



DAIRY RESEARCH FOUNDATION NEWSLETTER

Volume 4 - Issue 3, NOVEMBER 2012

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DIRECTORS' UPDATE

Welcome to our latest edition of the DRF Newsletter.

Our previous issue was just before the symposium so we have plenty of information in this issue from another very successful event!

Similar to many farmers in NSW and QLD, we are very concerned with the current milk price situation affecting a substantial number of farms across both States.

However the future is looking more promising with a significant increase in tier-2 price announced for February. We are exploring options into the future to secure the sustainability of our teaching and research dairy operation at Corstorphine.

In this issue focus is placed on AMS research. As per plan we have decommissioned our robotic rotary prototype but we still have plenty of research news to share. Read about the application of grazing management rules on AMS and the latest from an experiment with voluntary-traffic cows grazing soybean at the AMS farm. As usual our excellent postgrad students give an update of where their research is up to.

Enjoy your reading and please do send us your feedback!

Yani Garcia



*DRF Director,
Assoc Prof Yani Garcia*

FROM THE PRESIDENT

There is currently great concern in the Dairy Industry over funding cuts to the NSW DPI. While these concerns are real they may, if managed well, create opportunities and give farming and research bodies a greater control over the directions research is taking.

Bill Inglis



*Mr Bill Inglis,
President of the DRF*

2012 DRF SYMPOSIUM HELPS TO ENERGISE THE DAIRY INDUSTRY

The Dairy Research Foundations Annual Symposium was held on Thursday 5th and Friday 6th July 2012 at the LKCC in Camden and EMAI at Menangle.

This event was another huge success attracting over 170 people to the two day event. The DRF had the support of over 20 sponsors and exhibitors.

As part of the program, anyone involved in the Australian dairy industry can be nominated for the **Milk Marketing NSW** sponsored **Dairy Science Award**. This award is then voted on by the DRF Council and this year's **winner was Warrnambool farmer, Shirley Harlock**. Shirley, together with her husband John operates 5 properties across Victoria and South Australia. As well as being a proactive dairy industry representative, Shirley is also the Chair of our FutureDairy Project Steering Committee.

Australian author and journalist, Julian Cribb, most noted for his book on the global food crisis, "The Coming Famine" presented a segment on energising the dairy of the future. This was a real hit with the audience, particularly the farmers who said his talk was great for understanding long term risks and opportunities.



Ron Perich, Bill Inglis and Max Roberts in discussion during a break on Day 1

'A Fabulous blend of topics, discussions and speakers'

- Anon, 2012 Symposium



Nick Dornauf (L) and Rebecca Taylor (M) from Gala Farm in Tasmania

'A great opportunity to get away and enjoy the companionship of others in the dairy industry'

- Anon, 2012 Symposium



'Great day, great speakers, very challenging and very stimulating'
- Anon, 2012 Symposium

Another key speaker was **Dr Jude Capper** from Washington State University in the USA. Jude spoke to the audience about reducing losses throughout dairy production and proved to be another very popular presenter. Jude has conducted research worldwide and is currently looking at comparisons between historical and modern production practices in dairy and beef technology.

Amongst other speakers were **Stephanie Tarlington** who'd like to help build the global name of Australian dairy products, **Cameron Gourley**, a soil expert from DPI Victoria and **Hayden Lawrence** from Spatial Solutions NZ.

Highly popular were our farmer speakers, **Steve Salway**, **Peter Notman** and **Annette Zurrer**. Each had their own story and personalised some very real issues for many in the industry.

Stephanie Tarlington presents at the 2012 Symposium



Post-grad student and Uni of Sydney Vet, Derek Keeper



Helen Golder with Wolfie Wagner of the Gardiner Foundation

A true highlight, as always, were the presentations made by the emerging scientists supported by Dairy Australia in their post-graduate studies.

All the students presented at least 4 times to individual groups on day 2 and every one of them was spectacular.

1st, 2nd and 3rd prizes supported by the **Gardiner Foundation** were presented on the day to young scientists **Nicolas Lyons**, **Helen Golder** and **Michael Campbell**.

*'So refreshing to see the young scientists
present their work in such a great forum'*

- Anon, 2012 Symposium

2012 SYMPOSIUM GALLERY



Nick Chittick Emma Sutton and Stuart Lockhart

Cameron Gourley and Phil Monaghan



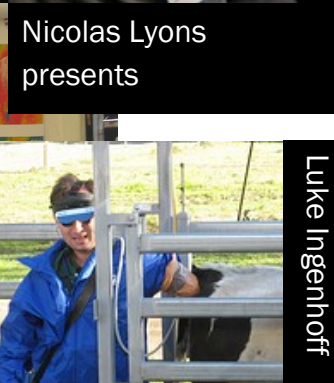
Nicolas Lyons
presents



The NSW Farmers Team



Student Saranika Talukder



Luke Ingenhoff



Rob Grenall

The second meeting of the DRF Council for 2012 was held on Monday 22nd October. The current issues surrounding milk prices and Tier 2 milk supplies was a hot topic on the day.

For further information please contact

vetscience.dairyresearch@sydney.edu.au

*'This Symposium provided
plenty of food for thought'*

- Anon, 2012 Symposium

DRF MEETING NEWS



ROBOTIC PROTOTYPE COMPLETES ITS JOURNEY

FutureDairy has announced that its prototype of the revolutionary robotic rotary will be decommissioned later in the year.

