DairySA Innovation Day: ‘Feedbase for the Future’

Nearly 200 dairyfarmers, service providers and dairy industry representatives gathered in Mt Gambier last month to hear from a range of speakers around the topic of ‘Feedbase for the Future’.

Dairy Australia’s Managing Director David Nation outlined the trends of current Australian milk production, highlighting the latest consumer marketing initiatives from Dairy Australia including ‘Dairy Matters’, and explained the broad based commitment to a new and important industry activity, the Australian Dairy Plan.

Kevin Argyle, Co-Director of the Dairy Feedbase and DairyBio programs kicked off the theme of the day with his presentation ‘Feedbase for the Future’ – looking at the current programs being undertaken at the Ellinbank facility, and the impact that these programs will have for the farmer.

Keynote speaker Professor Santiago Utsumi – from Michigan State University – gave a scientific insight into how high tech pasture management can ultimately increase profit for your business.

Rodrigo Albornoz – currently working from Ellinbank under the DairyBio and DairyFeedbase initiative – looked at how to get grazing cows eating well and rapidly – to improve production post calving. He expanded on his recent studies in the USA, explaining the advances in cow nutrition that got delegates thinking differently about the what, how and when of diets for recently calved cows.

A panel consisting of Kevin Argyle, Rodrigo Albornoz and dairy farmer Peter Musson, took a closer look at how growing 30% more pasture is going to impact on factors such as stocking rates, nutritional characteristics and the environment.

To celebrate the recent success of dairy training in schools, four students from Grant High School’s specialised agriculture program provided a snapshot of their experience and background in agriculture, their reasons for studying in agriculture, and hopes for the future in the industry.

Three concurrent sessions in the afternoon with two of the guest speakers – Rodrigo and Santiago – along with Chiropractor David Beltakis, allowed delegates to gain a greater insight into their topics.

The DairySA Innovation Day is the result of a collaborative approach between DairySA and South East South Australian dairy farmers who drive the ideas for the topics, speakers and format of the day, allowed delegates to gain a greater insight into their topics.

Dairy SA’s Extension Officer Kylie Boston.

In the case of exceptional circumstances such as natural disasters or unavoidable factors, animal health events, veterinarians may still apply for dispensation on behalf of the farmer.

The Australian Dairy Industry Council (ADIC) has committed to completely phasing out calving induction by 2022.

Dairy industry to phase out routine calving induction by 2022

The Australian Dairy Industry Council (ADIC) has committed to completely phasing out the practice of routine calving induction by 2022.

While the industry first committed to phasing out calving induction in 2015, new targets have now been set to reduce calving induction to eight per cent in 2019, six per cent in 2020 and 5 per cent in 2021, before completely phasing out the practice by 2022.

In the case of exceptional circumstances such as natural disasters or unavoidable animal health events, veterinarians may still apply for dispensation on behalf of the farmer.

Dairy farmers can access a range of resources to improve their herd’s reproductive performance and reduce the need for induction through Dairy Australia at:

dairyaustralia.com.au/calvinginduction

Dairy Matters

Dairy Australia is leading the response to changing consumer expectations and confusion around aspects of the industry and its products, by launching a proactive new campaign.

Dairy Matters is a communications approach to highlight the industry’s values and standards and to help the public learn more about Australian dairy.

‘You Ask, We Answer’ aims to address consumer questions. Australians are learning more about the Australian dairy industry through information that is reliable and easy to understand, from real experts.

The You Ask, We Answer portal on Dairy Australia’s Dairy Matters website goes beyond health and nutrition to answer questions on on-farm practices including animal health and welfare, drought, and environment.

Already over 60 questions have been published around topics like sugar in milk, milk processing, bobby calves, and cow–calf separation.

Consumers have also asked questions about supporting farmers in tough times, farming systems, and nitrogen use.

To read all the questions being asked and see the answers, visit the Dairy Matters website at:

dairymatters.com.au

Disclaimer: DairySA endeavours to ensure that all information in this document is accurate and reliable at the time of publication. However, we make no warranty with regard to the accuracy and reliability of the information provided, and accept no responsibility for loss arising in any way from, or in connection with, any errors or omissions in any information or advice, or use of the information.
**Technology on hand to make better decisions**

Robotic technologies can do more than reduce labour hours, they can also aid in better decisions, says Professor Santiago Utsumi of Michigan State University, Department of Animal Science.

