THE UNIVERSITY OF SYDNEY

Dairy Research Foundation

DRF NEWSLETTER

Volume 8 – Issue 1, March 2016

In this Issue

New web resource for robotic milking……...…..…4

NSW Strategic Action Plan…….6

AMS—A viable option?…..……8

Middle East and China - research opportunities……...…..……..11

2016 DRF Symposium ……..…..13

Post Graduate updates……...….14

FutureDairy Chair wins prestigious award……...22

Welcomes/Farewells……23

What's planned in 2016.....…24

FACULTY OF VETERINARY SCIENCE

Dairy Research Foundation

For more information on any of our articles or to become a member please contact

T +61 2 4655 0631

F +61 2 4655 2374

E vetdrf©sydney.edu.au

Directors Report

Professor Yani Garcia, Director

Very exciting times ahead!

The DRF Symposium will be held at Charles Sturt University in Wagga Wagga, NSW on 15th to17th June and the Australasian Dairy Science Symposium on the 16th to 18th November in Sydney.

2016 will also see the new 'NSW Dairy Industry Strategic Action Plan' in action, which will hopefully contribute to a sustainable growth of our industry.

This is the result of the Collective Industry Action Group (CIAG) which has representation from 15 organisations (industry bodies, universities, government and processors)

Regards, Yani

From the President

At our recent DRF council meeting held in December 2015 last year it was highlighted as to what a successful year it had been for the Dairy Science team .

The new dairy, some great research, record numbers of Post Graduate students and academic papers.

All of this deserves to be congratulated.

The next challenge is to better promote to the world the wonderful work being done by the group.

Bill

Bill Inglis, President

Web-based resource for robotic milking

FutureDairy has launched a new web-based resource on automatic milking systems (AMS) for large herds.

The resource is designed for people at various stages in the robotic milking journey, but are probably most suited to managers of large herds who are seriously considering automatic milking, or those who have already installed robots.

The 'AMS Guidelines – Large Herds' brings together our learnings to date with a particular focus on large herds although much of the information is also valuable to small-medium herd operations as well. The guidelines supplement the 2010 set of guidelines for pasture-based AMS but do not replicate or replace them.

FutureDairy has developed a series of short, highly visual slide shows to introduce the key concepts of automatic milking for large herds.

They are a fun, easy way to start thinking about how automatic milking might work on your farm.

Whilst the slide shows don't go into a lot of detail, each one is supported by an information sheet which can be downloaded or printed out.

It is the information sheets that contain the detail on each of the key 'themes'.

The guidelines cover the management practices that need to be adapted for automatic milking, under six themes:

- Automatic milking a large herd - is it for me?
- What infrastructure will I need
- Managing incentives
- Managing colostrum and hospital cows
- Daily routines and monitoring
- Raising replacements for AMS

The guidelines are suited to operations with single box units, mutli-box units or the robotic rotary. It is a great place to start doing the 'homework' necessary even before you decide which brand of AMS you prefer.

The Guidelines have been designed so that new 'themes' can be downloaded in the future as we learn more about different management options.

For more information, contact Associate Professor Kendra Kerrisk on 0428 101 372 or kendra.kerrisk@sydney.edu.au
www.futuredairy.com.au

Strategic Action Plan for the NSW Dairy Industry ready to be implemented

The Centre for Carbon Water and Food at the University of Sydney's Camden Campus was the venue for the launch of the NSW Dairy Strategic Action Plan (SAP) on Friday 4th March.

This action plan has emerged from a strong collective sense of the need to grow the NSW dairy industry and was officially launched by the Hon. Niall Blair, Minister for Primary Industries and Minister for Land and Water, NSW.

The Strategic Action Plan represents a very important outcome of the collective efforts by the Collective Industry Action Group (CIAG) and the 15 organisations, companies and institutions represented by the group.

The CIAG has set a growth target for NSW of over 1.5 billion litres by 2022. This represents a 50% increase from current levels and a compound growth rate of 5% per year for 7 years.

