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OUR COVER

Trent Mueller in a maize crop on his family's farm at Murray Bridge, SA. The family grew the crop for the first time this year and were impressed with the yield from it. Read story page 71.







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Time to grab the balloons

Several articles in the magazine in the past few issues have highlighted the slow drift in our industry to less robust farm systems.

The fascinating series by our vet Ee Cheng Ooi on fertility in Australian herds provides some clues to the underlying problem. I was particularly taken aback by Ee Cheng's observation in the May-June edition that in 1997, 86 per cent of the herds were seasonal calving, with 8pc split and 6pc year-round. In 2016, this had changed to 30pc seasonal, 47pc split and 22pc year-round herds.

That change hasn't happened overnight – but as farmers grappled with increasing infertility, as processors changed pricing systems to try to entice more out-of-season production and as drought saw farmers build feed infrastructure that made it easier to feed rather than graze – Australian farm systems drifted.

The drift has led to higher costs of production on farm.

And although an increasing amount of Australia's milk production is sold on the domestic market, there's still a sizable amount sold into international markets. This means the world market price still has a major influence on Australian farmgate prices, particularly as we are an open market for imports.

So this drift has had a direct hit on farm profitability.

But opportunities to address this problem are starting to emerge.

Wolfie Wagner, from AgCap, argues in this edition that a return to single calving is the key to lifting profits on Australian pasture-based farms (see article page 28).

As we reported in our last issue, some processors, particularly those operating in the export market states, are moving to change their pricing systems. This is in response to a big push from farmers for a return to simpler systems – that still provide some reward for out-of-season milk but which provide a decent return for seasonal milk.

I had a fascinating chat with Datagene's Peter Williams last month for an article on opportunities for Australian dairy farmers to become part of the beef supply chain (see page 20).

And putting that aside and what it might mean for improving profitability, Peter pointed out that a few sig'The drift has led to higher costs of production on farm.'

nificant developments and programs in recent years offer farmers the opportunity to get their farm systems back on track.

Firstly is the work that's been done to reverse the fertility trend in Australian herds.

Secondly is the InCalf project and research and extension about ensuring cows and, particularly heifers, are managed to be more fertile.

Thirdly is the development and improvement of sexed semen.

Fourthly is the improvement in breeding programs, like fixed time artificial insemination, and better heatdetection technology.

Fifthly is the development of genomics and the ability to test young animals to identify the best replacements for the herd.

Peter says each of these is like a balloon – they can all give a little lift. He says in the past farmers were only given a single balloon at a time, which had not been able to make a big enough difference.

But now there's a bunch of balloons: so it's time for farmers to grasp them to get a big lift.



Editor Carlene Dowie

@DowieDairyEd



www.facebook.com/ AustralianDairyfarmer



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EDITORIAL

Editor: CARLENE DOWIE PO Box 59. Carisbrook, Vic. 3464

Email: carlene.dowie@austcommunitymedia. com.au Phone/fax: (03) 5464 1542

Mobile: 0475 962 221

ADVERTISING

Advertising manager: JENNIFER SHAW GPO Box 257, Melbourne, Vic, 3001 Email: jennifer.shaw@austcommunitymedia. com.au Telephone: (03) 8667 1147 Fax: (03) 8667 1141 Mobile: 0447 551 316

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Fight to defend dairy names

 EU proposes restricting use of dairy product names
 Part of negotiations for free trade deal

points

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 Ban could extend to flags, colours, images

USTRALIA'S dairy industry will continue to defend its right to call dairy products by their common food names after the Australian Government last month announced a consultation process on a list of products that the European Union wants to protect as geographical indications of origin (GIs) under an Australia-EU free trade agreement.

The Australian Dairy Industry Council (ADIC), comprised of farmer group Australian Dairy Farmers (ADF) and processor group the Australian Dairy Products Federation (ADPF), is deeply concerned with EU efforts to impose their trade-restrictive GI regime on Australia through an FTA.

European trade negotiators want to protect almost 60 different types of cheeses with geographical indicators as part of a free trade deal with Australia.

The ADIC estimates that the EU's demand to restrict many cheese and dairy product names could put at risk local products with an aggregate sales value of more than \$650 million.

The potential direct impact on Australian dairy manufacturers from lost sales and increased marketing costs caused by the strict enforcement of GIs could range from a staggering \$70 million-\$90 million per year in the early stages of the FTA.

Australian Dairy Farmers chief executive David Inall said there wasn't "a lot of upside" for the dairy industry in an FTA with the EU.

"Even if there is a tariff reduction it would not be of great advantage to the Australian dairy industry," Mr Inall said.

"The EU is not expected to be a large export market for dairy and we already have our own domestic market and Asia as a large export market."

Mr Inall said the proposed EU rule could ban not just flags but also any

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Australian cheese manufacturers are facing a battle to retain the use of a number of common cheese names. Photo: Eddie Jim

colours or images that evoked European places or things.

"We are deeply concerned by the EU's interests in evocation," Mr Inall said.

"The production of many cheeses in Australia is a reflection of Australia's rich migration history.

'These common brands were established years ago, our lives have been built around these names — this is our livelihood.'

"Many Australian cheese manufacturers brought their skills from Europe, and the thought that the EU could seek to stop them from celebrating their heritage by banning the use of flags, images or even colours that evoke Europe on their products is very distressing."

Floridia Cheese director Mauro Montalto said the company, which started in 1952, was based on traditional Italian cheese making.

The company produces feta, parme-

san and halloumi among other cheese varieties. "These common brands were established years ago, our lives have been built around these names — this is our livelihood," Mr Montalto said.

"We have invested a lot of hard work and capital to build the name recognition we now have in the marketplace.

"If we were to lose the ability to use common names, I seriously doubt if we would survive, and more than 60 years of family heritage and tradition would be lost."

National Farmers' Federation chief executive Tony Mahar urged collaboration between the Australian and EU governments in removing trade barriers.

"At this time of major disruption in global markets, it's critical the EU and Australia show leadership in defending open markets and global trade rules," Mr Mahar said.

"If the EU truly believes in trade and open markets, then it's time to end the hypocrisy and remove the barriers blocking Australian agricultural imports."

Negotiations with the EU on a free trade deal began in June last year.

MILK MATTERS

Petition launched to reclaim milk name

- Non-dairy drinks trade on milk qualities
- Restrictions in place in other countries
 - ✔ Petition launched to ask Federal
- Government for change

By Terry Richardson ADF president

USTRALIAN dairy farmers can rightly be proud of producing a high-quality product with countless nutritious benefits, enjoyed across the world from our green pastures.

It's why Australian dairy products claim a premium price in lucrative export markets, particularly in Asia, including China.

But in the past decade, dairy has faced rising competition from plantbased products that are using the name milk, co-opting the look and feel of dairy milk right down to the packaging, and trading on dairy's reputation in order to gain a marketing advantage.

This marketing tactic not only affects the reputation of Australian dairy, but disadvantages consumers who rely on label information to make their shopping choices.

Of course, consumers are free to choose plant-based products and often do for legitimate reasons, but still, many choose plant-based "milks" because they feel it offers the same health benefits as dairy.

A 2017 survey by Dairy Australia showed 54 per cent of respondents bought plant-based milk alternatives because they perceived them to be healthier than dairy milk.

This dishonest labelling and marketing strategy has translated into sustained market growth.

Market research firm IBISWorld estimates Australia's plant-based "milk" product industry has grown at an annualised rate of 4.1 per cent over the five years to 2018-19, to \$165.8 million today.

By contrast, the dairy cattle farming industry has declined at an annualised rate of 1.8 per cent over the same period.

One of the major themes out of the Dairy Plan workshops has been for better marketing and promotion of dairy, particularly its health benefits.



A ban on plant-based products using the "milk" label would bring Australia into line with other countries.

Well, we can start right now, by reclaiming the word milk from plantbased products.

A ban on plant-based products using the "milk" label would bring Australia into line with other countries, after the European Court of Justice in 2017 mandated that dairy terms could not be used on plant-based products, even with clarifying terms.

'This dishonest labelling and marketing strategy has translated into sustained market growth.'

Within the EU, France has embraced stronger labelling rules by introducing laws expressly banning the use of meat and dairy descriptors in conjunction with vegan and vegetarian products.

Australia should also look to Canada, which has long been one of the few countries to enforce a ban on plant-based products being labelled milk, strictly protecting the word to describe the "lacteal secretion obtained from the mammary gland of a cow". Both countries have imposed huge fines for breaches of these laws.

There has even been a significant shift in approach within the United States, with the Food and Drug Administration admitting that "an almond doesn't lactate".

Australian Dairy Farmers is now calling on the Australian government to follow these examples and review the labelling and marketing of nondairy alternatives.

This includes possible changes to the Food Standards Code and the development of additional regulations to prevent plant-based alternatives from "evoking" the qualities and values of dairy.

This will ensure that consumers trying to make a healthy choice at the supermarket have the benefit of transparent and accurate product labelling.

ADF has started a petition calling on the federal government to act now.

I urge you to get online and log your support at <<u>http://farmers.org.au/</u> campaign/reclaimmilk/>.

Together, we can make a difference by convincing the government to reclaim the label milk and ban plant products from falsely using the term.

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MILK MATTERS

Time to shut the gate on extremists

✓ Farmers increasingly fearful of animal activists

Legislation being introduced around country with bigger penalties

Key points Need to ensure Victoria ramps up penalties

By Terry Richardson ADF president

ARMERS deserve to feel safe. They are, after all, producing food to nourish the whole nation.

But the rise of militant veganism in Australia is making farmers across the country increasingly fearful that activists will storm their properties, intimidating them and their families.

The extraordinary comment by Greens Senator Janet Rice the other week that it is "reasonable" for animal activists to break trespass laws reinforces the chilling perception that the safety of farmers is inconsequential to the pursuit of a radical vegan ideology.

It is a dangerous message that will only empower animal extremists in their relentless mission to shut down our livestock industries.

Australian cattle farmers have been under siege from vegans for some years. The antagonism between both groups climaxed in April when, to mark the anniversary of animal rights documentary Dominion, activists staged farm invasions and protests across the country.

The ugly nature of the protests drew widespread condemnation, including from the Prime Minister Scott Morrison, who derided the bullying of farmers as "un-Australian and shameful".

When you consider the rising number of farm protests in recent years, and the financial and emotional toll these actions undoubtedly have on farmers who are just trying to do their jobs, it is clear that the penalties to deter this anti-social behaviour are manifestly inadequate.

In Victoria, the current maximum penalty for trespass offences is a fine of just over \$4000 or six months' jail time, although in reality offenders rarely face such punishment.

Take, for instance, the Gippy Goat case. Victorian farming communities were outraged when an animal activist who last year stole three goats

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Farmers are increasingly fearful of activists as they invade farms en masse.

from the Gippy Goat Cafe at Yarragon walked free with a mere \$1 fine for breaking biosecurity laws and a sixmonth good behaviour bond, without conviction.

It was a slap in the face to rural communities across the state who were left to question just how seriously Victorian courts take the safety of farmers. In fact, the stress of constant harassment by vegan activists finally drove the owners of the Gippy Goat Cafe to shut up shop for good.

'It is a dangerous message that will only empower animal extremists...'

But there is now a push to crack down on animal activists by overhauling legislation and instituting tougher penalties for farm trespass offences.

Western Australia previously had the toughest trespass laws, with the state's Criminal Code recognising trespass as a serious offence that carries a potential jail term of 12 months or a fine of up to 12,000.

But now the NSW Government has gone a step further, beefing up the state's Biosecurity Act to give police the authority to hit farm trespassers with on-the-spot fines starting from \$1000. Offenders will also face potential fines of up to \$220,000 for individuals and \$400,000 for groups and corporations, plus the possibility of jail time.

The Oueensland Government has also strengthened biosecurity rules, with trespassers now subject to \$600 on-the-spot fines. Meanwhile, the Queensland Opposition has put forward a private members' bill which proposes fines of up to \$390,000 and new offences for organised, aggravated and serious criminal trespass carrying up to 10-year jail terms.

At a federal level, the Morrison Government has vowed to come down hard on animal activists. Legislation is currently before the parliament that, if passed, will put trespass offenders behind bars for up to five years. Attorney-General Christian Porter, when introducing the bill, said: "There must be consequences for this unacceptable behaviour. Farmers should not be subjected to the illegal invasion of their property and privacy.'

Victoria is lagging behind and must take steps to strengthen its trespass laws in line with the rest of the country. The Victorian Government has established an inquiry into the impacts of animal activism on the state's agriculture industry, giving the Government an opportunity to show it stands with farmers.

The best outcome would be for stronger laws that lock in minimum penalties to protect farmers against the grossly inadequate sentences being handed down by the courts. Also giving police the authority to dole out on-the-spot fines for people caught trespassing on farmland would send the added message that criminal activism will not be tolerated.

Animal extremists who trespass onto farms or commit other crimes must be held to account by the criminal justice system. Their punishment must fit the crime and act as an effective deterrent to them and others in the future.

No one is above the law and farmers have a right to farm without the threat of invasion, sabotage or biosecurity outbreak posed by animal activists.

State and federal governments have a duty to preserve the peace and ensure regional communities are protected.

It's time to shut the gate on animal extremists. D

MILK MATTERS

Inquiry into water market crucial

- ACCC to conduct investigation of the water market
- Vital to look at impact of higher

points prices on farming families

V PC review recommendations

é

should be implemented

USTRALIA'S competition watchdog will examine the Murray-Darling Basin's \$2 billion water market, with the federal government open to intervening to help farmers.

An inquiry by the Australian Competition and Consumer Commission will focus on transparency and effectiveness, including the efficiency of water movement and the effects speculators have on the market.

The move was welcomed by the dairy industry, which had called for the ACCC to fast track its investigation of the water market.

Peak advocacy group the Australian Dairy Industry Council (ADIC) argued that an extensive examination of the market is needed to validate assumptions of water use along the Murray River system, including irrigation and environmental demand and the impact of constraints.

'This inquiry will provide valuable insights to improve water conditions in the Murray Darling Basin but the timeframe for reform is narrow," ADIC chair Terry Richardson said.

The Murray Darling Basin is home to 1330 dairy farm businesses with a value of production worth more than \$2.6 billion, supporting more than 3000 direct jobs in the region, which Mr Richardson said was evidence of dairy's importance to a resilient basin community.

Yet Dairy Australia data shows the average water price in Northern Victoria was a huge \$526 per megalitre (ML) in June 2019, 212 per cent higher than last year.

Mr Richardson said the high prices were far above what dairy farmers in the Murray Darling Basin could pay.

"Many irrigators and water traders find it difficult to understand the market dynamics surrounding this change, which makes it hard for them to manage risk," he said.

Federal Water Minister David Littleproud said the inquiry would investigate whether the water market was working for farmers.

"We are going to ask the ACCC get



An inquiry by the Australian Competition and Consumer Commission will focus on transparency and effectiveness, including the efficiency of water movement and the effects speculators have on the market.

under the bonnet of this market to ensure that farming families do get a fair crack," he said.

The ACCC's interim report is due in May next year, with the final findings set to be handed down in November 2020.

'We are going to ask the ACCC get under the bonnet of this market to ensure that farming families do get a fair crack.'

Mr Littleproud has also announced a new Inspector-General to police the entire Murray-Darling Basin and ensure every region in the basin gets its fair share of water.

"The public needs to know the basin plan is delivering the water it was intended to, and farmers need to know the plan is working for as it should," he said.

'The Inspector-General can investigate suspected water theft, collect evidence and supply it to the authorities. Offices and staff to support the Inspector-General will be established in both the northern and southern basin '

The dairy industry is also urging basin ministers to agree to implement all 38 recommendations made by the Productivity Commission in its fiveyear review of the basin Plan.

Previously, the ADIC argued that any move to recover an additional 450 gigalitres (GL) of water from the basin must only occur once the primary 2750GL target has been secured and when appropriate environmental benefits have been demonstrated.

"There is compelling evidence that recovery of water for the environment from the consumptive pool beyond the agreed 2750GL target will erode industry profitability," Mr Richardson said.

"Dairy farmers value our rivers and support the improvements that have been made to the basin, but there may be more pain to industry with little gain for the environment if we try to take out an extra 450GL of water before we even reach the legislated target.'

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Dairy plan starting to take shape



By John Brumby, Independent Chair of Australian Dairy Plan

HE Australian Dairy Plan is starting to take shape following the National Workshop at the end of July.

More than 130 delegates representing all Australian states and elements of the supply chain in the dairy industry — farmers, processors, regulators, retailers, government, peak bodies, industry experts and service providers — met for two days in Melbourne.

It was a big commitment of time and I'm grateful to everyone who attended.

The input we received was invaluable. It helped us test the range of issues picked up at the 25 regional workshops and agree common themes.

The task now is to distill that knowledge into a workable plan that can turn the industry around and position it for real success in the future.

The number one issue was undoubtedly industry structure and advocacy. In response we've created a dedicated taskforce (Joint Transition Team or JTT) to examine existing dairy industry organisational arrangements and recommend options for transformational change.

We opened up the application process for membership of this taskforce to ensure that anyone with relevant experience had the opportunity to be considered.

Some may question the value of creating another committee within the plan process.

I believe the issue of industry representation is an absolutely crucial element for us to get right. Consideration of such a complex topic requires adequate resourcing. It's important to have independence and balance in the membership of the team and a mix of experience. The taskforce also has a demanding timeline, in order for its recommendations to be considered before the publication of our final report later this year.

We can learn from other industries that have successfully reformed their representation structures.

It's not a finger-pointing exercise. The pace of industrial change today requires old structures of representation to evolve and modernise.

I think we all agree on the potential for dairy to speak more clearly with one voice, to direct combined resources to industry priorities, to be more nimble and agile to challenges, to be more streamlined and remove duplication.

Based on the example of industries that have undergone similar transformations in industry structure and representation, the benefits can be both rapid and pronounced.

A number of other key issues came through clearly. People want a greater focus on marketing and promotion. There is ongoing concern about market power and transparency along the supply chain from farmers, processors and retailers.

Attracting and supporting young people in the industry was another common theme, along with building the capabilities of farmers to manage costs, risks and volatility.

I encouraged participants at the National Workshop not to lose sight of the opportunities ahead, even despite the many difficulties of recent years. We need to think big and imagine what the industry can be if we get the plan right and work together.

In 2017 the National Farmers Federation announced a vision for agriculture to exceed \$100 billion in farmgate output by 2030. Just last month Prime Minister Scott Morrison announced there will be a national plan to do just that.

The plan will be backed by specific policies as well as the Government's \$4.9 billion Drought Fund.

My hope is that the Australian Dairy Plan can position dairy to be a big part of that vision.

For more information on the Australian Dairy Plan visit the website <www.dairyplan.com.au>.

10-point summary

A 10-point summary agreed at the Australian Dairy Plan National Workshop

1. Transformational change to reform industry structures and strengthen advocacy to be more effective, united and efficient.

2. New measures to increase transparency and help manage market risk including the establishment of a functioning milk price market and new risk measures backed by government legislation.

3. A significant increase in marketing and promotion to build community trust and recognition of dairy products, the dairy industry and dairy farmers.

4. Increased effort and new initiatives to attract and support more new people to the industry, particularly the next generation of farmers.

5. A heightened focus to address rising costs, risks and volatility on farm, including building farmer capability, adopting new innovations, and accessing new risk management tools.

6. A concerted effort to change the culture of the industry to position dairy as an agribusiness leader with a clear and positive focus on excellence.

7. Build on world-leading practice through the Sustainability Framework to stay at the forefront with innovative new practices that meet and exceed consumer expectations.

8. Better understand how climate change will affect our industry across Australia (particularly when it comes to water) and more investment in the technological solutions that will help us adapt to a changing climate.

9. Practical initiatives to work with the Federal Government and maximise support available from the \$100 billion agriculture target and associated \$4.9 billion drought fund.

10. A clear and ambitious vision for the future of the Australian dairy industry such as 'A united, profitable and growing dairy industry built on high standards of environmental sustainability and animal welfare, producing high quality and nutritious dairy products for the Australian and international markets'.



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ACCC to appoint dairy specialist

ACCC to have dairy specialist and dairy committee to help with development and enforcement of mandatory code
 Industry groups call for it to investigate all breaches — regardless of size of farmer

By Carlene Dowie

HE Australian Competition and Consumer Commission will appoint a new dairy specialist.

Agriculture Minister Bridget McKenzie announced last month the ACCC would also establish a dairy consultative committee to help enforce the new mandatory code of conduct.

"The establishment of the dairy consultative committee is part of an \$8.1 million injection into the ACCC Agriculture Unit to continue its valuable work for the dairy and agriculture sector," Senator McKenzie said.

The committee, to be led by an independent chairperson with a strong knowledge of the dairy industry.

"Work is continuing on drafting regulations for the mandatory code of conduct in the form of an exposure draft," Senator McKenzie said. "Following this, a third round of consultation with industry will begin to gather feedback on the exposure draft and provide the ACCC with up-to-date and relevant advice."

Australia's peak dairy farmer group has welcomed the establishment of the new dairy specialist.

Australian Dairy Farmers president Terry Richardson commended Senator McKenzie for acting quickly on the government's election promises to the industry. Mr Richardson said the new committee must be given the power to test all claims relating to the mandatory code.

"We believe the committee should focus on the code of conduct and other matters that fall under the remit of the ACCC," he said. "This includes acting on all complaints that are brought forward.

"The ACCC uses a public benefit test to determine which claims it pursues, but in our view this threshold is likely too high for many of the claims potentially breaching the code."

'We implore the ACCC to use their powers ... to investigate claims of power imbalances along the dairy supply chain, particularly in the retail sector.'

Senator McKenzie said the ACCC would seek nominations from people from a range of backgrounds and industries within the sector, including peak bodies, industry associations and industry advisers to form the committee.

The United Dairyfarmers of Victoria (UDV) also welcomed the formation of the new committee but also called for it to be given the power to consider all claims relating to breaches of the mandatory code of conduct.

"For this committee to effectively enforce the dairy mandatory code, they must consider claims of code breaches made by all dairy farmers, regardless of size," UDV president Paul Mumford said.

When enforcing industry codes of conduct, the ACCC has a public benefit test to determine if it will pursue an alleged breach.

"We are concerned that many dairy farmers will not meet the requirements set out under the public benefit test, potentially leading to the dairy farmers with the least amount of bargaining power in the dairy supply chain being disadvantaged," Mr Mumford said.

"In 2017, the Senate Economics Reference Committee concluded that the ACCC's current investigation process is letting Australian farmers down.

"It is important that this new committee ensures all dairy farmers are treated fairly as they all contribute to the dairy industry and the community, and deserve equal protections under the mandatory code."

Mr Mumford said the UDV was looking forward to working with the new dairy specialists within ACCC to ensure the development of a mandatory code of conduct that is fit for purpose for all dairy farmers.

"In light of this funding boost, we implore the ACCC to use their powers under the Competition and Consumer Act 2010 to investigate claims of power imbalances along the dairy supply chain, particularly in the retail sector," Mr Mumford said.

Industry members can contact the ACCC via email <<u>AgricultureUnit@</u> accc.gov.au> to raise issues concerning the dairy industry.

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Saputo looks to milk new arrangements

 Saputo looks to process other milk in Sydney and Melbourne
 Aims to increase efficiency of plants
 Hopes to overcome ACCC concerns about Lion acquisition

By Carlene Dowie

APUTO Dairy Australia is finalising agreements to process milk for customers other than Coles through its two big liquid milk processing facilities in Melbourne and Sydney.