Speaking at the DairySA Innovation Day, Prof Utsumi, who works with the WK Kellogg Biological Station, said the key use of new technologies was to allow better thinking time and provide data for better decision-making.

“Precision dairy farming is not about how precise the information is but how to use that information to make more precise decisions,” he said.

Santiago said robotics research had helped measure animal grazing patterns, using acoustics.

He said it was possible to analyse the sound of bites, chews and chew-bites to know what the cows were eating and how much.

Using computer algorithms, this information could be analysed in real time to monitor the feeding habits of individual cows.

“This technology or data is useless if you don’t translate those numbers into information,” he said.

The response to technology and using information is where we fail the most.

“We collect into and don’t use it, it stays on the desk.”

Santiago said this information could gauge how much pasture was available and if individual cows were accessing adequate nutrition to meet their requirements.

But he said cow personality also played a part in how cows were feeding.

“We need to look at behaviour traits distributed across the herd,” he said.

“High ranking cows are more proactive, approach grass, feed sooner and always displace lower-ranking cows.

“They’re going to eat the best and leave the rest for lower-ranking cows.

“The higher cows can be 23 per cent higher in lactation, 8 per cent higher in body weight and 10 per cent higher in milk yields than the lower ranked cows.”

Santiago said farmers would be able to combine pieces of information to gain the ability to predict future outcomes.

“We will have the ability to use that information to decide and decide quickly,” he said.

“We can move from a situation where we are behind and reacting to situations to one where we can make proactive situations.”

**Farm Workshop adds ‘hands-on’ perspective to using technology effectively**

Around 60 farmers took the opportunity to join US-based Prof. Utsumi for a practical workshop and farm tour at two sessions held at both Mt Schank and Mt Compass, bookending his visit to South Australia in June.

Santiago re-iterated the value of data in decision making – but only if it is leveraged correctly, converting numbers into information.

Following a discussion in the milking shed, the group then walked through pasture with Santiago. He explained how accessing the right information could gauge how much pasture was available and determines whether individual cows were accessing adequate nutrition to meet their requirements. It is also important to acknowledge the distinct personality traits of individual cows, which also impacts their nutritional intake.

The key “take home” messages from the day included:

1. Technology should be used to collect data to assist make prompt and timely decisions. The decision-making model should always include monitor ‒ plan ‒ evaluate.
2. Technology will never replace human decision makers, but rather gather more data, more quickly and efficiently to ensure better and quicker decisions are made on farm.
3. Priority for effective pasture management use in farm is ensuring farms stay within the wedge of feed. Ensuring this will maximise pasture utilisation.

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Message from the Chair

The 2018/19 financial year could be considered one of the toughest for a large number of SA dairyfarmers, despite improved milk prices in recent months.

Pressure on cash flow, availability of feed, high cost of grain and fodder, and in many cases poor on farm seasonal production all contributed to a challenging season. Moving into next year the increase in milk prices remains positive, coupled with what looks like – on the whole – a reasonable start to the season. While carryover for the early part of the year will still be tough, the longer term outlook of an increase in milk demand is a positive.

DairySA continues to build on their reputation for delivering dairy industry conferences that are relevant and authentic – with a commitment to securing world-class experts on cutting edge research. DairySA is a committee of farmers and other industry members, the events are for farmers, created by farmers, and reflect topics you want to see covered in a meaningful way. With high engagement from farmers, service providers, processors and other industry members we are confident that we are on track with these events.

‘On-point’ dairy topics, inspirational speakers, and a unique venue were some of the key factors that contributed to the highly successful DairySA Central Conference “Diverse Dairy: Driving Opportunities” held earlier this year. More than 190 dairyfarmers, service providers and sponsors gathered at ‘The Bend’ Motorport Park at Tantanalee to hear from US-based calf rearing expert Bob James, along with researchers and experts in the energy, workplace and irrigation space.