NSW Minister for Primary Industries, the Honourable Niall Blair addresses members of the collaborative group responsible for the NSW Dairy Industry

NSW is fortunate to have a number of world class organisations and a network of professionals with the skills and capability to drive the Strategic Action Plan.

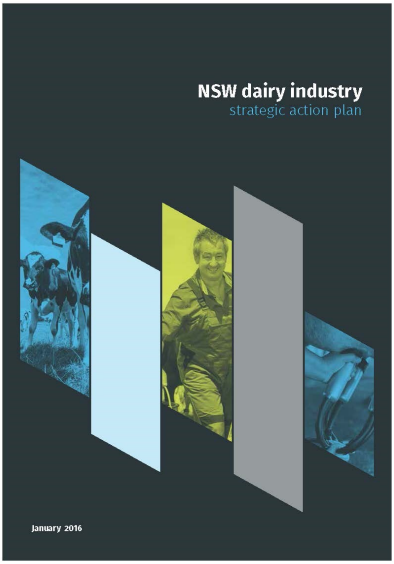
These include:

- Dairy Australia Regional Development Programs - Murray Dairy, Dairy NSW and Sub-Tropical Dairy
- Local Dairy Farmer Groups in each sub region
- Universities with a strong dairy interest - Sydney and Charles Sturt
- Key divisions within the Department of Primary Industries - Agriculture and Biosecurity
- Associated research capacity within these organisations
- Local Land Services

Summary of targets for the action plan

In order for the CIAG to track progress and provide impetus for change, some targets relevant to these key action areas have been developed.

The plan is available to read on the DRF website.



Click on the image to the left to see what is planned for NSW dairy farming in the future

For more information please contact Professor Yani Garcia on sergio.garcia@sydney.edu.au

Is AMS a financially viable option for Australian dairy farmers?

By Nicolas Lyons

Robotic milking systems are not a new technology. The first system was installed in The Netherlands in 1992 and they arrived in Australia in 2001.

Out of the 37 systems currently operating in Australia, 9 have installed more robots and increased herd size since first commissioning. Furthermore, at the last AMS Gathering (held in July 2015), 72% of surveyed AMS farmers indicated that they would consider expanding their operation within the next 5 years. This appears to be an indication that confidence, trust and profitability of the business are all strong.

Results from one Australian AMS farm in comparison to the average farm in the region indicate that despite higher shed costs (due to running costs as well as repairs and maintenance) the AMS farm had lower production costs due to lower herd costs, overhead costs and paid labour costs. Care should be taken with these results as they only pertain to one AMS farm and one financial year.

Given the importance of adequate farm business management to successful operations, we are already working with farmers to be able to incorporate their data in a benchmarking program such as DairyBase. So far, 8 farmers appear to have agreed to participate in this initiative so we hope to have more results soon.

$/kgMS	AMS Farm	Average Farm
Milk Income	$5.05	$5.20
Other Farm Income	$0.12	$0.20
Total Farm Income	**$5.17**	**$5.40**
Herd Costs	$0.10	$0.29
Shed Costs	$0.43	$0.21
Feed Costs	$2.66	$2.79
Overhead Costs	$0.25	$0.54
Paid Labour Costs	$0.02	$0.56
Total Production Costs	**$3.46**	**$4.39**
MOPC	**$1.71**	**$1.01**

(MOPC - Margin over productions costs)

Farmers who are installing a new dairy should at least give serious consideration to AMS and ask themselves "how do I want to milk my cows for the next 15 years?" since a new dairy is a long term investment. Yet, there is still work to be done at a whole Industry level to increase knowledge on how to plan, set up, run and operate these systems in an efficient and profitable way so that farmers can make an informed decision based on sound knowledge.

We don't think the main driver to go for AMS will ever be that it is the lowest cost option and not necessarily the most profitable one, but we do think that it can be an economically viable and profitable option for Australian dairy farmers. However, alongside the economics, farmers also need to consider the less tangible benefits.

AMS may create the possibility to attract and retain staff, the flexibility related to the farming operation or the possibility to have lower stress and improved animal welfare.