Saputo president and chief operating officer Kai Bockmann, speaking in Canada after the company's annual meeting and first-quarter results announcement in August, said the renegotiation of the contract with Coles had opened the way for it to process more milk through the Laverton North and Erskine Park plants that were built by Murray Goulburn five years ago specifically to fill that 10-year Coles contract.

"Those two assets were specifically built for the Coles business, but we were not happy with the terms and conditions under that contract, so we're looking to foster collaborative approach in terms of how we could work together and we found resolution just recently," Mr Bockmann said.

"And that has allowed us to look at processing more milk through those two assets.

"So we are in the midst of finalising some agreements to bring more milk through both facilities, which would pretty much get us to close to maximum capacity for both sides."

The third-party processing of milk is a key part of Saputo's strategy to build more profitability into its Australian business as it grapples with reduced milk supply.

Mr Bockmann said toll-processing arrangements like the one it had negotiated with Coles, where it charged to manufacture someone else's product, were not necessarily a lower margin business than processing their own brands.

"Let's say, it costs you 10 cents to manufacture an item for someone, you would charge them 15 cents," he said. "So 10 cents would be the cost and then you would add a profit to that service — that would be the toll fee you would generate."

Saputo chair and chief executive officer Lino Saputo said this generated



Saputo has renegotiated its contract with Coles to become a toll processor.

'There is a lot of stainless steel in the system, not all the stainless steel is efficient or effective.'

two benefits. "Number one, you generate a profit as you are tolling for someone else," he said.

"And the second thing, don't forget is, especially in Australia, it helps us reduce the overhead absorption.

"So it makes all the other categories of products that we are processing in that facility that much more profitable."

Mr Saputo said despite the fact overall milk production was declining in Australia, Saputo was still aiming to hit its targets for milk processing. This included milk from its suppliers and buying milk from brokers.

But Saputo also saw an opportunity in the excess processing capacity in Australia. "There is a lot of stainless steel in the system, not all the stainless steel is efficient or effective," Mr Saputo said. "And so through our discussions with some other players in the dairy space, we are offering them some compelling reasons for them to shutter their plants, move their milk to us and we can co-pack much cheaper with a higher quality than they can do if they would keep that plant open.

"And that negotiation with a number of different players has been quite successful. So our target for capacity utilisation at this stage has not changed."

Mr Saputo said the company was expecting greater competition for milk, which would put downward pressure on margins.

Mr Bockmann described a lot of competitors as being "quite aggressive" in chasing supply, including new smaller players who were entering the market.

Mr Saputo said part of its strategy to mitigate this was to channel raw milk into higher margin products — which was where its proposed acquisition of the Lion specialty cheese business fitted. "Our desire is to be a specialty driver of dairy goods all over the world," he said. "And this acquisition of Lion specialty business fits right into our strategy."

Mr Saputo said he was confident the company could work through the competitive issues around the acquisition raised by the Australian Competition and Consumer Commission in August.

The national competition regulator is worried about less farmgate milk price competition if Saputo takes over Lion's cheese-processing operations.

The ACCC estimated at least 80pc cent of the Tasmanian milk market would be controlled by Saputo or Fonterra if Saputo's buyout went ahead.

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Who bears the risk of the Basin Plan?

By Mike Foley

HE real risks of the Murray Darling Basin Plan don't fall to the bureaucracy and politicians, but on the people most affected.

Failure to deliver the required volume of water to the environment will result in punishment for the people who didn't want it in the first place. That's the fatal conundrum of the complicated and convoluted water reform.

River towns are struggling to adjust to their new economic reality with less agricultural activity.

If the basin plan lives up to political promises, the remaining water recovery can come from two off-farm sources — and avoid unpopular irrigation buybacks.

But the big worry for communities is that if the state governments, federal bureaucracies and the Murray Darling Basin Authority don't finalise the water-recovery process by 2024 then a doomsday clause lurking in the legislation kicks in — with direct irrigation buybacks to make up the shortfall.

To date, there's been about 2000 gigalitres of buybacks. There's more than 1000GL of recovery still to go before the full whack of the 3200GL target is achieved.

With just five years left to complete a mountain of work, the task increasingly looks like pushing water up a hill. Here are the big issues that could derail the plan.

Finding the water needed

State governments are responsible for 'supply measure' infrastructure works and to date, they have released minimal details of 37 individual projects which, if completed, could reduce the volume of water to be recovered from irrigation by up to 605GL.

Known in Basin Plan jargon as sustainable diversion limit adjustment mechanisms, supply measure projects are designed to move the increased volumes of environment river flow more efficiently and reduce water losses as more water flows downstream.

The states are also working with the Commonwealth on filling the 450GL 'upwater' bucket for increased flows across the South Australian border.

The unpopular on-farm buybacks have been ruled out for upwater recovery in a deal cut between state and federal governments in December last year.



Nut plantations are sucking up huge amounts of irrigation water in the Murray Darling Basin.

'We need to provide evidence to support that our products are being produced sustainably.'

But significant questions remain over where the remaining water will come from, and how the extra water can be safely and effectively transported downstream without major flooding and other unintended consequences.

State of confusion

In January, the Productivity Commission issued a stark warning in its fiveyear progress assessment of the basin plan. The commission found that the MDBA was tasked with conflicted roles and said it should be split into two independent bodies — a corporation offering policy advice and a regulator to check governments were playing by the rules of water recovery.

"These conflicts cannot be successfully managed through internal controls," the report said. "In its current form, the MDBA cannot be a trusted adviser to basin governments and a credible regulator."

The Productivity Commission said the states were worryingly behind on design of the 37 supply measure projects and with so much at stake for the environment and communities, there should be an amnesty on the 2024 deadline to allow the states to make sure they didn't incur more buybacks. The MDBA rejected the Productivity Commission's recommendation at the time of the report.

Last month, the basin states issued a belated response to the Productivity Commission report through the Council of Australian Governments, which did not adopt key recommendations.

The Ricegrowers' Association reacted angrily to the states' response and said in a statement that governments had decided to "abandon Murray-Darling communities when an opportunity for leadership presented itself".

With the most challenging part of the reform — the last 1000GL of recovery — now ahead of them, the government's had "kicked the can down the road", Ricegrowers said.

Downside in the upwater

Similar question marks hang over the recovery of 450GL of upwater. The basin plan's initial strategy for upwater recovery was for 450GL of voluntary water buybacks and infrastructure investments, where irrigators swap their water entitlements for on-farm upgrades.

The deal between basin states last year banned upwater buybacks and created strict conditions that all but rule out on-farm water recovery, as a proponent must prove their project proposal would not diminish social or economic outcomes in the the local region.

A report from consultants Ernst and Young to the federal government in January 2018 forecast that all the upwater ►

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 could be recovered through a mix of targeted on-farm projects, savings through upgrading metering and monitoring equipment, and urban stormwater harvesting.

The forecast was theoretical, savings measures haven't been tested and it's unclear if design and implementation of the significant new recovery mechanism can be achieved by 2024. Again, if the states and Commonwealth don't get it right, more on-farm buybacks are required under basin plan laws.

Another point to note, some irrigators are disappointed by the interstate deal to ban on-farm recovery — given they have missed out on the opportunity to sell their entitlement and recoup infrastructure investment.

Constraints in the relationship

Adding to concerns about supply measures and upwater delivery is the worryingly slow progress on works to ease river constraints and prevent flooding of towns and private land.

The basin is home to 2.6 million people, a \$24 billion agriculture industry, dozens of unique and iconic fauna, an \$8b tourism industry and internationally significant wetlands.

The risk of damaging floods from increased flows, when 3200GL of environment water is added to the system, is perhaps the greatest hurdle to completion of the basin plan.

Relaxing constraints will require big building works like raising bridges and levees, modifying weirs to remove



The basin plan still needs to find large amounts of water for the environment — but it is not clear from where this is going to be sourced.

choke-points, as well as negotiating easements where private land is inundated.

The Productivity Commission warned this task could lead to a significant deadline blow out.

In the early 2000s, negotiations to secure easements so river operators could release increased flows of up to 25,000 megalitres day from Hume Dam took almost eight years and involved negotiations with 103 landholders from the Hume Dam to Yarrawonga, Vic.

Easing constraints for the whole basin will be radically more challenging, requiring negotiations with more than 3000 landholders across five reaches of river.

Earlier this year, following resistance from South Australia, NSW Water Minis-

ter Melinda Pavey and Victorian Water Minister Lisa Neville failed to gain consensus for their request to review the MDBA's modelling of river constraints.

NSW and Victoria are concerned about potential flooding when, under full implementation of the basin plan, there is a peak flow rate of 80,000ML a day at the SA border.

The MDBA's proposed constraints management — that is the regime of where to draw water and at what rate — would cause unacceptable flooding through some sections of the river system, they said.

NSW and Victoria will conduct their own independent review of MDBA constraints management.

It remains to be seen what comes of the results.

Water reform at choking point

THE political reaction to unforeseen impacts from liberalised inter-valley water trade is as big an unknown as the outstanding water recovery issues.

A boom in permanent plantation nut crops is driving water demand so high in the southern Murray Darling Basin that the price of water may become unaffordable for rice, dairy or even cotton irrigators, according to water market adviser Aither.

The federal government has commissioned the Australian Competition and Consumer Commission to investigate water trade in the southern basin, and it's established a community consultative committee to report back on the socio-economic impacts of water reform.

A large motivation for the reviews was highlighted by Aither, when it found nut plantations now dominate the crop mix of permanent planted horticulture.

The shift to permanent plantings had disrupted the traditional irrigation industry

mix, which was better able to respond to variable water availability through dry years.

About 95 per cent of the crop is located below the Barmah Choke — a narrow point in the lower Murray River that restricts flow — including in to the Victorian Sunraysia, NSW Murray and South Australian Riverland regions.

Permanent plantings annual water demand is expected to hit a whopping 1555GL when all the existing and planned crops are mature.

That's 125 per cent more water than would be available to irrigation during a very dry year.

Reacting to the report, Victorian Water Minister Lisa Neville imposed, in July, a freeze on increased water use in the lower Murray region of her state.

It remains to be seen if Victoria's ban is dropped or becomes permanent, and if the federal government weighs in after considering the reports it commissioned.



The Victorian Government has placed restrictions on the amount of water that can be delivered through the Barmah Choke.

But how can government recover entitlement from an industry that invested in water products in good faith?

Is it willing to restrict trade to permanent plantings to preserve the viability of traditional industries like dairy?

What will happen if nothing is done?

It's yet another unknown in the water reform process, which may not be answered until after the 2024 recovery deadline.

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SPECIAL REPORT



Australian heifers on a new dairy in China, where massive expansion is underway.



The Jelbarts have a range of choices for what to do with heifers produced in their farming operation.

Drought creates dairy-beef opportunity

 Hole appearing in beef supply chain due to drought

- Developments in dairy breeding allow production of excess animals
 Big demand from China for expo
- Big demand from China for export heifers

By Carlene Dowie

AIRY farmers have an opportunity in the next couple of years to become a key part of the beef supply chain on the back of the massive drought-induced beef herd cull.

A convergence of trends in both the beef and dairy industries is paving the way for potentially lucrative new markets for dairy farmers.

Extension officer with Datagene, the dairy industry's independent genetic gain and herd improvement organisation, Peter Williams said the beef industry offered an opportunity for dairy farmers to reduce their dependence on the volatile milk market.

Mr Williams said the high female cull rate in the beef industry would have an impact on national beef herd numbers for the next 5-10 years. "That is going to cause huge disruption to meat production domestically," Mr Williams said.

At the same time, demand for Australian beef is increasing, particularly from China, where African swine flu has created a 16 million-tonne hole in China's domestic pork production.

Dairy farmers could help fill the beef void by using new technologies and a targeted approach to produce more calves aimed at specific markets.



Tim Jelbart on his family's Leongatha South, Vic, farm where they have used sexed semen to lift the number of heifers produced.

Mr Williams said the judicious use of sexed semen, a fixed-time artificialinsemination program in maiden heifers, genomic testing and high-fertility genetics would allow dairy farmers to produce more herd replacements faster.

This would then allow the use of beef semen over part of the herd to produce dairy-beef cross animals for the beef market.

The development of a Meat Stand-

ards Australia (MSA) index for Holsteins and Jerseys, which is the aim of Dairy Beef Project trials that are expected to wrap up next year, would open up further opportunities to sell into the beef market.

Farmers would also be able to sell excess dairy breed heifers to export markets, particularly China, which is ramping up its domestic dairy industry.

Mr Williams has just returned from

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a trip to China where he saw massive new dairies being constructed in Inner Mongolia, which were looking to Australia for young stock.

Strategic approach

Leongatha South, Vic, dairy farmer Tim Jelbart is one farmer who has taken a strategic approach to herd replacements.

He told last year's Improving Herds National Muster field day his family's dairy farm business, which milks 1000 cows in a split-calving herd, used a lot of sexed semen and aimed to produce 400 to 500 heifer calves a year through two joinings.

They then genomically test the heifers to identify the highest genetic merit animals as replacements.

"Our marketing options for surplus females vary," Mr Jelbart said. "These include export heifers at nine months of age; heifers in calf to sexed semen at 16 months of age; and heifers and cows at the point of calving or freshly in milk.

"Our decisions vary depending on what prices are on offer at the time, current and forecast seasonal conditions and where we make the best profit margin. This helps to diversify our livestock income." 'And some dairy farmers will do their own sums and rear these (surplus animals) because of the massive hole in the beef chain.'

They are also using Waygu semen over the tail end of the Holstein herd. Calves from these joinings are contracted to be sold at nine months or 200 kilograms to BeefCorp.

"Value adding to livestock sales is a key part of increasing our overall farm income and fully utilising the land resource we have available," Mr Jelbart said. "Generally, livestock sales account for 15-20pc of our total income, while milk is 80-85pc."

Mr Williams said when farmers were able to lift the number of replacement heifers, they could set up their farms to no longer have 90pc or more of their income from one source.

The advantage was they were creating diversification within their existing system — they weren't having to add something different to their farm.

He said the key to creating surplus animals was to set up the system to produce more replacements from maiden heifers.

Ten years ago dairy farmers were not joining maiden heifers to Holstein semen because they wanted to manage calving ease — so all replacements were coming from milking herds, which as a result of genetic selection, were becoming more productive but also less fertile.

"But we are changing that," Mr Williams said.

Farmers could now have more confidence in joining maiden heifers to artificial insemination because:

• Calving ease genetics reliability had improved greatly.

• Heifer rearing had improved with more emphasis on rearing heifers to target weights, which triggered earlier puberty.

• Improved fixed-time AI programs allowed farmers to control joining and have a shorter joining period.

• Using sexed semen lifted the number of heifers produced but also meant smaller calves, so easier calving.



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"This allows for a massive surge of calves at the start of the calving period," Mr Williams said.

The turnaround in fertility, with a change in genetic selection, meant more replacements were also being bred from the main herd.

Surplus heifer bonanza

Camperdown, Vic, farmer Chris Place has seen the results of this type of approach this year with a shed full of heifer calves in the first six weeks of calving.

Mr Place, who milks 400 cows in a family operation with his brother Peter and wife Diana, said he had been using sexed semen for the past 4-5 years but this year was the first in which everything had fallen into place.

And the results were amazing. He had 120 heifer calves in the shed in the first 6-7 weeks of calving - and expects to have about 150 by the end of the calving period in September.

"I will have to decide what to do with them because I haven't got room in the shed," he said.

In the past, Mr Place was getting only 70-80 heifers and was forced to carryover empty cows in the seasonal herd.

He now plans to genomically test the heifers to select the best ones to keep, will be able to cull all the unwanted cows from the herd and will look to sell the excess heifers, potentially to the export market.

"At 200kg you can get \$1400 for them — that's for export," he said.

Mr Place said it had taken hard work and a focus on all the details to get the heifer breeding program right.

"We give the heifers priority," he said. "We try to grow them really well and then we weigh them before joining and we don't join anything under 320kg."



Bega, NSW, dairy farmer Ken Kimber tells the Australian Dairy Conference about how he has diversified into rose veal.

They use a fixed-time AI program on the heifers and fresh sexed semen from Total Livestock Genetics at Camperdown.

They have also used a synchrony program on earlier, younger cows in the herd and have used sexed semen over some of them.

They use home-bred Friesian bulls

and two Banquet Angus bulls as mop ups. The Friesian females from the later calvings have been sold for export, the male Friesians calves go to the market at five days, while the Anguscross animals have a ready market with local hobby farmers.

Mr Place hopes to see breeding results on the farm improve further.

He has just started using activity meters on his cows to help lift submission rates in the herd and has been selecting bulls for high fertility genetics.

Mr Place said if this breeding strategy continued to be successful, in future he might use beef semen over the later cows.

He wouldn't plan to rear those beefcross animals but could see an opportunity to sell to others, particularly those who had gone out of dairy farming

"My priority is dairy and I don't have the space to rear all these calves," he said. "But there is an opportunity for those who want to ease back to switch over to dairy beef."



Mr Williams said beef might look at dairy differently, as a result of the Dairy Beef Project trials and the need to find stock to fill the supply chain.

"I can see calf rearers coming back, contracting directly from farms," he said. "They'll say there is a business model for them to pick up and rear for beef. And some dairy farmers will do their own sums and rear these (surplus animals) because of the massive hole in the beef chain."

Beef diversification

Bega, NSW, dairy farmer Ken Kimber has diversified into beef production.

He told the Australian Dairy Conference earlier this year rearing a large number of heifers had given him the option to cull problem cows, keep the herd young and healthy and sell excess heifers.

He has stopped sending bull calves away on the truck at seven days of age and now reared them to 7-8 months to supply a niche market for rose veal.

The RSPCA has a strict accreditation program for the product, which includes staff training, health requirement and food safety requirements.

Specifications are included for feed and water, environment and housing, outdoor paddock areas, animal handling, husbandry and management.

He said returns for the product had been under pressure due to the drought and higher cost of feed.

Mr Kimber told the conference dairy farmers could use sexed semen to breed heifers from the top part of their herd and then look at other options for the remainder.

These included raising male animals for the yearling steer beef category, producing Waygu-cross animals for the Dairy Beef Alliance or using beef semen specifically developed for dairy-cross, such as the Angus InFocus program.

Missing supply chain link key

FILLING a critical part of the supply chain from calves on dairy farms to 300-kilogram weaners was the key to dairy farms being able to play a key role as a supplier of beef, according to an industry analyst.

Rabobank senior analyst animal protein Angus Gidley-Baird said both New Zealand and the United States had better organised supply chains to take advantage of surplus animals from dairy farms.

In the US, the more intensive dairy systems fitted better with the beef feedlots that dominated the sector there. Work was underway there to identify beef genetics to put over dairy animals that would produce animals that would best suit the beef feedlots.

NZ had a different approach.

"It's intriguing how well the Kiwis do this — why couldn't we do something similar here?" he asked.

In NZ there are operators who take calves from farms and raise them to 300kg weaners, before they are sold to grass finishers.

The same could happen in Australia — whether the weaners were finished on grass or in feedlots.

But the NZ system relied on a few key factors to make it work, Mr Gidley-Baird said.

Firstly, everyone in the supply chain understood their role and was prepared to hang on to the animals for a period of time to ensure a relatively stable supply.

The Australian beef chain was more flexible — with people holding onto animals for longer if they had feed or getting rid of them if they didn't have enough grass.

This approach would make it difficult to have a dairy-beef system that provided a return to everyone along the supply chain.



Rabobank's Angus Gidley-Baird says New Zealanders manage to make dairybeef work well.

In the NZ system, people held onto stock for a year or more to better manage the seasonality and big influx of calves at certain times of the year.

Mr Gidley-Baird said Victoria would be the obvious place to base operators to take young calves to rear to weaners, given the concentration of dairy in that state.

It was difficult to move young calves any distance but once they were 200-300kg, they could be moved into any part of the beef supply chain across the country.

-Carlene Dowie



A place on the table for Jersey boys

FROM the rustic dining table in her restored country kitchen, Gilly Johnson watches over the bucolic pastures of historic Melville Park Farm, at Brunswick, Western Australia, and plots the next step in her plan to build a new beef brand.

Though many might consider hers a hobby farm, she is using the 56-hectare, Brunswick River-side property to build a market and brand for beef from Jersey bull calves. At the moment, 11 large Jersey steers, which form the forward group of a herd of about 120 steers, are being re-conditioned after a tough autumn season in readiness for the next six months of beef sales.

Across the central laneway is the beginnings of her new micro-dairy herd of Jersey cows, which Ms Johnson hopes to bring together in 2020 to form the nucleus of a boutique once-a-day milking herd.

Jersey Boy Beef is a new foray for the project manager and former army officer, who has a farming family background, but has established her first farm business over the past seven years.

And it's not lost on her that what she is quietly working towards, with the support of a small group of local dairy farmers, resonates with some of the bigger issues facing the broader dairy industry — how to build and maintain a livelihood in a sector under pressure and which surveys show wants major change, with a commodity undermined by supermarket \$1 a litre milk, growing animal activism and the need to maintain a social licence and contention about how to manage the five-day old bobby calves which are a necessary part of the system.

"There have been some interesting things going on in the dairy beef space and the landscape of dairy beef is changing," Ms Johnson said.

"I know that I am not the first person to try Jersey beef, but I probably am the first to give it a branding. It's important to me that my customers know they are eating Jersey



Gilly Johnson is reconditioning these 11 Jersey bull calves at her Brunswick, WA, property, bought in from a few local dairies.

beef and that their support is contributing to strengthening the amount of available beef in our country, by making use of these calves that are already on the ground within the dairy industry.

"We have this group of calves on the ground, they are already here and they have to be here for us to have a dairy industry so couldn't we find a way to strengthen that and make more out of it?"

To that end, Ms Johnson is now looking to build more partnerships with WA dairy and other farmers to build a more consistent supply of beef that can be sold via her farm and also potentially into the retail space.

The partnerships would see producers growing out small herds of Jersey calves to about 18-months-old, enabling Jersey Boy Beef to have an overall larger herd size and for her partners to become part of the Jersey Boy Beef brand.

An important part of her business model is working to commercial standards by having her steers processed at a local processor and then hung for up to seven days at a leading butchering group in Bunbury. Ms Johnson said both groups have provided great support and helped her to learn more about the commercial systems and processes that lead to high standards and beef quality.

Ideally she likes to process her steers between 400-450 kilograms, as 100 per cent grassfed beef, to maximise the available yield in each carcase.

Ms Johnson is also two years into a fiveyear MSA program to grade her Jersey Boy Beef.

She said being part of the MSA program had helped her to understand more about her beef in general and to use the data to make butchering and processing decisions.

Early this year, Ms Johnson was part of a Paddock to Plate day for Harvey Shire Tourism and will be soon part of a local farm tour for a young dairy network.

Read more about the Jersey Beef story on the Australian Dairyfarmer website at https://www.farmonline.com.au/ story/6307658/a-place-on-the-table-for-jersey-boys/>.

–Belinda Hickman

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HINA'S appetite for Australian dairy continues to grow and it's not just demand for dairy products.

A recent dairy trade delegation of Australian organisations to the 2019 China Dairy Expo in Tianjin found opportunities to increase the number of live cattle exports as well as expanding bovine semen exports and a push for joint research.