DairySA’s Innovation Day held in Mount Gambier last month, ‘Feedbase for the Future’, had a focus on pasture – how to grow it and how to make the most of it – and saw 195 delegates attend the day, with international speaker Prof Santiago Utsumi on robotics and sensors in pasture management and Dr Rodrigo Albornoz on additives in nutrition for recently calved cows.

If you are keen to be involved in any area of DairySA’s activities, including event committees or dairy discussion groups, or if you simply want to chat about how DairySA can assist you or your business, please reach out to any of the DairySA team. The AGM is due to be held in November so if you are interested in joining the Board, please feel free to contact me to have a chat about what it involves.

I would like to advise that in late June Tom O’Grady, Regional Manager, DairySA, resigned from DairyAustralia. I thank Tom for his work over the past three months, and wish him well for the future. The process for appointing his replacement is well underway but in the meantime if you have any queries or concerns please contact me.

My thanks to the DairySA team for their commitment and drive to deliver research, development and extension for SA dairyfarmers. Special thanks also to the Board who remain committed to ensuring DairySA has farm profitability at its core, and whose skills, dedication and enthusiasm for a healthy dairy industry make it a pleasure to be part of.

Michael Connor
Chair, DairySA

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June 2019 Situation & Outlook now released

As farmers prepare for the season ahead, the Situation and Outlook report ensures farmers and the industry have access to current market insights and future projections to inform farm business decisions.

High costs have pressured Australian dairy farmers, resulting in lower milk production and low farmer confidence. Well-balanced global markets, exchange rates, competition among processors and autumn rainfall are all in dairy farmers’ favour. As dairy farmers look to take advantage of some of the highest farm-gate prices in recent years, grain, hay and water prices will be the key to profit.

As part of the Report, the National Dairy Farmer Survey results are broken down into regional areas including South Australia which showed:

Confidence in the industry has decreased significantly over the past year, resulting in 24% of respondents positive.

Low farmgate prices remain the most commonly mentioned driver of negativity, however, production and grain costs are a concern for substantially more respondents than in 2018.

Profitability has declined over the past two years and only 39% of the region’s respondents expect to be profitable this financial year. One in ten respondents plan to exit the industry, the highest result nationally.

Herd sizes reduced on 27% of respondent farms (up from 8% in 2018) and production and grain costs are a concern for substantially more respondents than in 2018.

The key “take home” messages from the day included:

1. Technology should be used to collect data to assist make prompt and timely decisions. The decision-making model should always include monitor ‒ plan ‒ evaluate.
2. Technology will never replace human decision makers, but rather gather more data, more quickly and efficiently to ensure better and quicker decisions are made on farm.
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Ag Vic’s Elly Polonowilla, Rodrigo Albornoz, Santiago Utsumi, Clare Leddin and Leah Maret on the Farm tour at Mt Schank.

Attendees of the farm tour at Mt Compass with Santiago Utsumi.

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You can also listen to a podcast with Dairy Australia senior industry analyst John Droppert, which explains it in more detail. Head to the link https://soundcloud.com/dairy-australia/sandoujune19
There’s more to an udder than meets the eye

Nearly sixty farmers took the opportunity to hear from leading US researcher on ‘Growing Profitable Udders’ at two workshops held at both Charleston in the Central region and Wye, South East in May.

Professor Russ Hovey from Department of Animal Science, University of California – Davis, visited Australia as a guest of Dairy Australia and held two workshops in SA, one in the South East and one in the Central region.

The workshops provided farmers with a unique chance to ‘get up close and personal’ with the inner workings of an udder and – through dissection – to gain a greater understanding of mammary function and development.

Prof Hovey provided an insight into their response to hormonal signals during growth and lactation, and gave tips on ways to improve animal health and productivity from its ‘day one’ – explaining that the benefits will continue to pay off over years. Some of the ‘take home messages’ included:

1. The Udder is probably the most flexible but also the most sensitive part of the cow. Grow it, nurture it and understand it.
2. We don’t know what is going on unless we measure it – things including bodyweight, somatic cells and colostrum refraction/IgG.
3. The udder develops cells AFTER birth – not like other organs – brain, heart, lungs etc that start development at conception.
4. During puberty, cycling and ovary function contribute to maximize udder development, and these are all dependent on body weight, emphasizing the need to monitor heifer growth by weighing.