Expectations have to be realistic of what the system can and cannot do, and what benefits it has to your operation. It is true that it allows for a higher milking frequency and potentially higher milk yield, but of course those cows will also need more attention and feed for example.

AMS may create opportunities for some farmers with regards to succession planning, creating an opportunity to stay in the industry for longer (rather than retiring), milking more cows through managing the existing operation and converting and managing a run-off block to AMS.

Is AMS a financially viable option for Australian dairy farmers? (cont)

The examples and stories are unlimited and we are developing plenty of tools to help raise awareness and increase the general knowledge around AMS.

For farmers wishing to consider the potential impact of AMS on the economic performance of their business they could initially consider working through the FutureDairy partial budget calculator and taking the numbers to a financial advisor. This is a great start to the consideration and means that farmers can ensure that the numbers are relevant to their farm, their business and their personal objectives.

To access the AMS partial budget calculator, click here

To access DairyBase, click here

For more information contact Dr. Nicolas Lyons (nicolas.lyons@dpi.nsw.gov.au)

DRF Director speaks at Pasture Management Forum in China

Professor Yani Garcia was invited to speak at the 'Regional consultation on Sustainable Grassland and Pasture Management in Asia' forum in November last year.

This event was organised by the Food and Agriculture Organisation (FAO) of the United Nations and Lanzhou University in China. Yani also visited the Chinese Academy of Agricultural Sciences in Beijing.

This was a great opportunity for the University's Dairy Science Group to further investigate research prospects in the Chinese dairy industry.

Middle East meetings and research opportunity

By Cameron Clark

In September I was fortunate enough to be funded by our Office of Global Engagement to travel to the middle-east to initiate new research, internship and education partnerships.

I travelled to Israel to further our collaborative work with the Agriculture Research Organisation (ARO) (Profs Ilan Hilachmi and Ephraim Maltz), SCR dairy (Dr Doron Bar) and Afimilk.

We are now in the process of signing a memorandum of understanding with the ARO in the dairy, poultry and fish production animal areas; and continue to be at the forefront of cow-based technologies through collaboration with Israeli innovators.

This brief but highly productive visit will provide an excellent opportunity for the Faculty of Veterinary Science for research collaboration with Israel.

After Israel I joined up with Assoc. Prof. Ali Abbas from the, Faculty of Engineering and IT and Ms Sandra Margon, International Development Manager, Europe and Middle East, Office of Global Engagement in the United Arab Emirates.

We met with UAE University Provost, staff and students from the Veterinary Medicine Department and Chemical Engineering Department.

Whilst the veterinary degree is just starting up at UAE University it was evident that there were many high quality staff and students keen to learn from, and work with us.

UAE University Vet Students and staff

After these meetings we delivered two student focused lectures and discussed opportunities for collaboration.

Whilst in UAE we also met with local diary industry representatives and Australian meat industry representatives to explore possibilities for research project collaboration (vet sciences and Engineering ARC Training Centre in Food Processing) and student internships.

Dairy farming opportunities for dairy beef export were discussed at the MLA office in Dubai.

This visit was also my first introduction to dairying in the desert and the ability to keep cows cool even with 40+ degree days.

Of interest, the dairy farm (3,000 cows) was next door to one of the few camel dairies in the world.


Afimilk HQ


Camel Dairy

The Dairy Research Foundation welcomes feedback on its Facebook page. Please click the FB icon to the left to contribute!

2016 Symposium

Dairy Reseach Foundation

15-17 June 2016

Charles Sturt University
Wagga Wagga NSW

Hunting Efficiency - From the Inside Out

The Dairy Research Foundation's 2016 symposium will look outside the box and draw on experience from other industries to improve efficiencies in milk production.

Organising committee chair, Associate Professor Kendra Kerrisk said this year's symposium would be held in Wagga Wagga, NSW, with the program taking delegates on farm for a field day format on day 3.

"With the ongoing pressure to 'produce more from less' it makes sense to go beyond our own industry for new approaches," Assoc. Prof Kerrisk said.

"The pressure is certainly on to improve water use efficiency so we'll hear experiences from the cotton industry as well as dairy farmers and broad acre growers who have adapted their systems to produce more food from less water."