Genetics Australia export manager Rob Derksen has attended the past five Dairy Expos in China as part of Australia's National Pavilion arranged by Austrade and said the 2019 Expo was by far the most promising.

This year a "Team Australia" approach was taken with representatives from key breeding and industry organisations DataGene, Holstein Australia, Jersey Australia and Genetics Australia (GA).

Australia has been a minor exporter of genetics to China where the market is dominated by North American and, to a lesser extent, European exporters.

"It has been frustrating for GA that while the Chinese are very happy with the performance of Australian heifers, they have not had an opportunity to access top Australian genetics while US genetic suppliers have had significant growth. If China is to achieve the aggressive targets of its milk industry development plan, Australian genetics also need to be imported."

In January 2018 GA appointed an exclusive China distributor and access to Australian genetics became a reality. Exports of bovine semen have increased from zero in 2013-14 to more than 140,000 straws in 2017-18 and based on current orders the figure looks set increase.

GA's distributor is based in Tianjin so it was an ideal opportunity to promote the strengths of the Australian industry to visitors to the expo. More than 200 buyers attended a Sino-Australia Breeding Platform Forum, where Australian organisations presented on a range of issues.

The seminar was repeated around



Genetics Australia chairman Trevor Henry inspects Australian heifers milking in Ningxia province in China.

major dairy provinces in China. "There is a real appetite to know the strengths of the Australian cow and get access to Australia's top proven and genomic dairy bulls. They see Australia as having a progressive and advanced breeding industry and the fact GA is a co-operative established more than 60 years ago is a real plus," Mr Derksen said.

However, he said it had been challenging to show Chinese buyers an alternative to the US Holstein Total Performance Index index.



'The world class research done in Australia, particularly on heat tolerance and feed efficiency. is of real interest in China.'

"US genetic companies have done an excellent job promoting TPI for many years, but we are beginning to get real traction with the Australian BPI (Balanced Performance Index) as it includes many traits of real interest to Chinese farmers."

DataGene's Peter Williams presented on heat tolerance and feed efficiency and said he was surprised by the strong interest. "The world class research done in Australia, particularly on heat tolerance and feed efficiency, is of real interest in China," Mr Williams said. "I was surprised how well they fed their cows but a great deal of their feed is imported adding increased costs, so they need an efficient and moderate size dairy cow."

A third of China's dairy industry is in central to southern provinces where heat and humidity have an impact.

Mr Derksen said Chinese leaders were keen to collaborate with Australian researchers to benefit both Chinese and Australian farmers.

"Australia's dairy industry has world class scientists and facilities to conduct research and if we co-operate on R & D initiatives and attract offshore research funding, I can see benefits to make both industries more productive while continuing to build a strong relationship with our largest trading partner."

The trend to drinking yoghurt and high-quality dairy products has made many of the large Chinese dairy enterprises take more notice of the quality and type of milk needed. "This adds opportunities for breeds such as Jersey and Australian Reds, breeds well established in Australia." Mr Derksen said.

Australian heifers are held in high regard and the opportunity to produce quality heifers for export to China is strong. The delegation visited a number of regions where expansion was underway and Australian heifers were wanted. "There appears to be recognition that to get quality heifers from Australia the price paid will need to increase," Mr Derksen said.

Mr Derksen advised farmers who previously supplied export heifers





discussions and participation in the Australia's National Pavilion at the 2019 China Expo. Jersey Australia was invited by Genetics Australia to join the Austrade mission to develop and expand export opportunities and Mr Barrett said Jerseys could be a significant player.

Australia exports an average 10,000 Jerseys per year but Mr Barrett said some exporters were telling Chinese buyers they

or have been toying with the idea to consider using sexed semen from the highest rated Australian bulls.

Australia Genetics chairman. Tinamba, Vic, dairy farmer Trevor Henry, was also part of the trade delegation and said opportunities to sell more Australian heifers had never been better. "China will demand betcouldn't buy Australian Jerseys. "That is incorrect. By weight of numbers, we are a smaller breed but Jerseys are available," he said.

Mr Barrett said having a consistent market would encourage more Jersey breeders to enter the international market

"If the market is inconsistent, it's hard to breed to supply to it," he said. "If there was consistent market year-on-year, breeders and farmers would breed heifers to meet that market. If the market is there one year and not the next. that becomes a bit of a challenge."

There are also good opportunities for Australian genetics and embryos. "The feedback was that there is demand for high value cows and potential opportunities for more elite level genetics and exports of Australian semen to China," Mr Barrett said.

Jersey Australia will maintain contact with potential buyers, reconfirming Jerseys are readily available and providing support in certification and breed assessment.

Genetics Australia export manager Rob Derksen said there was a growing need for different types of milk in China.

They have been very volume orientated but there has been a change recently," Mr Derksen said. "The Chinese are drinking more yoghurts and wanting a higher percentage of fat and protein in their milk and Australian Jerseys can deliver that," he said. "Jerseys are also generally more heat tol-

erant and better feed converters."

Mr Derksen said one farmer met on the mission had asked for 1000 A2 Jersey heifers from Australia.

ter quality heifers but the tools available to farmers today such as sexed semen and genomic testing will allow us to get more replacements from our best cows and also create quality surplus export heifers," he said.

"I encourage all dairy farmers not to miss the boat and to seize the current opportunity." D

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Jersey Australia general manager Glen Barrett addresses the China Dairy Expo.

China mission reveals Jersey opportunities

USTRALIAN Jersey farmers could be Amajor beneficiaries from China's need for more dairy product while addressing many of the issues confronting the country.

China needs 109 million tonnes of dairy to meet current nutritional targets but last year Australia exported only 840,000 tonnes

A recent dairy trade mission to China has identified Jersey as a potential growth opportunity and has sought to clear-up misconceptions about availability of the breed.

Jersev Australia general manager Glen Barrett, who was part of the delegation, said Jerseys could be the answer to many of the challenges facing dairy in China.

"Their dairy herd is starting to get too big and has fertility, feed efficiency and heat tolerance issues — all things where Jerseys would be far superior," Mr Barrett said.

"It is mostly a Holstein market at the moment but the demand for Jersey is growing, particularly in southern China where the climate is warmer and the Jersey heat tolerance is beneficial."

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Seasonal single calving lifts efficiency

- Increasing operational efficiency vital for ND. Australian dairy farms Seasonal single calving ey points lifts efficiency on pasture-based farms
 - Requires strong focus on fertility

GCAP CEO, Wolfie Wagner believes that the future of Australian pasture-based dairy industry rests largely with ensuring that moderate-sized farming businesses become increasingly efficient. Seasonal single calving is a strategy that can contribute to efficiency.

Mr Wagner defines the single-calving model as having a single calving period once per annum that ideally matches seasonal feed supply. Well-executed single calving models may result in no cows being milked for a period of about 30 days.

Alternative calving systems adopted by Australian dairy farmers include:

· Split calving where cows calve in two or three distinct calving periods each year, and

• Year-round calving where cows calve in at least 10 months of the year. Yearround calving can also include batch calving, where cows calve in multiple batches throughout the year.

Mr Wagner said Dairy Australia research suggested that simple systems were easier to manage and implement. Simple systems (e.g. single calving) were easily replicated and could be



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2 Growth Rate

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implemented at scale. Single calving further offered the benefit of having a finite set of tasks matched to a finite set of resources.

Mr Wagner said inconsistent cashflow and historic milk processor payment systems were two perceived barriers to the adoption of the singlecalving model.

Implementing a seasonal single-calving model allowed dairy farm operators to match calving (feed demand) to the seasonal pasture growth rate curve (see Figure 1).

Mr Wagner said to monitor the success of a single-calving model, farmers needed to keep accurate records to enable calculation of some key measures (see Table 1). Table 1 includes targets that AgCap had achieved with good breeding goals and management systems

To be able to compare reproductive performance between farms, clearly defined indicators needed to be used,



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• Six-week in-calf rate = the number of cow's pregnancy tested in calf to the first six weeks of mating as a percentage of cows at the start of the mating period, and

(a) Right time to calve

(h/c/d)

tres

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• End of mating not-in-calf rate = the number of cow's pregnancy tested not in calf to the whole mating period as a percentage of cows at the start of the mating period.

Mr Wagner said the major risk of single calving was associated with low incalf rates where the options for these not-in-calf cows were limited. In other models (e.g. split calving), not-in-calf cows were simply carried forward into the next calving period.

This carryover strategy, however, could negatively impact the long-term fertility in herds, he said. Ideally in a single-calving model the not-in-calf cows were sold as cull cows, decreasing the number of replacements bred from potentially lower fertility cows.



Mr Wagner said AgCap dairy asset management had a focus on whole farm systems and as such aimed to ensure that people, process, livestock and pastures were structured and aligned to ensure the best prospect of assets performing above average.

Successful single-calving models impacted dairy businesses in each of these business parameters, he said. These included:

• People — single calving allowed the on-farm management team to better allocate their limited resource of time by having a defined set of tasks (see Figure 2).

• Process — single calving assisted with all processes including livestock record keeping. All processes and tasks throughout an annual season are clearly defined.

• Pasture — seasonal single calving allowed better utilisation of the cheapest feed source, pasture. Optimising pasture grown and consumed (i.e. increasing percentage of home-grown feed in the cow's diet) was a key driver of profit.

• Livestock — single calving ensured that all lactating cows are at a similar stage of their lactation at any point in time throughout the year. This virtually eliminated the need for individual feeding cows grain supplements based on production or stage of lactation. Furthermore, there were minimal groups of replacement heifers being reared, again simplifying processes.

Mr Wagner said single calving models would also impact the longer-term sustainability of dairy-farming businesses:

• Greenhouse gas (GHG) emissions — maintaining single calving requires a

Primary reproductive measure	Current industry performance (Dairy Australia 2017)	Industry target (Dairy Australia 2017)	agCap target
6-week in calf rate	50%	>71%	>80%
End of mating not in calf rate	21% (21-week joining)	<20%	<10% (8 week joining)
Number of open days between end of calving period and start of mating	0	Not Available	40

Table 1: Reproductive performance measures





significant focus on fertility. Improving the fertility of the herd meant that cows would live longer. The consequence of increasing the longevity of cows within the herd led to a decreased requirement for replacements. This would have help reduce total GHG emissions. • Animal welfare — bobby calf disposal is an increasingly important issue for the Australian dairy industry. Having a single-calving model has both positive and negative impacts on this issue. Having many bobby calves to deal with in a single-calving period increased the workload of the farm management team, however, this also presents an opportunity. Being able to focus on rearing bobby calves in one period

can lead to having larger numbers of weaned bobby calves within a tight age bracket, which may appeal to more buyers looking to raise these animals.

Mr Wagner said rebuilding the Australian industry would involve more than simply having an Australian Dairy Plan, it would also involve a concerted effort to improve operating efficiencies.

AgCap believed that a seasonal single calving that matches pasture feed supply would be a major step in increasing operating efficiency, he said.

But he did acknowledge there were farmers running profitable alternative calving models and that single calving would not be suitable for all dairy farm operators.



Gippsland farm's new focus on staff

Macalister Irrigation District farm becomes Focus Farm Expected to look at points



pasture management

Process identified need for workforce procedure review

By Jeanette Severs

HEN Neil and Keryn Gannon agreed to be a Dairy Australia focus farm, they did not expect to be reviewing their workforce

Mr Gannon is the fourth generation of his family to farm the land at Tinamba, Vic, and the third generation in the dairy industry. The 270-hectare farm is in the Macalister Irrigation District, with irrigation from the Lake Glenmaggie Weir system.

The full irrigation entitlement of 670 megalitres is available August to May. It was traditionally available through flood irrigation from channels, but recent modernisation works have replaced dethridge wheels and closed a number of inefficient channels, replacing them with underground piping and improving flow with automated gates. The farm also has a 60Ml groundwater licence from a bore.

The self-replacing spring-calving Friesian-Jersey-Reds milking herd averages 480 cows and produces 410-420 kilograms a cow milk solids annually.

"We're spring calving because that's when the grass grows," Mr Gannon said.

Pastures are perennial ryegrass, and 15-20 per cent of the property undergoes annual pasture improvement. There are many weeds endemic to the area, including paspalum, couch, stinging nettles, marshmallow and, in patches, calf thistles.

"We spray out and sow a bi-annual ryegrass," Mr Gannon said. "In a good season, we'll opportunistically sow millet to for the cows to graze in the summer and autumn."

He harvests his own pasture fodder - 300-400t of pit silage, followed by a second cut to produce 300-400 rolls of hay. This year he also sowed barley and oats to produce silage. "They were opportunistically sown on rain," Mr Gannon said. An early winter rain event saw him sow 14ha of oats and oversow 4ha of lucerne and 10ha of ryegrass.



Neil Gannon thought offering his dairy farm for a focus farm in the Macalister Irrigation District would mean discussing pasture - but the conversation quickly moved to workplace matters.

...it highlighted we needed a hierarchy in the system, giving everyone titles for their roles in the workplace.'

The three-way-cross herd - Friesian, New Zealand Friesian, Jersey and Reds - is closed, with artificial insemination used extensively, followed by Jersey mop-up bulls.

This year, ongoing dry conditions and the increasing cost of feed saw Mr Gannon sell all empty cows in March. He weathered the past couple of years of clawbacks, dry conditions and low and unstable milk prices, but the loss of a second irrigation in October 2017 saw him have to buy in additional fodder last year and he decided not to add to his financial burden this year with feeding empty cows. Plus, there are heifers coming along ready to go into the milking herd.

'We bought 10 B-doubles of hay (35t) in the 2017-2018 season," Mr Gannon said. "We had to buy more grain to top up the hay and keep condition on the cows."

His reward, as he saw it, was a drop in fertility this year, with 70 cows empty.

"In the 2018-2019 season we irrigated early to produce silage, hay and feed," Mr Gannon said.

He missed out on what the locals call the spill. When Glenmaggie Weir, with its large catchment, spills, the irrigators are able to dial back their irrigation season to start again.

This year, he sowed 10ha of barley on May 16, after the last irrigation of the season on May 15. He is expecting to make silage from the oats and barley in late September.

"Because we irrigated early, right on August 15 last year, then again in October, we were able to fill the pit and we're still feeding that silage," Mr Gannon said.

But he was also strategic about purchasing several additional lots of water throughout the 2018-19 irrigation season, paying \$250/Ml for 240Ml.

"That was specifically bought to irrigate new crops and pasture. The seed was direct drilled and we wanted to get it up," Mr Gannon said.

The ongoing dry conditions saw him forward contract vetch hay to ensure supply. It comes out of Rainbow, Vic, at \$440/t. "We feed it after the morning milking, mixed with oats or pit silage in the mixer wagon," he said.

Reviewing the workplace

At the first focus farm walk in August last year, Mr Gannon found the conversation moving from the expected

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topic of pasture to workplace practices and policies.

Neil and Keryn Gannon employ several staff. Mr Gannon has been the overall manager and milker and Mrs Gannon does the office administration work.

There are three employees — Ellie, Drew and Marnie — plus casual milkers.

The issue that became apparent was confusion among the workers about their and each other's roles, which also impacted on the principals' working lives.

Change was also being indicated by the erection and installation of a new dairy — a rotary dairy to replace the existing platform. Along with the new dairy, a new scanning system was being installed and the gates were being realigned to enable smoother transition of cattle into and out of the platform.

"There's about 20-plus regular attendees at the monthly focus farm meetings. It's always interesting to hear others' views; but you don't have to take their advice on board," Mr Gannon said.

Mr and Mrs Gannon realised there were potential advantages for themselves and their staff by focusing on reviewing their operating procedures.

"We did Taking Stock and that helped us get our inductions right. But an indirect advantage was it highlighted we needed a hierarchy in the system, giving everyone titles for their roles in the workplace," Mr Gannon said.

"We also decided to review our wages and payments; and some of our



Feed and pastures are a focus in the Gannon operation.

workplace procedures."

The reviews led to a revision of labour, including taking away the responsibility of maintaining milking records from Mr Gannon, a move he is thankful for, given the new software program that was recently installed in the dairy.

Another focus was how pasture was measured and who was responsible for the task. Drew's key focus was tractor work, including spraying, and setting the cow-pasture rotation calendar.

"Every week someone was formally measuring pasture growth. Now we have a peg system and everyone is trained to assess pasture dry matter — Ellie, Drew and I have all done the Pastures for Profit course," Mr Gannon said.

"So anyone who is taking the cows into or out of the paddock can assess the pasture growth and make decisions around that.

"Ellie is doing a nutrition course and has taken on the role of assistant herd manager. The new rotary dairy requires a new computer program, which Ellie is responsible for."

New auto-drafting gates were installed and, along with the new scanning system, means alerts for treatment are apparent as the cow enters the shed.

While cycling will still be identified manually, the cow is then programmed into the software system so it is automatically drafted after milking into the artificial insemination pen.

"Marnie is very good in the milking shed — she really enjoys milking cows — and she and Ellie complement each other with their skills," Mr Gannon said.

The review and revision of labour, along with the installation of the new dairy, has also meant a reduced need for casual milking and other labour.

"Our business goals are to lift cow production, less manual labour, invest in more efficient irrigation and look after the workforce," Mr Gannon said.

"We realise looking after the workforce had to be a higher priority that we actioned. Drew has been with us for 20 years and the others for three to eight years.

"They needed to know that we valued them."

Rare disease hits Gannon herd

T is not only the drought affecting conditions and costs at the Gannon dairy farm.

A rare disease has reared its head for the first time on the Tinamba, Vic, farm, causing 22 cows to slip their calves (at the time of interview in mid-June).

The deaths will have a medium-term effect on cow numbers, both as the affected cows take the time to improve their condition and lift production and with fewer heifers coming into the herd in two years time.

The culprit is *Neospora caninum*, a microscopic protozoan parasite identified since 1988 as a major cause of bovine abortion.

Up to 33 per cent of Australian breeding herds have been recorded as aborting calves, with additional ongoing production issues of decreased milk yield and weight gains.

United States researchers have reported a 5pc decrease in milk production in infected dairy heifers.

Unfortunately, it appears from research undertaken in NSW and Queensland, that the parasite remains within the herd and there is an ongoing three-to-four times increase in risk of abortion in dairy cattle.

A study in 1997 estimated an \$85 million economic impact of *Neospora caninum* infection in dairy cattle.

There are two major methods of transmission for cattle — horizontal and vertical.

The parasite is ingested by cattle from grazing pasture and eating stored feed

that an affected dog (wild or domestic) has deposited faeces on. If the cow is infected during pregnancy, the calf will be infected. Apparently, the dog catches the parasite from eating afterbirth that is already affected by the protozoa; which induces a circle of infection.

The second route of infection is from cow-to-calf during pregnancy. Calves that do not abort are mostly born clinically normal but persistently infected and will have a 95pc chance of giving birth to infected progeny without a dog-to-cow route being involved.

A blood test can help determine which animals in the herd are infected. One recommendation is to exclude those animals from reproducing.

—Jeanette Severs



Rhonda dives into lifelong leadership

Took part in community leadership program

- Helped inspire involvement in
- points different organisations
 - 1 Exposed issues facing local
 - community

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HONDA Henry believes leadership growth is a lifelong journey. As an experienced leader in her profession, the mother of three adult children had reached a life stage where she wanted to broaden her community contribution.

In 2017 the long-time Warrnambool, Vic, agri-business banker joined a mostly younger cohort in the Leadership Great South Coast (LGSC) program, sponsored by the Gardiner Dairy Foundation.

"I was already a leader in my profession, but I wanted to explore what was out there to provide me with the opportunity to give back to my community and region after my professional life," Ms Henry said.

While retirement is not on the cards, Ms Henry has already built what she learnt from the leadership program into her work and dairy region.

The impact was immediate: during the program, she joined WestVic Dairy board and is now on the executive committee as treasurer. She also chairs meetings of WestVic Dairy's risk and audit committee.

"Being on the program gave me the confidence to apply and accept the board position," Ms Henry said.

She also joined the LGSC board the next year and was recently elected deputy chair. "I enjoyed the leadership program so much I didn't want it to end," she said.

"I feel I have a lot of knowledge and experience to share and I would like to help develop future leaders in the dairy community, the community in which I live and the banking community.'

Ms Henry also volunteers and runs meetings at a local cancer centre.

"The leadership program really opened my eyes about the needs of my community," she said.

"Even though I have lived here for 50 years, I was focused on my industry and family, so was naive about

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Rhonda Henry at the Westvic Ladies Lunch with Ashley Eldridge from **Gardiner Dairy Foundation.**

'Right from the initial interview, through the opening retreat and our program days, I felt challenged, out of my depth and at the same time totally engaged and wanting to know more.'

other regional issues. "The program is not only about building leaders in the community but finding out what is in the community," she said.

For this reason, Ms Henry enjoyed the "deep dives" into regional topics that she had little knowledge about, such as issues around law and order and health.

As a banker of more than 40 years, including the past 15 years in agribusiness, Ms Henry enjoyed the diversity of the program topics and participants.

'Right from the initial interview, through the opening retreat and our program days, I felt challenged, out of my depth and at the same time totally engaged and wanting to know more,' she said.

"After attending the program days, my views and awareness of leadership skills and key issues in our region were turned upside down."

Among the program days that particularly resonated with Ms Henry were the sustainability and eco-tourism sessions.

The sustainability program day included a visit to Jigsaw Farms, north of Hamilton, Vic, to learn how the farm had doubled production and created environmental benefits by becoming carbon positive.

"This day and some of the practices I observed is something I speak about regularly with many of my clients," Ms Henry said.

A waste depot experience on the same day incorporated a bin examination "in 38-degree heat", which also left a lasting impression on Ms Henry to make her home, office and world more sustainable for future generations.

It also helped inspire her idea for a community project, a requirement of each syndicate group within the leadership program.

Her syndicate's Caffeine Dream project raised regional awareness around the billions of disposable coffee cups filling Australia's landfills.

The group encouraged cafes to discount coffee for customers with reusable cups, and register with Responsible Cafes, placing them on a mobile-responsive map of participating cafes.

"We gave away free keep cups to early adopters and received media coverage to help change behaviour and awareness," Ms Henry said.

She said the eco-tourism program day at Budj Bim National Park and Lake Condah Mission stretched her thinking, awareness and the importance of understanding local and national Indigenous history.

Whether at work, or through her new networks, Ms Henry "taps others on the shoulder" and encourages them to apply for the leadership program.

UPDATE FROM THE GARDINER FOUNDATION



"I learnt in the program that my leadership style is to bring people along on the journey by being encouraging and kind," she said.

"It was an absolutely amazing experience and I would highly recommend it to others to do.

"You are in a very safe environment

with the other participants, giving you the opportunity to explore things you might not do in a different environment; you make new friends from all walks of life and age groups.

"I was extremely grateful for Gardiner Dairy Foundation's sponsorship; it was critical in making my decision to apply for the program and accepting the offer."

For more information go to website <https://www.gardinerfoundation. com.au/people-community/> or email Richard Meredith <richard. meredith@gardinerfoundation.com. au>.

Scholarship helps farmer move ahead

NOVING 700 kilometres from Woolsthorpe, Vic, to Wagga Wagga, NSW, has been like moving to another planet for dairy farmer Matthew Roache.

With support from a Gardiner Dairy Foundation tertiary scholarship, Matthew is in the third year of his Bachelor of Agriculture and plans to continue next year to complete his Bachelor of Agricultural Science at Charles Sturt University.

