A message from the Chair

Dairying is a challenging industry which sometimes seems to have an inordinate number of external factors – those outside our control – working against us. But it’s important not to forget the basics of dairying and to focus on what we can control.

DairySA’s ‘head and butter’ work is simple – we provide support for issues that farmers can control, so challenges can be tackled head on.

DairySA and Dairy Australia extension information is available in many ways: face-to-face through workshops, discussion groups and conferences, from websites and webinars, as well as through our monthly newsletters, e-loop email updates. I encourage you to make contact with a member of the DairySA team if you have any questions, ideas or concerns with how to make the most of the research, development and extension services on offer.

After all, it’s your levy at work and it’s there to support you.

The DairySA Board is committed to remaining flexible and adaptable, taking full advantage of the industry structure which allows levy payers to have input into how the levy is invested and to maximise outcomes for farmers. As one of eight regional development programs around Australia we are SA levy payers’ both connection to, and voice at, Dairy Australia. The door is always open for ideas, feedback and change to ensure you are getting the most from our services.

We also need to make the most of the opportunities available – and there are many. Programs such as DairyBase in SA have continued to reap benefits for dairy businesses across the State and its success is testament to the team heading in the right direction. Using DairyBase as a cornerstone to focus projects on profitability is part of DairySA’s long-term business strategy.

I encourage you to make the most of the opportunities available at DairySA, and wish you a good season ahead.

Michael Connor

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DairySA Innovation Day 2017

More than 200 dairy farmers and service providers gathered in Mt Gambier to hear a range of speakers on ‘Big Data’ and innovative technologies earlier this month at the annual DairySA Innovation Day 2017.

Head to the DairySA website / Library/Conferences for presentations from the day.

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DairySA welcomes new Extension Officer

Beck Burgess has joined the DairySA team as Extension Officer, Central region.

Beck joins the team with over thirteen years experience in the agri-finance sector, with the past three years specialising in Agri-IT.

Based at Langhorne Creek, Beck’s role involves working with the Central region’s dairy farmers and extension providers, and facilitating a range of regionally relevant education and extension opportunities and services.

Beck is excited to be part of the DairySA team and is looking forward to making connections with many dairy farmers over the next few months. She is keen to learn more about their drive and passion for dairy farming, and is ready to assist them with realising their business potential through increased productivity and efficiency. Contact Beck at beckburgess@dairysa.com.au or 0438 262 966.


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DairySA releases new Strategic Plan

The DairySA Strategic Plan forms the essential framework of DairySA and its place within the South Australia dairy industry. It plays a vital part in ensuring DairySA adheres to its vision and role, and is revised and evaluated by the DairySA Board every five years.

Our DairySA Strategic Plan for 2017–2021 has just been released.

To access it head to http://bit.ly/StrategicPlan2017-2021

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Diary dates

**JUNE**

23 Gews Create Careers Presentation Day Mt Gambier

28 CCC Presentation Day Barossa Mid North

29 CCC Presentation Day Murray Bridge

30 CCC Presentation Day Fleurieu Peninsula

**JULY**

25–27 Dairy Research Symposium Port Macquarie, NSW

**AUGUST**

4 DAA (SA) Processor Awards Dinner Adelaide Showground, Wayville

Further information on these events can be found at www.dairysa.com.au/news-events.aspx
Data needs to work for your business

The eleventh annual DairySA Innovation Day 2017 held in Mt Gambier this month was hailed a success by organisers, with over 200 dairy farmers and service providers from the dairy industry gathering to hear a range of speakers on ‘Big Data’ and innovative technologies.

The day was designed to challenge and inspire, with US Keynote Speaker Jeffrey Bewley setting the tone by challenging farmers to reimagine how they dairy. But he was quick to point out that the term ‘Big Data’ can be a little confusing.

“Big Data provides us with a lot of opportunities for the dairy industry,” he said.

“However the term ‘Big Data’ itself is a little bit confusing but basically it means using new sources of data – with new ways of analysing and visualising it – to help us make better business decisions,” he said.

“We already have a lot of data on our dairy farms but there are now so many new technologies coming out that are providing fresh sources of information that will enable us to ‘dig in’ more to areas such as animal health and reproduction,” he added.