The program will also look at maintaining animal welfare while improving productivity, drawing upon experiences from the pig industry and a vet who specialises in preventative health strategies for dairy herds.

The key note speaker will be Professor Russ Hovey, an Australian who is now based at the University of California and is world renown for his dairy cow nutrition and lactation.

"Russ will take us back to the basics and make sure we don't lose sight of the fact that udder and rumen health are fundamental in any hunt for efficiencies," she said.

Date claimer:

Hunting efficiency from the inside out, Dairy Research Foundation Symposium **15-17 June 2016**

Charles Sturt University campus, Wagga, Wagga.

More information:

Tara Wolfson, 0416 251 432 or tara@ejmevents.com.au or www.drfsymposium.com.au

Post Graduate Updates

I'm Momena Khatun from Bangladesh and I am very excited to have commenced my PhD as a recipient of the Australian Endeavour Scholarship, under the supervision of Professor Yani Garcia (director Dairy Research Group, Camden).

My program started in October 2015 and before coming here, I completed my Doctor of Veterinary Medicine degree (DVM) and MSc in Theriogenology from Bangladesh Agricultural University.

During my MSc in Aarhus University, Denmark I worked with ex vivo cytokine expression against udder bacteria and quantitative trait loci (QTL-haplotype) effect on E. coli mastitis.

Now I am more interested in sub-clinical mastitis which is a major problem in almost all dairies in the world. My initial project will be focused on finding a good technology (sensor or biomarker) for early detection of mastitis.

I am now in the process of reading the scientific literature, writing a review article on the gaps that exist for subclinical mastitis detection; these gaps will help me to plan some more ideas as I decide what path to head in my studies.

During my first month, I had the opportunity to accompany my fellow PhD student Kamila Maciel Diaz from Brazil on a research trip to Tasmania.

This has provided me an opportunity to learn about the typical Australian pasture based dairy systems, specific sampling techniques for collection of individual milk samples and pasture samples and to be exposed to farm/field research. I am looking forward to sharing my project with you in future newsletters…

Juan Molfino

It's hard to believe but we already are in 2016! Last year went way to fast!

I'm happy to announce that I have successfully completed the upgrade from Masters to PhD!

This will give me the opportunity to go a deeper into my research! I want to thank my supervisors Yani Garcia and Kendra Kerrisk for the support!

Late last year Ashley and Alex and I participated in the Faculty of Veterinary Science Postgraduate Conference where I presented a poster with some results of my first study.

It was a great opportunity to see what the rest of the postgrad students are doing! I was very impressed with some of the research projects that are currently being develop at our University.

I have always enjoy this conference and it's good to catch up with other students.

Thanks to Marie Wildridge and the organizing committee for all their hard work planning it!

I'm currently on the process of writing the manuscripts of two studies I conducted recently, the first one is about Efficient and Inefficient cows in Automatic milking Systems (see last newsletter

Juan Molfino (cont.)

http://www.futuredairy.com.au/media/September2015.NL.pdf) and the second one is a study I conducted to validate new version of the SCR HD LR tags (rumination and activity monitor).

The aim of the study was to validate the accuracy of tags for 3 different types of behavior; grazing, ruminating and low activity (lying or standing idle) in dairy cows grazing two different types of forages.

Results were very encouraging and I will be presenting them shortly. I will use next year in a field trial in order try to understand the differences between Efficient and Inefficient cows.

Looking forward to a wonderful year!

The University of Sydney, Camperdown NSW

16th - 18th November 2016

- Call for Abstracts **OPEN** until 30th April
- Selected papers will be published in a special edition of **Animal Production Science**, an International journal from CSIRO Publishing
- For more information contact Professor Yani Garcia on **sergio.garcia@sydney.edu.au** or Rebecca Morgan on **rmorgan@arinex.com.au**.

Kamila Dias

I'm happy to announce that I finished my field experiment in November. I am now writing up and have left Sydney for home!

