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OUR COVER farm Breeding a dairy cow for the future should take economic and environmental changes into consideration, according to Tasmanian dairy farmer James Greenacre. Read his story on page 88.

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AT MY DESK

Why culture matters

CULTURE was the theme of the Australian Dairy Conference in February – and its messages were ones that resonated with the 500-plus delegates, as the dairy industry continues to look at its future direction.

Across the two days, the conference firmly confronted the notion that someone else is responsible for fixing your problems.

This was whether people were trying to take on a big national issue – like food waste in Australia – or whether they were tackling issues on their own farms – like trying to get the best from the people working for them.

It also took on some hard-hitting issues, including sexual harassment in agricultural industries.

There were a couple of key things that stuck with me.

One was OzHarvest founder Ronni Kahn's call for people to join the Order of the Teaspoon – which she explained thus, quoting Israeli writer Amos Oz, from his book *How to Cure a Fanatic*, which has inspired the founding of the order in Sweden.

"I believe that if one person is watching a huge calamity, let's say a conflagration, a fire, there are always three options.

1. Run away, as far away and as fast as you can and let those who cannot run burn.

2. Write a very angry letter to the editor of your paper demanding that the responsible people be removed from office with disgrace. Or, for that matter, launch a demonstration.

3. Bring a bucket of water and throw it on the fire, and if you don't have a bucket, bring a glass, and if you don't have a glass, use a teaspoon, everyone has a teaspoon. And yes, I know a teaspoon is little and the fire is huge but there are millions of us and each one of us has a teaspoon. Now I would like to establish the Order of the Teaspoon. People who share my attitude, not the run-away attitude, or the letter attitude, but the teaspoon attitude - I would like them to walk around wearing a little teaspoon on the lapel of their jackets, so that we know that we are in the same movement, in the same brotherhood, in the same order, The Order of the Teaspoon.

The second was from workplace consultant Mandy Johnson who said *culture eats strategy for breakfast.* 'Across the two days, the conference firmly confronted the notion that someone else is responsible for fixing your problems.'

Both hit at the heart of bringing about meaningful change. It is about ensuring that we are doing the right things for the right reasons. It is about being part of the solution, not the problem.

The last afternoon of the conference featured a session with three young farmers who have overcome adversity in their lives – with courage and a positive attitude to make a difference.

I doubt there was a delegate who left the conference not thinking about what they could do differently.

I know I certainly did – and a real sense that even small actions in the right direction can make a difference.

As the conference coincided with the week that this edition of the magazine was going to press, we haven't been able to feature stories from the event in these pages.

But keep an eye on our website at adf.farmonline.com.au for reports and, of course, we'll feature them in the next magazine.



Carlene Dowie

@DowieDairyEd



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Time's right for dairy restructure

✓ JTT recommends single national body Proposal is a model and not a definitive structure

points All farmers need to stay engaged

with the process

By Terry Richardson **ADF** president

T should come as no surprise to anyone in the dairy industry that we are considering a significant period of reform to industry structures.

The mood for change has been brewing for nearly 18 months as part of the Australian Dairy Plan and culminated with the release in January of the Dairy Plan Joint Transition Team's report into structural reform.

The JTT made a clear recommendation to create a single, whole-of-industry national dairy organisation that would merge the current range of national and regional dairy organisations into a one-stop-shop for all industry services, including policy, advocacy, research and development and marketing.

The proposed new organisation, given the name NewCo B in the report, would be owned by members and governed by a skills-based board. Farmers would contribute a single levy payment for all services (the current Dairy Service Levy) and processing companies would also provide funding. Eligible expenditure on research and development would continue to attract matched funding from the Federal Government.

The report has been met with debate around the perceived merits or shortcomings of the proposed model. These conversations are healthy and necessary to ensure that, if agreed, the final industry structure meets the needs of all industry stakeholders.

But regardless of anyone's personal view, the JTT fulfilled its clearly defined purpose by delivering a proposal for transformational change that will strengthen advocacy to be more effective, united and efficient.

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Terry Richardson: All farmers need to stay engaged with the process over the next several months, because any shake-up of industry structures will be broad-ranging and affect everyone.

'I've always believed that people support what they help build.'

Farmers were clear in their feedback during the 25 regional Dairy Plan workshops held last year - they want reform to industry structures that will consolidate and amplify the voice of the dairy industry. The JTT agreed that the current structure is no longer fit for purpose.

Obviously, the proposed model would have significant implications for all existing industry organisations, which we will explore during a new consultation process. We must consider the views of state dairy farmer organisations, but broader than that, I want to talk to as many farmers as I can to hear any concerns they may have as we shape and refine a model for an industry structure.

Regardless of what a new structure may mean for ADF, the most important outcome is to achieve a model where all industry stakeholders are engaged and contributing.

The dairy industry has grappled with a number of issues in the past few years - declining profitability, increasing farm exits, prolonged drought and, most recently, bushfires to name just a few. Such hardship has kept the industry in the headlines and Canberra is listening. Now is the perfect time for the industry to consider the future.

While many will debate the merits and possible shortcomings of the JTT's proposed model, we must remember that it is only a model and not a definitive structure. Stakeholders will have an opportunity to provide feedback and we will be seeking a mandate to implement the new structure through an industry vote.

I've always believed that people support what they help build. We need all farmers to stay engaged with the process over the next several months, because any shakeup of industry structures will be broad-ranging and affect everyone.

I understand that while the industry continues to wage battle on many fronts, there is frustration at how long the process of reform is taking. But we only get one shot at this. Stay with us on this journey to ensure we get it right. D

MILK MATTERS

7/9/2020



Vegan activists get light treatment

- ✔ Victorian inquiry fails to protect
- farms from activists ADF calls for increase in trespass
- ADF calls for incre fines
- Inquiry a missed opportunity to
 - support farmers

PEAK dairy farmer group Australian Dairy Farmers (ADF) has slammed a Victorian Government into the impact of animal rights activism on the state's agriculture industry, which failed to look at improving penalties for farm trespass offences.

ADF president Terry Richardson called the inquiry's report a missed opportunity to show that the Victorian Government has farmers' backs.

"This is a missed opportunity that fails to give farmers the peace of mind that they will be protected against the criminal activity of extreme activists," Mr Richardson said.

"Farmers are suffering from increased stress and fear of being attacked by activists sometime in the future, just for doing their jobs."

ADF, in its submission to the inquiry, argued for police to be given the authority to dole out on the spot fines of up to \$12,000 for farm trespass offences.

Currently, the Summary Offences Act 1966 (Vic) offers a fine of up to \$4029.75, or six months' jail time for trespass offences.

Mr Richardson said animal activists trespassing onto farms or committing other crimes should be held to account by the criminal justice system.

"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," he said.

The report instead recommends the installation of CCTV cameras in abattoirs to remove the need for activists to trespass on processing facilities, but Mr Richardson said he doubted this would deter extremists from protesting dairy farms.

"The best way to prevent their reckless behaviour is to fix a penalty that matches the crime," he said.

"Regardless of what this report says, the Victorian Government must strengthen criminal penalties for trespass, or it will send a message to all



Farmers have a right to farm without the threat of invasion, sabotage or biosecurity outbreak posed by animal activists.

'The best way to prevent their reckless behaviour is to fix a penalty that matches the crime.'

farmers across the State that their safety is not as important as vegan ideology."

Other recommendations made by the inquiry included:

• Modernising the Prevention of Cruelty to Animals Act 1986 to incorporate industry standards and provide appropriate penalties for non-compliance.

• Requiring Agriculture Victoria to increase its public communication of animal welfare compliance and practices to help increase community understanding of the dairy industry's strong animal welfare practices and contribute to its social licence to operate. • Promoting the completion of biosecurity plans and creating a new biosecurity offence like NSW for farm trespassers to provide an enhanced level of biosecurity protection for dairy farmers.

The State Government has six months to respond to the report's recommendations. ADF will formally respond to the inquiry's report.

Previously, ADF – through national farmer group the National Farmers' Federation – successfully pushed the federal government to broaden the Privacy Act 1988 (Cth) to cover offences committed by extreme group Aussie Farms, which has exposed the activist organisation to fines of up to \$2.1 million.

ADF also supported new laws put before federal parliament in July to introduce new offences for the incitement of trespass, property damage, or theft on agricultural land, with penalties of up to five years' jail time.

MILK MATTERS

Australian Dairy Farmers

Sustainability report targets emissions

 Sustainability framework sets new targets on human rights, climate change, food waste, antimicrobial stewardship

 Commits to 100pc cent of dairy packaging waste to be recyclable,

compostable or reusable 30pc reduction in greenhouse gas emissions in next decade

points

THE progress of Australia's dairy industry in meeting its 2030 farming and manufacturing sustainability goals and targets is detailed in the latest Australian Dairy Industry Sustainability Report.

Published by the Australian Dairy Industry Council together with Dairy Australia, the report reveals the status of a broad range of goals and targets aligned to United Nations Sustainable Development Goals. It includes new targets on human rights, climate change, food waste and antimicrobial stewardship.

Manufacturers have agreed to a new commitment for 100 per cent of dairy packaging waste to be recyclable, compostable or reusable by 2025, in line with Australian Government commitments. Progress will be monitored against data provided by all dairy companies to the Dairy Manufacturers Sustainability Council and Australian Packaging Covenant Organisation.

This year's report also incorporates a new industry-wide commitment for a 30pc reduction in greenhouse gases in the next decade, with consideration to accelerate this commitment to carbon neutrality.

Speaking at the 2020 Australian Dairy Conference in Melbourne, dairy farmer and chair of the Dairy Sustainability Steering Committee and Consultative Forum Chris Griffin said the report showed progress, along with areas for improvements in the commitments of the Australian Dairy Industry Sustainability Framework, which was first launched in 2012.

"Sustainability issues are front of mind with consumers around the world, particularly following the recent bushfires," he said.

"Our Sustainability Framework presents a shared vision for continuous improvement, building confidence in the community that the Australian 8 The Australian Dairyfarmer March-April 2020



Chris Griffin speaking at the Australian Dairy Conference about the sustainability report.

'Sustainability and community trust are interdependent and critical to our long-term viability.'

dairy industry is committed to being sustainable, while providing nutritious food for a healthier world.

"In practice, this means farmers investing more in renewable energy, working to reduce emissions and increasing water-use efficiency. It means dairy manufacturers ensuring that 100pc of their packaging can be recycled or composted, that more waste is diverted from landfill, and the intensity of greenhouse gas emissions and water consumption is reduced.

"This report shows where and how we are delivering on these targets, meeting our commitments to the community, our people, the environment and our animals, and where additional effort is required to ensure we are at the forefront."

Australian Dairy Industry Council chair and Australian Dairy Farmers president Terry Richardson said the report put the Australian industry among the most progressive in terms of industry wide commitments and transparency.

"The Australian dairy industry's approach to sustainability issues is quite unusual, in that the targets we have set are industry wide and agreed to by both farmers and manufacturing companies," he said.

"Sustainability and community trust are interdependent and critical to our long-term viability. We have ambitious targets to deliver measurable outcomes and hope this report provides the transparency needed to give the community confidence that our industry is taking responsible action now and in the future."

Australian Dairy Products Federation president Grant Crothers said sustainability was an important pillar of the Australian Dairy Plan, which would be finalised in the coming months.

"Sustainability is a central component of the Australian Dairy Plan and we look forward to supporting its priorities through our Sustainability Framework," he said.

"Assisted by the tools, research and services from Dairy Australia, Australian dairy farmers and manufacturers will continue to make progress on sustainability as we look to meet our 2030 targets."

Dairy needs a culture check: DA chair

✓ Dairy Australia chair issues challenge

challenge Identifies cultural change as vital to industry future

to industry future Calls for end to fragmentation

By Carlene Dowie

THE Australian dairy industry needs a culture check if it is to meet the challenges it faces, Dairy Australia chair Jeff Odgers told the Australian Dairy Conference in Melbourne in February.

In a hard-hitting address, Mr Odgers called out the lack of unity and lack of respect as undermining the industry's performance.

"I am going to start by saying as much as I love this industry, and I do, Australian dairy gets a little weaker every day," he said.

The shocks and challenges of the past few years – including the milk price cuts in 2016, the protracted mining boom that kept the Australian dollar high, the demise of co-operatives, supermarket discounting, the removal of European Union quotas – meant many were questioning their future in the industry.

"Farmers are searching for margin and stable trading conditions in their farm systems at the same time as they are trying to navigate climate change, deeper droughts, heightened volatility in markets and access to resources," he said.

All these had significantly influenced the Australian dairy culture.

"We are not as confident nor united as we used to be and therefore we do not present a united front," Mr Odgers said.

"Now, many organisations are not always on the same page."

Trying to deal with issues on a localised region or state basis was splitting the industry – issues and potential solutions were not readily understood.

"We are more fragmented than I ever remember us being and it is undoubtedly hurting us all," Mr Odgers said.

This had led to breakdown in industry relationships – and not just between processors and farmers.

"Relationship breakdown in some places (is) leading to behaviour which lacks respect," he said.



Dairy Australia chair Jeff Odgers challenged the dairy industry to lean into the reforms proposed in the Australian Dairy Plan.

'I think we all know that very few significant things are ever achieved without effort, without some sacrifice, without some compromise and even some pain.'

"This industry must find its way back to getting along better and getting balance back into industry conversations and industry debate.

"In an ideal world, we would all take responsibility for that."

But Mr Odgers said the cultural decline could be turned around.

"We can change this, if we decide to actively change the way we think and the way we talk about our industry," he said.

"At the core, we still have a good culture."

Mr Odgers pointed to the response to the recent bushfires, the China Free Trade Agreement (dubbed the dairy deal) and the creation of the world-leading genetics research organisation DairyBio as examples of what could be achieved.

He called on the industry to embrace the opportunity presented by the Australian Dairy Plan's proposal for reform.

"I think we all know that very few significant things are ever achieved without effort, without some sacrifice, without some compromise and even some pain," he said.

"But it is worth the effort and we must lean into it as an industry."

Mr Odgers said he genuinely believed an evolution of culture would come from the industry all working together through a national organisation.

"We can't be half hearted, we need to back the Australian dairy industry in," he said.

"And in doing so we need to be objective about our performance, about our competitiveness, we need to care about our culture.

"The way we talk about ourselves can influence our culture and perceptions of industry."