“There are huge opportunities in every part of the world for using the kind of data that we have available to us. It is the key to changing how we dairy – since we’re working with essentially the same animals and people no matter where we are in the world,” he said.

According to Jeff, these technologies should also have the two-fold effect of improving the bottom line. However there is often a gap between what is supposed to happen with technology and what actually happens on farm. Transferring this information into tangible products for use by dairy farmers is challenging and often requires funding commitment from a third party.

Jeff believes Australian dairy producers are in the enviable position of being able to make decisions about what research will be undertaken for the ultimate benefit at the farm level.

Jeff’s final take home message was simple:

1. The key to technology is to use data to make better decisions
2. The most important thing is not the gadget itself, but how the information is used
3. Be clear about how the integrated data will assist in reaching business and operational goals
4. Avoid using data for data’s sake.

“Information by itself is fairly useless,” he said. “We need a plan for how we intend to use the information, so that it meets our goals and makes sense from an economic perspective as well”.

People in Dairy

‘Cows Create Careers’ program shines light on dairy career

Calves are helping to shine a light on dairy industry careers through Dairy Australia’s innovative school program, Cows Create Careers – Farm Module.

Cows Create Careers – Farm Module is a six-week program that aims to increase the awareness of dairy industry careers in a very hands-on way. Secondary students are educated by rearing two, three-week-old calves at school and the school is provided with dairy industry curriculum for years 7 and 8 and years 9 to 11, at no cost.

This year, twelve schools in the Barossa region will participate in the program including Faith Lutheran College, Eudunda Area School, Gawler & District College, Balaklava High School, Clare High School, Kadina Memorial School, Orroroo Area School, Kapunda High School, Nuriootpa High School, Riverton & District High School, Burra Community School and Blakeview Primary School.

In addition, eight schools in the Mt Gambier region will participate in the program including Grant High School, Lucindale Area School, Millicent High School, Compton Primary School, Mt Gambier High School, Kingston Community School, Glencoe Central Primary School and Penola High School. Other CCC programs involve Murray Bridge and the Fleurieu Peninsula regions.

Since 2006 Dairy Australia has worked with thousands of students, teachers, farmers, industry advocates and communities through its investment into Cows Create Careers – Farm Module. Its aim is to build awareness of dairy industry careers available, from teaching students about educational and vocational pathways, to profiling the diverse range of professional careers in the dairy industry.

Locally, the project is funded by DairySA and receives additional support across the state from local companies La Casa Del Formaggio, SA Dairy Industry Fund, MG Trading, Devondale Murray Goulburn, Laucke Mills, Provico, Parmalat, Peach Trees, Dasco, Daviesway and Skellerup who have continued to support the program in the Barossa region.

Upon completion of the program, students and teachers will be recognised at a Presentation Finale where prizes are awarded to the winning schools and students.

Employing overseas workers

There have been a few recent changes to employing people from overseas, often referred to as the 457 labour agreement. It is worth checking the latest updates on the Dairy Australia website which includes information on:

- how Australian workplace laws applies to overseas workers
- the importance of checking workrights
- visas (including Dairy labour agreement template)
- resources.

To find out more, head to www.theprofessionaldairy.org.au

Look Up and Live campaign serves a timely reminder

A flyer released in April by SA Power Networks serves as a helpful reminder of the dangers of working under or around overhead powerlines, whilst providing practical tips on what to do if a vehicle or object comes into contact with powerlines.

Preventative measures include:

- Regularly remind everyone who lives or works on your farm of the location of powerlines
- If you are using GPS-guided equipment, make sure the location of electricity infrastructure on your property is programmed into the system
- If you’re crop dusting, make sure you (or your contractor) identify where the power lines are located before commencing the job
- Always check for power lines whenever you move or use farm machinery like grain augers and harvesters, or when moving long or tall loads such as irrigation pipes.
- Sheds, hay stacks and silos and access to them should be located away from powerlines to minimise the risk of injury
- Water is a conductor of electricity so be careful when using water irrigation or water jets near powerlines.