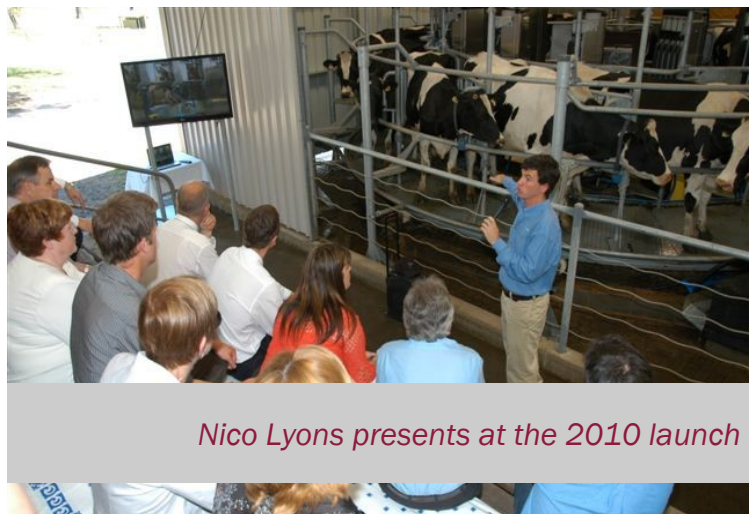
Chairman, Shirley Harlock, said the decommissioning was both expected and planned. “The 16-bail prototype at Camden was used for R&D purposes: it’s an early design that was used for concept testing,” Mrs Harlock said.

In the process it was modified, using ‘one-off’ custom-made parts which are difficult to maintain in the long term. “From the outset, we knew the prototype would be ‘decommissioned’ after the successful commercialisation of the AMR™ by DeLaval.”

The FutureDairy team has completed data collection from all of the component research work planned for the prototype robotic rotary. Plans are under way for a replacement dairy at the site. In the interim, FutureDairy’s activities will focus on existing commercial AMS and AMR installations to develop resources that support AMS farmers and provide answers to those who are considering AMS. The activities will include research, development of extension resources and support for farmers.

“The decommissioning step marks another successful milestone for FutureDairy: the development of a product which is now commercially available. It is a world first that has been strongly influenced by the Australian dairy industry.

That’s an achievement that we can all be very proud of, ”Mrs Harlock said.



For more information, contact Dr Kendra Kerrisk at kendra.kerrisk@sydney.edu.au

LAND AREAS AND WALKING REQUIRED BY LARGE AMS HERDS

Walking distances of greater than 1-km are associated with an increased incidence of undesirably long milking intervals and reduced milk yield in pasture-based automatic milking system (AMS). Therefore, in future the greatest challenge to maintain a large pasture-based herd would be to limit the walking distance in AMS.

The aim of this study was to investigate the total land area required and associated walking distance for large AMS herds when incorporating complementary forage rotations (CFR) into the system.

Thirty-six scenarios consisting of 3 AMS herds (400, 600, 800 cows), 2 pasture utilisation (current AMS utilisation of 15.0 t dry matter [DM]/ha, termed as moderate; optimum pasture utilisation of 19.7 t DM/ha, termed as high) and 6 rates of replacement of each of these pastures by grazeable CFR (0, 10, 20, 30, 40, 50%) were investigated.

Results showed that AMS cows required to walk greater than 1-km when the farm area is greater than 86 ha (Fig. 1).

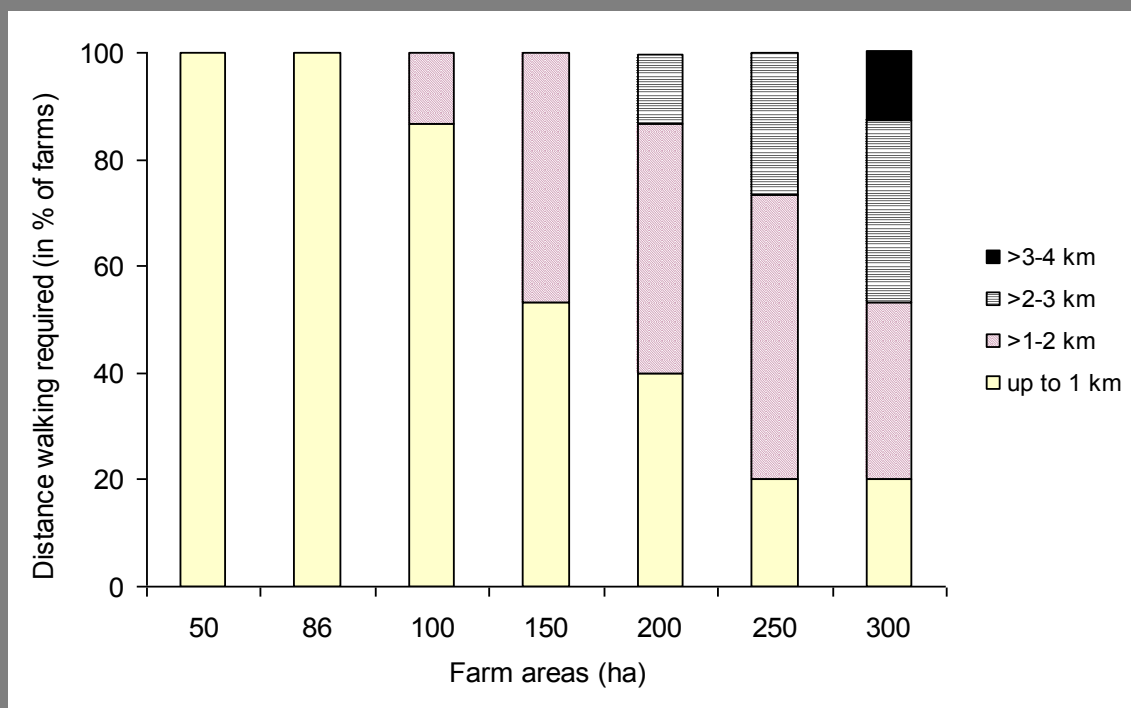


Fig. 1. Walking distances (km) required by cows for different farm areas (legends show distances in km)

LAND AREAS AND WALKING REQUIRED BY LARGE AMS HERDS (con't)

A 400 cow herd requires 100 ha (13% of paddocks outside 1-km) and 80 ha (all paddocks within 1-km) on moderate and high pasture-based AMS system, respectively (Table 1).

Introduction of pasture (moderate): CFR in AMS at a ratio of 70:30 can feed a 400 cow AMS herd.