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Industry reform vital to Dairy Plan



points

(ev

By John Brumby Independent Chair of Australian Dairy Plan

- ✓ JTT delivered on industry call for
- transformational change
- Recommends new, national
- whole-of-industry organisation
- ✓ Proposal being further shaped
- and refined before vote

THE call for transformational change in the structure of the dairy industry and its advocacy arrangements was loud and clear during regional consultations for the Australian Dairy Plan during May and July last year.

More than 1500 farmers and industry stakeholders attended meetings right across Australia. They wanted change. They wanted bold change.

Their views confirmed my own opinion that it cannot be efficient or effective that dairy currently has 20 or more representative bodies.

There is frustration that there are too many voices. Industry has struggled to find a unified voice during one of the most challenging periods in its history.

There is duplication and dilution of effort, while funding becomes an increasing issue with the decline in membership of the various organisations.

In July at the National Workshop that followed the regional forums, delegates agreed that reform of industry structures was the most important issue for the plan to address. By a show of hands, more than 80 per cent of these delegates expressed support for a whole of industry approach to a new structure. In response, the Joint Transition Team (JTT) was appointed to recommend options for reform. The JTT report was delivered to the Australian Dairy Plan in late January.



In its report published at the end of January, the JTT unanimously recommended the creation of a single, national whole-of-industry dairy organisation.

This new national body would see the current range of national and regional dairy organisations brought together as a one-stop shop for all industry services including policy, advocacy, research and development and marketing for dairy businesses across the entire supply chain. It would operate through one national brand and a network of regional offices providing tailored local services.

The new organisation would be member-owned and overseen by a skills-based board. Farmers would contribute a single levy payment for all services (the current Dairy Service Levy) and processing companies would also provide funding.

The JTT's recommendations are supported by the partner organisations of the Dairy Plan and are currently being consulted on with their members, to be further shaped and refined. Following this process, all farmers and industry players will be able to vote on the proposed reform plan.

It is fair to say there is a range of views about the proposed changes. On the one hand, there is real optimism about their potential to help turn things around for the industry after a number of very tough years, but on the other, there are concerns about representation in this new structure and the role of processing companies.

The JTT's view is that a whole of industry organisation responsible for all services including advocacy would better represent and support the needs of dairy farmers and other businesses

'We need change that brings a sharper focus to the industry and which can truly shift the dial.'

in the supply chain. I also believe a single, national organisation would have more influence in supporting the interests of this vitally important industry. I share the JTT's view that collaboration by farmers and processors in pre-competitive activities like industry marketing and sustainability would benefit the whole of dairy.

I believe the proposed governance and leadership of this new organisation by a skills-based board with deep industry experience is very important. Farmers will need to play a central role as board members and in the leadership of the proposed new organisation for it to be successful.

There is concern about regional representation being lost in the new organisation recommended by the JTT. In my experience, national bodies are only truly effective when they are supported by active and strong regional networks.

In addition to regional offices, the JTT also proposes the creation of a national forum, which would bring together representation of regional interests.

The JTT has done a commendable job at addressing the complex issue of industry structure with a clear set of recommendations. It is important for all parts of the industry to remember that the partner organisations of the Dairy Plan have been mandated by their members to implement significant change.

We need change that brings a sharper focus to the industry and which can truly shift the dial and help deliver a more profitable, confident and united future for everyone working in the dairy sector. Reform of industry structures is a key component of the change required to take the industry forward.

The JTT Report can be downloaded via the Australian Dairy Plan website https://www.dairyplan.com.au.

Major dairy shake-up proposed

✓ New super-dairy organisation

- proposed Advocacy, research, processors
- under one umbrella
- points Member-owned with skills-based
- (ev board

NEW single whole-of-industry national dairy organisation has been recommended by the Australian Dairy Plan.

In its report published in late January on options for reform of dairy industry structures, the Joint Transition Team of the Australian Dairy Plan has recommended the creation of the single body.

The proposed national body (referred to as 'NewCo B' in the JTT's report) would see the current range of national and regional dairy organisations brought together as a onestop-shop for all industry services, including policy, advocacy, research and development and marketing for dairy businesses across the entire supply chain.

It would operate through one national brand and a network of regional offices providing tailored local services.

The proposed new organisation would be member-owned and overseen by a skills-based board.

Farmers would contribute a single levy payment for all services (the current Dairy Service Levy) and processing companies would also provide funding. Eligible expenditure on research and development would continue to attract matched funding from the Commonwealth Government.

JTT Chair and dairy farmer Shirley Harlock said the JTT's analysis confirmed a widespread view that current industry institutional arrangements were no longer fit for purpose.

"Our report recommends the creation of a dynamic new national organisation to provide leadership and services for the Australian dairy industry," she said.

"Although we present three different strategic options in our report, we believe a fully integrated services model is best placed to achieve the transformational change sought by dairy businesses - out of the patchwork of different national, state and local industry representative organisations which currently exist.'

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Joint Transition Team chair Shirley Harlock hands Australian Dairy Plan independent chair John Brumby a copy of the report recommending a major shake-up for the Australian dairy industry.

Mrs Harlock said the operating environment for the dairy industry had changed dramatically in the past two decades.

"It is time to move on from the industry institutions that helped us succeed in the past and create a new unified, world-class model that can really perform and meet the needs of modern dairy businesses from across the value chain," she said.

"I encourage everyone in the industry to read the report carefully and to lend your support for the implementation of a new, modern organisation that would enable our great dairy industry to prosper nationally and internationally into the future

The JTT was formed as part of the Australian Dairy Plan, in response to overwhelming feedback from across the dairy industry about the need for transformational change to industry structures and advocacy arrangements.

Independent Chair of the Australian Dairy Plan (ADP) committee John Brumby said the JTT's work had created a strong platform to now take the industry forward through reform of industry dairy structures.

The ADP committee commends and thanks the JTT for working diligently and at pace since its creation in September last year," he said.

Mr Brumby said the ADP committee supported the JTT recommendation for a new, single, whole of industry national body (NewCo B), and recog-

'Our goal over the coming period is to listen carefully to industry feedback to shape and further refine the recommended model.'

nised further consultation was needed to shape and refine a preferred model, particularly in relation to governance matters.

The JTT has recommended a path forward and the ADP committee acknowledges that translation of this into a concrete and achievable plan is a complex and challenging task affecting many individuals, organisations and stakeholder interests,' Mr Brumby said.

He said with the JTT report now released, there would now be a further period for industry and stakeholder feedback in regards to the JTT report and the recommended model.

"Our goal over the coming period is to listen carefully to industry feedback to shape and further refine the recommended model, as required," Mr Brumby said.

When this task is complete, we will ensure all dairy businesses have a vote, ideally sometime in the middle of this year."

Mixed reaction to proposed changes

- All acknowledge need for change ~ Short timelines of concern to
- some
- points Some concerns about processor
- (ev involvement

By Carlene Dowie

PROPOSED new single whole-of-industry national dairy organisation has met with mixed reaction from industry representatives.

But chair of the Australian Dairy Plan Joint Transition Team that put the proposal together Shirley Harlock has pleaded with organisations to work together to sort out the detail of how the new structure would work.

"All I ask is when people are really knocking it, is to be constructive, come forward and don't just kick it down the road," she said.

Mrs Harlock said the reform was driven from the grassroots up - the JTT was responding to what was identified as the main issue through



Dairy Australia chair Jeff Odgers said the JTT team was right in identifying that industry structures were no longer fit for purpose given the evolution of the supply chain.

the dairy plan workshops and consultations

"To me, dairy is at the precipice. This is really the point of no return.

"If we don't do something fairly radical now, dairy advocacy will wilt on the vine," she said.

"R&D will still tick along, but we won't achieve the transformative reform that we all know needs to happen.'

Australian Dairy Farmers president Terry Richardson said the voice from the industry was clearly for transformational change.

But he acknowledged delivering that change would be a challenge.

"But the question has to be asked: 'if we don't change, what will be the outcome'," he said.

ADF would work with its members and other organisations to help shape the proposed model into the final recommendation.

Dairy Australia chair Jeff Odgers said his organisation at a board level and within senior management was open minded about the proposal.

The work that we do - whether it is in people or farm profit or marketing and comms or policy support that work remains vital work going forward," he said.

"We are open to working with industry on how we might create that change within that larger organisation. Clearly this is another major step.'

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NEWS

Mr Odgers said the JTT team was right in identifying that industry structures were no longer fit for purpose given the evolution of the supply chain. "I think we have a choice here to try and step forward and streamline that," he said.

Mr Odgers said the configuration of the regional or state groups would be vitally important to ensure farmers had a connection to the national organisation.

United Dairyfarmers of Victoria president Paul Mumford said there were still millions of questions from his organisation.

"It doesn't answer a whole lot of questions, and a whole lot of further work and development needs to happen in order for this to be taken to the next step," he said.

These included questions around accountability of the organisation, how the unification process of 11 different organisations would take place and how regionally based cross-commodity issues would be addressed.

He was also critical of the timelines – including the proposed 18-month implementation.

But he acknowledged there was a desire for change. "What we can't lose sight of is the national body engaged the broader industry and there was overwhelming support for transformational change," he said.

The UDV would now be talking with its members, either face to face or through some form of online polling system, to gauge their opinions on the proposal.

It would also be working with other states to find a unified national solution.

Mr Mumford made clear that this would be a decision for the UDV, not the Victorian Farmers Federation.

"What I will say is that I was appointed to represent dairy farmers as president of the UDV – the outcome for dairy farmers will be front and centre in my decisions," he said.

"I am a director of the VFF, but I don't believe I am conflicted."

Queensland Dairyfarmers' Organisation president Brian Tessmann said the proposed structure missed the mark.

The proposed national body seemed to have forgotten the most



United Dairyfarmers of Victoria president Paul Mumford said there were still millions of questions from his organisation about the proposed restructure.

important stakeholders – the individual dairy farmers, he said.

He was critical of the proposed skills-based board, saying they had failed the industry in the past, and the board should be a representative board, elected by members.

But QDO did support a single onestop-shop for policy, advocacy, research and development and marketing.

"What we don't agree with is the removal of regionally based organisations," he said.



NSW Farmers Dairy Committee chair Colin Thompson said NSW Farmers recognised the problems within the current structure of the industry and the need for change.

"We acknowledge that transformational change was called for by dairy farmers throughout the development of dairy plan," Mr Thompson said.

"We strongly support the need for change and that the dairy industry must get the right structures in place to be sustainable and profitable.

"We need to process the implications of the proposed model, and we will be actively shaping and defining a structure that will deliver for the various regions of the NSW industry.

"We must have a structure that delivers strong profits and growth for the NSW dairy industry.

Farmer Power chief executive Garry Kerr asked how calls for unity had translated into a proposed single body advocating for both farmers and processors.

"Processors' first interest is their shareholders, not dairy farmers,' Mr Kerr said.

'But the question has to be asked: 'if we don't change, what will be the outcome.'

"A lot of the advocacy takes place against the processors. It's like putting the fox in the hen house.

"How can you have processors part of an advocacy group for dairy farms? You just can't.

Some farmers present at the Dairy Plan national workshop, including Bernie Free, Winslow, Vic, disputed there was a clear outcome.

There were three votes on that issue with the question being changed a little bit each time because people were unsure what they were really voting for," Mr Free said. The UDV Wannon branch, of which

Mr Free is vice president, has built its own alternative to the JTT model.

The heart of the model would have a new body dubbed 'Dairy Farmers Australia', responsible for advocacy as well as research and development.



Oueensland Dairyfarmers Organisation president Brian Tessmann said the proposed structure missed the mark.

Mr Free said processors would not be part of the body but that it would consult with them when needed.

"We agree that 10 or 20 per cent of the time we should be in bed with the processors, going hell for leather at somebody like the government about what is good for both sides of the dairy industry," Mr Free said.

The remaining 70, 80 or 90pc of the time, we should be absolutely flogging the processors because they're doing the wrong thing.

And if they're in the same bed with us full-time, that cannot work.' With reporting from Marian Macdonald

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Dairy farms hit by devastating fires

- Fires devastate several Australian
- dairy regions
- Dairy community responds with fodder drives and fundraisers
- Farms face long road back to
- recovery

points

BOUT 100 dairy farms were affected by bushfires that tore through Australia this spring and summer.

Farms in Gippsland, North-East Victoria, South Australia, and on the NSW South and North Coasts felt the impact of the rolling disaster.

Some were hit directly with fire destroying pastures, fodder stocks, fences, sheds, other infrastructure, and killing livestock. Others suffered indirect hits as power outages meant they were unable to milk or road closures prevented tankers from collecting milk and stopped fodder, water and diesel deliveries.

The Salway family on the NSW South Coast suffered the ultimate loss with two family members killed trying to fight the fire on their farm.

Farmers around the country rallied to help those affected. Fodder drives saw thousands of bales of hay delivered to fire-ravaged regions, helping farmers manage in the immediate aftermath. BlazeAid again swung into action to help rebuild fences. Fundraisers were launched by several dairy organisations, while processors and others donated funds to help with the recovery.

But farms impacted face a long road back as they work to restore infrastructure and resow pastures.



Fire devastated large parts of Australia in spring and summer. Photo by Sitthixay Ditthavong.

'But farms impacted face a long road back as they work to restore infrastructure and resow pastures.'

The stories on the next few pages provide a snapshot of the impact of the fires, while our Growing Better Pastures feature starts on page 46 with two stories about how farms can tackle pasture recovery after fires.



Fire destroyed large swathes of pasture on dairy farms in NSW, Victoria and South Australia. Photo: Robert Miller



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SPECIAL REPORT: BUSHFIRES

It just took 10 minutes to wipe out land

By Samantha Townsend

LL it took was 10 minutes for dairy farmer Robert Miller to have half of his South Coast farmland wiped out by fire.

As he got his 1000 head dairy herd to safety where they stood on concrete under sprinklers, Mr Miller made sure he was prepared for what was to come.

"It hit the farm at 1pm and it was all over by 1.10pm, it came through very fast," Mr Miller said about the fire on New Year's Eve.

"It was ferocious, it was catastrophic. We had done all the preparation we could have, we had the equipment and water in place, but we lost power so we had to use generators to power everything."

But the worst was far from over.

He was back again on January 4 defending his property from the fire, which had increased in activity due to the extreme weather conditions.

'It was ferocious, it was catastrophic.'

