, from a low of about \$50/AE (Cape York) to a high of \$500/AE (CQ stud and specialist Wagyu operations). A normal range for NQ is about \$100 - \$180. Some of this variation comes from the quality of the country, but a lot of it comes down to husbandry issues and age of turnoff decisions.

By looking at the GM/AE for the herd and at its components, improvements in overall profitability may be possible just by reorganising what is turned off. Then with some analysis of husbandry or genetic options, it may be possible to further improve breeder or steer GM.

## Bill Holmes

*Principal Agricultural Economist  
Department of Primary Industries & Fisheries  
Townsville Ph 07 47 222 663*



## Research to Reality builds momentum

The Burdekin Catchments Research to Reality project is well underway with the three grazier teams recently undertaking property tours to explore with key specialists a range of animal nutrition, land management and land condition issues.

The project, which follows the Continuous Improvement and Innovation Cycle aims to support small teams of graziers to achieve a 5% improvement in business profit (EBIT) by finding practical, on-property solutions to issues that directly impact on their enterprises.

Commencing in November 2006, the project is principally funded through a partnership between the Burdekin Dry Tropics NRM and the Department of Primary Industries and Fisheries. Additional project partners include the Beef CRC for Genetic Technologies and the graziers directly involved in the project.

The three grazier teams represent seventeen enterprises from Greenvale, Collinsville and the Belyando area. Collectively, these enterprises manage an area of 650,000 ha and 160,000 livestock units. A parallel project called *CQ BEEF* is being run in central Queensland with grazier teams established in Moura, Biloela, Bajool and the Mackenzie River area.

The process so far has involved grazier teams undertaking a range of activities to assess land condition and their animal husbandry and land management practices. This has included applying the Resource Consulting Services economic benchmarking software ProfitProbe and DPI&F's Breedcow and Dynama program to assess a range of enterprise options. Options assessed include developing irrigated sown pasture to rest breeder country, achieving land condition improvement by varying carrying capacity, strategies for improving branding rates and maximising profit via the age and class of cattle sold.

After completing this assessment process graziers shared their findings and prioritised some key ideas and issues requiring further research. This process has led the grazier teams to holding this first series of property tours which has enabled them to get first hand specialist advice on these priority issues and provide insight into the potential for some on property research activities.

The Belyando Research to Reality team held a property tour with soil specialists George Bourne from the Department of Natural Resources and Water, Emerald and John Chamberlain from the DPI&F, Clermont. The day included visits to three Belyando properties where discussions focused on the potential for establishing leucaena, techniques for repairing scalded country, options for managing woodland thickening and the

use of Floren bluegrass as an option for heavy clay soil affected by flooding.

At Greenvale the Research to Reality team met with Nutrition Consultant Sandi Jephcott and Geoffrey Fordyce from the DPI&F. Discussions centred on nutrition management strategies including the value of spike feeding first calf heifers, splitting up mixed sized weaners to target their feed intake and general commentary on the nutrition requirements of different classes of stock.

Terry McCosker, from RCS and John McIvor from the CSIRO were the guest specialists at the Collinsville Research to Reality team property tour. The day which included visits to two properties focused on discussing the profitability of improving land condition through a range of grazing ecology and land condition principles such as wet season rest, splitting paddocks to land type and how to speed up the land recovery process. The value of time controlled grazing and the added potential for soil carbon trading were also discussed.

The next step in the process is to commence on property research activities. Each grazier team will have a different focus based on the issues relevant to their enterprises. At this stage projects may include the testing of a range of techniques for repairing land condition, maximising animal production via nutrition and innovative options for property development. Grazier teams will track and test research progress with regular on site activities to discuss and review findings. Further benchmarking and enterprise analysis will also be undertaken to determine the impact on enterprise profitability. Project results will be shared between the grazier teams with broader industry invited to attend future field days and other project activities.

The Research to Reality Project team includes Brigid Nelson, Karl McKellar, Dave Smith, Marnie McCullough, Evan Burt, Bill Holmes and Emma Robinson.

For Further information contact.

**Brigid Nelson**  
Project Leader  
DPI&F, Charters Towers  
Ph (07) 4761 5158



**DA**  
**DAVID ANTHONY**  
**S O L I C I T O R S**  
Mobile 0418 765 793

Capitol Arcade • 166 Byrnes Street • Mareeba Q. 4880  
P.O. Box 53 • Mareeba Q. 4880 • AUSTRALIA  
Tel: (07) 4092 2600 • Fax: (07) 4092 2900

## Market report – November 2007

Since the last report in February, cattle prices have gradually declined with the main culprit, the rising value of the Australian Dollar. The high dollar is making our export beef expensive for our Asian and American customers. Our feedlot members are in meltdown with high feed prices and slaughter values severely affecting cattle numbers going onto feed. There has been some storm activity around the state which has helped stem the cattle numbers coming onto the market. Abattoirs have dropped kill days when their grid prices have failed to attract enough cattle, suggesting they are under profit pressure as well.

If our dollar remains high (over 90 cents) into 2008 we could be in for a run of lower cattle prices. The only relief could come from a general break in the widespread drought in eastern Australia which could help prices for replacement breeders and store cattle.

### **Domestic market**

For the first time in many years, producers with fat cattle for sale in the run into Christmas are experiencing falling prices. To add to their woes, feeding costs have continued to rise. The Australian winter grain crop looked promising with reasonable planting rain, but failure of follow up rain across most grain growing areas has generally reduced the tonnage harvested. The grain availability and price situation won't change until at least May – July 2008, when the summer grain crops are due to be harvested.

Poor feeding margins have impacted severely on numbers in feedlots across the country. Turnoff for the 2006-07 year was at a record high of 2.67 million head. However, trading conditions have changed rapidly during the latter half of 2007 with softer demand in Japan and Korea, and the rising Australian dollar. The lower feedlot margins will impact on demand and prices paid for feeder cattle during 2008.

Australian beef and veal production reached record highs for 2006-07 at 2.2 million tonnes, as drought conditions increased turnoff numbers (9.1 million head of cattle and calves slaughtered). Queensland's share of this record was 1.1 million tonne processed. Australian beef exports for 2006-07 were a record 973,880 tonnes, 3% higher than the previous record in 2004-05. Our main export destinations have been 403,000 tonne to Japan; 302,000 tonne to USA; and 156,000 tonne to Korea.

The top 25 red meat processor list was recently released by the rural press. JBS Swift Australia/AMH is still on top with 436,000 tonne annual throughput with the next best being Teys Bros on 273,000 tonne.

Teys Biloela, has taken steps to begin grading cattle for MSA compliance. With chiller expansion over Christmas, they will be in a position in 2008 to produce grass and grain fed MSA beef from Central Queensland properties. Queensland kills approximately 18 – 20,000 head a month of MSA beef at present, the Australian figure is about 70,000 head a month.

### **Live export**

Live cattle numbers for the year to July 2007 are up 13% on 2006 figures, to approximately 415,000 head, and in August, 95,628 head were shipped. Indonesia continues to be our main customers. The falling Australian cattle price will attract customers, but our rising dollar will have a negative impact. Darwin continues to be the main port of loading with the Northern Territory and Western Australia supplying 93% of cattle for export from January to July, 2007. Townsville has exported several large consignments this year which has added to the markets available in the North.

### **Japan**

It has been over a year since Japan reopened its markets to USA beef and relatively low tonnages of USA beef have been shipped. The 100% box inspection has been lifted, the US dollar/yen value had made US beef expensive and there has been resistance to US beef from consumers.

With Australian beef also becoming expensive with our increasing dollar's value and our feedlot section in rapid decline, it is expected that USA beef sales into Japan will increase.