Dr Hovey discussed and identified the stages of mammary growth in areas including calving and heifer development, pregnancy development, and dry cow management, and dissected the udder with the attendees to demonstrate its composition and purpose. The parts of the udder were identified and their roles were explained, highlighting the Subpelvic tendon, lateral attachments, Milk vein, Vascular system, Lymphatic system, Teat, teat canal rosette, streak canal, keratin plug and cricoid rings, and the milk collection network.

To achieve the udders maximum performance, Dr Hovey explained the importance of:

- Ensuring calf and heifer growth weight targets are achieved
- Using fortified milk replacer to ensure calves are getting enough milk
- Managing heifer and dry cow heat stress
- Colostrum harvesting, storage, testing, and milk feeding.

Professor Hovey covered and discussed a range of tools and management theories to optimise a cow’s lactation. Some of these were (but not limited to):

- Condition of teat cup liners
- Milk let down protocol and stimulation – time frames, udder preparation and the effects of stress
- Use of Oxytocin
- First calvers – consider 3x or 4x milking/day for 3 to 4 weeks after calving to maximise the udders life long performance
- Effects of incomplete milk removal
- Teat scoring
- Hair singeing (to aid cleanliness)
- Shorter dry periods (45 days for appropriate cows)
- The fact that a lactating cow circulates 500 litres of blood through her udder to produce one litre of milk.

Farmers gained a lot out of the session with an average rating of 9 out of 10 for value and the likelihood of adopting new practices as a result of attending the workshop.

For further information on the outcomes of this workshop, contact David Kuchel on 0427 006 233.

Plan carefully for best calf rearing

A calf rearing environment that provides clean and comfortable conditions limits the risk of disease. Calves should be reared in clean and comfortable conditions to ensure:

- Less diseases like Johne’s disease, scours and pneumonia
- Reduced death rates
- Increased growth rates.

When designing a calf rearing area or assessing your existing facilities, it is important to remember:

- Most calves are housed when their immune systems are still immature so they are very vulnerable to disease.
- Calves that are housed in poorly designed, poorly maintained or dirty, overcrowded environments have an increased rate of disease.

The following design elements all need to be considered to ensure calf health and comfort

- Space – have you allowed enough room for times of peak demand?
- Shelter – are all calves protected from wind, rain and hot sun?
- Ease of access – can you manage all necessary stock handling, feeding and cleaning activities?
- Sick calves – do you have a quarantine area or isolation pen?
- Orientation – is the shed open to sunlight and protected from the prevailing wind?
- Ventilation – is air circulation adequate to ensure fresh air and help dry bedding while managing draughts at calf level?
- Drainage – is the calf rearing area protected from dairy effluent and calf waste?
- Bedding – does it provide good insulation? Is it risky if calves nibble on bedding material?
- Feeding space – is there enough space for all calves to access the feeder, especially in restricted milk feeding systems?
- Ease of cleaning – what cleaning regime will be used for hard surfaces in pens etc?
- Maintenance of bedding – how will it be refreshed or replaced?
- Water – will all calves have ready access to fresh drinking water? Is there a good supply of water for cleaning the calf rearing area and equipment?

Building a new calf housing facility?

It pays to do some research before designing your calf housing facility. Two fact sheets, Comparison of calf housing systems and Designing a calf housing system, along with a series of six calf housing case studies, are available from the Dairy Australia website. The case studies showcase a range of practical solutions and include farmer interviews, video tours, detailed plans and photographs.

Head to http://bit.ly/Calfhousing_DAresources

It pays to do some research before designing your calf housing facility.
Zwecks listed in top five percent of producers

From selling milk ‘out of the can’ in the 1970s, to producing a direct milk supply of 2.1 million litres of grade one-level milk nearly fifty years on, Gary and Ros Zweck and their son Justin are deservedly proud of their achievements.

To top it off, the Zwecks have just been listed in the top five per cent of producers in the 2019 Australian Milk Quality Awards. The awards recognise the farms with the highest milk quality in Australia.

Donava Farm has the unenviable moniker of being the furthestmost northern dairy farm in South Australia, located at Blyth in the mid-north.