The Gardiner Dairy Foundation has opened applications for its 2020 tertiary scholarships, with seven scholars to receive \$10,000 annually for three years to contribute towards costs associated with their studies.

For Matthew the course has opened his eyes to a potential career in agronomy and living in Wagga Wagga has opened his eyes to how many farmers are struggling.

After completing his studies, he hopes to return to south-west Victoria where he grew up on a family dairy farm at Woolsthorpe. "I want to return home and work in dairy," he said. "It's very dry up here. It's awful when you tell mates that we've had a bit of flash flooding back home.

"Something I've come to appreciate here is that if you want to make a change in cropping it takes weeks, but with dairy you can change something in two days and make a measurable difference that you see in the fat and litres.

"I still get the milk results sent to my phone and talk about them with dad."

The Woolsthorpe farm has been in the family since 1929. Matt's parents Linda and Noel currently milk about 350 Friesian cows and they have a small side operation with 200 sheep.

Matthew, 23, worked on the farm for two years after school but found he was restless and wanted to try something new.

"It's a big leap to go so far away from home, but once you're here it's worth it," he said.

"Initially, I never wanted to go to uni. The first year on the farm was great but the second year a lot of my mates had moved away and I needed to do something new.



Matthew Roache has found it easier to complete studies a long way from home thanks to a tertiary scholarship from the Gardiner Dairy Foundation.

"This is a great way to do something positive for your future and make friends for life. The year off makes you hungrier to go and do something positive."

Matthew said he couldn't have made the transition or continue to a fourth year of study without the Gardiner Dairy Foundation scholarship.

"The scholarship really helped because I'm so far away," Matthew said.

"The first two years I lived on campus, which was a big help because you stay in the loop and it's great to have people nearby to help. Without the scholarship, I wouldn't have been able to stay on campus and get home on holidays."

Matthew has done casual work in bars and on farms but because of the scholarship hasn't had to commit to a permanent job. "To support themselves, other students have to have consistent work, which means they can't go home for holidays or they might be working the night before an exam.

"I don't have that sort of pressure which makes it so much easier. I can be more flexible in my jobs. It doesn't mean you do nothing, but it means you can focus more on your studies and that will help in the long term."

The support has prompted Matthew to plan another year of study. "Doing a fourth year will create more job opportunities," he said. "It's mainly a placement year, which will be a great way to get some experience and try a few jobs and see where I best fit in."

During the course, Matthew had developed a strong interest in pasture and crop agronomy. "Ideally after the course I'd like to be back home working in agronomy with a few pasture clients and a few cropping clients," he said.

The Gardiner Dairy Foundation will award seven tertiary scholarships to students from Victorian dairy regions who are starting study in 2020.

The scholarships are named in recognition of the contribution to the dairy industry by Shirley Harlock, Jakob Malmo, Bill Pyle, Doug Weir and the late Niel Black.

Gardiner Dairy Foundation chief executive officer Dr Clive Noble said the tertiary scholarships were awarded to students who had been accepted into a course that would benefit the Victorian dairy industry or dairy communities. The program aims to encourage students to return to the dairy industry on graduating and to contribute positively through the skills they have gained.

Dr Noble said a diverse range of skills was needed to ensure the Victorian dairy industry and dairy communities were resilient and adaptable.

"Dairy communities need high level skills in all areas of dairying as well as in essential areas such as health, education and finance," he said.

"However, there is a huge cost for students associated with relocating to undertake the higher education and training required to develop these skills."

For more information please go to website <<u>http://www.gardinerfoundation</u>. com.au/current-projects-industry> or email Richard Meredith at <<u>richard</u>. meredith@gardinerfoundation.com.au>.





People and skills vital for dairy's future



By David Nation Managing Director **Dairy Australia**

~	People and skills area of real
	concern for many farmers

- Dairy Australia offers range of programs to help
- points Increasing demand for skilled ev labour

AIRY Australia's activities supporting dairy are pretty diverse and cover many different aspects of our industry.

Farmers receive a wide range of program-related communications from us.

It can make it difficult to form a clear view of our priorities. It's something I hear about often and we have listened to this feedback.

You will see in this issue of the Australian Dairy Farmer that we're focusing on the topic of people and skills. It's an area of real concern for most farmers.

Attracting and keeping great people in dairy is vital to the long-term health and success of our industry.

Farmers play an active role in supporting new entrants into the industry. But finding skilled people and developing their careers can be tough. It was a consistent theme raised at recent consultation workshops for the Australian Dairy Plan.

Articles over following pages focus on different aspects of the work we do to support people coming into the dairy workforce and building their capabilities.

With the trend towards larger farms, we estimate that by 2023 an additional 800 people could be needed on dairy farms across Australia.

We need to make sure we have a skilled workforce in place to maximise

the opportunities available.

As the complexity of farming increases, there is certainly no shortage of opportunities for skilled labour from entry level to farm manager.

But there is perhaps a lack of understanding of what a career could look like in dairy — both the opportunities on-farm and off-farm.

Involving young people in farming is a challenge in many countries around the world and our dairy industry in Australia is no exception.

It's important that young people get sight of the many great career options available in dairy, whether on farm, in science, in manufacturing or as a professional advising the industry.

We try to create awareness of these opportunities via regionally led activities in schools - like our Cows Create Careers program and showcasing dairy at local careers fairs as well as through online information resources

'With the trend towards larger farms, we estimate that by 2023 an additional 800 people will be needed on dairy farms across Australia.'

Our Young Dairy Network connects young people in the industry and helps them to develop skills to further their careers.

It's been a terrific success and supports 2500 young farmers across Australia.

Staying on top of the human resources needs of a busy farm can be demanding.

Our People in Dairy website was developed as an online resource for recruiting and managing staff.

We also have an Employment Starter Kit (ESKi) that provides a set of resources for employing people and keeping up to date with the latest employment requirements.

I hope our articles in this edition

give you a bit of an overview of things we're doing to help support the availability of skilled labour in dairy.

It's a crucial area to get right and we need to commit to do more as a whole industry and for Dairy Australia to do its part.

Geographic Indications

You may have noted the campaign currently being supported by the Australian Dairy Industry Council against proposed European Union regulations on Geographic Indications for dairy products (see the Milk Matters story on page 6).

This is part of Free Trade Agreement negotiations currently underway between Australia and the EU.

These GI regulations have potential significant impacts for the Australian industry and could prevent the use of some well known dairy product names — for example feta and parmesan.

It is estimated that the proposals could potentially cost our dairy industry up to \$70 million and \$90 million per year through renaming of products and lost sales.

There's currently a short window for people to register their views during this consultation phase.

We're working hard with other industry bodies to inform farmers and the wider industry about the risks associated with these regulations and to ensure that the dairy industry provides a robust response.

Tick of approval from **Heart Foundation**

I'm delighted that our work in the past decade supporting awareness of the dietary benefits of dairy has informed new advice from the Heart Foundation.

Updated dietary guidelines now have broad support for consuming milk, cheese and yoghurt, and in doing so reduced the emphasis on low fat products.

It's a great achievement by our nutrition team and will help to reinforce the benefits of dairy with Australian consumers. D

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Getting a hands-on dairy education

- Dairy farmers take part in program at local high schools
- Helps promote dairy as potential
- at loca Helps p career
- Positive project for students

SOUTH Australian dairy farmers Ros and Gary Zweck have been involved in Dairy Australia's Cows Create Careers since it began, helping to implement the project in their community.

The program has given more than 15,000 high school students across Australia a firsthand understanding of the opportunities available to them through a career in dairy.

Dairy farmers play an active role in supporting the program by supplying dairy calves to schools as part of their agriculture programs, encouraging high school students to care for real animals and boost their interest in the industry.



Dairy farmer Ros Zweck with Cows Create Careers students from Clare High School, ► SA.

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After hearing from a friend who teaches agriculture at Balaklava High School, Mrs Zweck actively championed the program in the mid-north region.

"We want to encourage future generations to become involved in agriculture and more specifically, dairy, because it's difficult to get people involved in the dairy industry," she said.

"When I first came to this region there were over 70 dairy farms, there's now 14 left — so we try to promote the dairy industry as much as we can."

The Zwecks supply calves to Clare High School, Balaklava High School, Horizon Christian School, and Kadina High School.

"Even though we are in a rural area, a lot of the students live in the town and don't have access or don't have the opportunity to become involved with farming or farm animals," Mrs Zweck said. "They relish the opportu-

'Even though we are in a rural area, a lot of the students live in the town...'

nity to have a hands-on experience."

Clare High School agriculture teacher Lesley Squires believes that Cows Create Careers is a positive project for all students.

"It's the year 10 students who look after the calves throughout the project," she said.

"The rest of the school visits the calves and can interact with them, so they get to know a bit more about dairy calves which they don't really get the chance to see otherwise.

"We've also got a kindergarten and childcare centre next door, so they come over to see the calves as well."

Ms Squires believes that the project gives the students responsibility while building their teamwork skills, as they work in groups to care for the calves.

She continues to encourage her stu-



dents to think about the range of options presented by a career in dairy after the conclusion of the program. After completing the project, the students are given the opportunity to visit the Zwecks' dairy farm, to learn more about milking and milk storage.

"It gives them the opportunity to understand more about the ongoing process of the day-to-day operation of dairy farming," Mrs Zweck said.

One student enjoyed the experience so much that he asked the Zwecks if he could complete work experience on their farm, which the Zwecks found rewarding.

Two year 12 students from Kadina High School have since asked the Zwecks if they could continue to care for their calves after completing Cows Create Careers to conduct a research project on bought in feed.

"That was a real highlight for me, and those calves came back very well fed," Mrs Zweck said.

To learn more about Dairy Australia's careers programs, visit website <dairyaustralia.com.au/ dairycareers>.



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Dairy science grants build careers

Dairy Science Travel Grants help

- early career scientists

 Attend world's largest dairy
- science conference

points

 Bring insights and knowledge back to work in Australia

P-AND-COMING dairy scientists and consultants have been given a once-in-a-lifetime opportunity to travel to the United States and learn about the latest dairy science.

Dairy Australia's Dairy Science Travel Grants program for 2019 gave four early career dairy researchers and industry support professionals the chance the learn straight from global experts to further their careers.

Dairy Australia farm profit and capability group manager Peter Johnson

'The program is about attracting and retaining the best and brightest to dairy.'

said the program was about attracting and retaining the best and brightest to dairy.

"This program gives early career scientists a unique opportunity to build their knowledge and their networks in dairy to forge lifelong careers," Mr Johnson said.

The participants travelled to the American Dairy Science Association (ADSA) annual meeting in Cincinnati, Ohio — the world's largest dairy conference featuring the latest break-throughs and cutting-edge science.

The participants then bring the knowledge they gain and apply it to their work back in Australia, strengthening their ability to provide new insights to dairy farmers.

The program is in its fourth year and has already given more than 10 early career students and scientists the tools they need to further develop and build their careers supporting the dairy industry.

To access more information on Dairy Australia's work to provide people already working in the industries with opportunities for development, visit <dairyaustralia.com.au/ dairycareers>.

Tas researcher applies global insights

ADAIRY Science Travel Grant gave Tasmanian researcher Adam Langworthy the chance to boost his dairy research through new global insights.

The 28-year-old junior research fellow has started his career at the Dairy, Grains and Grazing Centre of the Tasmanian Institute of Agriculture.

As a recent PhD graduate, Mr Langworthy works across a range of dairy research projects, including virtual fencing, nitrogen use and irrigation.

After working on a dairy farm during his agricultural science degree, Mr Langworthy previously took part in Dairy Australia's Dairy Manufacturing Scholarship program to learn more about the industry post-farmgate, meeting with processors, retailers and consumers across Australia.

Through his Dairy Science Travel Grant this year, Mr Langworthy attended the American Dairy Science Association general meeting to discover more about research and innovation directly related to his research, bringing this knowledge back home to Australia.

"It was a real eye opener — I'd never gone outside of Australia before," he said. "I was able to build networks for future research collaboration and was exposed to dairy systems in the US."

The highlight for Mr Langworthy was seeing the latest breakthroughs on silage



TIA researcher and travel grant recipient Adam Langworthy.

production and forage systems and learning about alternative dairy production systems.

He also sought to build his skills by attending workshops on modelling nutrition in dairy cattle and statistical analysis for mixed models.

"These workshops meant I could apply new knowledge directly to my research," Mr Langworthy said.

Mr Langworthy was struck by the emphasis the conference had on developing young people, and believes it was a lesson in how to attract and retain talented young people to dairy here in Australia. "They had mentoring sessions for young people and allowed them to meet up with potential employers — it's a great way to support a network of young people and keep them in the industry," he said.

Mr Langworthy would not hesitate to recommend the program to others — citing the global networks he created and the training opportunities he had. "There are a lot of opportunities for learning through the Dairy Science Travel Grants and you get the chance to make contacts in a range of countries," he said.





Vic nutritionist builds skills

NORTHERN Victorian ruminant nutritionist Ellen Fitzgibbon's Dairy Science Travel Grant allowed her to develop new knowledge and skills by meeting world leading researchers.

The 28-year-old lives on-farm at Nagambie and grew up with a passion for agriculture, eventually leading to her current role managing research and development for CopRice Nutrition.

"The future of agriculture is something that runs through my veins," Ms Fitzgibbon said. "I'm passionate about the success of young Australian farmers with a particular focus on sustainability — both economic and environmental."

On a day-to-day basis, Ms Fitzgibbon oversees new product and additive trials, develops best practice models that are practical and achievable on farm, and co-ordinates education programs for the CopRice field nutrition team and farming communities.

One of Ms Fitzgibbon's current projects sees her working with farmers to assess and manipulate the quality of colostrum being produced by spring-calving herds and assessing successful rates of transfer to calves. "Reproduction is a specific focus of mine — with so many pieces to the puzzle, we're following a generation



Ruminant nutritionist and travel grant recipient Ellen Fitzgibbon.

from conception through to the milking platform," Ms Fitzgibbon said.

Ms Fitzgibbon applied for a Dairy Science Travel Grant to continue to build her skills after previously undertaking Dairy Australia's training programs such as Repro Right, InCalf, Feeding Pastures for Profit and Advanced Nutrition in Action.

"I have been fortunate enough to complete a number of Dairy Australia programs in the past, and I was thrilled to receive one of the Dairy Science Travel Grants," she said.

A busy few days at the American Dairy Science Association annual meeting saw Ms Fitzgibbon meet with global leaders in her field, taking in new insights which she plans to apply directly to her work in Australia. Some of the topics she gained new insights on included pregnancy failure, metabolic health and nutrition, foetal programming, fodder conservation, and taking data to make decisions.

"To attend a conference with over 3000 like-minded people, passionate about the same industry, presented an incredible opportunity to broaden my networks — I will rely on the relationships built for the entirety of my career," Ms Fitzgibbon said.

Young ruminant specialist boosts knowledge

Rfield's Dairy Science Travel Grant gave her the chance to build her skills and further her career in Australian agriculture. The 34-year-old from Moriac, Vic, first developed her passion for animals living and working on a beef farm throughout her teenage years — a passion that saw her study a Bachelor of Science in Animal Production at Charles Sturt University.

After working directly with dairy farmers as a ruminant nutrition consultant, Ms Bloomfield took on her current role as executive officer of the Australian Association of Ruminant Nutrition.

"The Dairy Science Travel Grants program is a fantastic opportunity for young people who want to forge a career in dairy," she said. "You can see what's at the forefront of agricultural science and bring that back to your work in Australia — and it gives you a network of international experts to call on for advice."

The program gave Ms Bloomfield the opportunity to meet global experts at the American Dairy Science Association annual meeting, where she boosted her already formidable knowledge of ruminant nutrition.

"I loved being in a room full of people who are passionate about the same things as me," she said. "Everyone is there to learn about all aspects of dairy and it was really great to be among people who are leaders in their field."

The highlight for Ms Bloomfield was learning about environmental and nutritional conditions of cows in late gestation, and the latest research on how this and the first few weeks of life impact the lifelong immunity, milk production and fertility of those calves.

"This research is very relevant for Australia — we need to ensure diets and heat

stress management are sufficient to support the cows' next lactation and future calves," she said.

Ms Bloomfield also travelled to Michigan State University to meet with the Associate Professor Dr Adam Loch on his latest research projects. "Adam is well versed in milk fat depression, which is very relevant to us in winter and spring — it was great to chat to him one-on-one about what we can do," she said.

She also successfully convinced Wisconsin State University Associate Professor Dr Heather White to travel to Australia later this year and share her cutting-edge insights on nutrient partitioning, metabolism and fresh cow management. "This was one of my goals — to meet with credible experts to bring to Australia, so our local nutritionists can take new insights on-farm to their own clients and customers," she said.





Award winners focus on people's skills

- Milk Quality Awards recognise
- producers of best milk
- ✔ Courses available to help
- staff lift skills
 - Big financial return for producing high-quality milk

AIRY farmers producing Australia's best quality milk have been recognised in Dairy Australia's 2019 Milk Quality Awards.

The awards recognise farmers who produce the nation's best milk based on bulk milk cell count (BMCC).

Gold awards recognise the 'top 100' dairy farmers nationwide for milk quality, while silver awards are given to the top five per cent of producers.

Dairy Australia managing director Dr David Nation congratulated the 2019 winners.

"You can't achieve an award like this without focus across the year on milk quality," Dr Nation said. "For many farmers, it reflects dedication over many years to get to this level.

"These awards recognise the quality and safety of Australian milk that all farmers should take pride in."

Dairy Australia analysis has found that a farmer milking 300 cows who lowers their BMCC from 300,000 to 200,000 would be financially better off to the tune of \$35,700 per year.

Dr Nation said Dairy Australia supported farmers to build their skills through its network of eight Regional Development Programs around the country, which ran workshops and events to assist farmers to upskill themselves and their farm workers.

"Dairy farmers can improve milk quality by attending training courses nationwide, available through our Regional Development Programs," Dr Nation said. "Farmers can also access a range of resources online to improve their milk quality by visiting Dairy Australia's website and using services like Data-Gene."

Data for the Milk Quality Awards is supplied to Dairy Australia by dairy companies from across the country.

To be eligible, dairy farms must have data for a minimum of nine months in a calendar year. Monthly averages are then used to calculate the annual average BMCC for each farm.

Access the full list of Milk Quality Award winners at <dairyaustralia. com.au/mqa2019>.

More information on Cups On Cups Off courses can be found by contacting Dairy Australia's Regional Development Programs in each dairy region.



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Tasmanian dairy farmer Mark Griffin has worked hard to improve milk quality.

Team culture key to award win

ACCURATE record keeping, herd testing, improving skill Asets and maintaining a high staff retention rate are the keys to improving milk quality, according to Tasmanian dairy farmer Mark Griffin.

The central north dairy farm was announced as a winner of Dairy Australia's 2019 Milk Quality Awards, recognising the farm as being in the top 100 nationwide for milk quality.

The 800-cow three-way crossbred herd is milked through a 50-bale rotary with a spring-based calving pattern, producing an average monthly bulk milk cell count (BMCC) of 70,000 in 2018.

Managing the farm team, Mr Griffin has seen milk quality continue to improve in recent years, making continual improvements to the system and attributing the farm's success to the support, effort and attitude of the farm team. "Establishing common team goals with staff and improving your team culture is very important," Mr Griffin said.

He regularly encourages the team to suggest ways to improve their milk quality and take an active role in preventing mastitis. He believes keeping the cows calm and handling them gently reduces their stress levels and increases the quality of the milk.

"Attention to detail is crucial — it doesn't matter if you milk 1000 cows or 100 cows," he said. "You have to support your staff, lead by example, and provide flexibility of lifestyle."

The farm has a very high staff retention rate, which Mr Griffin believes plays a major role in business profitability.

Recognising the importance of building the skills of people on-farm, the farm team has undertaken Dairy Australia's Cups On Cups Off training, which teaches best practice for mastitis prevention.

After deciding to take the farm's milk quality to the next level and break into the top 100, Mr Griffin decided to refresh his knowledge and pursue more training to further improve the dairy herd's performance.

"I always recommend refreshers — even if you only pick up one or two new things at training courses, it makes a big difference to your overall system," he said. "You can also create networks and talk to other farmers about what has worked well and what hasn't worked well for them."



Trusted staff vital for milk quality

FOR western Victorian dairy farmers Jakob and Wiebke Franzenburg, the way they treat their land, livestock and team members is the key to success. The owners, directors and operators of Ballangeich Run have been announced as 2019 winners of Dairy Australia's Milk Quality Awards, recognising their outstanding milk quality based on bulk milk cell count (BMCC).

The award places them in the top 100 farms in the nation for milk quality, after a 2018/19 season in which they milked 1300 cows on 1068 hectares, producing 12 million litres of milk. Ballangeich Run is one of 53 dairy farms in western Victoria to have placed in the top 100 nationwide for milk quality this year.

The Franzenburgs migrated to Australia from Germany in early 2003 after searching for the best place in the world to produce dairy. They have had to meet many challenges since coming to Australia and found that farming in western Victoria can be different to Europe, with no challenge as significant as finding enough suitable labour to run their farming operation.

"We are heavily influenced by operating in a global market, especially here in Australia," Mrs Franzenburg said. "While there are differences in the way dairy farms are operated, to be competitive on the world stage, the basic principles remain the same — producing a large quantity of a superior quality product by taking the best of care of our animals, our land and our people."

The Franzenburgs believe that milk quality comes down to sound management and cannot be attributed to any single technique. "There are a thousand factors that come together to achieve milk quality like this," Mrs Franzenburg said.

"It starts with calving and extends to preparing your dry cows for calving, their diet, the milking routine, their hygiene and many, many other factors. It also comes down to the people who handle your cows."

While they are pleased to receive the Milk Quality Award, the Franzenburgs believe the most satisfaction comes from doing the right thing for their herd and knowing their cows are happy.

They currently employ 15 staff on their farm who each have distinct roles. "The most important part is finding good staff to ensure you achieve high milk quality," Mrs Franzenburg said.

"The milker is as important as the manager — even if the management is terrific, the end result depends on how well the milker performs the job. The hardest thing in the dairy industry is to find and retain good staff."



Ballangeich Run dairy farm in Western Victoria was recognised in the Milk Quality Awards.

"Great, now I can organise my dairy farm down to the smallest detail."

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Repro Rights boosts skills

 Repro Right takes a data-based approach
 Intensive source holes advisors

Dairy Australia

✓ Intensive course helps advisers

points

- develop skills to aid farmers
- Reproduction performance multi factorial

A DAIRY Australia initiative upskilling dairy professionals to deliver higher quality reproduction services to farmers is helping to lift performance in Australia's dairy herds.

Five Repro Rights courses have been completed in recent years with 13 advisers from around Australia taking part in the latest round including vets, agronomists, herd managers, and extension field staff.

An intensive 10-month professional development program, Repro Right improves the adviser's ability to provide intensive problem-solving and whole herd reproductive management services to dairy farmers.

The program incorporates a mixture of on-line learning, multi-day group sessions, assignments and practical tasks on important elements of reproductive management in Australian dairy systems.

Tasmanian vet and dairy farmer Grant Rogers was one of the participants and said Repro Right gave a complete approach to understanding how reproduction fitted into a farming system with a particular focus on how to use Dairy Data software to assess performance.

"The course looks at reproduction from the perspective of the farm operation rather than at an individual, which is really helpful, especially for some of the younger vets on the course," he said.