Beef consumption in Japan is currently 5.5 kg per person, which is still well below pre-BSE levels of 7.6 kg per person in 2000. Building confidence with Japanese consumers will improve the strength of the Japanese market. The Japanese domestic beef herd was at 2.76 million head in 2006 and has suffered a 5% fall on the average numbers over the last 10 years. Beef properties have declined over the last 10 years from 150,000 to 85,000.

### **Korea**

With ongoing problems with USA beef (bone in product), Australia has been the major beef supplier into Korea since the BSE ban in 2001. Australian beef has become expensive with the rising Australian dollar, but market analysts report beef stocks are very low in Korea at present. Their end of year peak demand season is approaching, which should see increased sales of Australian beef.

Australian beef pays a 40% import tariff at present and even though USA beef is not trading into Korea right now, they are negotiating a Free Trade Agreement with Korea which will put USA beef at a highly competitive

price advantage. Australia will need to get a similar free trade agreement if we are to remain a competitive force in this market.

### **USA**

The US beef industry is also experiencing tough times at present. Drought in various areas plus severe winter weather has reduced the 2007 calf drop to an estimated 67.4 million head – the lowest in 50 years. The US cattle herd in July 2007 was 104.8 million head, down from the peak of 140 million head in the mid 1970s. Twenty-eight million head go through US feedlots annually with the high price of grain in the US mainly attributed to ethanol production which will impact on feedlot profitability.

There has been a large *E. coli* scare in their domestic market with 10,000 tonne of beef being recalled. The company responsible, TOPPS Meat Co., will go out of business after 67 years in the industry. There is news that all beef in the USA, as well as all imports, will undergo more testing to ensure hygiene standard.

With the high USA cow slaughter, low domestic 90 CL prices, and high Australian dollar, our export returns into the US are very ordinary at present.

Canada has recorded its 10<sup>th</sup> case of BSE. The US government is planning to introduce a farm bill in the near future requiring country of origin labelling for beef. It is unknown what impact this will have on our product.

An interesting development in the US market is a voluntary standard for grass fed beef. The proposed USDA standard will establish minimum standards for producers – animals cannot be fed grain or grain by-products and must have continuous access to pasture etc.

### **South America**

Brazilian beef exports in the first 9 months of 2007 were 1 million tonnes, valued at US\$2.6 billion. Russia is a major client, taking approximately 300,000 tonnes of beef from January – September 2007.

Argentina expects to be back in the USA market during 2008. Their foot and mouth outbreak had halted unprocessed meat exports to the USA. Argentina has a 20,000 tonne quota into the US, over this tonnage attracts a tariff.

Uruguay also has a 20,000 tonne quota with the US and all meat over this quota pays a 26.4% out of quota tariff. In 2005 Uruguay exported 200,000 tonne into USA which reveals their ability to pay the tariff and still remain competitive.

### **Bernie English**

DPI&F, Kairi Research station Ph (07) 4091 9440

### **Greg Brown**

Meadowbank Station



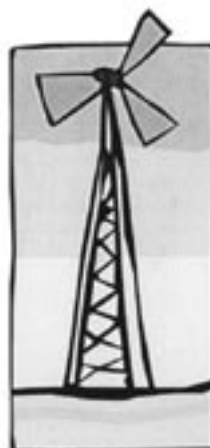
## Water equipment and pipe lines



Don't wait and hope for rain. You can water when you're ready!

## MONO SOLAR PUMPS

- o HATZ auto-start Diesel Engines
- o Grundfos Bore Pumps
- o Poly Pipe and Fittings
- o Float Valves and Troughs
- o Portable Petrol Pumps
- o Yanmar and Kubota Diesel Engines & Gen Sets
- o All makes and models of Windmills and spare parts
- o Cylinder Pumps
- o Pump Rods & Pump Rod Joints



For on-property designs of pumping equipment and water reticulation systems, call Dave at –

### **MALANDA RURAL SUPPLIES**

37 James St, Malanda.

Phone (07) 4096 5455

or Fax (07) 4096 5950

# Grazing management will help bring back pasture killed by frost

Careful grazing management will help bring back improved pastures killed by heavy frost during winter cold snaps on the southern Atherton Tablelands.

Department of Primary Industries and Fisheries Senior Extension Officer Kev Shaw said signal grass seedlings had already germinated and started to recolonise the frosted areas.

'Unfortunately, weeds have established in paddocks with low ground cover.

'Beef producers will need to apply careful grazing management practices to these paddocks to ensure the survival of these new signal grass seedlings to again become productive pastures.'

The unusually cold 2007 winter killed or severely damaged many signal grass (brachy) pastures on the Tablelands.

Many areas of the southern Tablelands recorded up to 20 frosts during July with ground temperatures falling to as low as -10°C. The worst hit areas were on the higher country near Ravenshoe.



A sample of dead signal grass patches in the Malanda district after this year's unusual winter frosts.

This widespread pasture death from frosts was a first for improved pasture on the Atherton Tablelands since introduced grasses were first used across the district in the early 1960s.

'Signal grass is one of the most important grazing grass species for beef cattle production on the Tablelands and wet coastal areas of north Queensland,' Mr Shaw said.

'It is an easy-to-manage, strongly perennial grass capable of providing good liveweight gains from cattle, vital for the profitability of a beef business.'

Mr Shaw said most pastures received a good fall of about 50 mm of late winter rainfall after the frost.

'But many paddocks of signal grass showed no response,' he said.

'The mature plants had been killed in large patches especially in the lower and more frost-prone areas.'

Other perennial sub tropical pasture species (such as *Setaria* species) in the same or nearby paddocks were not killed and had since grown back after the late rainfall.

## Kev Shaw

Senior Extension Officer

DPI&F, Kairi Research Station Ph (07) 4091 9447



Signal grass (brach) seedlings coming back after spring rainfall.



**MOUNT ST BERNARD COLLEGE**  
HERBERTON OLD 4887

THE BOARDING COLLEGE ON THE TABLELANDS



**Enrolments now being accepted.** Mount St Bernard College (MSB) is a co-educational day school approx. 90 minutes drive from Cairns in the Atherton Tablelands that offers boarding facilities for girls only. Founded by the Sisters of Mercy the college is now owned and operated by The Roman Catholic Trust Corporation for the Diocese of Cairns.

We offer a wide curriculum to meet the varying demands of the education of our young people. An active VET program, QSA accredited subjects & an expedition program that develops self-reliance, teamwork & leadership skills are all available.

**Consider the Cost Effectiveness of Boarding for Young Daughter**

Benefits include residence in a safe and caring environment, all meals including morning and afternoon tea, some tutorial assistance after hours, development of social skills to better equip the student for independent living. Call our office on 07 4096 2246 to discuss the benefits to you and your daughter and what assistance might be available to you.

Visit our web site at [www.msb.qld.edu.au](http://www.msb.qld.edu.au) or phone 07 4096 2246 to request an application form and further information.

PHONE: 07 4096 2246

EMAIL: [principal@msb.qld.edu.au](mailto:principal@msb.qld.edu.au) WEB: [www.msb.qld.edu.au](http://www.msb.qld.edu.au)

CRICOS registration: 00637G

Educating in faith and spirituality to provide meaning for life

## **Closed season: Barramundi to be off limits from November 1**

**A**nglers are reminded the annual closed season for Barramundi along Queensland's east coast will be in place from midday, November 1, 2007, until midday, February 1, 2008.

The Department of Primary Industries and Fisheries Queensland Boating and Fisheries Patrol district manager Bob Koch said the barramundi closed season aimed to protect stocks of barramundi during their spawning period.