In the event that the vehicle or object does come into contact with the powerline, the important things to remember are:

- Immediately contact SA Power Networks on 13 13 66 and do not move until the power is switched off
- If a vehicle strikes a power line, it may be necessary for everyone to evacuate the vehicle to prevent injury
- Jump out and clear of the vehicle, ensuring you do not touch the vehicle and ground at the same time
- Calmly walk away using small, shuffling steps
- Call SA Power Networks immediately on 13 13 66
- Do not return to the vehicle until after the area has been made safe. Keep other people well clear.
- If you remain in your vehicle, others in the vicinity should keep well clear of you or the vehicle until SA Power Networks staff have made the line safe.

For more information, head to www.sapowernetworks.com.au
Dairy Farm Monitor Project (DFMP) call for participants

How well do you understand your business?

DairySA is now seeking participants who are keen to be involved in the Dairy Farm Monitor Project for 2016/17.

The DFMP allows you to:
• dig deeper into your farm’s production and financial performance
• get a better understanding of how your business is tracking over time
• compare your farm business data to other dairy farms across Australia
• assess how changing your farm practices and adopting new technology is impacting your farm.

The Dairy Farm Monitor Project is an annual collection of data that provides farmers, service providers and the industry at large with a qualitative set of farm-level data that is recognised as independent and objective. It offers the opportunity for dairy farm businesses to be provided with the latest and most comprehensive report on their dairy farm’s financial and production data for the 2016/2017 financial year.

Working with a consultant, the annual compilation is collated into a statewide report with 20 South Australia dairy farmers engaged in the project. Farms in the project represent a distribution of farm sizes, herd sizes and geographical locations across SA.

To be part of this exciting initiative, please contact Verity Ingham, DairySA on 08 8766 0217.

New tools make dairy herd recording easy

DataGene – the dairy industry’s new organisation to drive herd improvement – has released two new tools to make it easier for farmers to use herd records for management decisions.

The HerdData App and the Herd Test Dashboard are the first tools to be released by DataGene since it took over the roles of FarmTest and HeiferTest from a mobile device. Speaking at the recent DairySA Innovation Day, DataGene CEO, Dr Matt Shaffer explained that the app would save farmers making notes in the paddock or dairy and then entering them onto the farm computer.

“Most farmers have smartphones now so the HerdData app is a convenient way to capture information wherever you are. It also allows the farmer to view key information about individual cows that might be needed in the paddock or dairy,” Matt said.

HerdData is available for android or apple devices.

The Herd Test Dashboard is a new report for those dairy farmers who herd test, providing a picture of what’s happening at the herd level.

Program aims to build network of dairy industry leaders

Leading in Dairy – a five-day personal development program for SA dairy farmers hosted by DairySA – is well underway with 13 farmers of all ages from across SA taking part.

Leading in Dairy aims to build a network of skilled dairy industry leaders with interest and knowledge in a vibrant dairy industry and natural resource management, and includes four face-to-face group sessions along with telephone coaching held throughout 2017.

Session one was held in Strathalbyn at the end of March, with participants exploring their own leadership styles and how this influences their work with others. The ‘DSG Work of Leaders’ model was used to identify different behaviour preferences and how they interact with each other.

The first session, delivered over two days, also looked at communication skills, dealing with conflict, the importance of self esteem and started a personal goal setting process that continued with one-on-one coaching for all participants to identify their goals and how they can achieve them.

Meeting the other participants and sharing ideas were high on the list of benefits identified so far by participants, along with the development of new skills including clearer communication, greater awareness of how they interact with staff, and dealing better with conflicts.

‘Virtual Herding’ technology could change landscape of dairy farms

A ‘Virtual Herding’ project currently being undertaken at the University of Sydney could potentially see the demise of the humble farm fence.

Virtual fencing is the control of livestock location or movement without the use of physical or ground based fencing and is currently being studied for its viability and commercial potential in dairy farms.

Using collar-mounted devices, GPS and sensor cues, the study has set out to determine whether cows can be trained to avoid boundaries without the visual and physical cues of a fence.