Table 1. Farm areas and stocking rate of cows required for different herd sizes managed in moderate and high pasture utilisation system with different rates of grazeable complementary forage rotation (CFR) in automatic milking system

Pasture utilisation	CFR (%)	Herd size (n)		
		400	600	800
	Farm areas required (ha)			
Moderate (15.0 t DM/ha)	0	100	150	200
	10	100	140	190
	20	90	130	170
	30	80	120	160
	40	80	110	150
	50	70	110	140
High (19.7 t DM/ha)	0	80	120	160
	10	80	110	150
	20	70	110	140
	30	70	110	140
	40	70	100	130
	50	60	100	130

A 600 cow herd requires 150 ha (46% of paddocks outside 1-km) and 120 ha (27% paddocks outside 1-km) on moderate and high pasture-based AMS system, respectively (Table 1; Fig. 1).

An 800 cow herd required 200 ha (60% paddocks outside 1-km) and 160 ha (47% paddocks outside 1-km) on moderate and high pasture-based AMS system, respectively. Although land requirement decreased with the increase of CFR, it cannot feed large herds.

Given the impact of increasing land area past 86 ha on walking distance, cow numbers could be increased by purchasing feed from off the milking platform and/or using the land outside 1-km distance for conserved feed.

However, this warrants further investigations into risk analyses (both management and financial) of different management options including development of an innovative system in order to manage large herds in an AMS farming system.

For further information please contact Dr Rafiq Islam at md.islam@sydney.edu.au

THE APPLICATION OF PASTURE MANAGEMENT PRINCIPLES IN AMS

On dairy farms in Australia with conventional milking systems (CMS), feed and labour contribute the greatest proportion of costs. Grazed pasture as a feed source continues to be pivotal to controlling feed costs on CMS as well-managed grazed pasture remains one of the highest quality and cheapest feed sources on dairy farms.

In this regard, there are established principles for pasture management based around the concepts of leaf stage, pre- and post-grazing pasture mass and post-grazing pasture height. While research on pasture utilisation in AMS is available, there is little information reporting the feasibility of incorporating any of these pasture management principles into AMS farms.

The aim of this study was to determine pre- and post-grazing height for pasture-based AMS with the hypothesis that CMS management principles based on pasture height/mass can be successfully applied to AMS farms.

The results of this study conducted over 2 years indicate that pasture management principles based on pre- and post-graze mass can be successfully applied in AMS farms. Accurate allocation of feed ensured that pre- and post-grazing mass were maintained within the boundaries determined by best practice management (see Figure 1).

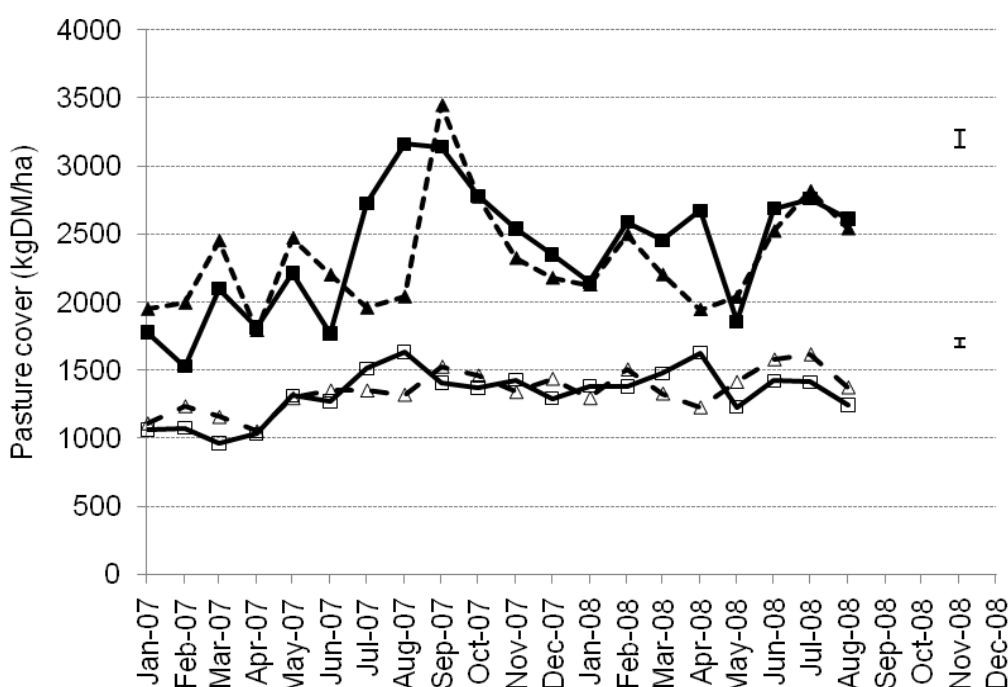


Figure 1: Day (solid line) and night (dashed line) pre (filled) and post (open) pasture cover (kg DM/ha) for each month of the trial period. The upper (pre) and lower (post) error bars indicate the average standard error of the difference.



THE APPLICATION OF PASTURE MANAGEMENT PRINCIPLES IN AMS (con't)

For instance, post-grazing pasture mass was consistently maintained at around 1,500kg DM/ha (equivalent to around 5-6cm height). Also, milk production ($\approx 6,500$ L milk/cow) and pasture utilisation (≈ 12 t DM/ha) were maintained at levels well above

Australian industry averages of 5,700L milk/cow and 7-8t DM/ha, respectively.

For further information please contact Dr Cameron Clark at Cameron.clark@sydney.edu.au



VETERINARY SCIENCE FACULTY MOVEMBER TEAM

This year, staff and students from the Faculty of Veterinary Science have decided to join efforts and form **Team MOOVEMBER** (above). The team name is relevant to this event in more than one way, and it has been unanimously voted by all members to support dairy farmers and their families who have been suffering under the strain of the milk price war. Lastly, below you will see our new mascot: her name is Merve moos (below right) proudly worn by our Team Captain (Stuart Skene above).