'The closed season allows fish to spawn and stocks to replenish ensuring healthy fish stocks for current and future generations,' Mr Koch said.

'Not only will the fishing be great after the spawning, the closed season protects barramundi for the longer term as well.

'A person must not take or possess a barramundi during the closed season. The maximum penalty is \$75,000.

'Fishers should be aware it is not unlawful to unintentionally catch a barramundi during a closed season so long as the barramundi is not injured or damaged and is immediately put back into the water.'

Anglers should note the Gulf of Carpentaria also has a closed season in place which began October 4, 2007, and will run until January 29, 2008.

'While the Gulf and the East Coast closed seasons mean barramundi are off limits, anglers wanting to catch the iconic fish can still throw in a line at several of Queensland's stocked impoundments,' Mr Koch said.

'A yearly Stocked Impoundment Permit (SIP) costs \$35, which allows the holder to fish in any of the dams involved in the scheme. There is a 10 per cent discount for holders of particular concession cards. A weekly permit costs \$7 and again covers all SIPS dams.'

For more information about which stocked impoundments you can fish in and other fisheries related information visit Fishweb at [www.dpi.qld.gov/fishweb](http://www.dpi.qld.gov/fishweb).

**David Anthony**  
Senior Media Officer Ph (07) 4044 1676

# **AUSTRALIAN PREMIUM SEEDS PTY LTD**

Contact: Brian Loccisano, Kennedy H'way, WALKAMIN Q 4872

## *Seed Suppliers of*

*Tropical & temperate grasses  
and legumes, pasture mixes,  
turf seed and seed cleaning*

Ph: 07 4093 3776 Fax: 07 4093 3955 A/hrs: 07 4091 1818



## Bull selection workshops in Far North Queensland

Several bull selection workshops have been held on the Atherton Tablelands and in the Mt Surprise districts during November. Many key issues were covered at the workshops and producers were encouraged to make use of the information and tools available collectively to make an informed decision when purchasing bulls.

Bull selection is an important management practice of your beef enterprise that warrants a great deal of attention. The process of bull selection was compared to an airline pilot's panel of instruments. You would confidently put your life in the hands of a pilot as you know that while flying several thousand feet above ground, the pilot has a panel of gauges, radars, speed, height, direction etc. at their hands to allow them to make informed decisions.

Similarly, the bulls you buy this year will directly affect your herd's performance for the next 12 – 16 years with the bull siring approximately 80 – 150 calves in their lifetime on your property whereas your breeders will only produce 5 – 7 calves. Therefore, it would seem amiss of a producer to use an ad hoc approach to purchasing bulls at a sale or in the paddock when objective information is available to direct the future of your profitability.



A tool available to producers is the Bull Breeding Soundness Evaluation (BBSE). The BBSE is a standardised fertility/soundness test conducted by a qualified veterinarian that is being endorsed by the DPI&F as a standard document to accompany all bulls for sale. It includes a report on physical attributes, scrotal circumference, semen quality and serving capacity of the animal.

Estimated breeding values (EBV's) were also covered with the potential of applying EBV's to improve genetic potential of your herd for performance parameters such as fertility, growth and carcass characteristics. In addition to EBV's, producers can make use of the website [www.breedobject.com](http://www.breedobject.com) to calculate a dollar index value for a bull if so desired. This dollar index combines the benefits of several traits for specific market outcomes to create an easier method of comparing prospective sires by balancing the various traits.

Temperament was also highlighted as an important factor to consider when selecting bulls, and the need to use objective measurements of temperament such as flight testing or crush or yard evaluation, to get positive results.

Data was presented to producers that outlined the negative impact of stress on bull fertility and virility, such as injury, weather extremes, vaccinations just prior to mating, relocation post sale, nutritional stress etc.

New DNA marker assisted selection was also discussed when selecting for attributes such as tenderness, marbling, and potential future reproductive traits.

The workshops concluded with practical sessions in the yard evaluating bulls on the hoof and getting hands on experience measuring and assessing physical attributes of several bulls.

**Bernie English and Rebecca Matthews**  
DPI&F,  
Kairi Research Station



# Bureau of Meteorology cyclone forecast

The Bureau of Meteorology has launched a new website section dedicated to tropical cyclones: [www.bom.gov.au/weather/cyclone](http://www.bom.gov.au/weather/cyclone)

The tropical cyclone site integrates the Bureau's tropical cyclone warning services and supporting information. The site includes outlooks, report, and tracks of previous TC's and information about activity, trends and links to climate change information. There are link to TC preparation guides, State Emergency Services and frequently asked questions.

The cyclone season got under way recently with TC Guba in the Coral Sea. According to the Bureau we can expect a more active cyclone season than last year. However, it is unlikely that the season will be as active as 05-06 when TC's Larry and Monica crossed Queensland's east coast.

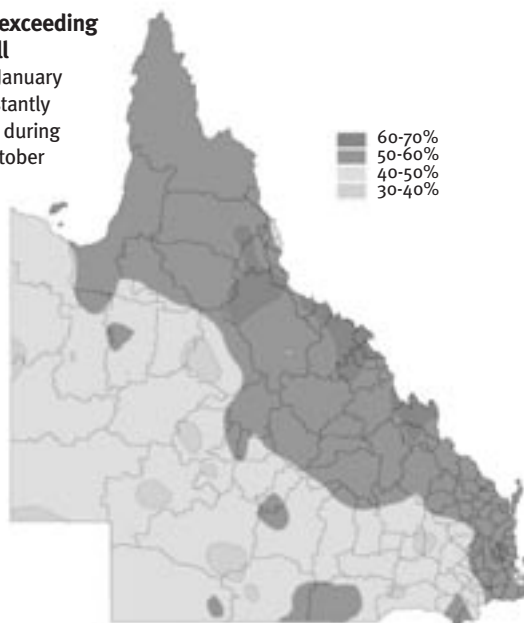
While the total number of TC's per season may vary, it only takes a single severe TC to make landfall for the season to be a memorable one.

## SOI remains near zero.

The thirty day average of the SOI as of November 19 was plus 11.2. Based on a near zero SOI September to October most of Queensland has a 40 – 60 % chance of getting in excess of the median rainfall. Coastal tropical Queensland has a higher 60-70 % chance of exceeding the median rainfall (see map).

La Niña conditions are now firmly established in the Pacific Ocean. The La Niña combined with ongoing positive SOI values would indicate a higher chance of useful rains across eastern Australia over the remainder of summer. For more information try [www.longpaddock.qld.gov.au](http://www.longpaddock.qld.gov.au)

**Probability of exceeding median rainfall**  
for November / January  
based on consistently  
near zero phase during  
September / October



The Madden-Julian Oscillation (MJO) is currently in Phase 5 (November 16), and is situated to the north of Australia. This MJO and the last displayed rapid eastward movement over the Indian Ocean, but have been virtually stationary over the Maritime continent.

This is most probably due to the La Niña event dominating the eastward passage of the MJO by the time it reaches the western edge of the Pacific.

The MJO is often associated with monsoon onset. The current MJO was a little too early to initiate the monsoon proper, however a trough was associated with showers and storms in the western interior early November.

The next passage of the MJO, due mid-December, is nicely timed to kick off the 07-08 monsoon. Hopefully between the La Niña and the monsoon many areas will experience a solid wet season.

The MJO is a band of low air pressure originating off the east coast of central Africa travelling eastward across the Indian Ocean and northern Australia roughly every 30 to 60 days.