Mr Rogers said Repro Right looked at more than just insemination.

The course looked holistically at everything that impacts on reproduction from nutrition and animal management to calf rearing and heifer growing.

Mr Rogers said that in the past some processors in Australia had incentivised flatter production which has had an ongoing impact on repro performance on dairy farms.

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Tasmanian dairy farmer and vet Grant Rogers has completed a Repro Right course to help him better advise clients.

'Reproduction performance has a subtle effect on dairy businesses that is not transparent.'

A vet for 27 years based at Ouse, Mr Rogers, provides advice and support to larger dairy farmers on average of about 750 cows.

"There is a lot of value from the course in creating networks, which is good for everyone," he said.

"I have a good network to draw on but I've formed even closer relationships with other advisers across Australia." Consultant Andrew Perry runs the course for Dairy Australia and said the effect of reproduction performance on dairy business profitability can be obvious but also very subtle.

"Improving reproductive performance can be very complex with long lead times before you see results and generic advice being very limited," he said.

"Repro Right provides dairy information and advice so these experts can better investigate any problems, looking at past performance with a strong use of data , to make targeted decisions that translate to efficient and profitable dairy farming for the industry."

For more information on Repro Right advisers in different regions visit <dairyaustralia.com.au>.





Young Dairy Network creates pathway

 Young Dairy Network offers range of opportunities points Professional development

- activities help with career
- ٩ ✓ Socialise with other young farmers

ASMANIAN dairy farmer Jeremy Page's management and interpersonal skills have moved forward in leaps and bounds since joining the Young Dairy Network (YDN) two years ago.

The 30-year-old has a passion for the industry - driven by his love of cows - and is now the second-incharge of a 1050-cow dairy farm in north-eastern Tasmania.

Coming from outside the dairy industry, Mr Page credits the YDN as being the springboard he needed to take the next step in his career.

"I've only been involved in dairy farming for four years, and I joined because I could see that dairy has a lot to offer," he said.

"I was very shy before I joined the YDN, but now I can talk to people more confidently and take on new tasks on-farm."

Mr Page is one of 2500 young people who have connected across Australia through the YDN, which provides access to training for both the technical and non-technical aspects of dairy.

Key to his development has been taking part in a training and mentoring program offered to Tasmanian YDN members, which builds essential skills in young dairy farmers.

"I learned people skills, how to talk to workers, how to manage my time, and how to make sure I know which jobs to prioritise on-farm," Mr Page said.

"It's a great program for farmers who are just starting out."

Now in a farm management position, Mr Page said he felt better able to give clear instructions to his farm team and allocate roles and responsibilities.

His experience in the YDN has been actively supported by his farm owner, who allows him to take leave to attend training events or network with other farmers.

After identifying areas for improvement as part of the mentoring pro-



Tasmanian farmer Jeremy Page winning the DairyTas-Cadbury Young Farmer Encouragement Award, with Tasmanian Young Dairy Network co-ordinator Jacki Hine-Magee.

gram, Mr Page worked with his farm owner to create a strategy to upskill in pasture management.

"I really wanted to work on pasture management," he said.

'It's a great program for farmers who are just starting out.'

"Since I spoke to my farm owner about it, I've been learning more about monitoring pasture growth and managing feed."

Mr Page's exceptional progress saw him recently awarded the DairyTas-Cadbury Young Farmer Encouragement Award, recognising the gains he's made over the past two years.

Enjoying every aspect of dairy farming. Mr Page sees the most rewarding aspect of his YDN membership as the opportunity to socialise with other young farmers, who share their experiences, knowledge and tips.

As well as a range of technical events, YDN members are frequently invited to social and community events including laser tag and pizza nights, barefoot bowls, networking and study tours.

Turning to the future, Mr Page has recently accepted a management position at a nearby farm and is creating a six-year action plan to enter share farming and own his own herd.

"I fully recommend joining the YDN - it's all about connecting with others," Mr Page said.

"You meet other farmers who give you a lot of help — they're not afraid of sharing their knowledge of how they got to where they are. D

To contact a local YDN co-ordinator and get involved, visit website <dairyaustralia.com.au/ dairycareers>.





Training resources help build a team

- Started in dairy industry on high school work experience
- Uses Dairy Australia resources to improve skills
 Uses FSKi to belo manage a team
- Uses ESKi to help manage a team of six

UKE Randle has made the leap into dairy farming and hasn't looked back.

The 24-year-old, who came into the industry via a high school work experience opportunity, said he was enjoying the challenge of managing a young team and was accessing Dairy Australia resources to build his operational and management skills.

"I lived in town growing up and was always interested in farming, but I didn't think I would get to a position like I'm in now," Mr Randle said.

"I started working on a farm as part of work experience in year 12 and 'I'm on the People in Dairy website just about every day. It's a great resource whether you are looking at keeping up with pay rates or best practice around letting someone go, it's very useful.'

really enjoyed it. I was offered a job at the end of it and it's all gone from there."

Mr Randle manages a team of six people, four full-time and two part-

time, on the irrigated 650-cow dairy farm.

Over the past few years he has focused on building his skills through learning opportunities with Gipps-Dairy.

"I was aware I hadn't gone to university for formal education, so I looked for opportunities and I owe a lot to GippsDairy," he said.

"I've done just about every course they've run, and I encourage my team to as well."

As a manager, Mr Randle said Dairy Australia's People in Dairy website was particularly useful to access employment resources such as the Employment Starter Kit (ESKi) — a program in which he had also completed training.

The ESKi contains the documents and information that farmers need to start employing and managing people,



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such as a written position description, induction checklist, and employment contract that sets out employee duties, responsibilities and tasks.

"I'm on the People in Dairy website just about every week. It's a great resource — whether you are looking at keeping up with pay rates or the latest employment regulations, it's very useful," Mr Randle said.

'It's about getting on and working as a team to get the job done.'

He said everyone in his team is given the opportunity to take on additional training, with a Cups On Cups Off course being the one pre-requisite for prospective employees.

"The way we look at it is that we want to build people up," he said.

"We may lose some of these people from our business, but it's about helping them become better people with more skills and go on to bigger things."

Mr Randle said he runs a roster where people have every second weekend off, creating flexibility for employees.

Daily communication and staff contact are important, with more formal meetings kept to a minimum and a Facebook Messenger group chat used for keeping the team up-to date with daily operations.

Mr Randle said his unique start into the dairy industry has made him open-minded about who is employed on the farm.

None of the workers come from a dairy background and only one is older than him.

"For me, it's all about how someone will fit into the team, not their age or if they've grown up in the industry," he said. "It's about getting on and working as a team to get the job done."

Visit <www.thepeopleindairy.org. au> for information about employing people, managing teams and share farming.



Gippsland dairy farmer Luke Randle has made the most of Dairy Australia courses to upgrade his skills.

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Breeder says Maebull ideal modern bull

ORTHERN Victorian dairy farmer and Holstein breeder Craig Lister reckons it might be time to drive south and personally say thanks to topranking Holstein, Calister Maebull.

The breeder from Calivil, Vic, has good reason to celebrate after the Genetics Australia Holstein Maebull, based at the company's Bacchus Marsh, Vic, farm, was confirmed in the latest ABV release as Australia's best Holstein bull.

"I haven't seen Maebull in years," Mr Lister said. "I'd better get down there and do that."

Mr Lister describes Maebull as the "ideal modern-day bull" and its statistics support that claim.

It is the number one Balanced Performance Index and Somatic Cell Count Australian Breeding Value bull in Australia and in the top 1 per cent on the Health Weighted Index and the Type Weighted Index and in the top 5pc for Calving Ease ABV and Daughter Fertility ABV. It is also A22 and 102 for Heat Tolerance and positive for Feed Saved.

Maebull has 96pc reliability for production, 129 milking daughters, and a BPI of 323, making it Australia's number



Craig Lister, with his children Alex and Ollie, with one of Maebull's daughters.

one daughter-proven Holstein bull.

This is the first time one of Mr Lister's bulls has achieved the top ranking and he said it was a relief as much as a reason for celebration.

"I was relieved," the fourth-generation farmer said. "He'd been number two or

three for a few years. Each of those competitors are still around but have fallen away; Maebull has held very steady and very reliable.

"He's the ideal modern-day bull with moderate stature, good health traits, and his daughters get back in-calf quick-

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Improved fertility with Australian Reds

THE Australian Red Dairy Breed has continued to display excellent fertility results in the latest release of the Australian Breeding Values. Compared with the rest of the red breed group, the average ABV of ARDB bulls born in the past 15 years is an impressive 102. ARDB cows have a similar average ABV.

"The ARDB has had a strong emphasis on cattle fertility for 35 years, without chasing extreme type or extreme production, but rather focusing on a profitable cow with good health traits, that will last for numerous lactations," breed director Greg Goulding said.

"This has also been reflected in our bull's average survival rating of 102 and cell count rating of 112."

The ARDB has had strong growth in the commercial dairy industry and semen sales are continuing to grow.

Owen Simpson and his partner Kate, together with Owen's parents, David and Nareda, milk 600 cows at Nullawarre, Vic.

Iy while still producing well. I'm glad he's providing the kind of cows that dairy farmers are happy with and I hope that he can continue to do so for a long time."

Mr Lister, who milks 350-400 mostly highly ranked registered Holsteins, bought Maebull as an embryo from the United States to introduce a new cow family to his herd.

"In 2012 when the dollar was near parity, I saw an opportunity to import US genetics from a well-regarded cow family," he said. "I looked for cow families that I admired for their consistency in breeding profitable, productive Holsteins and in looking for embryos with bloodlines that had worked well in Australia."

The embryos that led to Maebull were from a cow sired by Shottle, one of the most famous Holstein bulls in the past 20 years who had worked well in Australia.

The cow's dam was sired by Oman, which turned the Holstein breed around with health traits to address fertility and longevity problems.

"Both those bulls had worked well in Australia," Mr Lister said. "The embryos were sired by Palermo and he was among a group of Goldwyn sons we were using ourselves.

"There are some differences between what works in the US and in the grazing-based Australian system, but these were as close as we could get to genetics that we knew would work here.

"I bid and won the genetic package of five embryos. That resulted in a heifer and a bull and the bull was Maebull."



Owen Simpson: The reds hold their body condition better.

They have been using ARDB genetics for more than 12 years.

They began using ARDB genetics after having trouble with their herd's fertility. They now milk 600 cows on 365 hectares

Maebull was born at the Calivil farm and moved nine months later to Genetics Australia to join the 2013 young bull team.

Mr Lister said Genetics Australia "took a bit of a punt" on Maebull. "He was on the lower end of the genomic bulls under the Australian system," Mr Lister said.

"A bit of a punt was taken that once more information was known he would turn out pretty well. He was selected on that basis and because he had different pedigree from a well-known cow family that had had a lot of positive influence over a long period around the world."

Maebull was proven in Australia and according to Mr Lister epitomises the strengths of modern bulls. "We used his semen as a young sire once he became available," he said. "We had four heifers born from that and they are still milking and performing well in our herd, and we've continued to use him.

"In many ways, he epitomises our breeding goals in that he produces functional cows that are moderate in stature, have good chest width, they're healthy and get in-calf, they are good for mastitis resistance and they are productive.

"While he's not a huge type improver, he improved a couple of traits that were a bit lacking in the Holstein breed, particularly in adding to chest width and lowering rump angle. He's the total package. He's so complete for his health traits but he still has a good level of productivity and makes functional, profitable cows — the kind that farmers want." dryland, and have a further 120ha outblock for younger stock. The cows are calved in two tight groups, which are each a seven-week calving period.

Two thirds of the cows calve in autumn, and artificial insemination is used over all these cows. The heifers have one round of Al before they use mop-up bulls. The final third of cows, the spring-calving group, are generally mated to herd bulls and the calves are sold locally or on the export market.

Since using ARDB genetics, Owen said they now had less calving trouble, better fertility and less mastitis.

"The reds hold their body condition better, which also allows us to have less reliance on grain feeding," he said.

"I like the Aussie Reds, as they seem to be a no-fuss, invisible cow that fits in with our style of farming. I don't want to work for the cows, they work for us."

Article supplied by Australian Reds <www.aussiereds.com.au>

Mr Lister, a board member of Data-Gene and former director of Murray Dairy, is a strong advocate of using elite genetics to improve profitability.

"As a result of genomic selection, we've got a wide variety of genetics available to suit every breeding goal around the world," he said.

While enjoying the top ranking, he admits to some hesitation about taking all the credit.

"It's kind of a funny feeling because I didn't actually breed the bull," he said. "He was bred by the Schmitt family from Iowa, but he has proven to be a great success in Australia."

Mr Lister is confident Maebull has many more successful years ahead. "I believe he is probably under-utilised at this stage given his no-holes proof. Hopefully this ranking will help."

Genetics Australia CEO Anthony Shelly said Maebull was just about the perfect bull, offering all the traits demanded by farmers. Demand looked set to grow in Australia and Maebull's strengths were just what Chinese dairy producers were seeking.

"Maebull has been our most popular bull in China, having sold both sexed and conventional semen to several large dairies," Mr Shelly said. "We are very fortunate that Maebull has such excellent semen quality and is a good donor, as the demand for him will grow considerably in export markets based on what he offers."

Article supplied by Genetics Australia, website <www.genaust.com.au>.



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Three-way breeding results a decade in the making

THE use of three-way cross breeding in dairy operations is a popular topic at present. With more farmers using the system and herds that have converted reaching critical size, the results of taking such a strategy are now starting to show.

Josh and Lilli Philp run more than 700 head at Riverbank, a 440-hectare dairy farm they lease from Josh's parents Barry and Vicky at Garvoc, Vic. Barry and Vicky came to the farm from New Zealand in 1996 and started milking NZ Friesians.

After struggling with herd health issues and trying to breed a smaller cow, they introduced a two-way Jersey cross.

In 2008, looking for a more systematic way of breeding to create the cow they were looking for, the Philps chose to use the VikingGenetics GoldenCross program. When Josh and Lilli took over the herd in 2017, they continued the transformation, with about 95 per cent of their cows now with the three-way cross genetics.

"When we made the decision to go for the three-way cross, Dad was looking for better health and fertility across the herd," Josh said.

"We also wanted to lift the average size of the cows, but not too much. A medium cow suits us best."

GoldenCross is a three-breed program that uses VikingHolstein, Viking-Red and VikingJersey genetics. In the top positions for health and production traits worldwide, these animals have been bred in Nordic countries, where testing and record keeping is among the most detailed in the world.

The Philps work closely with VikingGenetics Australia to select the right sires for breeding.

"We are careful with sire selection, using the local VikingGenetics team's expertise to guide our decisions," Josh said. "She knows what we are trying to achieve, so provides us with a list of suitable options which we then choose from."

With the sires, Josh says they look for good health, fertility and the right size parameters, as well as milk production and positive fat and protein scores. Using artificial insemination only for about nine weeks, the couple are achieving 90pc in-calf rates.

Across the herd, the Philps are achieving an average of 6155 litres per cow per annum, with 4.5pc milkfat and 3.6pc protein. Somatic cell count is averaging 110,000.

"The animals have got to last and get



Josh Philp, Garvoc, Vic, says a three-way crossbreeding program has lifted milk components and decreased mastitis, fertility and health problems in his herd.

in calf well. They need to walk. We now have no mastitis and no hoof issues, no lameness," Josh said.

"We are happy with the results. It is working well and proving successful for us."

Dr Jo Coombe researched the benefits of using three-way cross genetics in dairy operations. Completed for Dairy Australia through the University of Melbourne, her project looked at the implications of applying three-way breeding for dairy farming operations.

The project looked at Holstein, Jersey, Australian Red crosses, as there was enough Australian Dairy Herd Improvement Scheme (now Datagene) data for that combination to give statistical reliability.

The research found there are measurable farm management benefits from choosing to use three-way cross genetics, although Dr Coombe said it was not necessarily for every operation.

"It costs money to raise a dairy cow, so when looking at the effectiveness of breeding programs, we consider profitability not simply productivity. They are not the same thing," she said.

"It is a combination of factors that make a difference – fertility, production, and, of course, feed and running costs. We tend to find the greatest benefits from cross breeding are in operations that are predominantly pasture-based, those that don't require as much supplementary feeding. The major benefit for three-way crosses is the fertility and sustainability of cow turnover. If you are turning over your animals less often, the herd is more sustainable and stable." Dr Coombe said that VikingGenetics' approach to the three-way cross was different to many of the other dairy genetic providers.

"Probably the most noticeable difference is that they don't consider the use of a three-way cross as diluting any 'purity' of the parent breed genetics. Rather, they see it is as a benefit when looking for a flexible and sustainable herd management strategy. It is important that farmers have a breeding plan to suit their operation, that they can adapt to their circumstances to achieve improved herd sustainability and animal health," she said.

Josh agrees and is continuing the transformation to GoldenCross, saying they have seen an overall lift in the herd's performance.

He said it was probably one of the easiest breeding systems to understand. "You don't have to worry about inbreeding and keeping track of pedigrees. The key is to choose the right sires to make sure we are keeping things on track to get the type of cow we want," he said.

After more than 10 years using the GoldenCross System, the Philps are well aware of the strengths that each breed contributes.

"They all add something different to the mix – the VikingHolstein for high milk production, VikingJersey increases components such as fat and protein, and VikingRed contributes to general animal health," he said.

Article supplied by Viking Genetics, phone (02) 6071 3007, email <info@ vikinggenetics.com.au>, website <https://vikinggenetics.com.au/>.

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Number crunching key to new ABVs

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- differences
- points ✓ Helps develop genomics for wide) e range of traits

NYONE who finds processing records overwhelming herd should spare a thought for Agriculture Victoria quantitative geneticist Dr Iona MacLeod. She works with millions of cow records looking for genes associated with traits that are important to dairy farmers.

While Dr MacLeod's complex mathematics may seem far removed from the practicalities of day-to-day milk production, it makes a direct contribution to the information reported in DataGene's Good Bulls Guide.

Dr MacLeod is part of a world-leading team of researchers at DairyBio, a joint initiative between Agriculture Victoria, Dairy Australia and the Gardiner Dairy Foundation.

The molecular geneticists extract and process the DNA from hair and skin samples while quantitative geneticists, like Dr MacLeod, analyse this data. However, there is more to both these roles.

They work in one of the few integrated genetic research facilities in the world, with state-of-the art laboratories and equipment for molecular research and a monster advanced scientific computer able to process the massive numbers of analysis required to produce genomic predictions.

They have been developing and testing new statistical approaches for genetic evaluation using genomics.

Genomics uses DNA testing to find genetic markers associated with traits that can be observed and measured; they are used to produce a prediction of genetic merit, an Australian Breeding Value (ABV). Genomics is particularly useful for traits that are difficult to measure such as health, heat tolerance and feed efficiency.

Genomic evaluation is only possible due to availability of large amounts of data from Australia and across the globe and advances in computing power to process big data.

Dr MacLeod is applying sophisticated statistical approaches to identify places in the genome where the genetic code has changed and is affecting traits such as fertility or protein yield.

This is no small task, given the com-



Dr Iona MacLeod loves crunching the data to increase the accuracy of Australian **Breeding Values.**

plete bovine genome contains a three billion genetic codes arranged in different sequences to make 22,000 genes; it is a huge amount of data to analyse.

Rather than sequencing the whole genome of every individual in the lab, quantitative geneticists use several thousand real genetic sequences from cattle and then impute the sequence data for all other animals that have a low-density genotype record.

'Dr MacLeod loves data, enjoys number crunching and is fascinated by what genomics reveals about a dairy cow.'

"Imputing is a bit like doing a crossword where you have clues and some letters in a word and from those letters the whole word can be recognised," Dr MacLeod said.

"I then look for patterns that identify changes in the genome that can have a positive or negative influence on animal performance. In dairy cattle we estimate there could be 25 million of these changes."

Many of these changes occurred before breeds developed and some much more recently. These new methods of analysis will result in genetic predictions that work across breeds and even for crossbreds.

Trait data is performance information on the characteristics of cows that are important to commercial farmers, including production, conformation, fertility, health and workability traits.

Finding changes in the genome and linking them to traits is relatively straightforward when the trait is associated with a single gene, such as coat colour. But it is more complex when a trait is associated with multiple genes.

For example, fertility is thought to be associated with between 1000 and 5000 genes, which is why it is so challenging to unravel. Milk protein is also associated with thousands of genes.

Another layer of complexity is that not every gene is expressed in every cell; and some can be switched on or off by environmental conditions or switched on intermittently.

Dr MacLeod said large volumes of data were needed for genomics to work. "Herd records are central to our work, for example, herd test results, pregnancy, calving and health records and workability reports," she said. "We add to that through international sharing of genetic data.'

Luckily for the dairy industry, Dr MacLeod loves data, enjoys number crunching and is fascinated by what genomics reveals about a dairy cow.

This is a very exciting time to be involved with dairy genetics and if I had to make the choice to work anywhere in the world it would be here with this team," Dr MacLeod said.

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# NEW SIRES THAT HAVE PASSED THE TEST BPI, TPI, Fertility, Type and A2

## Vala Yoda ANDREAS - P

- 2557 GTPI 285 BPI
- +2.56 PTAT +2.69 UDDERS

eft - Stantons Freddie Camoe (Andreas) ht - Velthiuis Supersonic Alyssa (Atticus) both photos taken by Patty Jones

- 5.3% Calving Ease
- Daugther Fertility 116
- A2/A2 Sire

# Vala Bandares ATTICUS

- 2497 GTPI 321 BPI
- +2.42 PTAT
- +2.66 UDDERS
- Medium stature daughters
- Daughter Fertility 108
- A2/A2 Sire

### SexedULTRA 4

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Total Livestock Genetics 4969 Princes Hwy, Camperdown VIC 3260 Semen Sales Manager Paul Douglas 0447 441 422 sales@tlg.com.au



### FOCUS ON BREEDING: AUGUST 2019 AUSTRALIAN BREEDING VALUES

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enquiries@datagene.com.	sey — Balanced Perfor	Bull Name			WALLENNIS LOUIL VALENIINO	BROADUNLEVI	WALLACEDALE MELSVOYAGE	BROADUN STACKER	BEULAH TAHBILK	SI EINHAUERSSAIVISON LEIVIU	KAARAMONA GRIFFIN	ALLINNISVALENTINOMARVE	DARAWAY FLOWERPOWER SA	ALLINNNS LEGAL VOLCANO-ET	BUTTERCREST GALVANIZE		sev — Balanced Perfor		Bull Name	WHITE STAR DOUGLAS	<b>GELBEADO PARK DYNAMITE</b>	KAARMONABAZYU	WHILE SLAK PALKUK	BERCAR9216	<b>BEULAH MR FERTILITY</b>	MURRAY BROOKJAMIEO	AUBURN VALE TOYOTA	LANGDALEVIRAT	BROADUN 179 GLENFERREET	CARNINUNA LUN	LOXLEIGH HATTMAN VINCE 596	BROADUNHILUX	WALLACEDALE SUNSET RROOKBORA ALDRIN	CAIRNBRAEKAZAMIM	BERCAR 2144079196
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### +58% more Lifetime Profit* Montbeliadre x Holstien Vs Holstein cows

Coopex, your leading source of Montbeliarde genetics for 3-way Commercial Crossbreeding

### *Result from Large Scale Crossbreeding Study by University of Minnesota



Autred Xb AZA2 Sires	150	RRP	Volume Pack	Temp	M/5	Udders	Calving Ease
ELASTAR	152	\$28	\$24	116	110	112	90 Normal/Easy
HELUX AND	137	\$28	\$24	123	109	105	91 Easy
ITALIC	152	\$26	\$22	114	111	124	89 Normal
ILANNE	142	\$26	\$22	137	112	115	92 Easy/Very Easy
CRASA SOLD OUT	137	\$25	\$20	104	111	112	91 Easy
LOGIN	135	\$24	\$20	119	112	105	91 Easy
LOTMAN	131	\$22	\$18	128	112	114	90 Normal/Easy
FRANCIUM	123	\$20	\$16	105	98	107	91 Easy

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BLACKWOOD BPI 217 HWI 184 +35 kg Pro @ +0.16% Udder 108 Likeability 104

### **REDGEORGE BPI 267** HWI 191 +30 kg Pro @

+30 kg Pro @ +0.30%, +31 kg B/Fat, Survival 106



REDCAPRI A2A2 BPI 217 HWI 166 +21 kg Pro @ +0.16% Survival 105 **REDFLOKI** BPI 248 HWI 180 +29 kg Pro @ +0.29% Dam Ex 90



REDROLLO A2A2 BPI 218 HWI 162 +22 Kg Pro 10 +0.16% SCC 132

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### Semex confirms position on Canadian proofs

**S**EMEX'S position in the global marketplace was strengthened in August as its April release 0200HO10366 Benner Bardo showed gains for production and conformation, claiming top spot in Canada.