The combinations of both days of fires destroyed 283 hectares of pasture – just over half of his farmland, near Milton, NSW.

He had 400 replacement heifers at Cobargo on agistment, and of those 240 were yarded while of the remainder, which were mixed up with neighbour's cattle, some had died and others were euthanased.

They were forced to initially dump milk as they could not get diesel to "run tractors to run the generators to run the dairy". "We have generators to milk so we are rationing the diesel," he said.

For the eight weeks before the fire, they had been buying a semi-trailer truckload of fodder every day to feed the herd. But to add to his burden was the fact he was not eligible



Robert Miller's 1000 head dairy herd stood on concrete under sprinklers as fire roared around them. Photo: Robert Miller

for drought assistance as he lived in a coastal area.

Mr Miller said according to the desertification maps, he was in a high rainfall coastal area making his farm ineligible for assistance even though the Department of Primary Industries drought maps said otherwise.



NE Victorian family steps up for fight

By Brett Kohlhagen

BY late January, Evan Nicholas and his family had been too busy for reflection in the wake of the bushfires that had swept through north-eastern Victoria earlier that month. But the long-time former Corryong, Vic, coach said a football analogy probably best summed up his feelings.

"It's probably a bit like coming off the ground after a hiding and sitting the boys down for a talk about the game," Evan said. "We tried bloody hard but it was way too good.

"We tried harder than hard. We were back-pedaling and just doing what we could."

While the Nicholas property at Tintaldra, Vic, took a hit with a house and hay sheds burnt and 85 heifers killed, the family's Biggara, Vic, dairy farm came through the blaze reasonably unscathed.

Gordon said they were pretty confident they could save the dairy. "The

'We melted the mud guards on the fire truck'.

sprinklers were going and the chicory was green enough to help," he said.

"Although we had some losses at Tintaldra, we were pretty chuffed with our efforts here as we were going backwards and forwards as the wind changed with all the spotting."

Thomas, who like hundreds of people came within metres of losing his house in Corryong, said the heat would be his lasting memory of the January 4 fires.

"We melted the mud guards on the fire truck," Thomas said. "I'm not sure where it happened but it did. It was bloody hot.

"The heat coming through the air was incredible. It was a bit surreal at the time."

The family said the outpouring of support throughout the Upper Murray had been incredible.



Thomas, Evan and Gordon Nicholas family look over some of the damage on their property where the dairy was spared from the fire.

"The Corryong community has been really tight as you would expect because it's like that," Evan said. "The outside community has been amazing.

"I've had messages from people I've only seen once or twice in my life and that's been the same for everyone."



Unimaginable tragedy for NSW family

By Peter Brewer

N a face covered with grime, soot and charcoal, there was no hiding the terrible pain behind the eyes of Aaron Salway, a week after he lost his younger brother, Patrick, 29, and his father, Robert, 63, to the terrible firestorm that had ravaged Wandella, on the NSW South Coast.

In early January, with Patrick's blond-haired two-year-old son, Harley, with him, he was back on the farm fencing, trying to keep his emotions in check and slowly, painstakingly, attempting to keep the family together and preserve what little was left.

"We're all feeling numb, to be honest," he said. "We're hurting bad. And we've cried. But we've got to keep going."

He looked down at his young nephew immediately, who sat contentedly, waving the flies from his face.

There was an unspoken, awful emotional burden to be lifted here and Aaron Salway was stepping up, ready to do the heavy lifting.

He now had not one, but three farms to run. His grief would have to wait.

Like many farmers in the once-lush Bega Valley, for decades a rich source of the dairy products put on the tables of tens of thousands of people all over NSW and the ACT, Aaron Salway was back at work.

Behind him, in the base of the valley, was a ribbon of green grass he was fencing to serve as future feed for his cattle.

"People here, neighbours and friends, have been wonderful. They've all just pitched in to help. There's



Aaron Salway, with his nephew Harley Salway, 2. Just behind them is the ridge where Aaron's father Robert, and brother Patrick Salway died protecting their property in Wandella. Picture: Dion Georgopoulos

been a lot of kindness and support,' he said.

Further up the hill, the grass is razed to bare earth by the fireballs that rolled out of the mountains to the west and bounced "like fire bombs" around the hillsides.

The Salways, three boys and three girls, are fifth-generation farmers in the valley.

They are closely knitted into the fabric of this small community, and known by all.

"Dad always said that with bush, you need to burn it before it burns you. And he was right. It got him," he said.

He said his grandfather used to run cattle in the bush of the mountains behind Wandella and in doing so, they would fell and clear the bush to keep the fire risk down.

But as restrictions were imposed, they stuck to their farms and would

'People here, neighbours and friends, have been wonderful. They've all just pitched in to help.'

look up to the high ridgelines above them where the uncontrolled bush grew thick and deep. Every year that passed, the risk and the forest fuel increased.

And when it came, it came without warning.

Patrick and Robert Salway died trying to protect their home but the intensity of the fire was simply too much. No one quite knows what happened but they were overwhelmed, some 60 metres downhill from their home, perhaps in a last-ditch effort to flee.

"They were in the wrong place at the wrong time," Mr Salway said. "I think they, like a lot of people around here, thought could fight it.

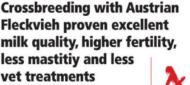
"But this was no ordinary bushfire. This was something else again, something unbelievable."

He described the New Year's Eve attack as like a warzone, where a series of firebombs bounced and boomed across the countryside, exploding and shattering trees and sucking the oxygen out of the air.

"There were a mob of cattle which ran up the ridge just over there," he said, pointing across the valley. "They just all keeled over and died, starved of oxygen."



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Cheesemaker hit with double whammy

By Kiara Stacey

DELAIDE Hills cheesemaker Udder Delights was forced to throw out between \$1.6 million and \$2 million worth of stock following the Cudlee Creek, South Australia, fire in December.

The fire came perilously close to Udder Delights's Lobethal factory, which was evacuated at 11am on December 20.

Udder Delights chief executive officer Sheree Sullivan was not on-site at the time, and was initially concerned that cheese would spoil while the factory was evacuated.

"I didn't genuinely think a fire was going to get that close," she said.

Udder Delights maintenance manager Andrew Dunford was formerly with the Country Fire Service and staved for about two hours after other staff evacuated to prepare the site, moving pallets, helping neighbouring businesses remove combustibles and wetting buildings.

That night, Ms Sullivan anxiously monitored the fires progress on the Alert SA and SA Fires apps.

"I could see a fire on the site of our factory and I just thought, I actually don't know if we're going back to a factory," Ms Sullivan said.

"It was nerve-racking not knowing, but seeing how close it had got and how black everything is was alarming."

While no structural damage was done. Ms Sullivan said without Mr Dunford, the Metropolitan Fire Service and water-bombing efforts, the outcome would have been very different. "A spark is all it takes," she said.



Andrew Dunford and managing director Saul Sullivan at the Lobethal. SA. factory. which was narrowly spared from the Cudlee Creek fire in December.

Smoke and a power outage affected Udder Delights most, and a lot of the maturing cheeses were affected by smoke taint.

"Power out for that long in what was already really hot weather, then a lot of radiant heat as well, it just didn't stand a chance, it just got too hot for too long," she said.

In January, Udder Delights was in a race to remake cheese so it could kickstart sales again.

"Our blue cheeses need two to three months before release and white mould cheeses take three to four weeks, so we're slowly beginning to release stock but it's going to take a few months to get back to being able to fulfil orders and getting our stockpiles back," Ms Sullivan said.

"I'd love to think that by Easter we're on track, but it might not be until the middle of the year until we are back to the same position that we were before this happened.

"It could affect prosperity because businesses can lose momentum, so we just have to watch the space but we're not going to know until we see what the next six to 12 months look like.

'We found it was more the stress of the animals through that period which really affected their solids.'

She said the fire had also impacted the milk solid levels in milk delivered by local suppliers.

"It's taken 5 per cent to 10pc more milk than normal to get the same result - normally 1000 litres of milk makes 100 cheeses and instead 1000L of milk might only make 97, so if we don't adjust the make, we end up with a whole lot of cheeses that are underweight," she said.

When the fires went through, fortunately, our dairyfarmers' properties were all saved so milk supply volume is still good, but what we found was when we got straight back to production, the cheeses we made were all about 180 grams instead of 200g and we hadn't changed anything.

We found it was more the stress of the animals through that period which really affected their solids, so that's where it also gets quite challenging in our business.

"It's been pretty hard in terms of the yields dropping, meaning that you need more milk to make the cheese and so that affects our profit margin.

In that case, we are just about to print some special run labels but it'll be a bit cheaper and smaller weight, but it is so we can at least get some Udder Delights cheese out on the market."



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feed ration

SPECIAL REPORT

Hunting mystery milk quality issues

- Farmers grapple with unusual high bactoscan/thermoduric
- issues points No standard for farm milk quality

sample collection

Poor results often seasonal



Flaws in milk sampling create headaches for farmers and dairy processors.

By Marian Macdonald

HEN shocking milk quality test results began arriving and nothing he tried seemed to solve the problem, Frank Smith* thought he was the only one.

But everything changed after a farmer stood up at a Bega Cheese supplier meeting to ask about unusual milk quality results.

The south-west Victorian dairy farmer realised the problem was most likely not in his own stainless steel.

"Nearly every second person in the room turned around and said, 'Are you having the same trouble, too?'," Mr Smith said. "We'd been told by our field officers that it was just an odd farm here or there."

Supplier frustration triggered an independent audit of Bega Cheese's sampling but, normally, nobody likes to talk openly about milk quality failures.

Farmers are afraid of the stigma and scrutiny. Processors are keen for individual farmers to take responsibility for poor results.

But there is no standard for the collection of farm milk quality samples for processors to follow.

Dairy Food Safety Victoria (DFSV) audits dairy processors for compliance with the Food Standards Code, but the standard is all but silent on the issue.

"A dairy transport business must control its potential food safety hazards by implementing a documented food safety program," the code states.

It also requires that this program " ... must include a support program that ensures that the food contact surfaces of transport vehicles, and equipment and containers used in collecting and transporting of the dairy products are clean and sanitary.

DFSV general manager compliance. enforcement and technical services



SPECIAL REPORT

Andrew Wilson said the code was written for the purpose of food safety.

"When we talk about microbiological milk quality, it's primarily about market access or customer requirements carried through company programs, not just food safety," Dr Wilson said.

Bega Cheese said it had not penalised any farmers with 'high fliers' but the impact on farm remained costly and stressful.

Australian Dairy Farmers president Terry Richardson said farmers worked hard to deliver high-quality milk.

"When you're getting samples that show you're not meeting the benchmarks, there is added expense and, I can tell you, it's very stressful," he said.

"When you rip apart a plant and clean it from top to bottom, take all the measures required, employ people to come and inspect, take samples for extra testing and then, something from the tanker onwards is giving those false positives, there's a lot of stress."

One farmer had even rearranged his milking plant to no avail after a field officer blamed the placement of the hot water service for poor test results. And it's not just Bega Cheese sup-

pliers having trouble. Farmers supplying three different

dairy processors contacted *Stock & Land* with their concerns.

One Saputo supplier serviced the vat, replaced the chemical dosing unit, put multiple sodium hypochlorite 'bombs' through the plant, disassembled and cleaned the plate cooler, replaced all the inflations and some of the claws, had cameras sent through the pipes a few times and tested the water supply but still could not find the cause of a bactoscan result that hovered between 80,000 and 130,000 cells/millilitre.

In the space of four weeks, he found that on at least three occasions, the vat had not been washed by the tanker driver.

Tasked with collecting samples and cleaning the vat, tanker drivers can be implicated in unexplained test results.

"We're taking this very, very seriously and it's very much an issue of high focus for us," Bega Cheese executive general manager - ingredients business unit Mark McDonald said.

"What we have seen is incidents of high flyers where, out of the blue, a farmer will get a high TPC result.

"The question is, what caused it? We have a spate of these and some in the industry say it's seasonal, some say it's driver related, some say it could be the supply chain.

"Potentially where some drivers have done the wrong thing, we've actu'When you're getting samples that show you're not meeting the benchmarks, there is added expense and, I can tell you, it's very stressful.'

ally spoken to logistics providers and they've been appropriately managed.

"But, during the audit, all the drivers did the right thing."

McColls Transport managing director Simon Thornton said when it came to "doing the right thing", expectations from processors varied.

Some, like Bega Cheese, required the driver to take a milk sample directly from the vat.

Others preferred to use the tanker's own sampling system, where drips of milk collect in a bottle as it was pumped into the tanker.

Dairy Australia manager sustainability including food safety and integrity Helen Dornam said both systems had their own challenges. Dipping a sample out of the vat without enough agitation could skew the fat and protein test result.

The dripper system relied on the cleanliness of the tanker's sampling system.

And, since one poor reading could have the same tanker sent back to the farm to collect a second sample, it could create a whole cycle of fake failures.

The samples sit in an ice slurry while in the tanker and are then transferred to a refrigerator at the factory.

From there, the samples are packed in coolers for despatch to the lab.

It's a process that involves a lot of handling and plenty of opportunities for spoilage.

One industry insider, who asked not to have his name published, said poor bactoscan and thermoduric results were often seasonal, as tankers struggled to keep up with collections.

Mr Richardson, United Dairyfarmers of Victoria president Paul Mumford and Dairy Connect chief executive Shaughn Morgan all said they would like to see a consistent approach to milk sampling.

*Name changed at the farmer's request.



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NEWS

Sexed semen sales increase

- Overall semen sales fall, reflecting tough industry conditions
- Sexed semen and beef semen sales increase
- Continued growth in export market

F OR the first time in Australia sales of sexed semen has passed the 200,000 unit mark, increasing 12.8 per cent year-on-year in 2019, according to the National Herd Improvement Association of Australia's (NHIA) 2019 Semen Market Survey.

Sexed semen sales now represent more than 10pc of semen sold domestically.

While total semen sales declined 10.9pc from the record 2,196,456 doses sold in 2018 to 1,957,221, export sales increased by 7.8pc from 263,940 to 284,658 units.

The annual Semen Market Survey is based on data supplied by NHIA members.

NHIA chief executive officer Stephen Carroll said he believed external factors were responsible for the overall sales decline.

"The downturn in the market, the drought and the knock-on effect on water and fodder costs has had a significant impact on the number of dairy cows being joined," he said. "Factor these higher input costs alongside the declining national dairy herd and I don't think the headline figures are a surprise.