Research has shown the MJO to be a useful indicator of the timing of potential rainfall events. To follow the passage of the MJO and get weekly updates on its potential impacts go to [www.apsru.gov.au/mjo/](http://www.apsru.gov.au/mjo/)

The chance of specific rainfall amounts for a number of regional locations are shown in the table. For similar information about your area a copy of Australian Rainman can be purchased from the DPI&F (Phone 13 25 23).

Location	Chance of			
	180 mm	300 mm	400 mm	500 mm
Ingham	100%	91%	62%	71%
Atherton	93%	86%	76%	52%
	150 mm	200 mm	300 mm	400 mm
Mareeba	97%	85%	58%	36%
	90 mm	150 mm	200 mm	250 mm
Charters Towers	97%	76%	59%	47%
	60 mm	80 mm	120 mm	160 mm
Mt Isa	99%	91%	76%	41%

(Source Rainman Streamflow)

Daily updates of the SOI are available at 07 4688 1439. You can also receive a text message with the latest SOI values sent to your mobile phone. To subscribe to this free service or for any other climate information contact:

**Lexie Donald**  
Queensland Climate Change Centre of Excellence  
Ph (07) 4688 1588 or  
[Alexis.Donald@climatechange.qld.gov.au](mailto:Alexis.Donald@climatechange.qld.gov.au)

# Nutrition EDGE Workshop

An education package for beef producers

**TOWNSVILLE** 11,12 and 13 March 2008

## What is it?

A 3-day course for beef producers and service providers.

The course allows you to:

- Gain a better understanding of nutrition and supplementation
- Work out the nutrient requirements of different classes of animals at different production levels
- Explore cost-effective techniques for managing your nutritional programs
- Make better decisions with confidence and control.

## What's in the workshop?

### Module 1 Ruminant nutrition

Introduction  
Digestive system  
Digestion and use of nutrients  
Feed intake and production

### Module 2 Pasture growth and quality

Pasture quality  
Indicators of quality  
Factors affecting quality / quantity  
Seasonal growth patterns

### Module 3 Cattle performance & management

Supply of nutrients from pasture to grazing animals  
What to do to manage this

### Module 4 Mineral nutrition

Minerals and vitamins  
How to manage deficiencies

### Module 5 Managing nutritional deficiencies

Defining targets / options  
Supplementation  
Learn how to read and understand feed labels  
Economics of supplementation strategies and  
break evens

For more information please phone **Felicity Hamlyn-Hill**  
on (07) 4761 5157

To register for the workshop email your name and contact  
details to [Felicity.Hamlyn-Hill@dpi.qld.gov.au](mailto:Felicity.Hamlyn-Hill@dpi.qld.gov.au)

MLA **EDGE network**<sup>®</sup>





# Breeding EDGE Workshop

A workshop for producers in northern Australia

## *Increase the performance of your herd*

### What is it?

A 3-day course for beef producers and service providers.  
The workshop:

- Works through the steps in developing a successful breeding program
- Provides a thorough understanding of reproduction and genetic principles
- Develops skills that can be applied on farm
- Helps evaluate the reproductive and genetic options
- Outlines strategies to optimise genetic gains and achieve desired changes

### What's in the workshop?

#### Current operation

- Resource inventory
- Performance levels
- Target markets
- Breeding program
- Business aims and objectives

#### Breeding objective

- Customer requirements
- Traits of economic importance
- Breeding goals
- Selection criteria

#### Reproduction

- Basic reproduction principles
- Male and female reproduction
- Annual reproductive cycle

#### Genetics

- The value of genetics
- Methods and tools for genetic improvement
- Breeding systems
- Breeds

#### Selection

- Selection of desired characteristics
- Sourcing replacements

#### Managing the herd to capture the benefits

- Recognising the resources
- Managing the breeder herd, managing the bulls
- Herd recording
- Evaluation of options
- Putting the plan into action

#### EXAMPLE FEEDBACK

The workshop gave us more tools and ideas to fine-tune our breeding program to maximise our returns.



**Workshops planned for Bowen/Burdekin/Charters Towers area**

For more information or to register for the workshop contact [felicity.hamlyn-hill@dpi.qld.gov.au](mailto:felicity.hamlyn-hill@dpi.qld.gov.au) Phone 07 4761 5157  
[alan.laing@dpi.qld.gov.au](mailto:alan.laing@dpi.qld.gov.au) Phone 07 4720 5100

MLA **EDGE** network®





## The Equine Influenza Green Zone – Advice for horse owners

The Green Zone of Queensland is free of Equine Influenza (EI). The infected horses are all in the Red Zone in the southeast corner of Queensland. However, while the disease is being eradicated it is essential that all horse owners and anyone who has anything to do with horses are careful not to spread EI to the Green Zone.

People in the Green Zone should not be complacent and must maintain high biosecurity standards.

In the Green Zone there are no restrictions on walking or riding horses, but anyone transporting a horse by vehicle will need to complete a waybill, which can be downloaded from the DPI&F website.

Equine sporting events in the Green Zone are now allowed, but owners must comply with the requirements for waybills for horses travelling by vehicle.

Waybill documentation is being checked by Police, Queensland Transport and DPI&F officers.

### **Register your property**

- register your property on the DPI&F website or call DPI&F on 13 25 23. It is now law for all properties, on which horses are kept, to be registered. This allows EI to be monitored and eradicated more speedily. Registration also means you will receive the latest information about the disease eradication, vaccination and/or movement restrictions.

### **Report sick horses**

- report any sick horses with runny noses, sneezing, coughing and elevated temperatures immediately to your local veterinarian or to the DPI&F on 13 25 23.

### **Horse owners should:**

- only allow people onto your property or stable with permission
- only let them enter if full decontamination has occurred first, especially if they have come from the SEQ Red Zone in the last 48 hours
- minimise unnecessary contact by people with the horses on your property
- avoid moving between horses at different locations unless absolutely necessary
- not share halters, bridles, saddles or feed bins with other horses or horse owners.

### **Anyone coming in contact with horses (including farriers, equine dentists and chiropractors, horse strappers, vets and other animal carers) should:**

- disinfect all horse and veterinary equipment used
- shower, wash hair and change into fresh clothing before going near other horses
- disinfect footwear, hats and sunglasses.

### **Observe all horse movement conditions and restrictions:**

- horses of any type, including pets, riding club horses, show animals, donkeys, circus horses or zebras are allowed to be moved by a float or truck within the Green Zone provided they complete and carry a completed waybill
- horses cannot enter the Red Zone without a permit and may not be allowed to leave the Red Zone after any permitted entry
- if the intended journey involves moving horses from the Cattle Tick Infected Area, a permit is required in addition to the waybill. Contact your nearest DPI&F Inspector.

### **Horse owners in the Green Zone can:**

- ride a horse within the boundary of a property where they are currently located
- ride a horse to another property (without a waybill or permit)
- ride alongside roadsides (without a waybill or permit)
- ride within parks or other recreation areas (without a waybill or permit).

### **Sporting events:**

- owners must comply with the requirements for waybills for horses travelling by vehicles

- event organisers should keep the original waybill for all horses attending the event for a period of two years
- event organisers should put in place good biosecurity practices such as hand wash stations, and minimise unnecessary contact between the public and horses.

### **Droving and mustering:**

- horses used for droving cattle on stock routes or roads require a waybill. There may be requirement for documentation from the local Council responsible for the stock route.
- horses can be used for mustering on their present location (property) located in the Green Zone without a permit or waybill. Horses moved by float or truck between properties (or land parcels within the same PIC) must complete and carry a waybill.