The aim of my research, supervised by Dr Cameron Clark and funded by Dairy Australia (Large herds: creating value from data), was to determine the impact of milking order on milk yield and milk composition in large herds.

content accessed by the last cows in the milking order reduced 21% and increased 15%, respectively, after 1.7h of first cows arrived in the same paddock.

The greater milking times for large herds suggest that a greater spread in pasture nutritive value for individual cows in large herds is likely.

Kamila (L) was helped in Tasmania by new PhD student Mona Khatun (R)

In large herds where the cows traffic after milkings is voluntary, the difference in access time to paddocks between first and last cows will result in different pasture quality offered for these cows.

The chemical composition of a pasture sward varies between layers, with the top of the fraction typically containing more leaves and consequently more crude protein and less fiber than lower fractions According to Beth Scott (former Honours Student with the Dairy Science Group), the pasture protein and acid detergent fiber

As a first step towards this overarching objective, existing data from large herds was collated of 6 farms to analyse the milk yield, milking order, grain intake and cow characteristic (number of lactation and DIM) from January to August of 2015.

We observed a linear decrease for milk yield when milking order progressed for most farms (Figure 1). In this regard, the milk yield difference between first 50 and last 50 cows was 4.5 L/cow/day (20% less milk).

Kamila Dias (cont.)

We observed that there was a significant reduction in milk yield (less 2.5L or 10%) and milk solids (less 6%) associated with milking order. First and last cow in milking order were similar in number of lactations and DIM in Farm 1 (1.3 and 300d), Farm 2 (2.2 and 106d) and Farm 3 (2.7 and 218d), respectively. Differences in results between stages of this research can be explained by a decreased milking duration in stage 2 (3h vs. 2h), different season (January to August) and consequently different pasture (nutritive value) between first and last cows during field experiment (October to November).

Overall, differences in milk yield and composition between first and last cows could be associated with pasture composition offered for the first and last cows. When the first cows arrived in the paddock the pasture was taller, with higher protein content and lower ADF (+28.5%, +15.5% and -12.3%, respectively). However, farms that offered a greater amount of pasture tended to have a lower difference in milk yield and milk composition between the first and last cows, presumably due to more pasture to select for the last cows. We also observed that farms with high milking duration showed higher difference in milk yield.

With these findings my project will now create novel systems for herds to significantly increase the efficiency of milk production from the feed and consequently farmer's profit! I can hardly wait to finish writing the articles and share with you all the results of my work in

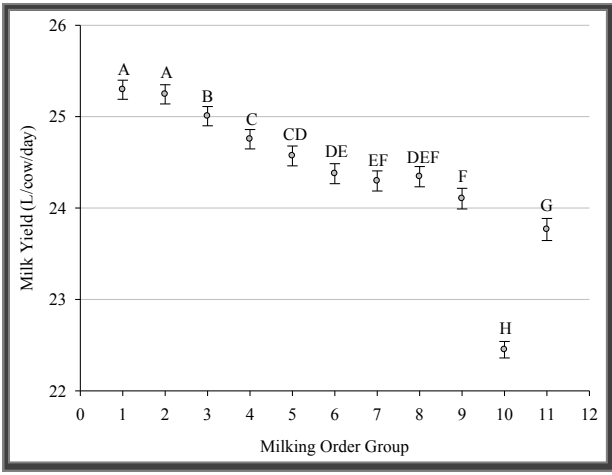


Figure 1 *The association between milking order and milk yield of 6 farms in Australia. Bars denote standard error of the mean and different capital letter denote significant differences (P<5%). Group 1 (1st to 50th cow), Group 2 (51st to 100th cow), etc.*

Alex John

I have recently completed a review paper on the topic of Milking Robot Utilisation, which is now submitted for review.