"After the milk price crash in 2016 we saw many people clearing out their tanks leading to a drop off in sales, and I think we are seeing a similar pattern repeated."

An increase in sales of beef semen by 12.1pc to 280,539 units mirrored the 12.8pc increase in sexed semen sales to 201,356 doses.

"If you look at sexed semen and beef semen sales together, I think it highlights that Australian breeders are working smarter," Mr Carroll said. "The growth in both markets is something I expect to see continue.

"The reliability of sexed semen is now at a very high level and we are seeing breeders across the board focus on the top end of their herds with these products. With



NHIA chief executive Stephen Carroll said the fall in semen sales was not unexpected, given conditions in the dairy industry.

'Sexed semen top end, beef semen bottom end is a breeding strategy that works for many people.'

the current strong export market, many breeders are also using sexed semen around the mid-point of their herds as well. And don't forget that animal welfare, particularly in relation to bobby calves, is also a driver.

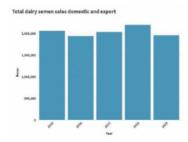
With what I would call more targeted breeding, the increase in beef semen sales is to be expected.

"Sexed semen top end, beef semen bottom end is a breeding strategy that works for many people. At the other end of the supply chain, there is an increasing demand for dairy-beef cross animals and meat, which is reflected in these figures.

Export sales have now increased year-on-year from a low of 127,998 doses in 2016 to 284,658 in the period covered by the latest NHIA survey.

"Developing an export market in any field takes a lot of time and effort. Since 2015-2016 there has been a 122.3pc increase export sales of Australian semen," Mr Carroll said.

"We are certainly becoming a more significant player in the international



market, with the long-term investment approach of our export focussed members starting to pay dividends. Overseas buyers are starting to take note of Australian breeding values.

eEdition

In other headline figures, the high demand for A2 products by dairy consumers and premium paid for A2 progeny saw A2 sires represent 49pc of the total semen sold, underlining this important selection criteria.

Polled semen sires represent 5.4pc of total semen sales with this slow increase reflective of the number of high genetic merit polled bulls available currently.

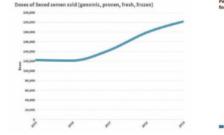
The Semen Market Survey 2019 participants were:

• Dairy - ABS Australia, Agrigene, Alta Genetics, Genetics Australia, LIC/ CRV, Semex, ST Genetics Australia, Total Livestock Genetics, Viking Genetics and World Wide Sires.

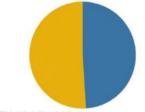
• Beef - ABS Australia, Agrigene, Alta Genetics, Genetics Australia, LIC, Semex, ST Genetics Australia, Total Livestock Genetics, World Wide Sires

Dairy semen sales by breed – year on year comparison

	2015	2016	2017	2018	2019
Holstein	1597106	1516992	1609595	1733733	1521883
Jersey	327186	270795	281648	301945	287231
Illawarra	12281	14540	11216	16845	10841
Brown Swiss	15351	12545	11832	11481	8982
ARB	55180	48210	58512	67151	65797
Montbeliarde	2563	2736	1972	1770	2061
Ayrshire	9193	13671	8427	7251	6647
Guernsey	4374	6043	3707	5012	4781
Kiwi Friesian	34577	48475	41375	43278	43207
Other	3485	6091	4721	7990	5791
Total	2061296	1940098	2033005	2196456	1957221







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Surviving depression and alcoholism

By Marian Macdonald

ARON Thomas had built a wall around himself so high and so impenetrable that it took a loaded gun in his mouth to breakthrough.

On a hot January day three years ago, a salesperson made a routine but unannounced call to Mr Thomas's dairy.

"If he hadn't turned up to check the dairy chemicals, I would have pulled the trigger," Mr Thomas said.

"I remember dropping the gun, walking out, and I honestly thought he would have picked up there was something wrong because I was just a blithering idiot.

"I was just an absolute mess and that's when it all changed."

It's not the type of story often shared but Mr Thomas wants to tell anyone who will listen, anyone who needs to hear it, that there really is always a better way.

It had taken a long time to reach that point of desperation and without any of the financial distress so often blamed for farmer depression.

In fact, Mr Thomas had been a rising star.

His former employers, Paul and Lisa Mumford, had bought a farm at Binginwarri for Mr Thomas to share farm, and it was doing so well he'd been named runner up in the 2014 Farmer of the Year.

Married with young daughters, everything seemed set for success and this larrikin attitude made him a popular identity around the Yarram, Vic, district.

"Everything was grand, I'd managed to put around me quite a substantial



Aaron Thomas and daughters Breanna and Lexi, with helper, Alex Macdonald at Christmas on the Won Wron farm.

amount of equity in terms of cows and equipment but there was a sinister little thing lurking in the background," he said.

"And that was my depression, anxiety and alcoholism that no one knew about. I'd been battling it for years, absolutely battling it for years."

But Mr Thomas could not talk about it.

"I just hid it from everybody," he said. "I think a few people may have had a bit of an inkling that, yeah, Aaron's a bit of a scallywag but I just had this big, fake facade around me the whole time.

"If anyone got close, you know, and pulled a brick out, I'd stack them 10 high.

"I think I was able to disguise the pain and the anguish somewhat in the first year at Binginwarri and started to get recognised for some of the stuff that I was doing.

"But I was dying, physically, emotionally, mentally and I wasn't opening up, I wasn't telling anybody.

"Hindsight's a beautiful thing but I was convinced that I would be ostracised, I was convinced that I would lose friends, I was convinced that Paul and Lisa would say, 'Right on your bike, mate, you're not stable, so piss off'.

"I had convinced myself that no one would listen. No one would truly understand what I was going through and, at the time, I didn't know how to explain it myself.

"Even though I used to be a nurse, I had no idea what was happening to me.

"I was a strong, fit, capable person but I was drinking so much and struggling big time."

The crunch came after Mr Thomas's wife left and he found himself alone on the isolated property.

"When [my wife] left and I was up at the farm on my own, doing everything on my own, drinking as much as I wanted, when I wanted through 2016 and early 2017, I just spiralled out of control," he said.



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And, while the chemical salesperson left seemingly unaware of his role in saving Mr Thomas's life, that moment was the turning point.

Mr Thomas turned to his friends and employers, the Mumfords, for help

"Basically, I came clean to Paul and Lisa that I was absolutely stuffed, that I had nothing left in the tank and that I'd lost my licence for drink driving, he said.

"I just opened up and said, 'Look, you've gotta help me, I'm nearly dead, I'm going to die'

Things moved quickly after that.

"People said, 'Oh, Aaron, we knew there was something wrong but we also know you're a pig-headed shit,' he said.

"We had to wait for you to crash but we're always going to be there to pick you up.

"And that's exactly what everyone did.

"I remember Paul took me to the doctors and I just sat there for half an hour, not saying a word. Paul did all the talking, he did everything.

Things had to change on the farm, too

Mr Thomas literally left everything behind, changing places with a colleague from the Mumfords' home farm.

He had been buying the cows via the Mumfords but made a clean break.

"I walked away from my life, the cows, equipment and everything," he said.

"I couldn't pay for it so I basically gave it all back to Paul and Lisa, I could barely look after myself so there was no way known I was going to be able to continue on with the arrangement.

"I was pretty much under supervision for 16, 17 hours a day by Paul and Lisa.

"I was still working, milking, but without a lot of responsibility.

"All I had to focus on was my health and doing the jobs that I'd been set.

"For the first couple of months, I was sleeping for probably four and a half, five hours during the day; I was detoxing.

"I went off the grog, gave it up cold turkey.

"I was on medication so I was getting used to that. I was getting used to, I suppose, my new life.

"My new life of being the true Aaron I knew was there deep down and it just took a little while to find it.

"For the first time in a long time, I had an amazing amount of clarity,

'I'd been battling it for years, absolutely battling it for years.'

I could actually think straight and I knew it was going to be a rough road.'

Mr Thomas's weeks were filled with mental health and alcohol counselling appointments in a nearby town but one outside the local community to lessen the sense of scrutiny that small towns often bring.

And, contrary to expectations surrounding rural mental health services, he quickly found counsellors that "clicked"

As medication kicked in and Mr Thomas learnt new skills, he began to sleep less during the day and make fewer counselling appointments.

"I was learning how to handle all the stuff on my own with the help of my counsellor, who I still see on a regular basis and who's probably a bit more of a life coach now," he said.

"I had to learn what would trigger me and one of them was frustration.

"I'm still not good with frustration but I was able to learn the coping strategies to deal with it and put things in place to make sure my frustration levels don't get out of control."

In that short time, his life has turned around completely.

He no longer "needs" alcohol, has taken up road cycling and loves to tell his story.

"I'm 10 times the person that I was," Mr Thomas said.

"I'm a better farmer, I run Paul and Lisa's farm pretty much single-handedly with the help of staff.

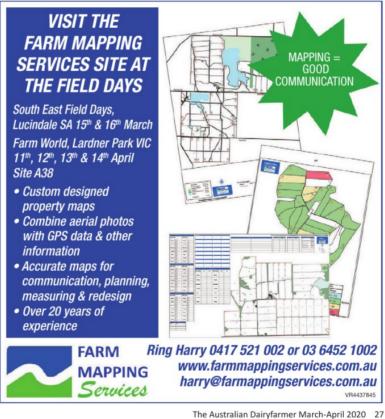
I'm a better dad, I'm just such a different person and so much more calmer now, things don't rattle me.

"I have never experienced life like it is, I had no idea life could actually be this normal, this calm.

"I talk about it now because I reckon if I was feeling that way, there's going to be plenty of other people that are as well.

"And by talking about it and normalising it, hopefully, other people won't get themselves into that state.'

If you need help, help is available. Contact Lifeline on 13 11 14. Bevond-Blue on 1300 224 636 or turningpoint.org.au.



DIVERSIFICATION

Buffaloes help build Victorian business

Buffalo and dairy cow herds run on one farm

- Buffalo milk finds lucrative market
- points for mozzarella

Buffalo have fewer health or

calving problems

By Keith den Houting

N the triangle formed by Kerang, Cohuna and Koondrook in Northern Victoria, there is a small region called Teal Point. Here there is a fascinating enterprise where an enthusiastic young couple Alice and Jack Blow milk two herds - one of Holstein cows and one of Buffalo.

The dairy cows are milked first and the buffaloes last, twice a day. It's an intriguing and time-consuming role through the 50-a-side double-up herringbone dairy, with morning milking starting at 3am and finishing at 9.30am. This is then repeated in the afternoon.

The yarding for the 50-a-side is also time-consuming, but it was even



Alice and Jack Blow sort buffalo cows and calves on their northern Victorian farm.



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more time-consuming in the original 25-a-side dairy.

Mr Blow said one double-up takes 100 animals, so they do this three times and the main dairy cow herd is done.

The buffaloes are more complex as all animals are injected with one-millilitre of oxytocin prior to cups on and both back legs are roped.

When questioned about both these practices, Mrs Blow explained.

"In India, buffalos are hand-milked with the calf at the head of the cow," she said. "The milk let-down stimulus is thus far better than with machine milking, and due to the small amount of milk produced per milking, it is efficient to use the injection."

The machine milking causes the buffalo to continually stamp their feet at cups on, hence the need for two leg ropes.

Once the cups are on, the animals are fine. There was no evidence of mastitis in the buffaloes and the udders were completely deflated at cups off. It is all done manually. Mrs Blow said cup removers were not feasible, due to the small milk flow.

The shed is powered by a threephase diesel generator as three-phase power is not available.

The Blows got involved in milking buffalos as a couple at Millaa Millaa in Queensland with Mr Blow having been involved before that with a couple of entrepreneurs a few kilometres away from where they have now established their business to be closer to their market.

The dairy herd contains 300 cows and associated young stock and the buffalo herd peaks at 350 milkers. The whole buffalo herd numbers 600-700 with young stock being built up to cater for expansion.



Buffaloes love mud and frequently submerge themselves in mud and water.

eEdition



Alice Blow ties leg ropes onto buffaloes before milking.

'Maintenance of these animals is much lower than for the dairy cows.'

The farm is 330 hectares with a leased 250ha block a few kilometres away. There is no green feed any-where at present with bought-in hay being used and a commercial grain ration added to build up the protein, according to Mr Blow's specifications.

He said he found canola meal better suited the buffaloes, while soy was



The buffalo milk is sold to Melbourne via road transport in 1000-litre double-lined plastic bags in crates.

used in the dairy cow's rations. A mixer feed-out wagon is used, and a small grain amount is also fed in the shed.

There are some stark contrasts between the cows and the buffaloes. The obvious is the latter's large horns, their stature being stocky and fat and their coarse, quite bristly, coat.

Dehorning is not used, even on the bulls. The young calves show horns early.

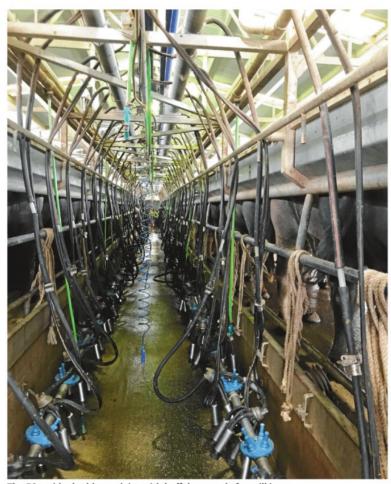
There is hardly any colour variation from their dark brown/black. One or two of the herd has a small sprinkling of white around their heads.





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DIVERSIFICATION



The 50-a-side double-up dairy with buffaloes ready for milking.

They love mud. "The cows (buffalos) submerge themselves in water if they get the chance," Mrs Blow said.

This writer saw several buffalo cows with mud cover all over but there was no mud on the udders. The udders are surprisingly soft textured and exactly the same colour as the overall animal. No milk veins are visible.

The animals' production varies from four to 10 litres per day and fat content is around 8 per cent. The milk is very white.

The two herds are fed on separate feed-out area as there is no grazing available this year. "This year is better than last season as hay and grain was then more expensive," Mr Blow said.

They source their feed wherever possible with some from NSW and the Wimmera this year. In years when possible, they buy temporary water to grow fodder.

Veterinary treatment of the buffalo is minimal. "When an animal has 30 The Australian Dairyfarmer March-April 2020

health issues, they shed their hair and we use a pour-on as the hides are simply too thick and hard to needle," Mr Blow said.