This is the link to donate online: https://www.movember.com/au/donate/payment/team_id/447173/

If you'd like to find out more about the type of work you'd be helping to fund by supporting Movember, take a look at the Programs We Fund section on the Movember website: <http://au.movember.com/about/funding-overview/>

You can follow Team MOOVEMBER on Facebook (<http://www.facebook.com/groups/157190367705394/>): stay tuned for new mo-photos.



GRAZING SOYBEAN IN A PASTURE-BASED AUTOMATIC MILKING SYSTEM

By Dr Cameron Clark

The ability to grow 25tDM/ha/yr in conventional milking system through incorporating a complementary forage rotation on 30% of the milking platform has been highlighted previously by FutureDairy. Those results far exceeded the average Australian dairy farm pasture yield of 7-8tDM/ha/yr and indicated clear opportunities to incorporate alternative forages into automatic milking systems (AMS) to reduce the average distance of feed from the dairy.

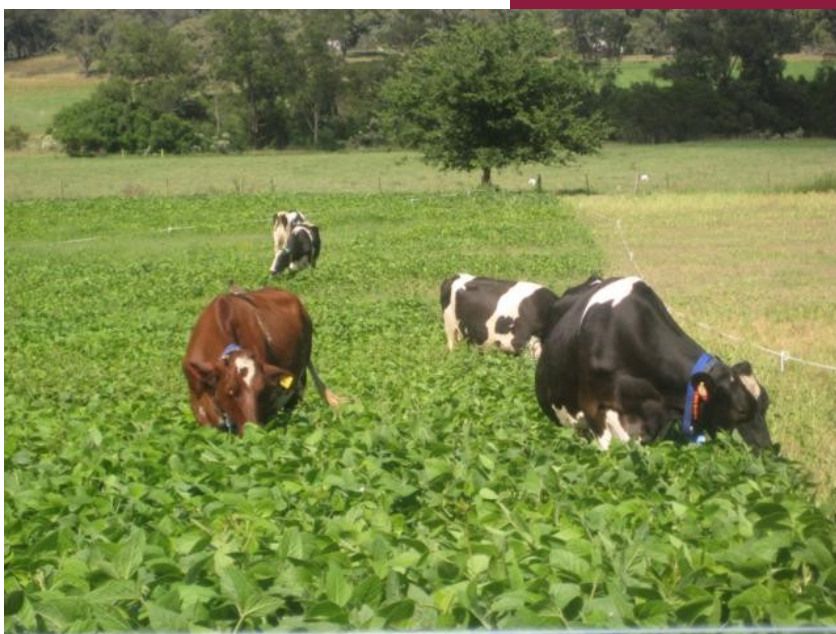
However, the impact of offering alternative forages on cow traffic in AMS is largely unknown. In a cow preference study, led by Ajantha Horadagoda of FutureDairy, cows grazed soybean for a significantly greater time (approximately 70%) than alternative forages such as cowpeas and lablab.

This work highlighted cow preference for certain forages and the opportunity to utilise the preference for certain forages to modify cow behaviour in a commercial setting.

Therefore, the aim of this experiment was to investigate the impact on cow traffic when one allocation of pasture is replaced with soybean in an AMS grazing system, with the hypothesis that incorporating soybean would increase cow traffic from the stale pasture allocation and thereby increase milk production.

Despite the previously shown dairy cow preference for legumes, voluntary cow traffic was not increased by offering soybean and intake rates were similar to pasture in the current study.

However, dairy cows offered soybean had approximately double the intake as compared with pasture, however, the rate at which soybean and pasture was consumed was similar.



The greater soybean intake was subsequently due to cows grazing for a longer period of time, possibly due to the tendency and time required for cows to select out soybean leaf before grazing the stems. These findings indicate that high nutritive value alternative forages with less distinction between stem and leaf may be required to increase dairy cow intake rates for future AMS farms.

Forages such as chicory or forage rape would be potential species to evaluate. Whilst these alternative forages may help increase intake, intake rate and the amount of feed grown, it is unlikely that any alternative forage would increase cow traffic from a stale pasture allocation as soybean is a type of forage with very high cow preference.

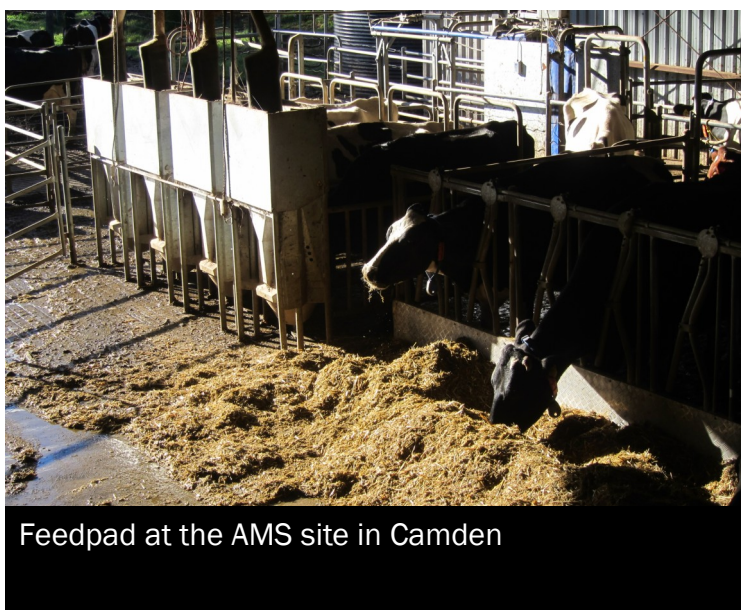
For further information please contact Dr Cameron Clark at cameron.clark@sydney.edu.au

INVESTIGATION INTO FLAVOUR ENHANCER IN CONCENTRATES FED AT THE CAMDEN AMS DAIRY

By Tori Scott

In late 2011, a short pilot investigation looking at the effect of adding flavour enhancer into pelleted concentrate fed at the dairy (both in automatic feeders and at milking) was conducted at the Camden AMS research farm to determine whether flavour enhancer may be able to reduce pre-milking waiting times at the dairy. While flavour enhancer doesn't change the nutritive value of the concentrate, it does heighten the flavour and thus increase the appeal of the feed. A greater 'appeal' could increase the value of feed as an incentive, and therefore encourage greater cow traffic in AMS.