The bull had a Canadian Genomic Lifetime Profit Index of +3491. This RobotReady, A2A2 sire comes from a wellknown cow family. Its VG Mogul dam produced 15,776 kilograms in its first lactation and is from a VG Baxter and then 25* brood cow Gen-I-Beq Shottle Bombi EX-94-2E-USA.

It features a no-holes linear proof with Canadian breeding values of +13 Conformation, +8 Mammary System, +10 Feet and Legs, +8 Dairy Strength and +10 Rump. Bardo daughters have a lovely slope from hip to pin and exhibit great mobility when on the move.

Its daughter also produce high levels of components with it Canadian breeding values of +124kg Fat, +0.86 Fat Percentage, 62kg Protein, +0.33 Protein Percentage. With Canadian breeding values at +103 Herd Life, +104 Daughter Fertility, +103 Calving Ability, +102 Milking Speed, +104 Milking Temperament, Semex expects Bardo to make long-lasting, easy-to-work-with cows.

0200HO10777 Westcoast Perseus is an elite Balanced Performance Index sire on the Australian system — and is Semex's top sire here with a BPI of +369. It has +178 Australian Selection Index, +24kg Fat, +0.22 Fat Percentage, 23kg Protein, +0.32 Protein Percentage, +100 Overall Type, +104 Mammary and +114 Daughter Fertility.

This Genomax, Calving Ease, A2A2, Semexx sexed sire is hugely popular, being the highest selling bull in conventional and gender-sorted semen so far this year in Australia.

Perseus also had good figures on the United States system with calving ease



0200HO10366 Benner Bardo is the number one bull in Canada.

at 4.7pc as well as being +2.4 Daughter Pregnancy Rate and +2626 Genomic Total Performance Index.

0200HO11385 Westcoast River, a health and fertility specialist in the US with figures on the US system of +2.7 Daughter Pregnancy Rate, 2.48 Somatic Cell Score, and 6.9pc Calving Ease, making long-lasting, profitable cows. River is also a Genomax, A2A2 and GrazingPro sire, making it ideal for Australia.

It is also a top-ranking new release BPI sire in Australia, with +360 BPI, +0.17 Protein Percentage, +116 Daughter Fertility, +102 Overall Type and +103 Mammary System.

0200HO11469 T-Spruce Goliath, an Immunity+, Genomax, RobotReady and A2A2 sire, has great production levels on the US system.

0200HO11284 Progenesis Powerhouse is a Genomax and RobotReady sire whose Jedi dam is a full sister to the popular Progenesis Padawan. Powerhouse is a complete sire on the US system at +2644 Genomic Total Performance Index.

On the Australian system, it offers a strong BPI/Type Performance Index combination as it is +349 BPI, +0.22 Protein Percentage, +105 Overall Type, +109 Mammary System and +175 Cell Count.

0200HO11289 Claynook Duplo is a Genomax and ShowTime sire, coming from a worldwide proven cow family known to transmit.

0200JE01184 JX Wilsonview Skyman is an Immunity+, Genomax, A2A2, Grazing Pro sire making him ideal for Australian dairy farmers.

0200JE10001 River Valley Circus Craze is from the River Valley Farm Program, and is a Genomax, A2A2 and GrazingPro sire.

Article supplied by Semex, website <<del>vww.semex.com.au></del>.



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### ABS making better cows faster

BS'S focus on making better cows faster has never been more evident than in the August Australian Breeding Values proofs, delivering the top sires in both the Holstein genomic rankings and sires with Australian milking daughters.

The success of the ABS genomic program is reflected in proving sires like Glomar Superlucky. Its first proof with 180 daughters is the fastest sire ever proven by ABS in Australia. It's the number 8 Australian proven sire at 272 BPI and features positive milk and components plus good health traits and high farmer likability.

"We were confident he was going to be up in the top group of sires because of excellent early genomic data and, more recently, customers saying how much they loved milking the daughters," ABS national sales manager Paul Quinlan said.

Genomic testing has made breeding decisions more reliable at a much younger age. Using ABS's Genetic Management System (GMS) and genetic audits dairy farmers can choose both elite genomic sires and reliable Australianproven sires.

Under the Australian Breeding Value (ABV) system, Australian dairy farmers can now choose the best genetics from around the world and can fine tune their decisions using genetic advancement plans that are available through ABS.

"Making the correct decision is so important," Mr Quinlan said. "GMS removes the guesswork and makes it easy to customise breeding plans that demonstrate the desired outcomes in an easily understood and transparent form.

"We've been saying for some time that we want to make better cows faster, and we're finding more and more farmers are taking up our offer to assess where they are when it comes to their breeding program and goals. Some are achieving their breeding goals, but many have found themselves going off track with their breeding development program."

ABS's unique genetic audit report helps keep a focus on breeding not only the right cows but the best ones to maintain continuous improvement.

"The question we always ask is, why do cows leave your herd?," Mr Quinlan said.

"Do you really know how good or bad your replacement heifers are? A breeding plan isn't too difficult if you have the data and focus on what matters to you." Profit-robbing traits affect future



29HO17458 Boghill Glamour PERSUADE is the current number one genomic sire in Australia.

### 'GMS manages every aspect of a breeding program and can operate from breeding records that are kept on a home PC.'

progeny and are long term. Making the correct choices is critical for long-term viability. Good choices and bad choices are both cumulative; but one goes in the right direction while the other can be detrimental.

"We select the healthiest and most profitable sires to breed generation after generation. Genetic selection is critical, because it's permanent," Mr Quinlan said.

"GMS manages every aspect of a breeding program and can operate from breeding records that are kept on a home PC."

### Sexed genetics

ABS offers Sexcel sexed genetics to breeding programs, giving herds an even greater opportunity to accelerate their genetic progress.

"Sexcel sexed genetics is like pressing down on the accelerator of your car," Mr Quinlan said.

Along with elite dairy sires, ABS offers a complete breeding solution that

maximises farm profitability. The audit tool identifies the best cows and heifers to breed, whether to conventional or sexed semen, which then allows the customer to breed lesser genetic progeny (cows and/or heifers) to the ABS Beef InFocus product line.

"ABS is a world leader in combined dairy and beef genetics," Mr Quinlan said.

"ABS Beef InFocus is the best and most trusted beef program with recognised elite growth rates, easy calving and high semen fertility product.

"It's becoming more and more important to value add with the livestock available on farm, and with smart tools and clever breeding decisions around Sexcel sexed genetics and ABS's Beef InFocus, long-term dairy operations are adding multiple income streams rather than relying just on milk payments."

29HO17458 Boghill Glamour Persuade is the current number one genomic sire in Australia and is only the second bull in Australia to pass 400 BPI at 404. Persuade also has elite Daughter Fertility at 116 and is a carrier of the A2A2 gene.

Persuade is a United Kingdom based sire and its pedigree is a who's who of cow families with 5th dam Larcrest Cosmopolitan alongside other notable sires from the same family: Commander, Collude, Calumet, Cayle and Charley.

Article supplied by ABS, website <www.absglobal.com/au>, phone 1800 ABS BULL.

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# Feisty young cow steals the show

- Supreme Senior Champion: Eagle Ridge Amazing G Pollyanna, Gorbro Holsteins & Alexz Crawford
- **Reserve Senior Champion:** Glenunga Wind Butterbrook, JH & CI Gardiner

### SENIOR CHAMPIONS Supreme Senior Udder: Eagle Ridge Amazing G Pollyanna, Gorbro Holsteins & Alexz Crawford

- Premier Breeder: Gorbro Holsteins

Premier Exhibitor: JH & CJ Gardiner

### **By Carlene Dowie**

FEISTY four-year-old cow stole the show at the Victorian Winter Fair in July, taking the supreme senior champion award ahead of older cows in the event.

The owners Glen Gordon, Gorbro Holsteins, Cohuna, Vic, and the farm's employee Alexz Crawford picked up Eagle Ridge Amazing G Pollyanna at the Eagle Ridge first stage stud dispersal in April. The VG88 cow is by Mr Atlees Amazing out of Eagle Ridge Goldroy Pollyanna.

"We bought her as a show cow for this show - we knew how good her udder was," Mr Gordon said. "We knew she was going to show as a second-calf four-year-old.

"We just thought she had the quality to come and compete, and we thought we could have a fair bit of fun with her."

Judge Matt Templeton agreed with the assessment, also awarding Pollyanna supreme senior udder.

He said the four cows he selected for the final judging were tremendous representatives of the Holstein breed.

"Our senior champion today, this cow comes to the top of the line," he said. "She's just been growing on me all day. She blends so well through all her parts."

Mr Gordon said they had joined Pollyanna with the plan to try to get her back to the event next year.

"Being her first show, she's only new to it; she has taken a little bit of breaking in so hopefully next year we think she will look better," he said.

"We will get her a little bit more developed out through her rib and her flank, and we think she will make a very nice third-calf five-year-old next year.'

For now the cow would return to be part of the Gorbro 600-strong herd. "She's got plenty of will, so she's a big



The Victorian Winter Fair 2019 supreme senior champion Eagle Ridge Amazing G Pollyanna with owners Glen Gordon and Alexz Crawford.



Premier exhibitor award winners Luke and John Gardiner, Avonlea Holsteins, Cardinia, Vic, and premier breeder award winner Glen Gordon, Gorbro Holsteins, Cohuna, Vic.

herd cow," he said. "She will get in and compete."

Mr Crawford, who grew up on a dairy farm on the NSW south coast, said the win was rewarding and satisfying. He has worked at Gorbro for the past 14 months and has about 20 cows that run in the herd. "One day I would love to be able to run my own herd and my own farm," he said. "It's just the way the industry is going, you have just got to try to work and build equity.'

Mr Gordon said the win was rewarding, particularly when things were challenging at home on the farm. "So to have the release and excitement and the adrenaline rush, I guess the show is something to look forward to," he said.

But Mr Gordon was hopeful of a better year. "The industry is in a better position today than it was six weeks ago," he said. "Milk prices look good, we are getting good rain; the Mallee's got the rain, so hopefully grain and hay prices will come back.

Whether the government will ever sort this water job out is a whole different story." D

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# WESTCOAST PERSEUS

0200H010777

PENMANSHIP x DOORMAN x ROBUST

+2626 GTPI +2.4 DPR +114 DF +4.7% SCE

+369 BPI REL. 68% +104 CE



SOURCE: CDCB-G / 08-19

SOURCE: ABV(g)s 19*AUG

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- Supreme Intermediate Champion: Murribrook Reginald Victory ET, JH & CJ Gardiner
- Reserve Intermediate Champion: Elmar Solomon Jessica 2 ET, Elmar Holsteins
- NTERMEDIATE CHAMPIONS ✓ Supreme Intermediate Udder: Murribrook Reginald Victory ET, JH & CJ Gardiner.
  - ✓ Red Intermediate Champion: Bluechip EV Awesome Destini ET Red, Sunrise Holsteins
  - **Reserve Red Intermediate** Champion: Amelia Park Faber Naomi 2nd Red, Nathan Hart

### **By Carlene Dowie**

YOUNG cow that was pulled from the ring at last year's Victorian Winter Fair made a triumphant return this year claiming the intermediate championship. John Gardiner, Avonlea Holsteins, Cardinia, Vic, bought the classy Murribrook Reginald Victory ET last May from Stuart and Andrew Mackie, Meeniyan, Vic, who had picked her up at the Murribrook Holsteins sale two years ago.

Mr Gardiner had seen her at International Dairy Week where she had impressed him in the dry heifer classes. "We brought her here last year but some



The intermediate champion Murribrook **Reginald Victory ET with leader Mark** Patullo.

things went wrong and we actually took her out of the ring because she wasn't right," he said. But the three-year-old calved in April and was right for this vear's event.

Mr Gardiner said he liked the cow's pedigree. The cow's dam - Strongbark Linjet Victory — was one of the unique breed cows in the country.

"She's bred so exceptionally well, she's bred to a whole heap of different bulls," Mr Gardiner said. "There are so many daughters out of that cow that have been really good cows and there is a lot of depth of pedigree behind that."

Mr Gardiner said he really liked the champion's angle and depth of rib and the fact that her udder was right up in her. "I could see that in my opinion she was going to make a really good cow down the track," he said.

Judge Matt Templeton and associate judge Jo Holloway agreed. "She puts it all together for us," Mr Templeton said.

The cow was all dairy but with beautiful strength through her front end and a beautiful long, clean neck. The cow had a great mammary system, having being awarded the intermediate best udder.

Mr Gardiner said the cow had been bred a couple of days before the show and hopefully would be back next year.

Avonlea has enjoyed considerable success at the Victorian Winter Fair in the past couple of years, including senior champion at last year's show.

"It has worked well for us but it is a tough time of year, where it requires a lot of work, particularly leading in to it," he said. "But also after the show because they are clipped, you can't just put them back with the herd because of the cold and the wet. So the management doesn't just stop now."

After the event, the show animals are kept in an undercover loafing area and milked separately for five to six weeks.

### Champion heifer a 'cash register'

- Junior Champion: Cherrylock Chassity's Innocence Imp ET, B & J Gavenlock
- ✔ Reserve Junior Champion: Gorbro Diamondback Darling ET, Gorbro Holsteins
- **Red Junior Champion: Parrabel** RS Jordy Okoala ET Red, Junnash Holsteins
- Reserve Red Junior Champion: Cherrylock BH Apple Cider Red, Hardgrave, Franchise, Borba & Anderson
- **IUNIOR CHAMPIONS** Youth Junior Champion: Clydevale Piston Sunsmart, Clydevale Holsteins
  - 1 **Reserve Youth Junior Champion:** Mario Park Sidekick Alicia, MD & JE Polson

HEIFER named junior champion at the Victorian Winter Fair is the epitome of its owners' breeding program.

Brad and Jess Gavenlock. Cherrylock Cattle Co, Tallygaroopna, Vic, brought 68 The Australian Dairyfarmer September-October 2019

Cherrylock Chassity's Innocence back from the United States as an embryo.

The couple dairy farmed in Wisconsin for two years before returning to Australia and establishing a specialist breeding and show preparation business.

Mr Gavenlock said Chassity's Innocence was exactly what they strove for in their breeding program.

"She's it — she's 100 per cent what we strive for," he said. "She's a great individual — she's obviously fertile — she makes a lot embryos and she's got a world-class pedigree.

"We are about marketing and selling cows. You could refer to her as a cash register."

The heifer is from a Doorman, out of VG Atwood and goes back to the \$1.2 million Chassity cow in the US that has sired lot of high-end bulls and females.

Mr Gavenlock said the heifer, which was also junior champion at the Sydney Royal Show this year, had already been flushed. Most of the embryos had been implanted and some had been sold. They plan to sell the first choice of all its daughters in their tag sale on November

The heifer was joined a few weeks before the show and Mr Gavenlock hopes to be able to show it at International Dairy Week before bringing it back to next year's winter fair for the milk classes

"She's what we need personally in our business and it is what everyone needs whether you are milking cows or selling cows," he said. "Her pedigree ain't for everyone but that's the beauty of this industry, it's not a one shoe fits all."

Judge Matt Templeton said the heifer was a comfortable winner. "When you get to breaking her down, there's not too many faults in this heifer," he said.

"She's got that beautiful dairy strength we love to see, the depth and openness to her chest. She's comfortable on her feet and legs.³ D







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Ian and Trent Mueller, Murray Bridge, SA, and Platinum Ag agronomist Matt Howell, Meningie, SA, in the crop of irrigated maize grown on the river flats.



Attendees at the DairySA field day earlier this year inspect the crop on the Mueller farm.

# Maize good option on SA river flats

- Maize grown for on SA river flats
  - Aim to make most of
- available irrigation water
- Precise preparation and
- management key to success

### **By Elizabeth Anderson**

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e

TOUGH 2018-19 season and improved irrigation technology has inspired a new crop along the river flats at Murray Bridge, SA.

Dairy farmers Ian, Julie and Trent Mueller worked with Platinum Ag agronomist Matt Howell, Meningie, SA, to sow 25 hectares of maize along irrigated flats and a further 15ha of sorghum on their river flat bays.

Earlier this year, more than 30 dairy farmers and service providers converged on the Mueller property to gain an insight into the process of planting and growing maize on the river flats in an informative day organised by Dairy-SA.

Trent said they had been considering a new crop for the past year but were inspired to go ahead following a "rubbish" 2018 and soaring feed prices, with maize selected for its water efficiency.

Mr Howell said: "Water is a scarce commodity so we were looking at the economics quite closely," Mr Howell said.

Preparation had been key in sowing the crop. "Maize is quite a finicky crop — you've got one shot to grow it so you need to get the paddock right," he said.

Mr Howell said they had been particular about soil testing. Testing of multiple sites throughout the bays (to determine nutrient requirements and



Waterlogging proved to be a big problem, causing some seeds not to germinate.

acidity levels) showed that there were no major soil limitations in the Murray river flats, so a crop-specific program was implemented for the two different crop types based on projected yields and crop removal rates. This led them to spread gypsum, as well as a pre-sowing mix of urea, potash and Granulock zinc.

The crop was precision sowed, with 60 kilograms of Granulock Zn at 60kg/ ha and Pioneer P0725 at a rate of about 110,000 seeds/ha, before an emergence date of November 20.

Mr Howell said previous density trials in the Meningie region, under pivot irrigation, had shown sowing at a higher rate resulted in finer stems and more cobs, which meant a total higher yield and quality.

Precision sowing was also important for even maturity of the crop.

The crop was made up of four early to mid maturing varieties, selected to ensure the crop was off by mid-March to allow time to re-establish winter ryegrass.

Paul Jenke from Pioneer Seeds explained the suitability of chosen varieties for maize at Muellers was based on CRM (Comparative Relative Maturity) ratings, with 107-111 CRM varieties being best suited to this system due to earlier maturing without comprising yields.

Mr Howell said Pioneer hybrid P0725 was his pick of the four varieties which included P1197, P0865 and Advanta 440ME — so far, saying it showed good early vigour.

Waterlogging has been the biggest hurdle, with one-fifth of the crop lost when rain fell in November, following the first irrigation.

Mr Howell said there was a clear difference between the areas of the crop with good drainage and other areas, particularly at the tail of the watering. Despite that, he said the crop had performed to his expectations for most

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### **FODDER CROPS**

 of the bay and exceeded expectations along the edges of the bay.

Trafficability was also a bigger issue than expected.

Mr Howell said it was important to ensure adequate nutrition was available, with it a "nitrogen-hungry" crop.

"Maize is a high-value product; you've got to have a system to feed it," he said. Mr Howell said based on a yield of

16-18 tonnes/ha, the crop would cost about \$220-\$240t/ha to grow.

But he said the maize was also comparable to a grain crop, particularly wheat, in terms of feed quality.

Trent said the maize had impressed him enough for it to become a regular in their rotation from next year.

"It's quite impressive how it is coming along," he said. "You go down every couple of days and can see the changes."

Trent said he was particularly impressed with the efficiency, estimating — just before the fourth irrigation — it had used about 3-3.5 megalitres/ ha, with another three expected, each about 1ML/ha.

"The goal was to find options to grow bulk amounts of feed without horrific amounts of water," he said.

"I've been surprised by how water



Maize on the River Murray flats.

efficient maize has been on the flats, but have discovered that the timing of water — and particularly the drainage — is kev."

Trent said the new crop could help them grow more feed and aid self-sufficiency.

He said the irrigated maize would be incorporated into a mix, along with

### 'The goal was to find options to grow bulk amounts of feed without horrific amounts of water.'

brewers grain and potatoes, to go out onto a feed pad.

But he said this trial would likely not be possible if they had not recently upgraded through the SA River Murray Sustainability Irrigation Industry Improvement Program.

Alongside laser levelling their paddocks, they installed a pipe-and-rise system, which Mr Mueller said vastly improved their control when watering.

They could water more quickly and accurately, making irrigation more efficient, with estimated savings of up to 1 megalitre a hectare.

There are three other dairy farms growing maize along their river flats this season — two at Jervois and one at Monteith — totalling 92ha.

Mr Howell said it would be possible to compare some of the management decisions across the flats.


# **Trial assesses forage crops**

Home-grown feed offers opportunity to cut costs Trial looks at different points



cereal and legume ontions

88 Also looks at potential of crop combination

### By Mark Bauer, Dairy feedbase development officer, **Department of Agriculture** and Fisheries, Queensland

(ev

N integral component of the C4Milk project is focusing on reducing the purchased feed costs for both the milking and dry stock diets. Increasing the use of home-grown feeds offers the opportunity to reduce feed costs while maintaining diet quality.

Going forward competition from other intensive livestock industries, export markets and industries such as biofuels for key diet ingredients will necessitate an increased focus on what can be produced on-farm.

A winter forage combinations demonstration has been set up at Gatton Research Dairy in south-east Queensland to investigate a range of cereal and legume-based forages and their potential combinations.

An assessment of alternative starchbased cereal options have been grown alongside more traditional winter cereal forages, along with a number of high-protein winter legumes and brassica species (see Table 1).

Combinations of cereals and legumes are also being assessed to look at the potential to increase forage quality (crude protein) while mainTable 1: A range of starch and protein based forages are being assessed within the winter forage demonstration

Winter starch forages	Winter protein forages	Winter Combinations
Barley	Canola	Barley & Field peas
Cereal Rye	Faba Beans	Barley & Vetch
Forage Wheat	Field Peas	Oats & Forage Rape
Oats	Lupins (2 varieties)	Oats & Vetch
Triticale	Vetch (2 varieties)	Triticale & Vetch
		Wheat & Faba Beans
		Wheat & Vetch



Figure 1: Aerial photo of the 33 winter forage plots, with 12 dryland (bottom row) and 21 irrigated (middle and top row) forage plots.

taining or increasing forage yield relative to traditional cereal crops grown as a monoculture.

This demonstration aims to evaluate the most suitable options grown under both irrigated and dryland conditions with regards to yield, forage quality and agronomic suitability for use in dairy systems across Australia.