Maintenance of these animals is much lower than for the dairy cows. The buffaloes are quiet and docile, and at first, this writer was quite wary when approaching them.

But when watching the Blows in the yards with the buffalo cows and calves, it was immensely enjoyable to see their calm demeanour and skill in animal handling.

The mothers don't bellow and let out a much smaller sound than a dairy cow. "When we take the calves off the mothers at two days, they don't keep us awake as we don't hear them," Mr Blow said.

The couple prefers the buffalo to dairy cow. Mr Blow said trouble came at cow calving time rather than with buffalos. They don't require calving assistance nor get milk fever or pa-



At the time of collection, buffalo milk is pumped into the bags/crates and loaded onto refrigerated tray trucks.



Dry buffalo cows – the animals require less maintenance than dairy cows.

ralysis, or any of these issues with cows.

The calves are reared by hand at the start with colostrum, although this is also collected for sale when available. The shed is nearby and as the calves grow they are moved to a facility on the leased block and are fed on a Lely Calm unit with four stations and associated yards/pens. The calves are not inoculated or dehorned and also receive hay ad lib.

Weaning is automatic via the feeder at a preset animal size. Normal milk powder is added to and blended by the machine and both dairy and buffalo calves are at the facility.

All animals – both dairy and buffalo – are in beautiful condition with the herd of mainly Friesian cows well uddered and still producing around 24 litres/day as an autumn-calving herd. The buffalo are short-legged and much lower in stature and fattened up really well before calving. 7/9/2020

eEdition



UPDATE FROM THE GARDINER FOUNDATION

Scholarships for outstanding students

Scholarships awarded to seven young Victorians

- Helps overcome significant costs
- facing country students
- points Studies with potential benefit to
- dairy industry or communities

EVEN Gardiner Foundation Tertiary Scholarships have been awarded to students from Victorian dairy regions who are starting their first year of tertiary study in 2020.

These students have demonstrated sound academic achievement, a commitment to further study and strong community involvement.

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

The 2020 Gardiner Dairy Foundation Tertiary Scholars are: Grace Warrnambool, Thulborn. Vic. (Shirley Harlock scholarship); Kaitlyn Wishart, Mead, Vic, (Bill Pyle scholarship); Emily Robins, Cohuna, Vic, (Doug Weir scholarship); Olivia Henzen, Camperdown, Vic (Jakob Malmo scholarship). There are three Niel Black scholarships, thanks to his generous bequest to Gardiner Dairy Foundation. The 2020 Niel Black scholars are Chelsea Hicks, Calivil, Vic; Courtney Zuidema, Yanakie, Vic; and Max Bond, Timboon, Vic.

Each scholarship recipient will receive \$10,000 annually for up to three years to contribute towards costs associated with their studies

"Rural students face high costs associated with living away from home to undertake higher education and training," Gardiner Dairy Foundation chief executive Dr Clive Noble said. "These scholarships help them to overcome some of the barriers to obtaining a tertiary education, such as travel and accommodation."

Tertiary scholarships are awarded to students who are undertaking studies that have the potential to benefit the Victorian dairy industry or dairy communities. The program encourages students to return to Victoria's



Grace Thulborn, Warrnambool, Vic, (Shirley Harlock scholarship); Courtney Zuidema, Yanakie, Vic, (Niel Black scholarship); Emily Robins, Cohuna, Vic, (Doug Weir scholarship); Max Bond, Timboon, Vic, (Niel Black scholarship); Kaitlyn Wishart, Mead, Vic, (Bill Pyle scholarship); Chelsea Hicks, Calivil, Vic, (Niel Black scholarship); and Olivia Henzen, Camperdown, Vic (Jakob Malmo scholarship).

UPDATE FROM THE GARDINER FOUNDATION

GARDINER FOUNDATION

'The tertiary scholarships support the development of young professionals who may not have had the opportunity to pursue higher education.' dairy regions on graduating, or after gaining further work experience, to ensure a diverse range of essential skills within these regions.

"The tertiary scholarships support the development of young professionals who may not have had the opportunity to pursue higher education and who intend to bring their skills back to a dairy region in the future," Dr Noble said. "They are an important investment in Gardiner Dairy Foundation's people and community development portfolio."

Applications for 2021 Tertiary Scholarships will open in August 2020.

For more information please go to gardinerfoundation.com.au/peoplecommunity/#tert or email Richard Meredith richard.meredith@ gardinerfoundation.com.au.

Leading the way for Mitta Valley farmers

LAURA Sutherland loved the freedom of growing up on a dairy farm and wants to give her children the same experience.

Ms Sutherland was raised on a family dairy farm and now lives on the runoff property, five minutes from the home farm run by her father Chris and brother Jordan at Tallandoon in the Mitta Valley in north-east Victoria.

"Growing up on the farm gave me freedom to explore and work things out on my own," she said. "Kids can go outside and play and develop skills you don't get in town."

She wants her children and future generations to have the same experiences and hopes a leadership program will give her expertise to help strengthen the local dairy industry and the broader community.

Ms Sutherland is being sponsored by Gardiner Dairy Foundation to undertake the Alpine Valleys Community Leadership program and says it will have lasting benefits for herself and the community.

"The dairy industry is something I feel strongly about," she said.

"The Mitta Valley was once all dairy but there are hardly any dairy farmers left now. I hope through this course we can find different ways of doing things and try to improve the industry to make sure it has a positive future in this region."

Although now working as a physiotherapist as well as raising two young girls, Eleanor and Rosie, Ms Sutherland helps the family farm with administration and occupational health and safety.

"I am passionate about the dairy industry and would like to get further involved in some form," she said.

Ms Sutherland has always enjoyed country living and hasn't ventured too far from the region, studying at Charles Sturt University and working at Align Work Health in Albury.

She moved back to the farm six years ago to be closer to family and friends and enjoy "a lovely place to live".

Now she's learning a lot more about the region she loves while developing her personal skills in the leadership program.

"I've done local community work through the netball club and Mitta Mitta Muster; I like to participate and volunteer but I need the skills to do it properly," she said. "This program is helping with that."

When the Gardiner Dairy Foundation scholarship opportunity appeared on her Facebook feed, she knew it was an opportunity too good to ignore.

"I plan to be in this community for a long time so I'm sure I'll be volunteering and I want to do what I can to support farmers with healthy lifestyles and increased opportunities to develop their businesses," she said.

Ms Sutherland said the first half of the program had taught her to understand what type of leader she is, how to communicate with people and different types of leadership skills.

"There are little bits and pieces that make you a better and more effective leader, such as governance and chairing meetings and better understanding other people's skills," she said.

"This course is about empowering people and making them better at the processes so we can go back to help our communities."

Ms Sutherland is also appreciating a bigger picture of the Alpine Valley, its industries and its people. "One of the good things about the program is the people you meet," she said. "There are 28 people from different industries and at different stages of life that I would not normally connect with. They all bring different



Laura Sutherland with her two young daughters, Eleanor and Rosie, on the family farm at Tallandoon, Vic.

skills and you can see different leadership styles at play."

She also finds the program very accommodating. "Rosie was 12-weeks-old when the course started so I took her along with me for the first six months," she said.

"The course facilitators and participants were really helpful and supportive."

Ms Sutherland had previously received a Gardiner Dairy Foundation scholarship during her first year at university.

"I follow the dairy industry because I have a great interest in its future and I couldn't have done this program without the Gardiner Foundation support," she said.

For more information go to www. gardinerfoundation.com.au or email Richard Meredith: richard.meredith@ gardinerfoundation.com.au.







Innovation powers progress in dairy



By David Nation Managing Director Dairy Australia

points

- ✓ Dairy Australia targets innovation
- that adds value on farm
- ✔ DairyBio and DairyFeedbase are
- flagship initiatives
- Extension activities support
- innovation adoption

NNOVATION on farm is more important than ever, and we are acutely aware of your need to counteract higher input costs or make changes to help manage impacts from a warmer and drier climate.

In this edition of the *Australian Dairyfarmer* we're focusing on different aspects of the role Dairy Australia plays in supporting innovation that adds value on farm – from small-scale, low-cost tactical changes to the latest in dairy science and technology.

Research, development and extension activities are a core part of our role. We invest in innovation projects on behalf of the industry that require scale and investment levels that individual farmers would not be able to afford. These investments are focused on where the big opportunities are – in pasture and animal genetics, in growing pastures and feeding cattle, and in new, smarter ways of irrigation.

There is more to innovation than a singular focus on farm operating margins. The industry's social licence and trust with consumers rely on our being willing to embrace innovations that address environmental and animal welfare issues. Dairy needs to keep innovating in order to keep pace with changes in consumer expectations and market trends.

I always enjoy and appreciate the chance to discuss innovation because dairy farmers are innovators by na-



DairyBio accelerated grass breeding trials at Hamilton, Victoria.

'We make a big investment in our network of regional development programs around the country to support field days, discussion groups and focus farms.'

ture. There is a thirst for new information and new ideas. This openness to innovation has helped farmers deal with challenging conditions in recent years and makes a real difference in the eyes of consumers.

Two of the dairy industry's flagship initiatives are DairyFeedbase and DairyBio. This issue provides more details about each initiative, and how they are making major inroads into changing the way pastures and animals are bred, and into new ways to manage pastures, allocate feed to herds, and set up cows in early lactation for success. Both initiatives are world-class, especially in regard to their capacity to do great science, and their ability to dedicate their efforts to practical challenges in the dairy industry. These innovations have all resulted from large-scale research and development investments in which Dairy Australia co-invests with the Victorian Government and the Gardiner Foundation as well as private sector partners from Australia and around the world, unlocking funding and resources that would otherwise not or only partly be available for the dairy industry.

We also partner with other agricultural sectors to focus investment in research and development that will benefit all farmers. A good example is the Smarter Irrigation for Profit initiative, where we are collaborating with the grains, cotton, sugar and rice industries to support water efficiency innovation on farms. This research is vital for the long-term viability and profitability of dairy farming in many regions.

A very important component of innovation is adoption by farmers and making new technologies easily available on farm. We make a big investment in our network of regional development programs around the country to support field days, discussion groups and focus farms. Last year alone our extension staff hosted more than 1000 farmer-facing events, many of them focused on helping farmers to deploy innovation in different farm systems for maximum benefit.





Forage Value Index worth investigating

 Forage Value Indexes helps farmers select right perennial ryegrass

Data for different regions
 Detailed seasonal data also

available

AIRY farmers who have chosen to renovate perennial pastures this autumn are encouraged to use Dairy Australia's Forage Value Index (FVI) to select the right ryegrass for their farm and ensure they are making the best decisions for the year ahead.

The FVI enables farmers to select perennial ryegrass cultivars that will deliver the best possible pasture based on their location, farming system and forage needs.

Dairy Australia's feedbase and nutrition lead Ruairi McDonnell said the index ranked the performance of more than 20 of Australia's most popular perennial ryegrass cultivars, relative to typical climatic conditions across the country's south-eastern dairy regions.

"By giving farmers the tools to put a really strong evidence base behind their decisions, the FVI can make a real difference to farm profitability," Mr McDonnell said.

The FVI also outlines the rankings for all cultivars in each of the five FVI seasons: autumn, winter, early spring, late spring and summer to suit the needs of individual farms.

Australian dairy farmers invest about \$80 million each year on renovating pastures with perennial ryegrass cultivars.

"Before the FVI, there was very little independently-tested information on the capabilities of these existing cultivars" Mr McDonnell said.

Now they have an fully independent, accurate and reliable way to assess the economic value of individual cultivars, it's a lot easier for farmers to make the decision to invest in pasture renovation and increase their productivity and profitability

To be included in the FVI, each cultivar must-have seasonal yield data from at least three, three-year trials using strict experimental protocols.

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The Forage Value Index ranks the performance of more than 20 of Australia's most popular perennial ryegrass cultivars.

Cultivars are then scored by multiplying their seasonal yield against the economic value, as determined by case studies in different dairy regions.

The FVI is a key part of the decision-making process for west Gippsland dairy farmer Tom Kent.

Mr Kent uses FVI information as an independent analysis of what cultivars will perform best in his farm's conditions.

"The right perennial ryegrass for our farm is crucial," he said.

"We like to drive a high pasture intake for our cows to maintain a profitable farm system so the FVI allows us to choose the more profitable varieties that are more suitable to the farm.

"The FVI seasonal tables are crucial for us as to which ryegrass we are going to sow. We can see what the autumn, winter, early spring, late spring and summer growth is going to be like and for any other farm looking to match grass growth with herd feed

'The FVI seasonal tables are crucial for us as to which ryegrass we are going to with.'

demand at various times of the year it'll be a really good tool."

The FVI tables have been recently updated for 2020 with the inclusion of the results of several pasture trials conducted in southern Australia. More cultivars have been included and additional trials of current cultivars have extended the scope of the FVI tables.

Check out the FVI overall tables for the three Victorian regions and Tasmania on pages 54-57 of this edition of the Australian Dairyfarmer. Visit www.dairyaustralia.com.au/

FVI for more information.





Gaining pasture smarts

Western Victorian farm takes part

- in pasture research
- Using tools such as drones to

points

- estimate dry matter available Aims to also develop an app for
- farmers to use

AVING satellites and drones survey his permanent pastures does not faze dairy farmer Peter Musson of MacArthur, Western Victoria.

His 809-hectare property is one of six dairy farms participating in DairyFeedbase and Dairy Australia's Pasture Smarts project, which is developing tools for the automated assessment of pasture dry matter yield, its nutritive characteristics, and pasture performance forecasting.

The project is part of the larger DairyFeedbase program, which draws on leading research and technologies to improve pasture performance, animal nutrition and business profitability.

Farmers are currently piloting technologies ranging from radar and multi-spectral devices, sensors on drones and vehicles, and satellite mapping. Farmers are also providing input into the design of a Pasture Smarts app, which will be trialled in April 2020.

Mr Musson said Dairy Australia had installed sensors in his paddocks and was interpreting drone and satellite data with the aim of estimating the volume of dry matter there.



Peter Musson is keen to see the outcome of pasture research being trialled on his farm at Macarthur, Vic.

'If you can fully feed your cows and not waste any feed, you're going to save money.'

He said he volunteered for the project because he wanted to help researchers gain realistic and practical insights from his working farm.