With an annual rainfall of just 350ml and no irrigation, the Zwecks have had to “work smarter” to achieve this success.

“We’ve undoubtedly made some fairly dramatic improvements to our practices compared to how we were operating a couple of years ago,” Gary said.

Maintaining high milk quality doesn’t come without its challenges, particularly following a significant rain event in early June.

“There was a lot more moisture around, which created a small spike in the cell count, but we’ve managed to keep it under control,” Gary said.

To keep his bulk milk cell count (BMCC) low, Gary has adopted a blanket dry cow and test seal treatment program. Gary’s total mixed ration feed pad system presents unique challenges around containing cell counts and mastitis, which are offset by keeping the loafing area surfaces as dry as possible.

The Zwecks recently upgraded their feed lane by laying rubble mixed with cement dust to give it a firmer base, to reduce the impact of wet weather.

On a daily basis, Gary cultivates the cow pens with a small linkage cultivator which breaks up and mixes the fresh manure with the old composted manure, helping to break it down further.

“This ensures that our cows can loaf comfortably on the drier surface, reducing contact with wet manure,” Gary explained.

“Not only has this driven the milk quality higher but it has had the two-fold effect of reducing our vet bills for mastitis treatment, and with less culls over time.”

High milk quality has also been maintained by encouraging employees to undertake Dairy Australia’s two-day Cups On Cups Off course delivered by vet Simon Edwards, part of the flagship Countdown program.

“The course highlighted the strict practices that need to be adhered to in order to reduce mastitis,” Gary said.

“This includes wearing gloves, washing and drying teats before putting cups on, covering 100 per cent of every teat with teat disinfectant, and keeping the teats dry for up to an hour after leaving the shed.”

The Zwecks ensure there is feed already on the pad when cows leave the shed, believing stockmanship is vitally important to reducing stress during the milking process.

With a direct milk supply that has strict quality guidelines – only accepting grade one level milk – the Zwecks have plenty of reasons to keep their eyes on the prize.

“We can’t afford to take our focus off milk quality, so all our decisions drive that outcome,” Gary said.

Mindful ‘body positioning’ will prevent injuries in dairy workplace

Mt Gambier-based chiropractor David Beltakis urged farmers to take a more mindful approach to their work and body in an effort to reduce repetitive strain injuries in the dairy workplace, during his presentation at the recent DairySA Innovation Day.

Emphasising the challenging ergonomics of the dairy workplace – describing milking tasks as strenuous work with high muscular loads, high repetition and awkward postures on the upper limb – Dr Beltakis detailed the reasons behind the injuries and ways to prevent them.

“There are over 230 moveable joints in our body and half of all dislocations occur at the shoulder,” he explained.

Dr Beltakis explained that when placing the cups, for instance, we use the forearm flexors and extensors while holding the forearm relatively still with an eccentric contraction of the biceps and upper trapezius.

“From my perspective as a chiropractor, about 75% of shoulder pain is from non-traumatic origin, meaning that there simply wasn’t one event that caused the pain,” he said.

“More commonly there is an asymmetric or one sided pulling of various muscles that create an imbalance that leads to instability that allows an injury to occur over time,” he said.

“Exercises are designed to strengthen or activate the antagonist (opposite) muscle group – in this case the triceps – forcing an inhibition (blocking) of the agonist (biceps) and reducing the chance of potential injuries to the shoulder,” he added.

Undertaking daily ‘dairy exercises’ designed to increase strength and change movement patterns can assist in re-programming the brain, allowing the body to move in a more efficient manner thus decreasing the likelihood of an injury.

Dr Beltakis concluded his session with a thought-provoking quote for delegates to challenge their traditional mindset.

“We’re born in one day
We die in one day
We can change in one day.
Anything can happen in just one day.”

We’re linking the SA dairy community with up-to-date practical information, innovative programs and the latest research. Taking dairy into the future. Find out more at www.dairysa.com.au and www.dairyaustralia.com.au

Your Levy at Work

Gary and Ros Zweck from ‘Donava Farm’ in Blyth have been listed in the top five percent of producers in the 2019 Australian Milk Quality Awards.