Figure 2: Irrigated Austin oats that was cut (right side of pipe) eight weeks after planting with three weeks of regrowth compared to 11 weeks of growth (left side of pipe).



Figure 3: Lupins and Faba beans grown as high protein winter forages.

'The range of winter forages being assessed for dryland and irrigated dairy systems is comprehensive and will have relevance for a number of dairy regions across Australia.'

A total of 33 demonstration plots were sown in mid-May 2019 (see Figure 1).

The plots (5 x 10 metres) were planted into a fully cultivated seedbed, pre-irrigated (full soil moisture profile), fertilised and herbicide applied before planting.

The demonstration is comprised of both an irrigated and a dryland component, with the irrigated area managed for optimal water requirements while the dryland area was established with an in-crop irrigation to fill the soil moisture profile and subsequently left to survive on rainfall.

A number of plots (15 in total) will be assessed from a grazing and hay production perspective, with half of the plot cut multiple times to assess regrowth (see Figure 2).

The remainder of the plot and other forage species will be left until mature for a single silage cut, which will be milky dough for the cereals and early pod development or late flowering for

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Table 2: Preliminary dry matter yields (kg DM/ha) of the top 3 yielding cereals and

combination lorages after the first cut at 8 weeks after planting					
Forage	Varieties	DM Yield (kg DM/ha)			
Dryland cereals					
Barley	Dictator	4535			
Cereal Rye	Southern Green	4349			
Oats	Austin	3556			
Irrigated cereals					
Barley	Shephard	5497			
Barley	Dictator	5314			
Cereal Rye	Southern Green	5312			
Combinations – irrigated					
Oats & Vetch	Austin & Poppani 5396				
Oats & Forage Rape	Austin & Winfred	4630			
Canola only	Hyola (10 kg/ha planting rate)	4522			

the legumes and brassicas (see Figure

3). The first cuts were taken eight weeks after planting to simulate grazing and hay production, with preliminary yields of the top three dryland and irrigated cereals and combination forages provided in Table 2.

Only 15 of the 33 blocks have been identified to be cut multiple times to simulate grazing or hay production, with all of the legumes being a single cut only.

The irrigated forages are expected to be cut 2-3 times before harvesting a final silage cut in September, while the drvland blocks will most likely be harvested 1-2 times depending of rainfall

and regrowth potential of the forage.

Cumulative yields and quality will be assessed for the multiple cuts across the growing season.

The single-cut forages will be harvested at the ideal maturity in August and September, with dry matter (DM) percent, DM yield, forage quality and silage quality being assessed.

The range of winter forages being assessed for dryland and irrigated dairy systems is comprehensive and will have relevance for a number of dairy regions across Australia, particularly the forage quality results, as the yields will be specific to the region and climatic conditions within which it has be grown.

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# The four Ps of getting beet crops right

Careful planning needed 836 for beet crops Need to assess what crop points



is required for and how it will be harvested

### 8 Fertiliser applications critical to (e achieving high yields

### **By Sam Flight Tasmanian Institute of Agriculture**

HEN it comes to fodder crops is sugar beet or fodder beet really that unbeatable? I recently attended a Seed Force Beet Field Day at Woolnorth, Circular Head, Tas, to find out.

Crop yield is an important determinant of whether the crop is going to cost or make money. There are a lot of things to get right to achieve a high yielding beet crop, but as was shown at the field day, it is possible.

Apart from the bulk of dry matter (DM) produced, beets also have high water use efficiency and withstand a large range of temperatures. There are four key phases in growing a high yielding beet crop:

- Planning.
- Preparation.
- Planting.
- Post establishment.

Planning starts with identifying the end use for the beet and when feed will be required, as this will determine the beet type to sow and the system requirements. This is something to do for all fodder crops, ensuring feed type and maturity match the farm's feed requirements.

Young dairy stock require a low bulb dry matter percentage and ease of eating to achieve good utilisation. With adult dairy cows the beet DM percentage is not as crucial. Varieties giving early yield are important for feeding during the lactation.

Once the end user of the beets, heifers or cows, has been decided on, how the beets will be harvested then needs to be considered - self-harvest or mechanical harvesting.

If the stock are self-harvesting, grow beets that produce a higher proportion of the bulb above the ground surface, as this makes it easier for cattle to eat them. Leaf quality and retention is also an important factor with self-harvest.

With mechanical harvesting the proportion of bulb above the ground is not as important, as uniformity of size and

DM percentage has a bigger impact on harvest cost, losses and storage.

Another important decision is where on the farm to sow the crop. Consider paddock location, soil type, topography and accessibility. It is important not to sow beets in the same paddock in consecutive years. Fodder beet is susceptible to chemical residues from many commonly used agricultural chemicals be aware of the spray history for the paddock for the previous 12-15 months.

Planning a year in advance allows for the right preparation to be made.

**Preparation:** Beets are sensitive to acid soils. Ideally, the pH should be at least 6.2. If the soil is below pH 6, it would be best to not sow the paddock until lime has been applied.

### 'Fodder beets are a relatively expensive crop to sow — planning and management are critical.'

Ensure no root restrictions as roots will grow to a depth of 1.5 metres in soils with no obstructions. Deep cultivation should be carried out well in advance of planting to allow soil weathering and a weed flush.

Apply fertiliser after the main cultivation. Application of base levels of fertiliser should be based on soil tests and supply key elements for optimum plant establishment and growth.

Fertiliser should be applied and incorporated as part of a last surface working. Timing should be at least one week before planting to help avoid burning the emerging seedlings. A beet plant has a crop requirement of 220-250 kilograms of nitrogen per hectare for optimum growth. N mineralisation released from the majority of worked soils will contribute up to 80kg N/ha. The balance needs to be applied.

The base fertiliser application should include 33pc of the nitrogen requirement together with the other key fertiliser elements required.

Planting: Plant at 20 millimetres depth into moist soils at a maximum ground speed of 5-6 kilometres per hour. Any faster can cause the planter units to bounce. Plant as early as soil conditions allow while considering risks such as the conditions and risk of vernalisation.

Determine the optimum plant field es-

tablishment per hectare for the end use. For in-situ grazing, aim for 80,000-90,000 established plants ha, which is 9 plants/ square metre (typically 90,000-100,000 seeds sown/ha). For mechanical harvesting aim for 100,000 established ha, equal to 10 plants/m², typically 110,000-120.000 seeds sown/ha.

After planting apply post-planting herbicide. pre-emergence Consider combining multiple active ingredients to help ensure maximum weed control, while being safe for the emerging seedlings. Tasmania has limited access to suitable herbicides for beets, contact a local agronomist for advice on which is the most suited for the crop.

Post establishment: Correct timing of application of post-emergence pesticides and herbicides are crucial for both pest and weed control. One large weed/ m² equals 10pc yield loss. Applications of pesticides should be customised to target the type of pest present and to suit the prevailing conditions.

The second application of nitrogen should be applied once the beets cotyledons have fully expanded. If this timing is missed, wait until the 8-leaf stage to apply as this will minimise the risk of plant burn. Nitrogen will help optimise plant growth and leaf expansion aiding maximum light interception.

A further nitrogen application will be required at canopy closure; this generally should be the final 33pc of the crop's nitrogen requirements.

Risks (loss in yield) include:

 Powdery mildew can cause up to a 20pc yield reduction and is most commonly seen in dry environments.

• Rust can cause a 5-10pc yield reduction and is most commonly experienced in moist damp environments.

 Cercospora (a fungal infection) can cause significant reductions in yield and is most commonly seen in warm/humid environments.

 Beet yellow virus is prevalent in many areas where brassicas are grown, or aphids are present.

Fodder beets are a relatively expensive crop to sow - planning and management are critical in ensuring the yields needed to make it economically viable. This information is based on discussion at the Seed Force field day. Anyone planning on growing beets, should discuss it with their agronomist to get specific information for their farm. D

This is an edited extract of an article that first appeared in Tassie Dairy News

# Old dairy repurposed as calf shed

 New calf-rearing facility built in old dairy shed





dairy to calf shed

Calves kept in small groups in

shed for four weeks

### **By Jeanette Severs**

points

HEN Evan and Sheriden Williams and their son-in-law Graeme Lowndes installed a robotic dairy in a new purpose-built shed last year, they decided to retrofit the decommissioned rotary dairy platform as a calf-rearing shed.

The Williamses invested in a fourbay automated milking system (robotic dairy) on their Yannathan, Vic, farm in a bid to provide an income and a better lifestyle for themselves and their daughter and son-in-law and their young family.

"We wanted to ease back and our daughter and son-in-law wanted to come onto the farm, but they have two young children. We wanted to offer them a better lifestyle," Mrs Williams said.

The added advantage has been Mr and Mrs Williams regaining their enthusiasm and energy for working in the dairy industry, without having to spend so much time milking.

The 280-300 head self-replacing Holstein milking herd produces 9000 litres of milk annually, a figure that has been maintained since changing to the robotic dairy.

The split-calving herd receives 2.2 tonnes/cow of concentrates annually.

Mr Williams harvests 600-700t dry matter of pasture silage annually, mostly from a 72-hectare outblock. Periodically, he grows a sorghum crop to also harvest as silage.

Pastures are regularly fertilised and an annual chicory or turnip crop is followed by sowing to ryegrass, as part of the pasture renovation program.

"We get as much dry matter into the cows as we can," Mr Williams said.

The dryland farm has a fairly reliable rainfall pattern that averages 900 millimetres annually.

Forty per cent of the herd calves in autumn, beginning April 10; 60pc calve in spring, beginning at the start of July.

Joinings are by artificial insemination and the focus in recent years has been on lifting fertility by their choice



Sheriden Williams with one of her favourite cows 5069. The robotic dairy scans the collar worn by a cow and can bypass the system so its milk goes directly to a bucket for its calf.

### 'If extra milk is required in the calf shed, we can just let the system know and the robot will send it over from the vat.'

of bulls, while maintaining their A2 status.

When the site for the robotic dairy was cleared, it included dismantling the dirt-floor shed that was used to raise calves. Last year, a dirt-floor machinery shed was converted so calves could be raised in 10 pens. Bedding in both sheds was traditionally woodchips.

Rather than dismantle the shed and dig up the concrete floor that housed the 44-unit rotary dairy, Mr and Mrs

Williams decided it was ideal to retrofit for a dedicated calf-rearing shed.

"It had the hard floor, making it easy to clean, and already had electricity, water and the hot water system," Mrs Williams said.

"There was also a six-by-six metre area which we could use for washing up, preparing milk — adding mineral additives on a nutritionist's advice and for keeping the trailer and buckets tidy."

During construction of the robotic dairy, piping was extended 25 metres across the yard to deliver milk from the vats and milking bays directly to the calf-rearing shed.

Iding The computer system enables a particular cow's colostrum and milk to go to its calf, by the software system identifying the cow and sending used the product through the pipes to a specific bucket. Staff are then alerted ► The Australian Dairyfarmer September-October 2019 77

which bucket (one of three) is for which calf. The important function of the system is that a calf's identity is clearly linked to its mother. The system once the milk arrives in the calfrearing shed is mostly manual labour. Most of the milk — unless it is identified by the computer software as described above — goes into a 250-litre storage tank, from where it is pumped into buckets that are carried to the pens.

Mr Williams also redesigned a trailer to carry milk and grain buckets and feeders to the paddock.

"If extra milk is required in the calf shed, we can just let the system know and the robot will send it over from the vat," Mrs Williams said.

"It's a function of the individual milking machines to be able to bypass the vat to send the milk directly to the calf shed, or pump milk from the vat, when needed."

Troughs for grain and water in each pen are checked and refilled at least twice daily.

Having the hot water system already installed means cleaning of buckets, troughs, milk feeders and teats is easily achieved.

Anchor points on the shed's side walls connect to the frame of each 12x18 metre pen, which mean they are robust but can be dismantled to easily clean the floor.

"We wanted the pens to be stable but portable, so it's easy to clean the shed. I can just go in with the tractor and scrape out the shed, then we can hose it down using the hot water system," Mr Williams said.

Rubber matting has been laid on the floor, with corn straw used as bedding.

Mrs Williams has noticed the calves prefer to lay on the corn straw, rather than the rubber matting.

"We're only on our first calving in the shed, so it's all a learning curve at the moment," Mr Williams said. "I hope to just top up the bedding. It's the first time we've had a calf shed where it's not a dirt floor. We've used wood chips in the past, so we'll see how this corn straw goes.

"The calves are moved on to the paddock while they're still young."

When the bedding is taken out of the shed, it goes onto the compost heap.

### **Calf-rearing policy**

The farm business's calf-rearing policy is for calves to spend four weeks in pens in the shed, before going into paddocks.

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Evan Williams in the calf-rearing shed with heifer calves.



The robotic dairy's software system enables a particular cow to be identified to ensure its colostrum and milk bypasses the vat system and is sent directly to one of these buckets to be fed directly to its calf.



The cows wear collars so the automatic milking system's software can identify each individual cow.

In the shed pens, calves are usually housed in groups of five; when they move into the paddock, they are merged into groups of 10.

In the shed, calves are fed milk twice a day and have access to ad-lib water and pellets from day one. In the paddock, calves receive milk once a day, with ad-lib water, pellets, hay and pasture to graze.

"We bring them out to the paddocks, where they have shelter, once



The new calf facility was constructed in the old rotary dairy shed.

they're big enough — usually at four weeks," Mr Williams said.

"Big calves make a big mess, so we want to have them out of the shed by then."

The calves are weaned at 12 weeks old, when several group are merged to become 30-40 head. The heifers are in paddocks and grain-fed until 15-months-old, when they are joined.

Bull calves are sold when young to a regular client list.

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Colostrum quality inadequate in 80 per cent of samples points



Failure to collect soon after

calving most likely factor

Need to also ensure high hygiene standards

### **By Olivia Calver**

(ev

STUDY by the Graham Centre for Agricultural Innovation at Wagga Wagga, NSW, has found colostrum from more than 80 per cent of a sample of dairy cows did not contain adequate antibodies or meet microbiological quality standards.

Research leader Dr Angel Abuelo said colostrum played a key role in developing a newborn calves' immune system.

Therefore the results of the study, which was based on a survey of more than 100 dairy farms and samples collected from 23 dairy operations, suggested a large number of calves could be susceptible to illness.

"Calves rely on the antibodies they absorb from colostrum to fight infec-



Graham Centre for Agriculture Innovation researcher Dr Angel Abuelo and his team found colostrum collection practices need to be improved.

tions during early life," Dr Abuelo said.

"In addition to antibodies, colostrum also contains hormones and growth factors that help the calves adapt to the life outside their dams' womb."

Dr Abuelo said the levels of antibodies in colostrum was partially dependent on the cow's status during pregnancy,

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with nutrition, stress and vaccination protocols all playing a role.

However, he believed it was when the colostrum was collected that was most significant. "The faster the colostrum is collected following birth, the higher the amount of immunoglobulins or antibodies will be," Dr Abuelo said. "Most likely, the main factor behind decreased immunoglobulin content was delayed collection following birth of the calf.'

Dr Abuelo said ideally colostrum should be collected right after birth or within the first few hours. "If cows are just checked for calving a few times per day, it is unlikely that this can be achieved," he said.

Low microbiological quality could also be due to infections in the cows' udder or poor hygiene during colostrum collection and storage.

"Hygienic collection of colostrum (cleaning and disinfecting teats and udder prior to collection), rapidly cooling down or freezing colostrum if not used fresh, and using cleaned and disinfected calf-feeding apparatuses are key to decreasing the bacteria present in the colostrum fed to calves," Dr Abuelo said. He said increased awareness of rec-

ommended practices for calf management and feeding would make a significant difference.

He suggested there should be more input from vets during the process. "The rates of calf illness and mortality on several of the farms studied were higher than industry targets," Dr Abuelo said. "But the research indicates these targets are achievable and we believe that vets have a key role to play." D

The full results of the study were published in the Journal of Dairy Science.

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MAPPING

Services

FARM

# Telling the story of good animal welfare

 Livestock farming increasingly under attack
 Activists fail to look at other aspects of life that impact environment
 Tell our story to show farming animals is not cruel

### By Jeanette Fisher*

**R**ECENTLY I have started doing some work for a veal company in England. The veal industry is trying hard to do the right thing but is frequently targeted by animal activists.

Only a couple of days ago I heard of a veal company that has been forced to remove the logos from its vehicles because of acts of vandalism by activists. Every day there are new media articles about how we shouldn't be farming animals or eating meat or dairy or eggs; every day there are articles about acts of trespass or vandalism by misguided animal activists.

It seems that the discussion regarding the rights and wrongs of farming livestock is becoming increasingly heated. Animal activist organisations appear to have no regard for the law, nor for the truth.

There are several sides to the livestock farming debate:

• Firstly, there is the idea that it is unhealthy for humans to consume animal proteins.

• Secondly, there is the perception that the farming of animals is harmful to the health of our environment.



• Thirdly some people believe that farming animals for human benefit is cruel to the animals.

I will address those in order.

My personal preference is to eat meat and dairy and I consume quite a lot of each, in various forms. Even so, I understand why people want to be vegetarians, especially if they don't like meat. However, I struggle to understand those who wish to be vegan, especially if they are doing it because of a misguided notion that farm animals suffer in the production of meat or dairy; I will come back to this topic later.

There is no doubt that farming animals to produce animal protein has changed the planet but so has farming to produce grains, fruit and vegetables. It seems to me that livestock farming has become a scapegoat for people who want someone to blame for the changes in our environment.

There are many other facets of life, such as energy generation in all its forms, which have made as much or greater contribution to climate change but goods produced using electricity can be harder to relinquish than meat and dairy in the diet.

Who wants to give up all the things that modern energy generation gives us? Who wants to go back to living in a cave, without modern transport, elec-



tricity, mobile phones or internet? It is a lot easier to make the relatively minor change to not consuming animal-based proteins, donning one's environmental/ animal protection halo in the process, than it is to give up all the trappings of modern life.

I am not saying that the human race shouldn't modify its behaviour to lessen our impact on the environment; just don't hold livestock production up as being the only bad guy.

Certainly, do not adopt the moral high ground about consuming animal products while you are sitting in a modern building, using modern technology and wearing modern clothes, all of which are produced using energy and technology that damages the environment and contributes to the extinction of species.

Now we get to the real issue of this article. Animal welfare.

Before I go further, I would like to share the comment below, which I copied from a social media site; it was posted by a friend of mine who milks cows with her husband in northern United States. The cow to which she refers had just won Senior and Reserve Grand Champion at the local agricultural show.

"Took some time to reflect on a pretty special day. We are beyond grateful to have this cow a part of our farm. Not only is she pretty, she works really hard too. A huge thank you to Tim, Sarah, Bill and Cynthia for taking such great care of her this winter. Thank you to everyone who was a part of the show crew, and helped in this cow's success. Also thank you to the people who helped out at home so we could get to the show."

To those who think that all farmers abuse and mistreat animals, does my friend sound like a person who hates or abuses animals? I have been in the barn which houses this cow. It is not a big, smart barn but I can guarantee that the cows are loved and cared for and most definitely treated with respect. There is no animal abuse in this barn; quite the opposite.

Now let's go back to that question of whether or not farmed animals suffer. I guess it is an anthropomorphic topic but I reckon that if I could go out into the paddock and give the average Australian dairy cow three choices:

- to have not been born;
- to be dead; or
- to exist in its present life,

I imagine that most cows would be pretty happy with their lot in life. Maybe an Australian cow would like slightly cooler summers, or to not have to put up with Daisy the Jersey, who always eats the best bits of grass but, in general, she has most of her needs catered

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'There is no doubt that farming animals to produce animal protein has changed the planet but so has farming to produce grains, fruit and vegetables.'

for. My reason for making the judgement about how a cow would answer that question is based on how closely their lives are aligned to the good bits of a life in the wild and how many of the bad bits of life in the wild are missing from the life of the average dairy cow.

The average cow in Australia and in most other first-world countries is well fed, has fresh, clean, cool water to drink, lives in a relatively comfortable environment, is protected from predators, is kept parasite free, receives veterinary intervention if necessary and can move around at will. In exchange for this, she works by giving milk for 10 months of the year; for the other two months, she has a holiday in the country.

In reality, cows are probably a bit like many people who have a 9 to 5 job; is there anything in their life they would like to change? Well, yes, probably most people would like to change minor things in the office, but overall most people are reasonably happy with their working lives.

The first few months in the life of an average dairy heifer calf involves being fed, watered, bedded, protected from predators, kept parasite free, access to veterinary intervention if necessary and she can move around at will. At some stage in the first couple of months of life, she is put out into a nice big paddock with her mates and gets to play and grow until she is big enough to start working.

Yes, there is the more difficult matter of the male calves ... but that is what the veal industry is about. So, what do these so called "animal loving" activists want? I take great exception to people, who, while claiming to have the welfare of animals at heart, work undercover filming abusive acts (which are possibly staged) and yet fail to report that abuse for 12 months.

Employees on many dairies sign agreements in which they agree to prevent or report abuse immediately. Any genuine person working on a farm where they witnessed abuse would either stop that abuse immediately or report it to the owner/manager as soon as practical. In many cases they actually have a legal obligation to do that.

Bearing in mind that animal activist groups receive a great deal of funding from sympathetic members of the public, I do not believe that filming abuse for 12 months and then publishing that footage on social media is the work of animal lovers. I believe it is the work of people out for their own self-aggrandisement, acting in pursuit of power, publicity and money, not improved welfare.

We cannot provide farmed animals with a perfect life; even nature is not able to provide perfect welfare conditions for animals. Droughts, floods, food shortages, extremes of temperature, predation, parasites and untreated injury and illness all pose welfare risks for animals living in the wild.

Similarly, every dairy housing system has pros and cons:

Cows kept permanently in tie stalls are not subject to predation, climatic extremes, hunger or thirst but have limited freedom of movement.

Free stalls provide limited exercise, ample food and water but can pose problems with poor hygiene and poor foot health from walking on concrete.

Pastured cows in open paddocks have a great life in good weather but, in extreme heat or cold, they can be very exposed to the elements. In some areas, predation can be a threat, too.

Do cows in these various situations have lives which are perfect in every respect? No, but is yours?

It is up to those closely involved with the dairy industry to fight back against the radical groups which are trying to shut down the dairy industry. Posts of happy cows, posts about how much you love working with cows, posts about how excited you were when your heifer won its class at the local show, posts about how sad you were when your favourite cow was sick and how hard you worked to nurse her back to health will all help to counter the false impressions being put out by radical groups.

It is up to all of us to give every animal on farms a life which is as close to perfect as possible. It is also up to all of us to promote our industry to ensure that the average supermarket shopper understands that we are doing everything we can to give cows a life as close to perfect as possible.

We need to counter the claims of the animal activists and to give consumers enough information for them to be comfortable with modern dairy practice.

*Jeanette Fisher is the principal of HeiferMax, email <jfisher@heifermax. com.au>, website <www.heifermax. com.au>.

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1 From Nussio et al., 2002. Scientia Agricola, 59, 3: 421 | 2 The effect of ionophores on feed intake by feedlot cattle, 1995, Gary Vogel, Lilly Research Laboratories, Canyon Texas 3 Stromberg et al 1982 Am J Vet Res. 43:583 | 4 Watkins et al, 1986 AgriPractice. 7:18-20

## Expo a one-stop shop for innovation

What: Saputo Dairy Expo

### Where: Korumburra Showgrounds, Vic.

(ey points

- When: Wednesday, September 11, and Thursday, September 12,
- from 10am to 3.30pm ✓ Entry is \$15. Children under 16
- years old are free.

years old are free.