"I'm happy to take part in the research... If they can produce an app that helps me determine how much feed I have available, and in what areas, then it will certainly help me to make decisions on where to move my herd," he said.

"If you can fully feed your cows and not waste any feed, you're going to save money."

Mr Musson said the technology did not come cheap, but Dairy Australia and DairyFeedbase were working to provide affordable solutions to farmers.

"The satellite imaging is the cheapest but the downside is it's not as accurate or consistent as other technology," he said.

"It can be affected by how often the satellite can pass over and poor weather conditions. The sensor on the drone appears to be more accurate because of its proximity to the land.



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"Dairy Australia is also trialling the sensors on the quad bike which you drive over the paddocks yourself. I'd like to see how the sensors go on a tractor so you can measure while fertilising the paddocks and save time."

Of all the technologies, Mr Musson said he would consider investing in a drone because of its multiple potential applications, but he would first investigate the cost of employing a drone pilot with the appropriate licences and approvals.

Dairy Australia's director major innovations and DairyFeedbase co-director Kevin Argyle said the project partners were developing a commercial model that would deliver affordable optimal sensing technology to farmers.

Mr Argyle said Dairy Australia was collaborating with a variety of public and private sector partners in Australia and overseas, unlocking funding and resources that would otherwise not be available for individual dairy farmers.

Farmers: Peter and Fiona Musson

Location: Macarthur, Western Victoria

Farm: 809 hectares of mostly permanent pastures, milking 800-900 cows on rotary platform.

Background: Couple established the dairy farm in 1996 after dairying in Lincolnshire England

Just 10 per cent of Australian dairy farmers are estimated to measure their pasture, Mr Argyle said which was a statistic that the Pasture Smarts project aimed to improve.

"We know there is a correlation between innovation and improved profitability. Farms are very complex, biodiverse systems and farmers are time-poor, so we want to simplify the process and prove that technology can help, not hinder," he said.

Mr Musson said the long-term benefits of the Pasture Smarts project were significant and urged farmers to embrace the technology to increase their efficiency and productivity. "Sometimes I feel like I'm 20 years too early when you learn about what technology is coming and the applications for my farm," he said.

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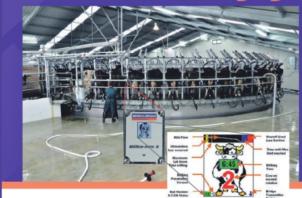
"I can see in future that the app would connect with virtual fencing and robotics. We could see a time when moving cows is done remotely.

"That being said, farmers will still be needed. You still need people to interpret the data and action things on farm. A lot of the imagery I've seen of my farm is of high-density pastures that I know is largely barley grass that hasn't been grazed. Farmers must have input into the software development and data interpretation to make sure it's as accurate as possible."

Despite the one-year timeframe for the app commercialisation, Mr Musson said it would be worth the wait.

"We will continue to support the research as long as possible. Not only will it benefit our industry, but it will keep me and my employees on our toes," he said."

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There's more to feeding cows

DairyFeedbase includes several innovative approaches

- Improved cultivar selection and
- pasture measurement

points

Different way to allocate feed to individual cows

BIRD flying over DairyBio's perennial ryegrass field trial site at Hamilton in Victoria would likely need to rest mid-trip.

Its 270,000 individual plants are in rows spanning the equivalent landmass of eight AFL football fields, forming the world's largest perennial ryegrass field trial.

These selectively bred plants (or cultivars) and the technology used to measure them are important components of DairyBio's and DairyFeedbase projects, which are assisting dairy farmers to improve feedbase productivity and animal health.

The DairyFeedbase initiative launched in 2018 by Dairy Australia, Agriculture Victoria and the Gardiner Foundation has cultivar selection and pasture measurement as key components. Researchers are improving the quality of data and information within Dairy Australia's Forage Value Index to improve farmer confidence in selecting the right cultivars for their system.

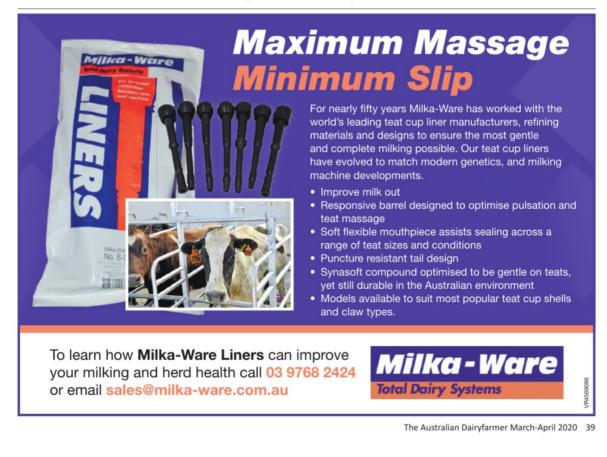
Keeping cows cool in Australia's hot climate is another mission of Dairy-Feedbase, providing new herd feeding strategies for hot weather and setting new targets for genetic selection to breed cows for Australian conditions.

With support from Dairy Australia, farmers are currently trialling automated pasture measurement tools including drones, that are expected to improve pasture allocation and productivity at a herd level.

Farmers can also expect new approaches to allocate feed at an individual cow level, to better supplement for peak lactation, identify and minimise early metabolic issues and improve health.

Dairy Australia director major innovations and DairyBio co-director Kevin Argyle said farmers were already changing what they grew through the availability of better pasture varieties and better information on the selection process. "DairyFeedbase will share these insights and real-time information with farmers via user-friendly digital tools to help them improve their decision-making in the paddock," he said.

Visit www.dairyfeedbase.com.au for further information.







DairyBio finding pasture and animal solutions

 DairyBio helping produce more fertile, healthier herds

Adding new traits to Australian

Breeding Values

 Forage genetic improvements also a focus

ELPING dairy farmers to produce more fertile, productive and healthy herds is the impetus behind DairyBio, a \$60 million bio-science innovation initiative of Dairy Australia, the Victorian government and the Gardiner Foundation.

The DairyBio team works in purpose-built facilities at the AgriBio Centre near Melbourne, as well as at Agriculture Victoria's regional research facilities in Hamilton, Vic, and Ellinbank, Vic.

'We are passionate about animal breeding and pastures research and technology, and farmers are embracing it.'

Dairy Australia's director major innovations and DairyBio co-director Kevin Argyle said the team was working hard to build on existing Australian Breeding Values (ABVs) relating to productivity, fertility, heat tolerance and feed conversion efficiency traits, as well as adding new ABVs focused on important animal health, welfare and environmental traits. Mr Argyle said its commercialisation partner DataGene was engaging with a group of 200 farmers called Ginfo to collect data on individual cows so that DairyBio researchers could assess genetic performance and make predictions about the future performance of individual animals.

"We know that to the top 25 per cent of genetic merit animals deliver another \$300 in value per cow, per year, to the average farmer," he said.

"We are passionate about animal breeding and pastures research and technology, and farmers are embracing it."

Mr Argyle said forage genetic improvements were also a focus of its DairyBio program, with pasture yield increases of up to 35pc estimated with new hybrid breeding methods and the development of a DNA-based assessment of pasture called genomic selection.

Visit www.dairybio.com.au for further information.

Keeping faith in science

CHOOSING bulls is but one piece in the puzzle that is breeding an elite dairy herd.

Patrick and Kerri Glass have been on top of genetics since they began dairy farming near the Victorian town of Allans Flat in 1977.

Following several moves, the couple and their family settled at nearby Gundowring in 2005 and now milk a herd of 500 cows on 300 hectares, and lease 200ha for runoff.

Working in a share-farm arrangement with their son and daughter-inlaw, Mr Glass said his family's sire selection was based on traits they felt were relevant to their breeding objectives.

"We've tried many different Australian Breeding Values over the years and have been selecting genomic and proven bulls for a positive daughter pregnancy rate and other critical traits for the past eight years," he said.

"There are so many factors to consider for dairy cow fertility besides the genetics. Their diet and too much nitrogen in the annual pasture does have

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Patrick and Brendan Glass in the dairy on the family farm at Gundowring, Vic.

an impact on fertility. It's quite difficult to master."

Mr Glass said they trusted DairyBio's research and remained very confident that it would benefit their business in future.

"I still trust the science. If you don't then what's the point?" he said.

Mr Glass is particularly interested in new ABVs for gestation length, which are just emerging from DairyBio research.

The Gestation Length ABV is an indication of a bull's influence on the number of days from conception to birth.

"We think we're really good with our in-season calving system and we think the gestation length ABV will be very helpful with our seasonal calving system," he said.

"The new mastitis-resistant ABVs are very relevant too and we're looking out for that."

According to DataGene, while most reduction in mastitis comes from improved management, genetic variation for cell count does exist and some bulls produce daughters that are less susceptible to mastitis than others.

Belonging to an extended family of five generations of dairy farmers, Mr Glass is already very committed to continual herd improvement and applying pieces of DairyBio knowledge wherever he can.





Knowledge is power

Farmer part of DairyBio Ginfo

project

 Provides more genetic data about herd to improve breeding decisions

- ✓ Vital research for future of
- industry

AIRY farmer Con Glennen believes there is no such thing as the perfect cow but he wants to take advantage of all the genomic advantages that DairyBio research can deliver.

Mr Glennen with wife Michelle and two sons farms at Noorat in south-western Victoria on 200 hectares, milking 400 cows in a 40-unit rotary dairy.

He was one of the first farmers to join DairyBio's Ginfo group dedicated to genetic improvement and herd testing.

"Ours was the second herd in Ginfo so we were very early adopters," Mr Glennen said.

"I thought with the early research that my kids might get something out of it in future but we're seeing the results now.

"I've always believed in the numbers, and these are a better set of numbers (from DairyBio)." DairyBio's animal performance is focused on improving the reliability of genetic evaluations that use DNA markers (called genomics), delivering priority traits (such as calving ease and gestation length), developing new and improved traits (such as mastitis resistance), and developing methods to predict the merit of cattle of multiple breeds.

Mr Glennen said he had used DNA testing to identify issues in a group of heifers and had applied improved Australian Breeding Values (ABVs) to correct some minor mastitis traits.

"We've never had a big problem with mastitis but we used the ABVs to correct that trait by the fourth and fifth daughter," he said.

"Our fertility is improving as well, and we've had a top five breeding herd in Australia for the past 15 years."

Mr Glennen credits his two dairy farming uncles with instilling the family's passion for herd genetics. His uncles are 85 and 90 years-old respectively and still "kicking about" in farm life.

"I started milking in 1992 to help out my uncle when he needed a heart operation and I've never looked back," he said.

"We've had a family focus on genetics for over 100 years. We focus on 'I thought with the early research that my kids might get something out of it in future but we're seeing the results now.'

what we do well, and sub-contract out everything else."

Dairy Australia's director major innovations and DairyBio co-director Kevin Argyle said genomics were being extensively adopted by dairy farmers, not only as a tool to evaluate young bulls but to test the merit of individual cows.

"We're working with DataGene to strengthen these applications by developing a more robust test of an animal's merit and using more cow records to focus on traits that can be improved," Mr Argyle said.

Mr Glennen said genetics was not an exact science but the work of DairyBio was important to the future of the industry.

"It's very important that the research is done right, so we need to keep a thumb on it," he said.

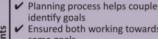
"Knowledge is power. Just bring it!"



Con and Michelle Glennen milk 400 cows on their dairy farm at Noorat, Vic.



On the same page in Jamberoo



 Ensured both working towards same goals
 Business skills vital part of running a farm

Dairy Australia

TAKING part in Our Farm, Our Plan has got Emma and Nick Strong on the same page about their long-term goals, both business and lifestyle goals.

"We got involved because we wanted to clarify where we want to head and set goals together," Mr Strong said.

"The workshops were good. We were able to share ideas with other farmers, and Emma and I learned that we weren't on the same page about everything, so it was good to get lined up. We got to understand a bit about why we react to things the way we do – we are different".

Milking 450 cows near Jamberoo in NSW, the Strongs are good planners, setting up quarterly operational plans that are reviewed regularly.

"We have the 'plan on a page' that we developed through Our Farm, Our Plan on the wall, along with our quarterly plan," Mrs Strong said.

"We like to be planned, and need to be, to run a good farm."

Working through the workshops has given the Strongs a bigger vision and clarity about their long-term goals. "We definitely now work on the business more knowing that what we're doing every day is actually getting us a step closer to achieving our goals. That gives us a lot of satisfaction," Mr Strong said.

He thinks all dairy farmers can benefit from Our Farm, Our Plan. "The approach has made us both think more broadly about the whole farm and understand each other's point of view," he said.

"I think it's more of a team effort now and we're getting towards our goals quicker.

"Putting the plan on a page was the key thing. We work well when we know what we need to do and checking back helps us. Ticking off things that we've already done is motivating and gives us a sense of achievement.

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Emma and Nick Strong with the Our Farm, Our Plan single-page plan on the wall in their office.

Mrs Strong said it was definitely worth the time to go to the workshops and get off farm. "For us it allowed us to regroup and rethink what we're trying to achieve," she said.

"I think any farm, no matter what stage they're at, can come into this program and, as a team, work out where they want to head and feel more in control."

Nick said he would recommend the program to other farmers. "When we grow up on a farm most of us are not really taught how to run a business," he said.

"We're taught a lot of skills about farming but the business side is probably harder or not talked about as much".

Mrs Strong said the 1:1 follow up through Our Farm, Our Plan had been beneficial. "Having a session that focused on where we were heading was great," she said.

"It also made us accountable and the extra set of eyes and another opinion about our plans was valuable."

So does being on the same page mean you agree about everything? The Strongs laughed. "No, but it 'The approach has made us both think more broadly about the whole farm and understand each other's point of view.'

means you can have the right conversations about your long-term goals and how you're going to achieve them. Having it there in front of you makes a massive difference. We both had ideas in our heads, but now we can see them. We're definitely on the same page now and we can see that we're on the same page, track our progress, reset it if needed and share it with other people."

For more information about Our Farm, Our Plan go to www.dairyaustralia.com.au/OFOP and contact Dairy Australia's regional teams – their details are inside the back cover of this edition of the Australian Dairyfarmer.