Based on the theory of ‘associative learning’ where cows are conditioned to associate a stimulus of a low-range pulse of energy that elicits an avoidance response, the study could have wide-ranging benefits for the dairy industry, but it’s not without its challenges.

“There are a number of challenges confronting us with this study, including how to determine the individual motivations of cows, how to manage each cows’ unique personality, and whether there will be both value and efficiency savings when implementing this system commercially on-farm,” said Dr Sabrina Lomax, part of the Dairy Science Group undertaking this research.

“My particular part of the study is looking at the ability to control individual and subgroup movement within a herd,” said Dr Lomax.

“Cows – just like people – have individual personalities and one of the biggest challenges of the study is how to bring them all into the same response group,” she added.

The program kicked off in early 2017 and is part of a five year study with several peer review publications due to be released later this year. The commercial partner Agersons is currently working on commercialising some prototypes.

According to Dr Lomax, if the study becomes a viable commercial reality, there will be many benefits for dairy farms.

“There’s huge opportunity for this technology particularly for the dairy industry – from being able to control pasture allocation and feed management, through to controlling herds for different stages of lactation, optimising milking and reduced labour inputs,” she said.

“Virtual herding would potentially have the ability to link to other activity devices on collars, and help with the early identification of issues such as lameness, mastitis and reproduction,” she continued.

“For example, by bringing cows into the dairy at peak lactation, and allowing them to spread out so there is reduced time on concrete, there would be positive effects on animal health and wellbeing, including reducing lameness,” she added.

The Virtual Herding Project is a major Commonwealth Government funded Rural R&D for Profit program, a collaboration between CSIRO, University of Sydney, University of Melbourne, University of New England, Tasmanian Institute of Agriculture, and commercial partner Agersons who are working on the prototype.

Further support is coming from Dairy Australia, MeatLivestock Australia, Australian Wool Innovation and Australian Pork Limited.

Dr Lomax’s presentation can be found on the DairySA website at Library/Conferences.

Join the network of ‘Legendairy’ women

The Australian Legendairy Women’s Network celebrates and acknowledges the spirit and determination of women in the dairy industry by connecting women from all around the country. It is designed to provide a forum for discussion, the opportunity to improve their skills, and add value to their dairy businesses and their communities.

If you have an affiliation with dairy – whether you’re a dairy farmer, work or live on a dairy farm, work in the dairy industry, or are involved in dairy through agricultural studies – you are encouraged to join ALWN.

Simply fill in the registration form and follow the link to become a member of the ALWN Facebook group. It is a closed group for members only.

By joining this group, you’ll stay connected and informed on the progress of the new ALWN website.

Women interested in joining the network are encouraged to register at www.alwn.legendairy.com.au

Building knowledge of industry sustainability structures and functions and how to influence there is also an important focus for the program.

 Held in Mount Gambier at the end of May, Session two examined the Dairy Industry Sustainability Framework and what it means for farmers.

During the second session, participants also continued to look at leadership, highlighting a case study and examination of what good leaders do and how they operate, as well as collaboration and its risks and rewards.

The final two sessions will further explore collaboration, its benefits, challenges and some cases studies, along with a final wrap up and review session.

A celebration dinner with family, friends and the wider industry will conclude the program in late August.

For more details, please contact Leading in Dairy Facilitator Lorraine Stock at lorrainestock@dairy.com.au or on 0407 711 576.

This project is supported by funding from the Australian Government.
Irrigation Scheduling optimises return

Three Murraylands dairy farms recently showcased their irrigation systems at a DairySA-led River Dairy Discussion Group field excursion, providing a valuable insight into the importance of irrigation efficiency and the resultant cost savings.

While we recognise that most farmers use their experience and stock rotation to guide their irrigation scheduling decisions, getting it wrong can cost money. The challenge is that you don’t see how much pasture you are missing out on.

The key is to measure your water use and pasture production. Keep records and review them regularly. There are a range of tools available to assist farmers to schedule irrigation including the Irrigate, weather based tools such as IrrisAT, the DairySA Irrigation spreadsheet and the SID Phone app or soil moisture monitoring systems. DairySA and NR SAMDB can assist you to find a tool to suit your situation.