In pasture-based voluntary AMS, it is important to be able to generate and maintain acceptable levels of cow traffic. Through increasing the cow traffic across the farm, the farmer will have greater opportunities to draft cows for milking when they return from pasture. This in turn could increase the Milking Frequency (MF; number of milkings per cow per day) and have the potential to increase milk yield. From research conducted previously by FutureDairy, it was found that feeding a small quantity of concentrate (approx. 300g per cow per visit) at milking on a Robotic Rotary (RR) significantly reduced the time cows spent in the pre-milking waiting yard. It is beneficial to minimise the time cows spend in the concrete pre-milking waiting yard from a production, system efficiency and animal welfare viewpoint.



Feedpad at the AMS site in Camden

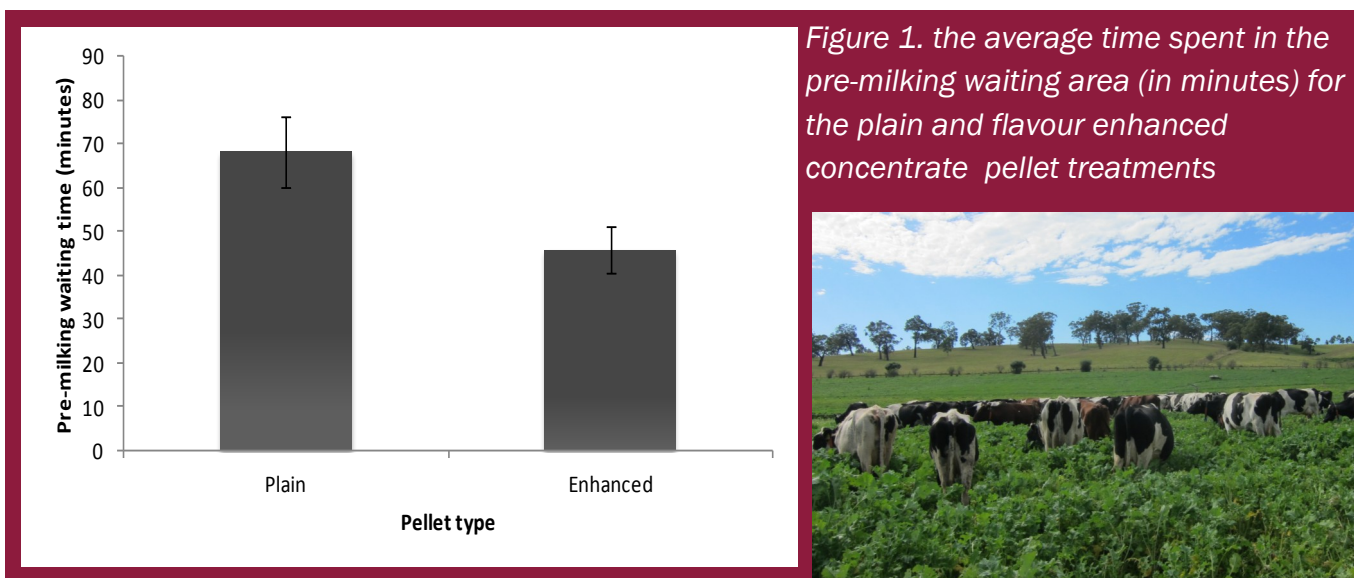
INVESTIGATION INTO FLAVOUR ENHANCER IN CONCENTRATE PELLETS FED AT THE CAMDEN AMS DAIRY (con't)



The investigation ran for one month. Cows were fed their usual PLAIN pelleted concentrate on the RR and in a post-milking feeding area within the dairy (with automatic feeders) with cow traffic data collected for 10 days. The new *Fruit Bud* flavoured pellets were then added to the silos. Data collection ceased for 14 days (to ensure that the ENHANCED pellets were being delivered through both silos and to allow the cows sufficient time to adjust to the new flavoured pellets (prior to a 14 day data collection period with ENHANCED pellets).

From the cow traffic data, we were able to determine how long each cow spent in the pre-milking waiting area, the post-milking feeding area, and outside the dairy (assumed to be predominantly at pasture).

The pre-milking waiting time (WT) was reduced by 20 minutes when flavour enhancer was used, with an average waiting time of 46 minutes per milking (Figure 1). While this result was not statistically significant, a saving of 20 minutes per milking could lead to greater savings when considering the number of times cows are milked per day. The ENHANCED pellets had the strongest impact on multiparous cows, and cows of low-medium yield (<23L/day), reducing the time these cows spent in the pre-milking waiting area significantly more than heifers and high yielding cows. However, heifers and high yielding cows were found to have the shortest pre-milking waiting times both with and without flavour enhancer.



It was found that the time spent in the post-milking feeding area (FT) was increased when flavour enhancer was fed in automatic feeding stations. While this increase was statistically significant, it was only a difference of 1.5 minutes per milking and therefore unlikely to have a large impact on the daily time spent in the dairy itself. Regardless of the pellet fed, there was no difference in the total quantity of pellet consumed.

INVESTIGATION INTO FLAVOUR ENHANCER IN CONCENTRATE PELLETS FED AT THE CAMDEN AMS DAIRY (cont')

Therefore we suspect that the extra time spent in the post-milking area could be due to cows spending more time thoroughly cleaning out the feed bin, or perhaps loitering around waiting for any additional chances to consume the 'tastier' ENHANCED pellets.