A view from the edge

- Project provides more accurate picture of robotic milking in Australia
- Identifying factors to help points
- improve performance
- Developing resources for farmers to use

ONSIDERED by many dairy farmers as "futuristic" a decade ago, Automatic Milking Systems (AMS) are being demystified as more

adopters of the technology share their results and experiences. The Milking Edge project, spearheaded by Dairy Australia, NSW De-

partment of Primary Industries and DeLaval, is working with commercial AMS farms across Australia to extract data and provide a more accurate picture of robotic performance.

NSW DPI Milking Edge project leader Dr Nicolas Lyons said that 20 of the 46 AMS farms were monitored on a monthly basis as part of the International AMS Key Performance Indicator Project, collecting data from Australia, New Zealand, Argentina, Chile and Ireland.

Dr Lyons said the AMS KPI Project was in its fourth year and the data was helping farmers and potential investors to understand and benchmark current farm, cow and robot performance, as well as helping Milking Edge to develop a dynamic model that would help farmers understand what is achievable and optimise performance.

"We're seeing a wide range in performance between farms," he said.

The average farm could increase its number of cows or capacity by up to 60 per cent, so we are working hard to develop tools and resources to help farmers that want to achieve this

A survey of participating AMS farmers found that all were benefiting from the data and 75pc indicated that having access to monthly reports gave them more control over their business and helped them to make better decisions.

Wayne Clarke, Casino, New South Wales, owns one of the 46 commercial AMS farms in Australia and said he believed robots were the future of the dairy industry.

'Milking Edge is a key project to help farmers understand how the technology can suit your farming systems.'

Mr Clarke said the production and economic performance data collected from AMS farms operating under Australian conditions was "proving what it was capable of" and would give non-AMS farmers more confidence to take advantage of the technology.

'The data is going to help farmers identify what opportunities exist and to take advantage of the technology and advance their profitability, not to mention ending the repetitive manual task of applying cups to cows" he said.

Dr Lyons said Milking Edge was also supporting the AMS Financial Project for the fourth year, which involved comparing datasets from 14 AMS farms with data from Dairy Australia's Dairy Farm Monitor Project.

"Overall we're seeing the average physical and financial performance of pasture-based AMS to be very similar to those of conventional farms," he said.

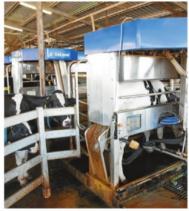
'We have also noticed a wide range in labour efficiency, robot utilisation and pasture utilisation on AMS farms that have been identified as key drivers of profitability.

Milking Edge has stepped up its training, extension and communications activities in 2019 to help more farmers consider, invest and operate AMS successfully.

Dr Lyons and his team visited almost all dairy regions across Australia and engaged with current and prospective AMS farmers, as well as members of the Young Dairy Network in Bega, NSW, Nowra, NSW, and Tasmania.

Aubrey Pellett, a conventional dairy farmer from Gippsland in Victoria, said the idea of AMS was appealing.

"As a dairy farmer with fairly old milk harvesting equipment, it is excellent to see the industry provide an independent view and assessment of how AMS can suit the industry and my operation," he said.



The Milking Edge project is working with commercial AMS farms across Australia.

"Milking Edge is a key project to help farmers understand how the technology can suit your farming systems."

The conversation around AMS is increasingly shifting online with Milking Edge hosting the first Global AMS R&D Webinar in 2019 featuring 21 AMS experts from 13 countries sharing their knowledge with an audience of 174 people from 24 countries.

In addition, Milking Edge hosted regular training and discussion webinars with AMS farmers and advisers, increased its social media engagement, and launched an AMS Community page on www.extensionaus.com.au, which has received more than 5000 page-visits from 1400 unique users to date.

During 2019 we conducted five webinars, and these have since been viewed more than 250 times each," Dr Lvons said.

'The first online module on general aspects of AMS is already available, and the Reproduction and Incentives modules are close to being launched too."

Milking Edge is continuing to shape its communications and engagement strategy in 2020, delivering relevant and timely AMS intelligence to an eager audience.

For more on the Milking Edge collaborative project, visit www.dairyaustralia.com.au/milkingedge or contact Dr Nicolas Lyons, nicolas.lyons@ dpi.nsw.gov.au, phone 0401 650 073. Follow @NSWDPIDairy on Facebook. The Australian Dairyfarmer March-April 2020 43

OVERSEAS

Methane delivers sustainable power

By Elizabeth Trollinger

OR many homes in California's San Joaquin Valley, the electricity is being powered by an unexpected source: cow manure.

The power comes from Fiscalini Farms outside Modesto, California, where Brian Fiscalini and his family are using dairy methane to ensure the sustainability of their 1500-cow dairy farming operation.

The methane digester converts the manure created by their dairy cows into electricity by combining the manure with high levels of heat.

"We have two tanks that store cow manure," Mr Fiscalini said.

"We heat those tanks up. If you think about heat and cow poop together, you're going to make a lot of methane gas.

"The unique thing that we do is we capture that gas and we pipe it to an engine. That engine converts methane gas into electricity."

The electricity created via the methane digesters powers the entire Fiscalini dairy farm operation and beyond.

"The power that we produce is enough electricity to run our cheese plant, our dairy farm, and then we also have excess power that powers about 300 homes in the community," Mr Fiscalini said.

"We also take some of that excess heat and heat our water to wash our milk barn, to wash our equipment in our cheese plant."

In addition to these impressive benefits, in the 10 years since they were first installed, the methane digesters have allowed the Fiscalini operation to reduce its propane usage by about 70 per cent.

Despite these remarkable statistics, Mr Fiscalini believes that the people living in the suburban homes of the San Joaquin Valley may not know the interesting source of their electricity.

"I would guess that most people that live in our surrounding areas, in the suburban areas, would be very surprised to know that their electricity actually came from a renewable source and was cow manure at one point – powered by poop," he said.

1500 cows, three times a day

Mr Fiscalini and his coworkers milk 1500 cows three times a day. A portion of that milk is used to create their own 44 The Australian Dairyfarmer March-April 2020



Brian Fiscalini and his family are using a dairy methane digester to produce electricity.



Enough electricity is produced to run a cheese plant, the dairy farm, and power about 300 homes in the community.

Fiscalini-branded cheese and dairy products, while another portion is sold to Nestlé to create evaporated and condensed milk.

The land on which this dairy operates has been farmed by the Fiscalini family for more than a century. Although much has changed over the years, some critical ideas have stayed the same.

"My great-grandfather bought some land back in 1914 and started milking cows, and we've been fortunate enough to continue to farm on the same piece of ground that he purchased," Mr Fiscalini said.

"Sustainability is kind of a newer buzzword, but when you think about it, we've been sustainable for over 100 years.

"My grandfather had a very thorough intention of keeping this land around for further generations." Mr Fiscalini is adamant about continuing this legacy, and he is helping ensure the farm's existence by turning methane into something useful.

"If we were to just have this pile of cow manure out there and we weren't able to apply it to the land, it would give off greenhouse gases," he said.

"What we're doing is we're trying to reduce them as much as we can and use the manure for another process."

This transformation of carbon dioxide into a positive source of electricity might contradict a common misconception that many consumers have about the farming and agriculture industry: that it is the source of a great amount of pollution.

As a farmer, Mr Fiscalini has a heightened awareness of this disconnect between farmers and non-farmers, and he is actively working to close that gap by dispelling some long-standing

OVERSEAS



Fiscalini Farms outside Modesto, California, milks 1500 cows three times a day.



Milkers at work in the Fiscalini operation in California.



Technology is an important part of the Fiscalini operation.



Many of Fiscalini farms' neighbours are unaware that it is providing power to their homes.

myths about who farmers are and what they do.

"One of the most challenging things about what we do is, how do we tell our story," he said. "So, how can I connect with my

"So, how can I connect with my neighbours and let them know that, 'Hey, when you woke up this morning and flipped that light switch, we helped do that. We were a part of that process'?

"As people move further and further away from the farm, physically and emotionally, what we as farmers need to do is to bridge that gap again.

"We need to include consumers in what we're doing. We need to let them know what we're doing. And I think that, if the average consumer knew that there was this 100-year-old dairy farm that was converting methane gas into electricity, they would probably look at farmers in a little different way."



Farming may have been passed on to Mr Fiscalini as a family business, but he is extremely passionate about farming both as a vocation and how it can impact the world.

"I take farming very seriously, and I think that most farmers do, because we know someone has to do this work," he said.

"We all know that we have a pretty important task of producing food in a safe manner for the world to consume. Someone has to feed the planet, and if we don't do it, who is going to?

"I think we have a nice challenge ahead of us.

"We need to figure out how we're going to feed a growing world. We'll figure out how to do it, and we're going to provide some of the safest and healthiest foods people have ever had. If we're not committed to that, then we shouldn't be farming."

Just as his own operation evolved by using methane digesters to turn waste into energy, Mr Fiscalini believes that the agriculture industry can – and will – continue to grow, change and become more sustainable, just as he thinks every industry must in order to stay relevant.

"We need to continue to innovate. We need to continue to tell our story and use the right platforms to connect with consumers," Mr Fiscalini said.

"Consumers are going to end up telling us what they want. And if we don't listen, then we're going to be in big trouble. So, if the environment is really important to consumers, then we need to make sure that's what we're focusing on.

"If the way that we care for our cows is important to consumers, then we need to make sure that we're letting them know that it's been taught to us from a very young age that taking care of our cows and our land and the environment is important."

Equally significant for Mr Fiscalini is the legacy of sustainability that he will leave for his children.

"I think, when they get a little bit older, my kids are just going to have a huge appreciation that, 'Dad's not just a farmer. Dad is caring about the environment, he's caring about his cows'," he said.

"I have every intention of making this farm better, more sustainable, more friendly to the environment."

As the Fiscalini family continues their dairying tradition of more than 100 years, they are committed to finding new ways to improve, not only for their farm, but for the good of the planet.

"Our family - maybe it's just our genetic makeup - we've always wanted to try new things," Mr Fiscalini said.

"We haven't succeeded every single time. We've learned a lot of lessons, but I think that's what keeps farming fun.

"We wake up, we have new ideas, we want to try things, and the intention of trying those things is to make the farm better every day.

"Better for the next generation. Better next week. Better tomorrow. Whatever we can do to keep improving and making things better for our people, for our cows and for our land.

"We take it very seriously. And that's how all farmers are. We're committed to this. That's why we get out of bed."

Fiscalini Farms is part of Alltech's Planet of Plenty.

Bushfire provides pasture opportunity

 Bushfir 	e created	
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opportunity to resow farm

Created intensive labour

requirement for several monthsFeed budgeting critical part of the

process

By Jeanette Severs

ANAGED well, the recovery after a bushfire provides an opportunity to improve pastures and farm layout. That is the message from Bryan Dickson, a dairy farmer whose three farms were burnt out in the St Patrick's Day 2018 fires in Western Victoria, and from John Webb Ware, a senior consultant with the University of Melbourne's MacKinnon Project, who has helped many farmers in the aftermath of bushfires.

Mr Dickson has two dairy farms at Terang, Vic, and Glenfyne, Vic, and an outblock near Cobden, Vic. At Terang, he lost 485 hectares of pasture, 39 kilometres of fencing, 500 round bales of hay and a hay shed and pump sheds. At Glenfyne, 60ha of pasture, about 8km of boundary and internal fencing and 150 round bales of wrapped silage were burnt.

His production was affected by the loss of power and the lack of access. At Glenfyne, the cell count grew to more than 2 million. Milk had to be dumped and it took a couple of weeks to get the cell count down to a normal 40,000-50,000.

The 97ha outblock near Cobden, grazing 140 heifers, was completely burnt and the heifers lost their hair. They were sent to agistment out of the region.

More than 60km of fences was burnt and needed replacing across the farms.

"It took six months to re-fence most of the properties and 12 months in total," Mr Dickson said.

"Blaze Aid was very, very good. They pulled fences down and put wires up and insulators and staples. Blaze Aid saved us a lot of work. For three weeks straight, I had five to six people volunteering.

"My workers banged in the posts. We own a post rammer and I borrowed a post rammer and we had both working every day, 60 hours a week, for six to seven months. That was a lot of pressure on my staff.

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Bryan Dickson has experienced good pasture recovery after the St Patrick's Day fire burned through three of his farms in 2018.

"People were always fussing around me, trying to make sure I was okay, but I really felt for those guys."

The labour component of recovery was intensive. Fodder was fed out daily on both farms.

"We were lucky in that my agronomy consultant was out on the farms the next day and he went away and did a budget on what we needed for fodder," Mr Dickson said.

"The insurance company took three days to pay for the hay and silage we'd lost. I was able to buy that replacement within a week."

Hay was donated by his bank, by hay and grain growers who he regularly dealt with, and some community groups.

He had a 10ha maize crop and a 10ha summer crop still standing.

"That's what saved me and my cows. It was two green crops in a long skinny line with the laneway going through it," Mr Dickson said.

"I was trying to get the 900 cows in the milking herd back to the dairy onto the concrete. The fire was coming towards us quicker than we could get away from it.

"We came in behind the maize and the fire stopped and had to go around it. We were sheltering in the laneway which went between the brassica crop and the maize crop."

Mr Dickson is part of a privately managed focus farm group and one week after the fire, all members attended a farm walk on his place at Terang. "It was discussed that instead of waiting to see if the pasture was alive, we would do a full re-sow on everything that was burnt," Mr Dickson said.

All the flat country was direct drilled immediately with perennial ryegrass and clover and a helicopter was used in May to broadcast perennial ryegrass seed across Glenfyne's 32ha of steep hill country.

Insurance paid for the pasture renovations and fencing.

"Once spring came, I probably had the best pasture in the district, because I re-sowed the entire farm," Mr Dickson said.

The extra labour component of re-fencing and feeding fodder daily meant the wage bill was underestimated; wages paid were 20 per cent more than estimated.

"We blew our wages bill by about \$80,000. We got a \$15,000 fine because we underestimated our wages budget for the year," Mr Dickson said.

"It annoyed me but the insurance company paid it. The assessor looked at our wage bill, which was where it should be the day before the fire; they paid the extra wage bill and the fine."

Focus on key areas

John Webb Ware has advised many clients about managing their recovery back into business after bushfires, along with his own experience on his fire-affected farm in 2014.



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www.cropmarkseeds.com

GROWING BETTER PASTURES

 "The two key items to focus on are pastures and livestock," Mr Webb Ware said.

"Take out the initial crisis management of working with livestock. If you can, take some of the cattle off the farm, send dry cows and heifers on agistment, if that's available.