### **More information**

- Subscribe to the DPI&F equine influenza newsletter e-update and if you own a horse register your property and contact details
- Check out the information on the DPI&F website
- Call DPI&F on 13 25 23 or email [wwcallweb@dpi.qld.gov.au](mailto:wwcallweb@dpi.qld.gov.au)



**Wish our valued clients and business partners a Merry Christmas  
And a safe, prosperous New Year.**



**Equipment & Property  
Finance Specialists**

*This office will be closed for the festive season  
from Friday 21 December, 2007  
and will re-open Wednesday 2 January, 2008.*

**Ph: (07) 4775 4155 Fax: (07) 4775 4955**

## **DPI&F warns of leaf hopper damage far northern pastures**

**B**eef producers on the wet coast Tablelands need to be aware of the unusually high number of pasture-sucking leaf hoppers this spring and early summer.

Department of Primary Industries and Fisheries extension officer Bernie English said large numbers of the leaf hopper (*Toya dryope*) had caused widespread damage to signal grass (*Brachiaria decumbens*) pastures on beef properties in the Tully and Innisfail coastal areas, and on the Atherton Tableland this spring.

Signal grass is arguably the most important pasture grass species for beef cattle grazing on the wet coast and the northern Atherton Tablelands.

'It is something of a mystery why they have built up in such numbers this year, but it is possibly climate related,' Mr English said.

'The leaf hopper is a sucking insect that prefers well-fertilised pastures and beef producers may have to use insecticides to control severe outbreaks.'

He said spraying with short withholding-period insecticides such as Carbaryl was an effective control method.

Symptoms are leaf blotching and yellowing, progressing to distinctive dead patches in the pasture sward.

*Leaf hopper damage*

Walking through infested areas will disturb large numbers of leaf hoppers, rising in clouds, which, individually, are only about 3 mm long.

Insect damage is usually noticed when the weather warms up in spring and early summer.

'Insect infestations may not occur for several years and then they appear in large numbers causing significant pasture damage,' Mr English said.

'Reasonable rain of more than 25 mm seems to suppress the leaf sucker's activity and damage.'

**David Anthony**

*Senior Media Officer Ph (07) 4044 1676*



# HORSE PROPERTY REGISTRATION – a requirement for ALL horse owners

To assist with the control and eradication of Equine Influenza, it is now a requirement to register all places where horses are kept. This allows the allocation of a property identification code (PIC) to the place where the horses are kept. This requirement applies to commercial enterprises and businesses as well as those owning horses for recreational or sporting purposes.

This brings requirements for places where horses are kept in line with other livestock including cattle, sheep, goats, pigs, buffalo, deer, camelids (camels, llama, alpaca), 100 or more poultry or any avian species.

Data on where horses are kept is critical to both the veterinary and communications aspects of the fight against equine influenza. This registration can be done on the internet at [http://www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xml/4790\\_6011\\_ENA\\_HTML.htm](http://www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xml/4790_6011_ENA_HTML.htm) or by calling DPI&F on 13 25 23 or by contacting your local DPI&F office. If you already have a PIC, a further registration is not necessary but please advise your local office of current horse numbers (if any) so that records can be updated.

All horse owners who also register with an email address at [http://www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xml/27\\_7416\\_ENA\\_HTML.htm](http://www.dpi.qld.gov.au/cps/rde/xchg/dpi/hs.xml/27_7416_ENA_HTML.htm) will receive the Equine Influenza E-newsletter update, published 3 times per week.

## Responsibilities of owning livestock

The introduction of the National Livestock Identification System (NLIS) has again emphasised the fact that if you own livestock, no matter how many, there are certain legal requirements and responsibilities that you need to be aware of.

### Property registration

If you own any number of horses, cattle, sheep, pigs, goats, buffalo, camelids (camels, llama, alpaca) and more than 100 poultry, your property must be registered with the Department of Primary Industries and Fisheries. When the property is registered it will be issued with a Property Identification Code

(PIC). This PIC (Number) is used on many documents relating to the property and livestock on that property.

### Identification

#### Branding

Branding is the legal method of establishing ownership of a number of species of livestock principally cattle and horses. It is a legal requirement for all cattle over 100 kg liveweight to be branded before sale.

#### National Livestock Identification System (NLIS)

All cattle, sheep and goats<sup>1</sup> leaving a property for any destination must carry an NLIS device. These are electronic ear tags or rumen boluses. All cattle movements have to be recorded on a national database which is administered by Meat and Livestock Australia (MLA). Horses, cattle, sheep and goats must be accompanied by an NVD/waybill when travelled. Contact your local DPI&F office to order tags and find out your responsibilities under this national system.

### Welfare

If you own livestock you are legally responsible for their welfare. The main considerations are that animals have adequate food, water and shelter.

Codes of practice for the welfare of most species of livestock have been developed. Copies of these codes of practice are available free from <http://www.publish.csiro.au/nid/22/sid/11.htm> or by calling DPI&F on 13 25 23.

### Livestock Production Assurance (LPA)

When cattle, sheep and lambs, bobby calves and goats are sold they must be accompanied by an LPA form. It is important to know that there are two LPA NVD forms for cattle one for EU accredited cattle and another for each of the other groups. This form identifies the animals being sold and details their husbandry history, specifically use of growth promotants, withholding periods for veterinary chemicals and vaccines and feeding in relation to any possible contamination.

It is necessary for these forms to be signed by the owner or the person responsible for the husbandry of the cattle. Random audits are carried out to ensure that information in these forms is correct.

LPA forms are available from Meat and Livestock Australia (MLA) ph 1800 683 111 or the website [www.mla.com.au/lpa](http://www.mla.com.au/lpa)

Further information

### DPI&F Offices

<sup>1</sup>There are concessions for registered stud dairy goats and harvested rangeland goats.

## New DPI&F hybrids yields a-maizing results for Tablelands

The Department of Primary Industries and Fisheries' maize-hybrid trials on the Atherton Tablelands promise higher yields and greater resistance to disease.

Two varieties in particular, AT2 and KSC 2077, have performed extremely well and have the potential to increase the profitability of the Tablelands' \$6 million dollar maize grain industry.

DPI&F senior plant breeder Ian Martin, said AT2, a DPI&F hybrid due for commercial release in the 2007-2008 season, had produced an average 9.3 per cent more grain than the popular district hybrid AT1.

'The grain quality of AT2 is good, similar to AT1,' he said.

'It retained its healthy green leaf well into the grain-fill phase when high yields can be determined, making it a good prospect for silage and green-chop production ideal for cattle feed.

'At the same time it demonstrated almost complete resistance to Polysora (Tropical) Rust disease.'

But more impressive was the performance of another DPI&F hybrid KSC 2077.

'Average grain production over the two trials was 17.5 per cent more than that recorded by AT1,' Mr Martin said.

At the test site on Ray DeMarzi's farm in Atherton, KSC 2077 produced slightly more than 10 tonnes a hectare.

'At the other site at DPI&F's Kairi Research Station, it achieved 4.85 t/ha giving it a 1.04 t/ha advantage over AT1 - and this was despite the late planting and water stress,' Mr Martin said.

'On the downside KSC 2077 did not retain green leaf as long as AT1 or AT2, suggesting it is better for grain production than for silage.

'Grain quality was not as good as AT1, but it was adequate.

'But its resistance to banded leaf and sheath spot (Rhizoctonia) was superior to AT1. Resistance to Polysora rust was similar to AT1.'

He said KSC 2077 would undergo a second season of evaluation this summer.

It would be released in commercial quantities for the 2008-9 season if its continued performance warranted it.

'Initial seed increase of its 'parents' has already started at Kairi Research Station,' Mr Martin said.

These findings were derived from the field testing of 120 experimental maize hybrids on the Atherton Tablelands during the 2006-2007 summer season.