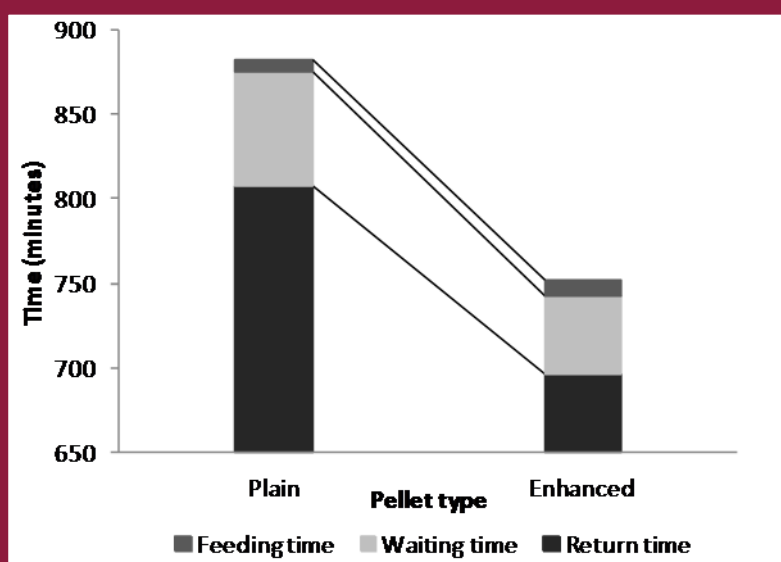
When fed ENHANCED pellets, cows returned (RT) to the dairy 110 minutes faster than when PLAIN pellets were fed. It was also interesting to note that heifers and high yielding cows had shorter return times than multiparous and mid-low yielding cows.

Early lactation cows (<100 DIM) also had a shorter time to return to the dairy from pasture than cows that were in mid-late lactation.

To give an indication of the average milking interval (time between two consecutive milkings), the average WT, FT and RT were summed for the PLAIN and ENHANCED traffic (Figure 2). From this summary, it appears that during the ENHANCED period, cows had an overall average milking interval more than 2hrs shorter than in the PLAIN period.

Figure 2. A comparison of the average waiting time, feeding time and return time between treatments.

While analysis is still ongoing, results thus far appear to demonstrate a benefit of using flavour enhanced pellets at the dairy in encouraging greater cow traffic.



A reduction in time spent in the dairy could allow for increased opportunity for pasture grazing, ruminating and resting. An overall reduction in milking interval of more than 2hrs also indicates that the use of flavour enhancer could lead to more frequent milkings and therefore create a potential for increased milk production. It may also be possible to use flavour enhancer to target the slower trafficking cows, such as lower yielding and multiparous cows, to increase their traffic without detrimental effects on cows with faster traffic.

However, this investigation was not able to determine whether these positive effects of flavour enhancer are due to the cows enjoying the novelty of *Fruit Bud* flavoured pellets, or simply a novelty effect that would diminish over time. Further work in this area will be necessary to evaluate the long-term effects of flavour enhancer, and allow us to calculate the cost-benefit of feeding flavour enhancer in pasture-based AMS.

POST GRADUATE UPDATES

NICOLAS LYONS *PhD Student*

Lots of data analysis and writing has occurred since the last Newsletter. The annual DRF Symposium went really well, with a lot of interest and great feedback from the audience.

I've submitted a paper for the Australasian Dairy Science Symposium to be held on November 13th – 15th in Melbourne and will also deliver an oral presentation.

My thesis is underway, and some chapters will be submitted for publication soon. I've completed an historic analysis of milking records collected from our research farm during 2007 and 2008 to explore factors specific to pasture-based automatic milking systems in order to better understand their impact on milking intervals.

Milking intervals beyond 16 hours have a negative effect not only milk yield but also udder health, and therefore the aim is to minimise their occurrence.



*Masters student
Nicolas Lyons*



Nico being presented by Wolfie Wagner from the Gardiner Foundation with one of the Emerging Scientist Awards at this years DRF Symposium.

An increase in distance between the paddock and the dairy of up to 500 m had no impact on milking intervals. Distances beyond that point had higher milking intervals, which was consistent up to a distance of almost 1km (max. distance during grazing period). Higher pre grazing pasture covers (> 3000 kg DM/ha) were associated with shorter milking intervals, whilst low pre grazing covers (< 2000 kg DM/ha) were associated with longer milking intervals.

There was an increase of 10 to 15 min in milking intervals for every 5kg DM/cow increase in pasture allowance above 10 kg DM/cow per allocation. In a system operating at low utilisation levels, modifying management practices to accommodate these factors could allow for increased milking frequency and higher total milk yield harvested per milking robot.



HELEN GOLDER *PhD Student*

RUMEN BACTERIA PROFILES

The rumen microbial community consists of a complex community of bacteria, archaea, fungi and protozoa of which the bacteria are the most diverse and abundant. The rumen microbial ecosystem is responsible for converting feed into energy that is used for both maintenance and production by the dairy cow.

This ecosystem is highly responsive to dietary changes. Increasing our understanding of microbial population shifts during feeding changes will allow targeted feeding management that promotes optimum animal health and production. Currently I'm examining bacterial population shifts in the rumen of cattle that were fed different combinations of grain, sugar or the amino acid, histidine.

So far I have identified differences in the rumen bacterial populations of the cattle fed these different diets. I am in the process of identifying specific key bacteria that are responsible for these changes and their role in the rumen.

ACIDOSIS FEED ADDITIVES TRIAL

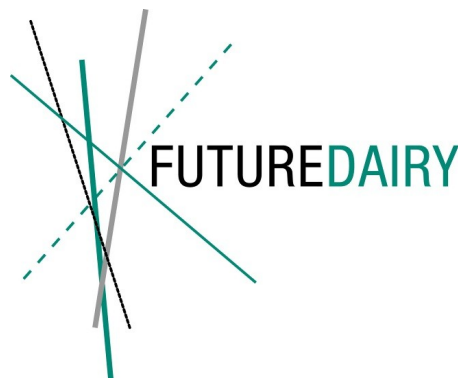
Recently I carried out my final animal trial that evaluated the effectiveness of commercially available feed additives to prevent acidosis in Holstein heifers fed an acidotic diet. Interpretation of the results is currently in progress.