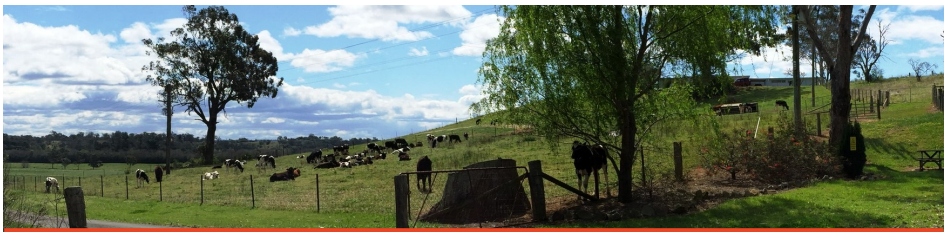
The topic is the basis of my PhD and aims to identify the knowledge gaps in this area. I have focused on robot utilisation, as, despite the ability for cow to choose when to be milked in an automatic milking system (AMS), there has been little attention given to milking robot utilisation across 24 hours.

In order to formulate relevant research questions and improve farm AMS management there is a need to determine the current knowledge gaps regarding the distribution of robot utilisation.

The review focused on a number of areas that influence robot utilisation including feed, animal and management factors and their interplay on levels of milking robot utilisation across 24 hours for both indoor and pasture-based systems; as well as the impact of the timing, type and quantity of feed offered and their interaction with distance from the parlour; herd social dynamics, climate and various other management factors.

A number of conclusions were drawn from the literature presented on this topic. It was shown that consistent levels of robot utilisation distributed throughout 24 hours could be achieved in AMS using both indoor and pasture-based feeding systems.

However, it was more common for robot utilisation to be inconsistent throughout 24 hours. Regardless of the feeding system; robot utilisation patterns appeared to be closely linked with feeding patterns. As feed is the main motivator for cows to attend the robot, the strategic allocation of feed is key to achieving consistent robot attendance through 24 hours.



Management practices that distribute feeding bouts evenly throughout 24 hours are likely to positively impact robot utilisation levels and therefore require further investigation. Further to this, the use of feeds with different macronutrient ratios may also provide further benefits in this area.

Exclusive of feeding strategy, a range of opportunities exist for non-feed related factors to further enhance robot utilisation.

A greater understanding of management strategies for hot climates, especially in pasture-based AMS, will help alleviate a decline in robot utilisation during the hottest period of the day. Likewise, the management of extended walking distances will become more important as AMS is adopted into larger pasture based farms.

Lastly, perhaps the least understood area to date is that of social hierarchy within AMS herds and how it impacts feed and robot access in both indoor and pasture-based AMS.

I plan to test some of the above mentioned ideas next year and hope these will have a positive effect on cow eating behaviour and robot utilisation.

Ashleigh Wildridge

Through the past few months I've been busy doing the two summer research trials of my PhD.

As automatic milking systems (AMS) predominately operate with voluntary cow traffic, summer conditions have the potential to cause significant interruptions to the productivity of these farms.

During hot weather lactating dairy cattle tend to eat less, drink more and spend more time standing and less time moving around.

This combination of behavioural changes can lead to production losses, and in a voluntary trafficking situation, could lead to significant reductions in milking frequencies.

My next two research trials are aimed at identifying methods that may lessen the impact that hot summer conditions have on the performance and welfare of dairy cattle on an AMS.

Ashleigh Wildridge cont…….

The first of these projects (which was conducted prior to Christmas) aims to identify if the strategic placement of shade structures along the laneway between pasture and the milking facility can improve voluntary cow movement during hot weather.

It is hypothesised that the provision of intermittent shade may encourage improved voluntary cow movement by allowing cows to take reprieve from intense sun and encourage cows to progress to the next shaded area when preceding ones are occupied by other cows.

The second of these projects will investigate the impact of providing cow cooling at the milking facility in the form of a shaded pre-milking waiting yard. There are currently no recommendations for farmers on how the provision of a shaded pre-milking waiting yard impacts on the behaviour and welfare of their lactating worthwhile investment.

I plan to start this project in January were I aim to identify if differences exist in the performance of cows that are provided with shade compared to those without shade.

In particular I will be investigating the treatment effect on the time taken to return to the milking facility (milking interval) and the amount of time spent at the milking facility.

I am very excited to see the results from this research, and to further understand how hot weather impacts the performance of AMS's as no information currently exists on performance and management of cows (in relation to provision of shade) in pasture based systems.