Varieties included 18 from private seed companies and the remainder from the department's maize breeding program at Kairi Research Station.



DPI&F senior plant breeder Ian Martin inspects the new hybrid AT1 which performed well last summer.

The varieties tested at the DeMarzi farm were planted at the start of 2007. This trial experienced favourable growing conditions despite heavy rain in February.

Planting densities were between 60,000 and 65,000 a hectare. DAP fertiliser at about 150 kg a hectare was applied at planting and urea was side-dressed at about 300 kg a hectare.

The second trial at Kairi was planted some six weeks later. Moisture stress during grain fill reduced grain yields, particularly for later maturing hybrids.

The Grains Research and Development Corporation (GRDC) has been a financial supporter and valuable partner in DPI&F's maize breeding work for some 13 years.

**David Anthony**

Senior Media Officer (07) 4044 1676

## MILLAR & TEITZEL

Certified Practising Accountant



AUSTRALIAN SOCIETY OF CPAS

- ★ Business & Rural Advisors
- ★ Tax & Business Planning

**Principal:** Gilbert Teitzel

**Associate:** Denise Lee Long

**Phone:** 4092 1066

**Fax:** 4092 4600


**Level 1, Office 6**

**81 Byrnes Street, Mareeba**

**E-mail: Admin@MillarTeitzel.com.au**

# Action

Ensure full marketability for your livestock.  
Check your LPA status now!

1. Go to **[www.mla.com.au/lqs](http://www.mla.com.au/lqs)**
2. Click on this logo 
3. Type in your **Property Identification Code** (PIC)
4. Ascertain status
  - If **Full Accreditation** is shown
    - > no action required
  - If **Provisional Accreditation** is shown
    - > follow prompts online to update status  
or call **1800 683 111**

Please turn over to have your questions answered.

Update LPA accreditation by March 1st



# Do you own cattle, sheep or goats?

Protect our \$15 billion industry and update your LPA Accreditation now.

## When do I need to upgrade my LPA accreditation?

You can upgrade your LPA accreditation now. As of 1 March 2008, if you are not fully accredited you will not be permitted to use LPA NVDs. You don't need to order new LPA NVD forms, you just need to upgrade your status.

## How do I check whether I am Provisionally or Fully Accredited?

Go to [www.mla.com.au/lqs](http://www.mla.com.au/lqs) and click through to the LPA status check. Enter your Property Identification Code (PIC) and your status will be displayed. You can also check and upgrade your status by calling 1800 683 111 and agreeing to the LPA terms and conditions.

## What do I do if I am Provisionally Accredited?

Follow the prompts on screen at [www.mla.com.au/lqs](http://www.mla.com.au/lqs) and agree to the LPA terms and conditions and you will have your status upgraded on the LPA database. You can also call **1800 683 111** and upgrade over the phone. It's free to upgrade to full accreditation.

## I have Provisional LPA accreditation - isn't that good enough?

No. After 1 March you will not be able to use the LPA NVDs that you have at home if you are not fully accredited. You don't need to order LPA NVD books, you just need to upgrade your status. If you are not fully accredited, you cannot sell your stock using an LPA NVD. Buyers of livestock at saleyards will be able to check LPA accreditation status prior to sales through presale catalogues. Feedlots, processing plants or live export depots can check the status of producers through the LPA or NLIS databases for direct consignments.

## What are the benefits to upgrading my LPA status?

Individuals will benefit from being fully accredited as they will be able to use the LPA NVDs. As an industry, the move is aimed at further strengthening Australia's reputation as the world's leading supplier of safe, quality red meat.

## I'm just a small hobby farm with some goats, calves and lambs, why do I need to bother with this process?

When you want to sell your livestock, major customers are looking for LPA NVDs to verify the integrity of the products being sold. If you don't upgrade your accreditation, your LPA NVD will not be valid and your access to markets may be significantly decreased.

## What will happen if I don't upgrade my LPA status?

As of 1 March 2008, when you sell livestock through saleyards, feedlots, processing plants or live export depots, your LPA status may be noted or checked. If you send your livestock with an LPA NVD and you are not fully accredited, you are breaking the rules of LPA and your form will be invalid. Processors and exporters may not accept your livestock, agents can note in presale catalogues your provisional status and the market for your livestock may be reduced.

## Who made the decision to end provisional accreditation?

The LPA Advisory Committee, (the group representing all sectors of the livestock industry, including cattle, sheep, goat and dairy producers, livestock agents, processors and lot feeders), made the decision that there would only be one status on the LPA database and that is fully accredited. This was based on the fact that the majority of livestock properties in Australia selling through saleyards, processors and feedlots are already fully accredited.

## Where can I get more information or my questions answered?

Go to [www.mla.com.au/lqs](http://www.mla.com.au/lqs) or call **1800 683 111**.

## How much will it cost me to become full accredited?

Nothing, just go to the website [www.mla.com.au/lqs](http://www.mla.com.au/lqs) or phone **1800 686 111**.

# Accredited?

Time is running out for Provisional Accreditation of livestock producers in the LPA program. The LPA Advisory Committee has given until 1 March 2008 for producers to upgrade to Full Accreditation. If you fail to upgrade to Full Accreditation by 1 March 2008, you will no longer be allowed to use LPA NVDs to sell livestock. It only takes a couple of minutes online or on the telephone to agree to the LPA Terms and Conditions and it costs you nothing. Being in LPA and using an LPA NVD is a commitment to good farming practices and ensures access to red meat markets. Update your status now, [www.mla.com.au/lqs](http://www.mla.com.au/lqs) or call **1800 683 111**.

Update LPA accreditation by March 1st



**LIVESTOCK  
PRODUCTION  
ASSURANCE**



## Highlights from the SPIRAL project ('Strategic Partnerships Incentives for Revitalising Active Landcare') in the Burdekin Rangelands

Year three of the National Landcare Programme SPIRAL project was officially opened on Tuesday 2 October 2007. In the third and final round of the SPIRAL project a diverse range of projects and educational activities are to be targeted.

Applications for on-ground works through the SPIRAL project were open for 4 weeks and closed on 2 November 2007. This year, interest in the SPIRAL project has sky rocketed with a total of 66 applications being received. The review process for these projects is currently being undertaken and successful applicants will be notified in early December 2007. There was a strong mix of well written projects in this years round. Interestingly, we have started to see clusters of properties applying for funding, reflecting this spread of news about the project by word of mouth. Best of luck to all who applied in this years funding round.

Training Subsidies: Subsidised training for landholders in the Dalrymple Shire will again be a significant part of Year 3 of the SPIRAL project. Subsidies for Grazing Land Management (Edge® Network) and the use of GPS and Computer Mapping training are available. It is hoped that a series of 'on-property' GPS training and Computer Mapping workshops will be held in March-April 2008. Interested landholders should contact John Nicholas on Ph 07 4754 6120 or [john.nicholas@dpi.qld.gov.au](mailto:john.nicholas@dpi.qld.gov.au) for further information.

### QLD Landcare Conference Update – Mackay August 22 – 25 2007

Both John Nicholas & June Brundell were able to attend the 2007 State Landcare Conference held in Mackay during August. The three day conference included two days of presentations at venues in Mackay itself, with the third day of the conference entailing an all day field visit to a number of sites in the region. Both project officers were able to attend a wide range of seminars and information sessions and found the conference to be an excellent event.

The theme for the conference was centered around 'Making A Difference...' Presenters at the conference covered a wide and varied range of topics relating to landcare on both the local, state, national and international levels. Many of the presenters agreed that the future of landcare is looking promising, and the landcare movement is growing more and more across Queensland. For both project officers it was also an excellent opportunity to talk one on one with many people from around the state working in the same field.