Helen takes statistics as part of her final animal trial



*PhD student
Michael Campbell*



MICHAEL CAMPBELL *PhD Student*

Have you ever wondered if forage crops could provide your business with an advantage over using pasture alone?

Have you always been told that forage crops will increase the risk in your business, they are expensive and you would be better to focus solely on increasing pasture utilisation?



Michael receiving his prize as part of the Emerging Scientist Awards at the 2012 Symposium

Well in the preliminary work of my project I have been able to show that utilising a complementary forage system on 7 of the 8 case study farms is an option to increase profitability.

This is generally because of the opportunity to increase the number of milking cows or replace more expensive bought-in fodder. The largest effects of using forage crops was actually on the farms that currently had lower pasture utilisation. While there is no debate that increasing pasture utilisation is one of the key techniques to increasing profitability, using forage crops can be a profitable option for farmers who are looking to grow more home grown feed.

The analysis of the case studies will focus on tailoring the complementary forage system to the individual aims of the farmer and investigating how this compares with other options such as

increasing the concentrate feeding level or utilising more land through purchasing or leasing. I will also be analysing the risk of each of these options and developing up a simple risk management tool that farmers can use on a seasonal basis to help with feedbase decisions.

Cheers, Michael



*PhD student
Tori Scott*

TORI SCOTT *PhD Student*

Over the past few months I have been working through cow traffic and behavioural data collected from a trial looking at the location of supplementary feed on a feedpad. The trial was designed to assist AMS farmers to know when to feed supplement by recording and analysing voluntary cow traffic, with feed being received before pre- or after post- milking within the vicinity of the dairy.

When cows were offered feed post-milking the time spent in the pre-milking waiting yard by 24% and that the time spent in the feeding area was reduced by more than half (21 minutes down from 49 minutes) per visit. However cows returned from pasture to the dairy earlier when fed pre-milking.

From these results, we believe that a flexible system design would be ideal, whereby it would allow the operator to either target a quicker return to the dairy through feeding pre-milking, or a quicker trafficking pattern through the dairy through feeding post-milking.

The benefit of flexibility is that an operator could adjust their feed management to meet their preferred supplementary feeding level, or pasture availability at the time.

I now plan to analyse the behavioural data we collected during this investigation.

Over a period of four 24-hr days, more than 10,000 behavioural records were taken. It is hoped that these observations will assist in understanding what cows are doing in the pre-milking waiting yard.

Please join us in congratulating Tori on a very exciting past few weeks

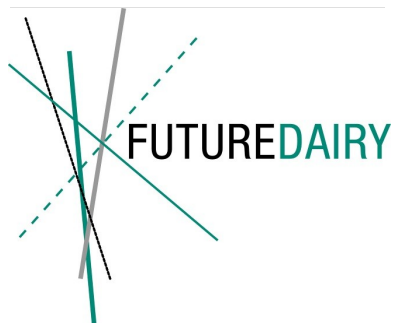
The **Camden Show Society** recently held its Gala Ball to announce the Camden Showgirl for 2013.

On the night, a stunning Victoria Scott was awarded the ‘**Carmel Foti Encouragement Award**’. This award is a great honour and was first awarded at last years Ball in memory of Mrs Foti and the almost 40 years she supported the showgirl competition.

Tori was successful at the University’s **Post-Graduate Conference** held in Sydney in early November by winning **Best presentation for a second year student**.

Well done Tori, you deserved this award as recognition of the high standard and professionalism shown in all aspects of your research and presentations!





SARANIKA TALUKDER *PhD Student*

I have just completed a trial to explore the potential use of infrared thermography (IRT) in detection of vulva temperature changes during oestrus and ovulation in dairy cattle.



*PhD student
Saranika Tulakder*

The relationship between vulva temperature and ovulation in cows during the peri-ovulatory period is extremely important. This will create an understanding in regards to the duration of elevated vulva temperature as detected by thermal scanning.

Identification of the point in the oestrous cycle that the rise in vulva temperature occurs, rate of increase in temperature, duration of peak and then rate of decline to baseline after ovulation will determine the potential application of IRT as a reliable and non-invasive technique for detection of oestrus in cows.

Can't wait to get stuck into the analysis!

ASIAN-AUSTRALASIAN DAIRY GOAT NETWORK

Goat production in Australia is regarded as an emerging industry with production and farming of goats increasing annually. Even though it is expanding, the goat industry in Australia and, the dairy one particularly, is still relatively small when compared to the main livestock enterprises.

In Australia, the Dairy Goat Society of Australia (DGSA) was formed in 1935 and is dedicated to the breeding and promotion of pedigreed dairy goats. Its main objectives are: fostering the breeding of pedigree dairy goats, promotion of dairy goats and their products, maintenance of a stud registration system and provision of services to its members.

Dairy goat farming has struggled to attract the attention of policy makers and researchers since farms are often small (5–10 milking does), and have operated as niche industries. However, lately, due to emerging challenges of decrease in animal productivity and increase in pressure on natural resources, the role of goats is being increasingly appreciated due to their high adaptability to a wide array of environmental conditions and feed resources.

ASIAN-AUSTRALASIAN DAIRY GOAT NETWORK (cont)

Earlier this year, FAO joined with the University Putra Malaysia (UPM), Department of Veterinary Science, Malaysia and the International Dairy Federation (IDF) in organizing the First Asia Dairy Goat Conference in Kuala Lumpur, Malaysia from 9 to 12 April 2012. The Conference provided a platform to share technical information and experiences and to network for promoting dairy goat farming.

The need for forming an Asian-Australasian Dairy Goat Network was strongly stressed by the participants.

A framework describing vision, mission, stakeholders, specific objectives, activities, organizational structure, funding and sustainability was developed with the active participation of the participants.

The objectives of the Network are to: a) facilitate generation, collection, dissemination and exchange of knowledge, b) provide technical, institutional and policy supports, and c) promote improved and sustainable dairy goat farming. The Network will be officially launched in the coming two-three months.