From the results of both of these research trials, I aim to identify areas requiring further investigation, and methods of improving cow welfare and productivity during hot weather.

FutureDairy Chair recognised by the Australian Dairy Industry Council

FutureDairy Chair Shirley Harlock has received an Outstanding Service Award for her contribution over 40 years to the national dairy industry.
Picture: Damian White

FutureDairy chair and dairy industry advocate Shirley Harlock was recently awarded the 2015 Outstanding Service Award by the Australian Dairy Industry Council (ADIC).

Shirley has been chair of the Dairy Australia Future Dairy project since its inception in 2005, steering the projects work into research, development and adoption of robotic technology for Australian dairy farms. She has been a key player in shaping the policy landscape for Australian dairy science for more than 40 years and has held local and executive positions with United Dairyfarmers of Victoria, was a director of Australian Dairy Farmers (ADF) and also served as chair of Dairy Food Safety Victoria for 10 years.

In partnership with her husband, John, Shirley continues to operate farms in Warrnambool and South Australia and is also chairwoman of the Sustainable Agricultural Fund that owns farms throughout Australia.

She spoke at the award ceremony of some of the key lessons she'd learned in her time in the industry. "The first lesson is that all that glitters is not gold and you need to look at both sides of the ledger," she said.

The second lesson was explained by way of an anecdote about an incident in the dairy one evening when her husband sprayed her with a hose after a disagreement and she eked revenge by turning off the power as she left the shed. "The lesson is always work as a team, solo is not much fun," Shirley said. The third lesson was to be part of the solution, not part of the problem. "I always wanted to see if there was something I could do rather than stand by and criticise," she said.

This 'can do' outlook has been a factor in the success of the FutureDairy project over the past 10 years.

Congratulations Shirley!

Congratulations to our new PhD's !!

Last month staff from the Dairy Science Group were there to see PhD students Saranika Talukder (top L) and Tori Alexander (*nee Scott*) (Top R) when they graduated.

Tori studied management strategies to increase efficiency in AMS whilst Saranika investigated the reproduction efficiency of AMS. Both ladies produced wonderful results from their research which will impact the dairy industry for years to come.

We wish them well with the next stages of their careers and are sure we'll hear great things from them in the future.

With Sadness…..

After the passing of Bob Whan AM in October last year one of our DRF Council Members, George Davey, wrote a beautiful tribute covering Bob's outstanding career achievements in both the wool and dairy industries and of course politics….

Click here to read George Davey's touching tribute to Bob Whan AM

He has been touted as 'the best Minister for Primary Industries that Australia ever had'. This is huge praise and one, given his very strong work ethic, that is well deserved.

The attributes that Bob Whan brought to the table were vast and impossible to do them justice in the this newsletter and have attached a link to George's story above.

Recent Publications

We wrapped 2015 up with the launch of the web based AMS Guidelines.

This tool will provide immensely valuable information to AMS farmers or those considering adoption.

Let us know what you think!

Clark, C. E. F. ; Farina, S. R. ; Garcia, S. C. ; Islam, M. R. ; Kerrisk, K. L. ; Fulkerson, W. J. (2016) A comparison of conventional and automatic milking system pasture utilization and pre- and post-grazing pasture mass. *Grass and Forage Science Vol. 71 Iss.1,Pp: 153 -159*

John, A., Clark, C.E.F., Freeman, M.J., Kerrisk, K.L., Garcia, S.C., Halachmi, I. (2016) Review: Milking robot utilization – a successful precision livestock farming evolution. *Animal Journal (Accepted for publication)*

What's planned for 2016

- The Foundations Annual General Meeting will be held on Monday 18th April on the Camperdown Campus. More details will be released as soon as they are available.
- The 2016 DRF Symposium is being planned once again for June 2016. Final dates have been announced for June 15 - 17 with the event to be held in Wagga Wagga NSW.
- Professor Yani Garcia is taking the lead role in the organising of the Australasian Dairy Science Symposium (ADSS). This event will take place on the 16 - 18 November 2016 on the University of Sydney's main campus Camperdown.

Like Us On facebook