A highlight during the conference was the QLD State Landcare Awards dinner held on Thursday 23 August 2007. The Dalrymple Landcare Committee Inc was nominated for the Alcoa Landcare Community Group

Award and were lucky enough to take third place in this years awards.

Congratulations must be handed on to all of the landholders who have been involved with the Dalrymple Landcare Committee over the past 18 years, as well as the many committee members and of course project officers Tania Dahl and Marie Vitelli who put in the hard yards over many years to get the group to third place!

### PlaceStories & Digital Dalrymple Landcare highlighted at this years Queensland Landcare Conference

John Nicholas was able to grab a five minute timeslot in this years State Landcare Conference 'LandSpeak Session' to give a brief but important insight into the committee's use of the *PlaceStories* software. John was asked to present on how the *PlaceStories* software has been able to help the Dalrymple Landcare Committee enter the digital age. *PlaceStories* is focused heavily on sharing these stories online, allowing people from around the world to look at the achievements of landholders in looking after their land.

It is hoped that from this presentation as well as several other carried out by State Landcare Co-ordinator Rick Kowitz and Landcare QLD Manager Emma Trigg that the software will soon be realised and implemented across the state. The first trial training workshop with other Community Landcare Co-ordinators and project officers from around the state will be run by software developers Feral Arts and John Nicholas in early December in Brisbane.

Stories already completed for the Dalrymple region are viewable at [www.placestories.com](http://www.placestories.com) under the heading of Digital Dalrymple Landcare.

### Scoping of new projects – Looking beyond June 2008

As we fast approach the end of 2007, the Dalrymple Landcare Committee eagerly awaits the release of the new guidelines for projects under the Natural Heritage Trust Round 3 and the National Landcare Programme. Currently, the SPIRAL project and Clarke River & East Burdekin projects are scheduled to wrap up in June 2008. The Dalrymple Landcare Committee would like to talk to anyone who has ideas for new projects for the whole of the shire or in a particular region.

The issues of woody weeds will remain a significant part of our focus work along with the issue of water quality in the Burdekin Rangelands. It is important to consider that there is a host of issues across the shire and that several of these may be able to be addressed in the new funding rounds. The committee values input from landholders and landcare groups very highly and looks forward to hearing from the landholders about what some of these issues are.

### John Nicholas

Project Officer – SPIRAL Dalrymple Landcare Committee Inc.  
PO Box 976 Charters Towers QLD 4820  
Ph (07) 4754 6120 [john.nicholas@dpi.qld.gov.au](mailto:john.nicholas@dpi.qld.gov.au)





# Big head in horses

**B**ig head is a calcium deficiency of horses and donkeys grazing specific introduced tropical grasses. Cattle and sheep are not affected because their rumen bacteria break down the problem chemicals.

The symptoms are lameness, ill-thrift and swelling of the jaw bones. Mares, foals, weanlings and high performance horses are most commonly affected because they are the animals with the highest demand for calcium. The condition is easily and economically preventable. Also, in most cases affected horses can be treated.

## What causes big head?

A diet consisting mainly of hazardous tropical grasses is the major cause of big head. In these grasses, the calcium is tied up and horses cannot absorb it.

The most hazardous grasses are setaria, buffel, and green panic. Following these are guinea, common guinea, para, purple pigeon, pangola, signal and humidicola. Least hazardous is kikuyu.

Big head can develop within two months of grazing these pastures but usually takes 6 to 8 months.

High grain diets without adequate additives may also cause problems. Grains are low in calcium.

## Prevention

A strategy to prevent big head should be adopted with all these grasses. Prevention measures are simple and effective. Horses grazed on pastures that contain a significant proportion of safe grasses will not develop big head. Safe grasses include native grasses, Rhodes grass and legumes.

When hazardous grasses are grazed, supplementary feeding with both calcium and phosphorous is required. A correctly balanced supplement is necessary. The ratio of 2:1 of Ca:P is important. Feeding calcium only may induce phosphorous deficiency.

High grain diets should be balanced with calcium and phosphorous.

To prevent big head on hazardous grasses:

- Feed 20 kg lucerne per head per week OR
- 1 kg DCP + at least 1.5 kg molasses per head per week.

## Treatment

To treat affected horses, feed twice the above amounts for at least 6 months to replace mineral in the bones. The lameness and ill-thrift are curable. The swelling of the jaw bones may not be fully cured if the horse was severely affected. In some cases, extra calcium from extra limestone will be required.

There are a number of commercial supplements available. Supplements presented as lick-blocks are unlikely to allow sufficient intake to meet horses' Ca and P needs. Ensure the one you choose delivers

- 20 g of calcium (Ca) and 10 g of phosphorous (P) daily for prevention OR
- Double those levels to treat affected horses.

With the common use of molasses supplements, DCP can be added to molasses plus protein meal supplements (see the next article).

*Alan Laing*

## Molasses based supplements for horses

**M**olasses is a cheap and very palatable energy supplement for horses. However it is low in protein and phosphorous. These can be readily supplied in a mix.

Horses will perform readily on this sort of supplement and in a mob situation, not have the issue of fighting such as happens with grain feeding horses.

A balanced molasses based supplement can be cost effective for mares and foals, horses down in condition, to prevent big head on hazardous grasses and to treat horses affected by Big head.

### Basic mix

Molasses plus 10% protein meal. Feed 15 kg molasses + 1.5 kg protein meal per horse per week (Fed once a week is fine).

Which protein meal to use can be on the basis of cost. Some protein meals contain oil which assists with bloom and shine in the horse's coat. Copra meal has the most oil, followed by palm kernel extract (PKE) and then mill run.

### Mares and foals and horses down in condition

Phosphorous is really needed for these as well. Feed 15 kg molasses + 1.5 kg protein meal + 0.5 kg DCP per horse per week.

### On hazardous grasses to prevent big head

Feed 15 kg molasses + 1.5 kg protein meal + 1 kg DCP per horse per week.

### To supplement horses affected with big head

Feed 15 kg molasses + 1.5 kg protein meal + 2 kg DCP per horse per week.

*Alan Laing*

*Extension Officer (Beef), Ayr Research Station*

*Ph (07) 47 20 5100*

*Email: alan.laing@dpi.qld.gov.au*

## Sulphur – too little or too much?

Sulphur plays an important role in cattle nutrition. It is an important constituent of protein and is essential for microbial synthesis of protein, cellulose and starch in the rumen. Therefore it plays an important role in protein, fat and carbohydrate metabolism.

For grazing cattle the main source of sulphur is in grass, especially when it is green. As pasture matures and the protein content of the grass falls, the intake of sulphur also declines.

### **Adding sulphur to supplements**

Sulphur is required by the rumen microbes to form microbial protein. The animals requirements for sulphur are usually met from pasture but when a source of nitrogen such as urea is added to the diet extra sulphur is usually required. This is usually done by adding Gran-am or elemental sulphur

When adding sulphur to supplements or production mixes the amount of sulphur in the total diet should be taken into account. Some water, especially bore water, can contain high levels of sulphur. Cattle require 1.5 g of sulphur per kg of dry matter.

The optimum ratio of nitrogen to sulphur for licks is 10N:1S. This can be achieved by adding Gran-am or elemental sulphur at the following rates:

**Gran-am.** Gran-am should be added at a rate of 1 part Gran-am to 5 parts of urea.

**Elemental sulphur.** Elemental sulphur should be added at a rate of 1 part sulphur to 20 parts urea.

If the lick contains a significant amount of protein meal further adjustments will need to be made to the sulphur level to balance the nitrogen: sulphur ratio.