THE Strzelecki Lions Club is proud to again host the 2019 Saputo Dairy Expo in Korumburra, Vic, on Wednesday, September 11, and Thursday, September 12.

The Saputo Dairy Expo provides an opportunity for the community to see the latest in dairy innovation and technology — in an easy 'one stop shop' — while offering a host of entertainment for the whole family.

The Lions Club is delighted to have Saputo Dairy Australia as this year's major sponsor and Reid Stockfeeds as this year's platinum sponsor.

Chairman of the Saputo Dairy Expo and a Strzelecki Lions Club member Cliff Wallace said that since 2000, the Lions Club had organised the popular community-based expo that had now grown into a major regional event. This year promises to be better than ever.

Mr Wallace said it was rewarding to see the results from the past 20 years. "The expo continues to get better and better — exhibitors and the public keep coming back, which shows it's a success," he said.

Highlights of this year's expo include:

• The keynote presenter on this one day in September will be Mike Brady, who will entertain with his stories and music on Wednesday, September 11, at 11am. This year marks the 40th anniversary of the release of his song 'Up there Cazaly'.

• Solar Power Feature. Come along and research the latest solar power innovation. Compare technology and prices in a stand featuring: JMR Solar Pumps, Gippsland Solar, Start Solar, Solar Dynamics, Cafa's Pumps, Supercharged Energy and Renewable Energy Alliance.

• The Jindi Zoo mobile petting zoo.

• The Gumboot Gift. The inaugural 120-metre footrace where entrants must be wearing gumboots will be held on Wednesday, September 11, at 1pm.

### 'It's a place where exhibitors and farmers can deal with each other directly.'

 Back by popular demand, Matt Harms, from OnFarm Consulting, is hosting 'Gippsland- the next frontier? Is Dairy Heading South?' sponsored by the South Gippsland Shire Council and Rabobank on Thursday, September 12, at 11am. Panel members dairy farmers James Dillon, Luke Zuidema and Daryl Hoey, local and respected real estate agent Peter Bellingham, Professor Rob Faggian and local Rabobank rural manager Tracy Hollingworth — will discuss what farming was like in the north, what Gippsland has to offer in the short and longer term and what it means to the region, land prices and dairy farming in general.

• The Udder Truth Showbag sponsored by South East Organic Fertiliser is back. Purchase a \$2 showbag at the gate, visit 15 of the listed exhibitors, answer an easy question, enter the draw, and this year perhaps end up \$5000 richer by the end of the expo. Participating companies include: Brown's Fertilisers, Zoetis, Vikon Precast, Ridley, Jantec Systems, Victorian Hoofcare Services, De Wit Trading/The Wrangler New Zealand, GippsDairy, Coopers Animal Health, Brown's Stockfeed, Easy Dairy Automation Systems, Reid Stockfeeds Pty Ltd, Lely Center Gippsland, TAFE Gippsland, Rural Bank, Bio-Link 4 Plants and Saputo Dairy Australia.

• Hungry. Volunteers from Poowong Kindergarten will be serving tasty treats on both days of the expo.

This year marks the 22nd anniversary of the Strzelecki Lions Club. Mr Wallace said the club's activities, including the Saputo Dairy Expo, could not happen without the valuable dedication and support from the community, companies and volunteers.

The Saputo Dairy Expo is supported by gold sponsors: Burra Foods, GippsDairy, Commonwealth Bank, Easy Dairy Automation Systems, Start Solar, SRH Milk Haulage, Dairy News Australia, Peter Stoitse Transport, Ross Chapman Cartage & Earthmoving Contractors, Lely Center Gippsland, Tow and Farm, South Gippsland Shire Council and Rabobank.

"The Lions Club Committee and the expo volunteers put in so much effort. It's a pleasant and enjoyable job when you're working with a great team of people," Mr Wallace said.

"The money raised by Strzelecki Lions Club activities, goes back to benefit the community. Over the years, we've raised \$570,000.



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### Wide range of exhibitors

Exhibitor	Stan
AFL GIPPSIand	12-73
Agriculture Victoria (DJPR)	8
Alex Scott & Staff	/
Aplam Animal Realth - Prodairy	4
Australian Propiotic Solutions	10
Australian Consolidated Milk	Z
AXIS Industries	4
Bairnsdale Engineering	5
Bayer Animal Health	6
Bioactive Soli Solutions	31
BIO-LINK 4 Plants	3
Biosystems Australia	2
BD Deeve Engineering	0
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Browns Fertilisers	1
Browns Stockleed Pty Ltd	0. Ti
Bushman Tanka	0. 1
Solar Fosture	1
Cafa's Pumps - Solar Feature	5
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Castlegate James Quality Stockfeed	15 44
Clerk Equipment	4
Clark Equipment Sales Pty Ltd	173
Commonwealth Bank Gold Sponso	or - I
Community Event First Ald/Medica	ai
- First Ald	30
Congroove Dairy Grooving	74
Coopers Animai Health	2
Dairy Essentials	4.
Dairy Grooving	3.
Dairy Shelters Australia	5
Dairy-lech Refrigeration/Packo	
Milk lanks	1.
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New Zealand	8.
Easy Dairy Automation Systems	
- Gold Sponsor	10
Ecolap	101
Farm Automation Australia Pty Ltd	99
Fonterra	/
G & S Farm Supplies	2
GE SIIOS	97
Gendore Tractors & Machinery	10
Constine Australia	201
Genetics Australia	24
GippsDairy - Gold Sponsor	7
Gippsiand Jersey	/ ( 
Gippsiand Solar - Solar Feature	5.
Graham wood Machinery	54
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'The Lions Club Committee and the expo volunteers put in so much effort. It's a pleasant and enjoyable job when you're working with a great team of people.'

Melbourne Water	89c
Morry van de Leur	45
National Australia Bank	11
National Centre for Farmer Health	23
NBN	85
Need for Feed - Lions Club of	
Pakenham	79
Niagara Therapy	70
Nicks Fine Foods	81
Northern Feed Systems	99b
Norton Livestock Handling Solutions	15
Notman Pasture Seeds/Notman	
Agricultural Services	6
PainPod	19
Performance Feeds	86
Poowong Dairy & Hardware	
& Westfalia Warragul Sponsor	
Poowong Kindergarten -	
Catering Catering	Site
Pryde Inglis Contracts Pty Ltd	88
Rabobank - Gold Sponsor	2
Reid Stockfeeds Pty Ltd -	
Platinum Sponsor	90
Renewable Energy Alliance -	

Solar Feature 53 Ridley 8 **Ross Chapman Cartage & Earthmoving Contractors Gold Sponsor Rural Bank** 97 **Rural Financial Counselling Service** Victoria - Gippsland 89b Salami Shack 34 Saputo Dairy Australia - Major Sponsor 4 Smarttek Smart Hot Water Systems 63 84 Snapchill (Aust) Pty Ltd **Solar Dynamics - Solar Feature** 55 South East Organic Fertiliser Udder **Truth Showbag** South Gippsland Shire Council/OnFarm **Consulting Gold Sponsor** South Gippsland Tax & Farm 35 Management SRH Milk Haulage Gold Sponsor Start Solar - Gold Sponsor/Solar Feature 3 **Stephen Pasture Seeds** 20 **Stoitse Transport Gold Sponsor** Supercharged Energy- Solar Feature 26 Surrey Fields Limited 39 Sykes Vet International 31 89a **TAFE Gippsland** Total Stockfeeds - Vitafarm 22 95 Tow and Farm Gold Sponsor TracMac Farm Equipment Pty Ltd 59 **Travel Managers** 70 TTMI (was Traf T & M) 93 Vic Silos 52 Victorian Hoofcare Services 46 Viking Genetics 32 Vikon Precast 16 Waste-Not Stockfeeders Pty Ltd 56 Western Valley Dairy Systems 12 Weweld Steelworx/Bale Up 99 Hayfeeders Zoetis 10a

### WHAT'S ON

September 10-12 Tamworth, NSW	Bale Up Conference Contact: Megan Nicholson Phone: 0427 567 347 Email: <meg.nicholson59@gmail.com> Website: <https: nswwomenindairy="" www.facebook.com=""></https:></meg.nicholson59@gmail.com>		
<b>September 11-12</b>	South Gippsland Dairy Expo		
Korumburra, Vic	Phone: (03) 5659 4219 Email: <dairyexpo@jaydee.net.au> Website: <www.dairyexpo.org.au></www.dairyexpo.org.au></dairyexpo@jaydee.net.au>		
<b>September 17-19</b>	Nuffield Australia National Conference		
Brisbane, Qld	<http: nuffield.com.au=""></http:>		
<b>September 21</b>	Royal Melbourne Show dairy judging		
Melbourne, Vic	Phone: (03) 9281 7416 Website: <www.rasv.com.au dairy=""></www.rasv.com.au>		
September 23-26	International Dairy Federation World Dairy Summit		
Istanbul, Turkey	Website: <http: www.idfwds2019.com=""></http:>		
<b>September 24</b>	WestVic Dairy AGM		
Camperdown, Vic	Phone: (03) 5557 1000 Website: <http: www.westvicdairy.com.au=""></http:>		
<b>September 25-29</b>	Australian Society of Agronomy conference		
Wagga, NSW	Email: <office@agronomyaustralia.org.au> Website: <http: www.agronomyaustralia.org=""></http:></office@agronomyaustralia.org.au>		
October 1-3	Elmore and District Machinery Field Days		
Elmore, Vic	Phone: (03) 5432 6176 Email: <info@elmorefielddays.com.au> Website: <www.elmorefielddays.com.au></www.elmorefielddays.com.au></info@elmorefielddays.com.au>		
<b>October 13</b>	Run 4 Farmer Health		
Melbourne, Vic	Website: <http: run-4-farmer-health="" www.farmerhealth.org.au=""></http:>		
November 7-8	Subtropical Dairy AGM and Innovation Day		
Far North Queensland	Contact: Brad Granzin Phone: (07) 3236 2955 Website: <a href="http://dairyinfo.biz/events/">http://dairyinfo.biz/events/</a>		
November 11-13 Brisbane, Qld	TropAg2019 Phone: (07) 3848 2100 Email: <tropag2019@expertevents.com.au> Website: <http: tropagconference.org=""></http:></tropag2019@expertevents.com.au>		
November 29	Dairy Australia annual general meeting		
Lardner Park, Vic	Phone: (03) 9694 3777 Website: <www.dairyaustralia.com.au></www.dairyaustralia.com.au>		
2020			
<b>January 19-23</b> Tatura, Vic	International Dairy Week Contact: Robyn Barber Email: <info@internationaldairyweek.com.au> Website: <www.internationaldairyweek.com.au></www.internationaldairyweek.com.au></info@internationaldairyweek.com.au>		
February 19-21	Australian Dairy Conference		
Melbourne, Vic	Website: <http: www.australiandairyconference.com.au=""></http:>		
<b>September 22-24</b> Sydney, NSW	24th ICID International Congress on Irrigation and Drainage & Irrigation Australia National Conference & Exhibition, 2020, and 71st International Executive Council Meeting Website: <www.irrigationaustralia.com.au></www.irrigationaustralia.com.au>		

### World Dairy Summit to address big issues

THE International Dairy Federation's World Dairy Summit to be held in Turkey at the end of this month will tackle some of the big global issues facing the industry.

The summit is an annual meeting of the global dairy industry and attracts more 2000 participants from all over the world.

Issues on the agenda this year include an update on the World Dairy Situation

Report and the global agricultural outlook for the next decade.

Dairy's role as a nutritional base to nourish the world will also feature.

The summit will also address some of the challenges the industry faces, including how to address the challenge of sugar in dairy and dealing with lactose intolerance, addressing food loss and food waste, antimicrobial use, climate change and dairy's contribution to the United National sustainable development goals.

The opportunities in dairy proteins will also feature on the program.

The summit will be held in Istanbul from September 23-26.

For more information and reports from the conference, head to website <https://www.fil-idf.org/event/ idf-world-dairy-summit-2019-istanbulturkey/>.

# InCalf joins chase to fix fertility



### By Ee Cheng Ooi*

- Management factors play key role
- in fertility
- Need to look at what can make 1
- points biggest impact on own farm
  - Calving pattern most important
- (ev influence

F this is your first time tuning in, here's the story so far:

Firstly, dairy fertility has been declining for the past 30 years, in line with rising milk yield. It's hard to see on a day-to-day basis unless you're collecting and analysing data.

Secondly, the multi-trait Daughter Fertility Australian Breeding Value (ABV) was released in 2013 with the aim of reversing the trend. An observational study from northern Victoria involving 86,974 cows supports the idea that this approach will be effective but may take time to see results.

Finally, the ABV is an excellent tool, but for those of us who don't have the patience to wait years for change, what can be done right now? For the answer, dear reader, read on.

This story begins in 1995 with the National Dairy Herd Fertility Project. Involving 33,000 cows in 168 herds from all over Australia, it required an extensive data collection effort by a co-ordinated team of veterinarians. It sought to answer the question: what are the most important factors influencing herd reproductive performance?

The results provided the scientific basis for the InCalf Project, an extension campaign advising farmers on best practice reproductive management. It focuses on the following eight key management areas, which I'll attempt to describe in a whirlwind tour here.

### **Bull management**

Not enough bull power can result in unexpectedly high empty rates, especially if bulls experience injuries or lameness. Surveys performed in Tasmania and south-west Victoria have confirmed the importance of bull examinations, with 50 per cent of the bulls enrolled coming back as sub- or in-fertile.

### Genetic selection

Selecting sires with high daughter fertility ABVs improves performance in the long term. Semen fertility is also something to consider, as some bulls have higher conception rates than others. This information is readily available through DataGene.

### Artificial insemination technique

If semen is not placed correctly in the body of the uterus, it is unlikely to achieve fertilisation. Storage and handling are equally as important. Common errors include loading too many guns at once, incorrect thawing temperatures and others, resulting in sperm that arrives at the destination in no shape to participate in the procreation miracle.

### Body condition and nutrition

Poor nutrition can show up as an unusually high number of non-cycling cows at mating start date. Cows that are overconditioned also have poor reproductive outcomes and are vulnerable to diseases such as fatty liver and pregnancy toxaemia.

### Transition cow management

Underdoing the lead up to calving can result in high levels of hypocalcemia. This manifests clinically as milk fever, but also sub-clinically as high incidences of displaced abomasa, retained membranes and other animal health issues in the first month of lactation.

### Heat detection

With larger herd sizes, heat detection is an increasing issue. A variety of options exist in this area, from simple aids such as scratchies through to expensive automated systems or through bypassing it altogether via fixed-time AI.

### Heifer management

This has an enormous impact on future herd performance. Heifers that fail to meet target weights at their first joining are less likely to re-calve as twoyear-olds. They produce less milk, find it difficult to compete in the herd, and are more likely to experience problems during calving. No one likes getting out of bed to pull calves - not even vets.

### Calving pattern

This is by far the biggest factor deter-

'For farmers who might not be comfortable doing their own data analysis, Dairy Australia has trained a pool of around 60 consultants who are able to provide direct support to farmers all across Australia.'

mining reproductive success.

At the time of calving, a cow's uterus weighs around 10 kilograms and has enough space to contain at least one (or sometimes two or even three) calves. It takes about 30 days to miraculously shrink back to 25 centimetres in length or much longer for difficult calvings or health issues. It takes time for the ovaries to continue cycling again as well.

Trying to get cows pregnant again less than 60 to 80 days after calving is a really big ask. And yet, I sometimes see farms where cows are still calving after the start of the mating period. Late calving cows in one year then become late calving cows in the next year, perpetuating this vicious cycle.

So, if you think your herd has a fertility issue, it can be difficult to know where to start. Unfortunately, farmers do not have magical powers, so it's not realistic to expect improvement in all of these areas at the same time. The best approach is to analyse your herd data and identify the two or three things that will give you the biggest impact for this season.

For farmers who might not be comfortable doing their own data analysis, Dairy Australia has trained a pool of around 60 consultants who are able to provide direct support to farmers all across Australia. To find a list of these Repro Right advisers, it's best to search the website.

*Ee Cheng Ooi is a cattle veterinarian and fertility researcher working with the animal health team at Dairy Australia. All comments and information discussed in this article are intended to be of a general nature only. Please consult the farm's vet for herd health advice, protocols and/ or treatments that are tailored to a herd's particular needs.



# Simplicity at its finest



e V

- Uses Balanced Performance Index
- to select bulls
- ✓ Wants longevity and structure
- ✔ Reports workability traits of

heifers

AUL Moloney doesn't believe dairy farming needs to be complicated.

At his Terang, Vic, farm, simplicity is the key, and this approach underpins his breeding decisions. He wants cows with good fertility, longevity and he needs them to thrive on pasture.

Put simply, he wants cows to suit Australian conditions. "I still think we need bulls proven in Australia, for Australian conditions," he said.

"Our cows live outside. Overseas, cows have their food sat in front of them; if they can't reach it, a machine comes and pushes it in for them. It's nothing like the conditions here.

"Our cattle cover a lot of ground, they have to be able to forage and be aggressive in their foraging as there are so many cows per hectare. We need longevity, structure and cows need to be able to live through all sorts of conditions."

Paul, his wife Christine and father Peter own two dairy farms in south-west Victoria. Paul and Christine, along with employee Oscar Baxter, run the home farm milking 330 cows, made up of Holstein, Jerseys, their crosses and "the occasional" red. A sharefarmer operates the second farm.

The home farm runs across 121 hectares with an additional 53ha leased and a 190ha out-paddock. The herd produced 2.1 million litres or 150,000kg of milk solids last season, and calves for two months from the end of May.

DataGene's Balanced Performance Index (BPI) plays a role in the Moloneys' sire selection each year. Some bulls are handpicked with a focus on certain cow families or sires from Terang breeders, but others are chosen purely on their BPI ranking," he said.

"I want to be able to cull the cows myself, not them cull themselves because of structural breakdown. If you are culling them, it means they have done a great service — four-five calvings with no troubles, maybe six or seven calvings and there's one there which has had 10 to 12 calvings."



Automation in the dairy makes it easy for Paul Moloney to record workability traits in heifers.

# *'I still think we need bulls proven in Australia, for Australian conditions.'*

Temperament is also important. "They need to settle-down quickly, within a fortnight to three weeks. I don't have time for unsettled animals," he said.

Paul attributes the genetic improvement in his herd to the use of artificial insemination and focusing on young sires. All cows are artificially inseminated, and an AI program is used on the heifers, followed by a mop-up bull.

"With AI, you are using better bulls all the time, and we always get an improvement in our herd," he said.

Confident in the genomic technology, Paul said increasing the proportion of genomic semen had helped reduce his breeding costs in the past couple of years.

### Workability

For nearly 30 years, Paul has had a role in helping to prove young bulls by reporting workability traits of new heifers. Workability refers to three traits that describe how easy a cow is to have in the herd.

He saw this as a way to ensure the

industry gets "better bulls earlier" and diligently filled-out workability paperwork annually, recording a heifer's temperament, milking speed and likeability.

The paperwork still arrives at his farm, but now the process is much simpler thanks to automation.

"It is easier to do them now on the platform," he said.

"In my dairy, the computer is beside me with a revolving screen and voice activation highlights cows as they go past. I look at them individually and record their workability.

"I report on nearly every heifer from AI. In my system, every heifer is automatically highlighted, within a month of her first lactation.

"This is good because a she can go past you in 15 to 20 seconds. You know all your bad ones, but you don't know your good ones. That's because they just get on with it and you get on with it."

Three selections are available to rank the workability traits, and these are recorded for the industry to use in bull proofs.

Historically, 70 to 80 heifers enter the herd at the home farm each year. This year, there's 200 heifers to come in across the two farms.

For more information, contact Data-Gene, phone (03) 9032 7191 or email <abv@datagene.com.au>.



# Trade disputes and their impact



### By Sofia Omstedt **Industry analyst Dairy Australia**

- ✓ Australian exports to China increase
- Increased competition in Japan results in decrease in Australian exports
- points US and China trade dispute ê increasing uncertainty

LOBAL dairy trade markets have remained quiet over winter. Commodity prices have begun to slide down at recent Global Dairy Trade auctions, however, remain relatively well supported. Many traders are holding off purchasing, waiting for the southern hemisphere spring flush.

While commodity markets have been reasonably uneventful, ongoing disturbances are adding volatility to otherwise stable dairy markets. Punitive tariff measures and abrupt, politically-driven trade policy changes are becoming a more prominent feature of global trade than any time in recent decades.

So how does this impact the Australian industry?

Following a year of falling milk production in most regions, Australia's dairy exports dropped 2.6 per cent to 819,000 tonnes in 2018/19. This was predominately driven by a decrease in exports to Japan and various southeast Asian countries.

In Japan, Australia has faced increased competition from European manufacturers, with cheese exports from the European Union (EU) growing strongly. The EU-Japan Economic Partnership Agreement entered into force in 2019 and is set to reduce tariffs on cheese for EU exporters.

This agreement also contains a protection clause for a wide range of Geographical Indicators (GIs) on different dairy products, such as feta. This has hampered Australian exporters ability to sell products to the Japanese market

### Key dairy price commodity indicators



under these familiar generic names.

As Brexit negotiations continue, many countries, especially Ireland, are looking to Japan to replace the UK as a future trade partner for cheese exports.

The new trade agreement, combined with the uncertainty caused by Brexit, will likely make increased export competition to Japan, the new norm.

Closer to home, a trade dispute is brewing which could add further volatility to global dairy markets. Indonesia, Australia's third most valuable export market, has announced intentions to limit dairy imports from the EU and to increase tariffs for EU dairy exporters.

This move is in retaliation against the EU's plan to impose anti-subsidy duties on biodiesel made from palm oil.

Currently this is a temporary restriction but might be permanently implemented in 2020, which would intensify the dispute.

The Indonesian trade minister has urged dairy importers to look for new suppliers outside the EU. If this disagreement continues it could temporarily increase demand for dairy products from other markets, including Australia.

The most commonly referenced dispute over the year must be the US China trade war, which is changing global trade dynamics. Following new tariff announcements from the US, to be implemented in September and December, China announced intentions to cease purchases of all US agricultural products. Since March 2018, when this

trade dispute started, US dairy exports to China have contracted substantially. down 16pc in the first year. With the US decreasing their share of the Chinese market, other regions, including Australia, have seen growing demand for dairy products. Australian exports to China grew 6.5pc to 245,000 tonnes in 2018/19.

In the same period, export value contracted 18pc to US\$756 million, mainly due to a drop in infant formula exports. This was caused by a change in trade regulation in China. Although official exports of the product to China decreased, information suggests unofficial trade channels, such as the Daigou trade, have become more important.

Trade disputes can create a temporary opportunity for Australian exporters, but overall, the key impact is the injection of uncertainty into global markets. A reduced presence of US dairy products in China has seen Australian share of imports grow; however, it has also resulted in intensified competition from the US in southeast Asian markets. As a result, Australian exports to key southeast Asian markets have decreased over the year.

Changes to existing trade patterns increase the disruption. At a time when Australian processors are paying record farmgate prices, and farmers are hoping fervently for stabilising returns to recover financially, this may ultimately prove an unwelcome turn of events for the Australian dairy industry.



# WHAT'S HAPPENING IN YOUR REGION?

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