Case study: Geoff Simons from Baseby

Geoff was funded through Round Four of the On-Farm Irrigation Efficiency Program to decommission fixed sprinkler irrigation areas and replace them with a new 45ha centre pivot on the highland. The works included pump and mainline upgrades. Geoff also completed laser grading works on the swamp and extended the existing pipe and riser system to service the renovated irrigation area.

Soil moisture monitoring has been installed on both the highland centre pivot and the surface irrigation area which is providing valuable data. The soil profile on the centre pivot is quite sandy and therefore it has been challenging to wet up at depth but the Lucerne growth is now looking very uniform.

The centre pivot site has also been set up in the IrrisAT system which is a free remote sensing platform that is available to assist with irrigation decision making. The IrrisAT system also generates NDVI and Kc (crop vigour) maps which are useful tools for displaying the uniformity of crop growth and to assist with troubleshooting.

For further information on this, or other irrigation efficiency strategies contact DairySA’s Monica White on monica@dairysa.com.au.

This day is also supported by the SA Murray-Darling Basin Natural Resources Management Board through funding from the Australian Government’s National Landcare Programme and the NRM Levy.

Catch Cans and System checks save energy and money

Understanding the cost of inefficient irrigation is essential for every dairy farmer, and was a key topic covered at a series of energy workshops presented by Nick Bullock of The Energy Guys and Joe Caruso of SA Power Networks held earlier in the year.

Energy assessments were undertaken on four south east farms, each examining ten individual pivot sites. Two pivots demonstrated how regular system checks can save irrigators money.

Run your diesel at the right revs

A part of the study, a diesel pivot was assessed with the diesel motor running at two different speeds (1500 rpm and 1700 rpm). At both speeds the flow in the pivot was exactly the same at 76.6L/s as the regulators did their job and the pivot operating as designed.

This can be understood in the table below. However at 1500 rpm the motor used 15.3L/hour, equating to an approximate cost of $8.750 per year (based on 7.9ML/ha/yr).

<table>
<thead>
<tr>
<th></th>
<th>Pvt 10 1500 rpm</th>
<th>Pvt 10b 1700 rpm</th>
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</thead>
<tbody>
<tr>
<td>Flow</td>
<td>76.6 L/s</td>
<td>76.6 L/s</td>
</tr>
<tr>
<td>Delivery head</td>
<td>29.6m</td>
<td>36.7m</td>
</tr>
<tr>
<td>Pivot head</td>
<td>26.4m</td>
<td>33.5m</td>
</tr>
<tr>
<td>Diesel</td>
<td>15.3 L/hour</td>
<td>21.1 L/hour</td>
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With this in mind, it’s important to keep a check on the revs and it will save money in the long run.

The value of catch can testing

Showcasing results from catch-can testing performed at John Hunt’s property “Fernedal” Mt Gambier last season, Nick demonstrated the significant cost of poor irrigation uniformity equating to a production loss of of almost $16,000 on a 40 ha pivot.

When conducting the energy assessment Nick was provided with current catch can data for the pivot that identified that the pivot had a distribution uniformity (Du) 51% and Coefficient of Uniformity (Cu) 86%. If this lack of uniformity resulted in an average of 7mm being applied with each pass when the target application was only 6mm, energy savings are possible.

This pivot costs $70.3/ML applied (pumping plus lomination). For every 1mm over applied (~4ML over 40 ha), it costs $28.2. And alarmingly, if this ‘over application’ occurs 40 times per year, it will cost $1128 per year. The variable application will also lead to potential pasture productivity losses so the cost of poor distribution is far higher once pasture costs are taken into account.

Using a catch can test to ensure that your pivot is actually applying the amount of water that you expect it will ensure productivity is optimised and the energy used to apply irrigation is minimised.

Together, Dairy Australia and DairySA aim to build a sustainable and internationally competitive dairy industry for the benefit of farmers. We strive to deliver the best possible dairy research, development, extension and industry services across the entire supply chain. DairySA is just one of many examples of Your Levy at Work. For information on your local levy investments, visit www.dairy.com.au or www.dairysa.com.au.

Your Levy at Work