Commercially available supplements such as blocks or dry licks usually have the correct nitrogen to sulphur ratio.

Molasses contains significant levels of sulphur. Therefore it is NOT necessary to add extra sulphur even when urea is added.

### **What happens if cattle consume too much sulphur?**

As Gran-am is very bitter it is sometimes included at higher levels to help to control intake. This can lead to excess intake of sulphur.

Adding extra sulphur to fortified molasses or grain mixes where intakes are high (2 kg per day or higher) can lead to severe problems and death.

In cattle large amounts of sulphur can lead to sulphur toxicosis, a permanent brain disability and death. The initial signs in the animal are restlessness, thrashing, kicking at the stomach, staggering, diarrhoea and muscular twitching.

There are a few recent cases where deaths have occurred where excess levels of sulphur have been used

in feeds to control intakes. In these instances Gran-am was added to molasses mixes, and Gran-am and/or magnesium sulphate was added to grain mixes, in an attempt to reduce intake.

### **Mineral imbalance**

Undesirable secondary affects can also occur where there is an excess level of a mineral in a diet. These secondary effects can result in a deficiency in another mineral and/or reduced feed intake. Excess sulphur decreases copper retention and can precipitate a copper deficiency.

A dietary imbalance often results in a reduction in feed intake and for this reason alone it is not a good idea to use an excess of any minerals in feed rations. Excess levels of sulphur have been shown to result in reduced feed intake and reduce rumen motility.

The National Research Council suggests that ruminants should not be fed more than 0.4% sulphur (Dry Matter Basis) to prevent reductions in intake (NRC, 1987). However symptoms of a disease called PEM have been induced in cattle consuming diets with 0.4% sulphur (Gould *et al.*, 1991). PEM or Polioencephalomalacia is a disease condition characterized by necrosis of the cerebrocortical region of the brain. Until we know more it may be safer to use lower levels, or work on 1.5 g of sulphur per kg dry matter.

### **Sulphur deficiency – where does it occur?**

Basalt soils world wide are often deficient in both sodium and sulphur. Sodium and sulphur are primarily deficiencies of the wet season, just as phosphorus is most limiting in the wet season on phosphorus deficient soils. Mulga country is also deficient in sulphur.

The recommended supplement on basalt country for wet season salt and sulphur feeding is salt and 12% sulphur by weight. Depending on the location cattle will consume 50-60 grams of the mix per day. Intakes may be higher than this in the first few weeks of feeding.

For more information on mineral supplementation, and other aspects of cattle nutrition, enrol in a Nutrition EDGE workshop.

### **Felicity Hamlyn-Hill**

DPI&F Charters Towers Ph (07) 4761 5157

## BURDEKIN MOTORS PTY LTD

Merry Christmas

Call our sales team

▶ Hugh Montgomery  
0427 900 623

▶ Michael Mooney  
0418 726 111

NISSAN  
MITSUBISHI  
HYUNDAI

183 QUEEN STREET AYR 4807  
Ph: (07) 4783 7077 or 1800 090 011  
Fax: (07) 4783 7044

# Molasses based supplements for weaners

This year grain, urea and protein meal prices have all risen markedly. Some properties are paying over \$900 per tonne landed for urea. Between them, these commodities make supplements like our grain based, protein meal based and M8U very expensive.

In a large part of our area, molasses is still our cheapest energy base for a supplement, particularly for weaners. However, molasses is deficient in protein and phosphorous (P). We fix those deficiencies by fortifying with urea, protein meal and a phosphorous source.

At high intakes of molasses, salt is added to balance the high potassium content of molasses.

In the table below are some molasses based supplements with comments in light of current prices.

## Molasses based supplements

Supplement	Comments
M8U	Urea price has made this supplement quite expensive.
M3U10PM known as MUP	This is a valuable standard production/performance/fattening mix. This mix is recommended for weaners under 120 kg.
M3U6PM	A cost effective supplement for weaners above 120 kg.
M3U6Grain	Where cracked grain can be landed at a reasonable price, this is a suitable supplement for cattle above 120 kg.
M3U mixes	These will all be very palatable and intakes may increase. Unless fattening cattle for sale, or feeding poor cattle, feed a limited amount twice a week to limit intake. Feeding 2 kg per head per day means 4.5 litres (or 1 gallon) per head twice a week

MUP – Molasses, Urea, Protein Meal  
PM – Protein meal

All of these molasses/urea mixes need to be mechanically mixed to ensure the urea is dissolved in the molasses and evenly mixed.

## Urea

A minimum of 3% urea is required for the rumen bugs to be able to handle the molasses. It is preferable to use prilled urea in molasses mixes. However, granulated urea can be used and should be mixed for longer. Never dissolve the urea in water first. Put urea raw into the molasses for mixing.

## Protein meal

As a rule of thumb, use the cheapest protein meal you can source. Exception being weaners under 120 kg. Use copra or cottonseed meal for these because they are more palatable.

## Phosphorous source

DCP if it is fluffy and like talcum powder will suspend readily in the molasses. Heavier particle size DCP and Kynofos do not stay suspended for long and settle to the bottom. Technical grade MAP dissolves readily in the molasses and stays dissolved.

## Rumensin 100

Rumensin 100 (active ingredient Monensin) does two things in the molasses. It is a coccidiostat and prevents coccidiosis in young cattle. It also improves feed conversion efficiency. Do not feed Rumensin to horses.

## Thick molasses

At sometimes of the year, and at certain sugar mills, there can be very thick molasses which is reluctant to run. A small amount of water, and as little as 20 litres in 5 or 6 tonne will make a big difference to the flow rate of the mixture. In the case of thick molasses use as little water as possible.

## Mix for M3U6PM

Ingredient	kgs	kgs
Molasses	1000	1000
Urea	30	30
Protein meal	60	60
Tech grade MAP	12.5	0
DCP	0	20
Salt	10	10
Rumensin 100	0.5	0.5

Per 2 kgs of either mix, 7 g of P is supplied.

## How much to feed and special needs

Weaners under 120 kg (unless on good green pasture) need a minimum of 1 kg per day of a concentrate supplement. These molasses brews fit that need. They also need 10% protein meal in the molasses. Roughage may need to be limited to achieve desired intakes of concentrate. The more they eat, the better they will perform. Some groups of weaners will need 1 to 2 kgs per day to perform to expectations.

Weaners 60 to 100 kgs, can be fed MUP PLUS 1/3 kg per day of a palatable protein meal in a separate trough.

## Alan Laing

Extension Officer (Beef) Ayr Research Station

Ph (07) 47 20 5100

Email: alan.laing@dpi.qld.gov.au

# BEC Feed Solutions Pty Ltd

Following the merge with Adisseo Australia, BEC Feed Solutions becomes the supplier of the most complete range of stock feed commodities, feed ingredients and premixes to the Australian stock feed industry.

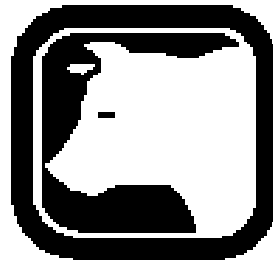
Just to name a few:

## KYNOFOS 21

For prevention of bone chewing & enhancing fertility of your cattle

## RUMIGRO™ Premix

Special vitamin & mineral supplement for ruminants to promote their growth & performance



## OTHER FEED INGREDIENTS

Including vegetable protein meals, salt, limestone, urea, sulphur, sulphate of ammonia, sodium bicarbonate and many more

For more information contact BEC Feed Solutions or your local supplement supplier.



## BEC Feed Solutions

50/66 Antimony Street  
Carole Park QLD  
4300

Ph 07 3723 9800