Further information on the Network including the procedure to join the Network can be obtained from Dr Pietro Celi at pietro.celi@sydney.edu.au

DRF COUNCILLOR WINS PRESTIGIOUS AWARD

DRF Councillor, Dairy farmer and advocate for sustainable food production, **Lynne Strong** (pictured right) was recently honoured with the inaugural Hawke Medal.

Lynne Strong is a past winner of the Primary Producer Landcare Award, she runs the Art for Agriculture program in schools and works as a mentor to young food producers.

Congratulations Lynne on this magnificent achievement!



VISITORS TO CAMDEN

My name is **Danny van Gastel**

I am 22 years old and live in a place called Mierlo, in the south of the Netherlands. I'm also a third year student on the study applied science from the HAS Den Bosch.

I want to specialize in dairy cows and learn a lot about dairy farming.

Niek and I will research the relationships between breed of dairy cows and the voluntary cow traffic in the AMS. Beside this research we are also looking if there is a relationship between the motivation level of cows (and resulting frequency of voluntary cow traffic) and the heritability of this. *We hope to have a nice time in Australia.*



Hello,

I am **Niek Kwinten**. I am 20 years old and come from the Netherlands.

I live in Luyksgestel, which is a place close to Belgium.

At home my parents have a dairy farm, we have 80 Holstein Frisian cows. We also have a few sheep.

I am a third year student of animal husbandry at the University of Applied Sciences HAS Den Bosch.

Both Danny and I are doing the same research which will focus on Automatic Milking Systems. (AMS).

CAMDEN FARMS

The topic of almost all dairy related conversations on the east coast of Australia at the moment is **milk prices**.

No different to any other farm, Corstorphine is at present under a great deal of strain with the extremely low prices being paid and production levels being held back.

Farms Manager Kim McKean said the fears the long term implications of the current situation and its effect on the Uni's research and teaching program.

On a lighter note, teaching commitments for 2012 have recently finished and went very well. A lot of students have expressed an interest in doing work experience at Corstorphine over the next few months.

40 hectares of corn has been recently planted at Westwood and staff expect to harvest in late February. This will be used as winter feed for an anticipated 400+ cows that are expected to make up the herds.

Kim recently starred in a video made for You Tube! The University and Water Catchment Authority have made a short video highlighting the automated irrigation system that has recently been installed on Camden Farms. Kim is notorious for avoiding the limelight so the Camden team are excitedly waiting the release of this video.



CONGRATULATIONS TO ADJUNCT PROFESSOR AND DRF COUNCILLOR IAN LEAN ON THE AWARD OF THE DOCTOR IN VETERINARY SCIENCE (DVSC)

The DVSc is awarded to outstanding researchers who submit a body of research which has made a consistent and distinguished contribution to their respective research field. The body of work, presented in the form of a collection of original publications, collated as a thesis, is assessed by no less than three examiners, who are all considered pre-eminent in the respective research field.

*The title of Dr Leans DVSc thesis was **The pathobiology of high producing dairy cows: quantitative metabolic and epidemiologic approaches.***





CREAM OF THE CROP COMPETITION

Cranebrook High School Student Amber O'Neill has won the **Cream of the Crop Competition** at the Sydney Royal Easter

Show this year.

The competition is an [Art4Agriculture](#) initiative which invites students in NSW schools to create a PowerPoint or a video promoting the importance of agriculture to their peers to encourage a better understanding of agriculture as well as promote agricultural careers and rural life. Amber prepared four entries for the competition this year but it was her video about agricultural careers "Are you the One?" that took out the overall prize.

Amber highlighted a chef, scientist, mechanic and a designer as careers linked to agriculture and interviewed eight of her teachers at Cranebrook High School to discover which subject is most strongly linked to agriculture's sustainability.

"What the judges loved about Amber's winning video, was her understanding of the diverse careers in Australian agriculture," says Art4Agriculture National Program Director Lynne Strong. "As an industry, we are keen to point out that not all jobs in agriculture involve mud and flies!"

Her four-minute video features 30 agricultural careers that derive from school subjects such as mathematics, geography, food science and industrial design. "Importantly too, Amber's video pays tribute to the unsung heroes of Australian agriculture, the teachers who instil knowledge and passion in their students who become our sector's next generation of leaders and innovators," says Lynne.

When asked what inspired her to enter multiple entries, Amber, who is in Year 11 at Cranebrook says "I just love it, there are so many interesting topics."



*Cranebrook High School student
Amber O'Neill winner of the
2012 'Cream of the crop' competition*



CREAM OF THE CROP (con't)

Fellow winner, Neil Jain of Hurlstone Agricultural High School claims that you learn something new every time you enter. “Not just about the subject, but the technology,” says Neill whose video “Genetic Modification - Is it Safe?” won the Best Middle School category. Neil’s entry explored the science of genetic modification as well as some of the issues surrounding the arguments for and against the science. “It’s an important topic for feeding the world”, said Neil. “Genetic modification may not be 100% safe, but if it is a solution to the global food crisis, it should be explored fully”

Also of Hurlstone Agricultural High School is Jordan Kerr who won the best Senior School entry for his video “Feeding Sydney” which explores how much food Sydney needs and the sustainability of the city’s food supply. Jordan filmed vox pops with commuters in Sydney asking how many tonnes of food they thought Sydney consumes every day then captures their reactions when they learn the figure is 5,500 tonnes; 1,000 times more than one guess.

“This year the Cream of the Crop Competition finalists covered topics as diverse as keeping chickens, sustainable agriculture, the global food crisis and the sheep and cotton industries, which again, demonstrates the diversity of our sector,” says Lynne.

“All finalist presentations are now on the Web for sharing with the world and with around 100,000 web hits since 2009, they are certainly making an impression,” says Lynne.

The Cream of the Crop competition’s sponsors include the

Dairy Research Foundation

For further information please contact the National Program Director Lynne Strong at cloverhilldairies.com.au



Cream of the Crop guest judge Lisa Claessen presents winner Amber O'Neill with her prize

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