"Sit down and do your budgets and work out if you can make opportunistic decisions. One farm lost most of their cows in a fire in 2014 and they actually purchased most of their stock requirements within a month of the fire because it was quite cheap to buy new stock, rather than wait."

He advises securing an area to set up a feedlot for the remaining cattle. This will obviously assist with biosecurity as well – whether it is looking after the health of the herd, managing diseases and burns or smoke inhalation, transitioning new cows into the herd, or controlling potential weed invasions from donated and bought-in feed.

"If you've got areas on the farm that haven't been burnt, obviously you can graze those areas," Mr Webb Ware said.

"It's much more environmentally valuable, a lot more labour efficient and better for the animals for them to be in a restricted area. But graze the cattle where you do have pastures as if you are in a sudden drought situation.

"So your next step around decision making is to assess what feed costs will be for your various livestock and how long you are likely to feed for.

"You know how much your cows are going to need as feed. What you don't know is how long you'll be feeding for.

"Calculate best and worst-case scenarios. You're better off being in for the long haul rather than making decisions on the run.

"You're also involved in getting areas re-fenced. Plan your strategy for the next three years."

He advises caution about donated fodder, as well as bought-in hay and silage, again applying the principles of drought-feeding and feed-lotting.

"It's better to feed that livestock in a restricted area, for potential biosecurity issues, especially weed management," Mr Webb Ware said.

"It's also a good idea to restrict your cattle's access to contaminated areas, so they have access to healthy water supplies.

"Your next decision making step is what feed costs will be and how long are you likely to feed for?"

Because of the need for re-fencing and re-building other assets, Mr Webb Ware said the post-fire period was often an opportunity for farmers to 48 The Australian Dairyfarmer March-April 2020

specialpubs.austcommunitymedia.com.au/e-mags/2020/DF/0430_01/



were destroyed in the 2018 fires in western Victoria but are now largely recovered.

'Think long term. I know producers who use this as an opportunity to think outside the square.'

redesign their paddock rotations and laneways and to think about labour efficiencies and livestock movement. He recommends caution and taking time to make decisions.

"Often you can put up plenty of temporary electric fencing in the short term. You're already under financial duress, and infrastructure needs to be rebuilt properly over time," he said.

"Think long term. I know producers who use this as an opportunity to think outside the square."

Pasture recovery from fire will vary, depending on the severity and length of the burn, the type of pasture species affected and soils.

"If you rank in respect of the fire, your native species are the most resilient, then phalaris and cocksfoot," Mr Webb Ware said.

"Strawberry clover is pretty resilient, white clover intermediate. If you've had a cool burn, white clover can return.

"A lot of subterranean clover survives pretty well, but with a really hot burn there will be some impact.

"Probably the weakest is ryegrass and any annual species.

"All pastures as they're germinating will be pretty exposed in the landscape during false weather breaks, because of the impact of fires.

"Research at Hamilton (Vic) has shown cool burn survival was 80-plus per cent for perennial pastures; phalaris survival was very high even after a hot burn. There was more than 70pc loss of ryegrass plants after a hot burn."

He said recently grazed pastures were likely to recover quicker and regenerate better. Pastures in heavy soils were likely to recover better than grasses grown in sandy soils.

"Nutrient loss after fires is pretty low. Probably the bigger loss is soil erosion in any rain event after fire," Mr Webb Ware said.

"You will get more nitrogen loss, there'll be nitrogen deficiency after a fire. If you put on superphosphate before the fire, it will probably still be there in the soil."

Mr Webb Ware recommends monitoring pastures in the immediate weeks after the fire and initiating a watering exercise to gauge the impact and effect of the fire.

"From a forward planning point of view, what you can do is heavily water some square metre plots. Soak them and keep these areas moist for at least a couple of weeks, so you can make an assessment of what is coming back," he said.

"Variability for perennial pasture survival has been 40-90pc, which is why I recommend that watering exercise, rather than make hasty decisions about resowing."

But bare ground also means weed control comes to the fore during pasture recovery. The same watering exercise will indicate the weeds likely to dominate.

This will also affect carrying capacity. In western Victoria, research was carried out into the effect of a late summer fire on the carrying capacity of improved perennial pasture with moderate fertility.

"Winter carrying capacity was 20-40pc of normal (June was 20pc), September was 60pc and November showed 70pc of normal. It took 12 months to two years to get back into normal carrying capacity for perennial pasture. People with ryegrass could take longer," Mr Webb Ware said.

"You will have some areas which quite clearly you have to sow early to get annuals up and going. With pastures thinned out, oversow and go hard on the nitrogen input.

"Focus on providing extra feed for this year. It might be worth opportunistically putting a fodder crop in so you have a quick feed source, increase dry matter in the soil and potentially increase nutrients. And be prepared to help hydrophobic soils with organic matter."

48/92

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GROWING BETTER PASTURES



Craig Calvert put out fire around this rake several times, losing most of the tyres.

Planning for pasture bushfire recovery

- Fire burnt through outpaddock, destroying fences
 Challenge to manage dry and
- young stock Plans to plant crops to provide
- green chop

By Jeanette Severs

RAIG Calvert is planning to feedlot his dry cows and heifers as an interim measure to manage his pastures after bushfire scorched his farm in late December.

It will enable him to exercise options while he re-fences paddocks and sows pasture and crops on the farm's 65-hectare outblock. In the aftermath of the bushfire, he has had to manage the additional pressure of moving heifers and dry cows to his dairy farm to graze. This reduced his rotation options for the milking herd.

Craig Calvert is the seventh-generation of the Calvert family to farm this land at Mossiface in Victoria's East Gippsland. The current 180ha was once part of a bigger pastoral holding 50 The Australian Dairyfarmer March-April 2020 that has been carved up with successive generations.

The dryland dairy farm has a mix of hill and river flat country. A bore sunk in 2018 provides water for the dairy. The bore and a drain into the nearby Tambo River provide water for livestock.

Taking on the farm in mid-2018 has not been without its challenges. Mr Calvert has learned to manage the farm during a period of unstable and depressed prices in the dairy industry, in the middle of an ongoing drought, followed by the bushfire on December 30 and 31, and a flash flood in mid-January. About 25 per cent of the herd was also affected by Theileria disease last autumn.

Mr Calvert's focus since taking over the dairy and milking cows has been on improving herd health, genetics and pastures. He redesigned the paddocks to allow a 28-day grazing rotation and concentrates on growing crops in larger paddocks.

"I wrote out the key criteria for keeping cows in the herd," he said.

"Our focus is on growing the herd. We should see positive outcomes in herd production and performance in three to four years."

Production has also been helped by sowing sorghum, lucerne and ryecorn as crops to harvest as green chop or to bale, alongside the ryegrass and clover to graze.

Bushfire in three waves

On December 30, Craig Calvert finished milking at 3.45pm and let the cows out, just before the impact from the bushfires.

"The bushfire came through in three waves, through the canopy and then the trees and understorey, and Patch and I spent the next 13 hours fire fighting," Mr Calvert said, describing the night he and his father, both with considerable fire-fighting experience, stayed to defend.

"I turned up to milk the cows in the morning and spent the rest of the day putting out spot fires," he said.

Then the assessment began. A pile of 500 fence posts burned to ash. A tether rake with three of the four tyres burnt. Tanks destroyed. A lot of country burnt, along with fences.



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GROWING BETTER PASTURES

 "I put out the fire around the tether rake six times," Mr Calvert said.
 "About 300 metres of internal

and 6.7km of external fences were burned."

The 65ha, including 16ha of bush, housed the heifer and dry cow pad-docks.

The 500 fence posts were cut out of the bush and would have been ideal to use replacing the burnt fences – if they hadn't been burned to ash themselves.

Now, in cleaning up the burnt landscape, Mr Calvert is collecting firewood for winter.

His grandfather's old sawmill was destroyed, as was the old wharf hut, moved on to the property many years ago for safekeeping to avoid it being destroyed in one of the Tambo River's wild floods. Both are part of the district's history.

But the smaller maize rack was saved. Fortunately, the bushfire stopped before it got to the dairy farm's paddocks nearby, where more historical maize racks stand, along with hop kilns on nearby farms.

Drought, fire, flood, then pasture

Then two weeks after the bushfire, a flash flood swept through the gullies after 105 millimetres of rainfall on January 20.

Sorghum sown and just germinated before the fires, has sprung out of the ground. But with no fences, Mr Calvert cannot put the heifers to graze the crop. Nor, without fences, can they graze the kikuyu, which has taken off on the slopes. A lucerne crop further up the gully has also taken off after being flood-irrigated for 12 hours during the rainfall event.

The heifers have been joined in a 50-head mob, running in a small paddock on the dairy platform with the dry cows.

"But the heifers are causing all kinds of trouble. They haven't been trained to electric fences yet. They have full bellies and they're like teenage girls, getting up to mischief," Mr Calvert, a father of daughters, said.

This is why he is going to move them back onto the outblock, but in a feedlot. Mr Calvert has a history of feedlotting livestock before he moved into dairy farming.

"I will stand my dry cows and heifers in a feedlot paddock. I can control how much the heifers are eating and they'll learn to settle down," he said.

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Some of the fire-affected landscape where heifers would normally graze on the Calvert farm. The fire came through the bush three times during the night of December 30.



Craig Calvert lost 500 fence posts to the bushfire on December 30.



Bushfire burnt through the landscape, followed by a flash flood two weeks later that has left the outblock covered in kikuyu grass and crops. But without fences, there is no capacity to graze the heifers and dry cows. Craig Calvert is feed-lotting the dry and young stock, to manage their feed intake, while he re-fences the farm.

'The bushfire came through in three waves, through the canopy and then the trees and understorey.'

"It's important to manage heifers so they don't get too much green feed."

He is feeding 185 megajoules of metabolisable energy per day to the milking herd, currently down to 160 cows, in a mix of green chop lucerne, silage and hay (all home-grown) and six kilograms of grain mix.

After harvesting the sorghum grown this summer on the outblock, in autumn he will sow ryecorn.

"We grew ryecorn last year on the dairy farm. It produced in bulk and goodness, providing fibre and starch," Mr Calvert said.

"I got three cuts off it between autumn to the start of spring. It grew very well in frost country in winter."

He harvested it as a green chop for the cows.

He's also considering sowing barley and oats in the autumn, again to harvest as green chop.

Come spring, sorghum will definitely be part of the mix, possibly with barley.

"I'll do a fair bit of ryegrass and clover oversowing pasture this year," Mr Calvert said.

Duncan Machinery has donated a pasture renovator to farmers in the district to help with pasture renovation work after the bushfires and Mr Calvert has booked time to use it.



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For more information see Website: dairyaustralia.com.au/FVI Index



Gippsland — Forage Value Index														
Cultivar				FVI Gipps	Autumn	Winter	Early Spring	Late Spring	Summer	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Base AR37				207	111	119	98	99	113	AR37	Tetraploid	Late	PGG Wrightson	12
Bealey NEA2				186	111	116	98	99	113	NEA2	Tetraploid	Very Late	Barenbrug	13
Kidman AR1				160	109	113	100	98	110	AR1	Diploid	Early	Barenbrug	8
Halo AR37				154	109	115	96	97	113	AR37	Tetraploid	Late	Agricom	12
Impact2 NEA2				148	107	113	99	99	111	NEA2	Diploid	Late	Barenbrug	12
SF Hustle AR1				146	107	113	99	99	110	AR1	Diploid	Mid	Seedforce	6
Shogun NEA2				144	105	112	100	98	112	NEA2	Tetraploid	Late	Barenbrug	6
One50				142	107	113	98	97	111	SE	Diploid	Late	Agricom	4
Fitzroy				137	106	112	102	97	108	SE	Diploid	Early	PGG Wrightson	4
Banquetll Endo5				127	107	112	96	98	111	Endo5	Tetraploid	Late	PGG Wrightson	9
One50 AR37				126	107	113	98	97	110	AR37	Diploid	Late	Agricom	8
Reward Endo5				123	107	112	97	98	110	Endo5	Tetraploid	Very late	PGG Wrightson	5
Arrow AR1				120	105	109	99	99	110	AR1	Diploid	Mid	Barenbrug	9
Matrix -Festulolium				120	107	112	97	97	111	Nil	Diploid	Late	Cropmark	7
Prospect AR37				120	106	113	98	97	109	AR37	Diploid	Late	Agricom	7
Expo AR37				120	107	112	97	98	109	AR37	Diploid	Late	PGG Wrightson	5
Excess AR37				120	108	112	97	97	110	AR37	Diploid	Mid	PGG Wrightson	6
Ansa AR1				120	106	111	98	98	110	AR1	Diploid	Mid-Late	Seed Distributors	7
One50 AR1				120	106	113	97	97	111	AR1	Diploid	Late	Agricom	11
Jackal AR1				118	107	111	98	98	109	AR1	Diploid	Mid	AGF Seeds	6
Platinum				114	107	112	97	98	109	Low	Diploid	Late	Valley Seeds	5
Revolution -Festulolium				99	105	111	97	98	109	AR1	Diploid	Late	Seedforce	4
AusVic				96	105	109	98	98	109	Low	Diploid	Mid	Vic Seeds	3
Endure		1		93	105	110	98	98	108	SE	Tetraploid	Mid	Vic Seeds	5
Avalon AR1				74	105	110	96	99	106	AR1	Diploid	Mid	Vic Seeds	8
Helix - Festulolium				66	103	108	97	97	108	AR1	Diploid	Mid	Cropmark	4
Ultra - Festulolium				64	104	108	96	97	109	AR1	Diploid	Late	Notman Seeds	6
Jeta AR1				59	104	102	98	99	109	AR1	Tetraploid	Mid	Pasture Genetics	6
Victorian				0	100	100	100	100	100	SE	Diploid	Early	Many	12

South West Victoria — Forage Value Index															
Cultivar					FVI Sth West Vic	Autumn	Winter	Early Spring	Late Spring	Summer	Endophyte	Ploidy	Heading Date	Marketer	No. of trials
Base AR37					181	111	119	98	99	113	AR37	Tetraploid	Late	PGG Wrightson	12
Bealey NEA2					166	111	116	98	99	113	NEA2	Tetraploid	Very Late	Barenbrug	13
Halo AR37					140	109	115	96	97	113	AR37	Tetraploid	Late	Agricom	12
Kidman AR1					136	109	113	100	98	110	AR1	Diploid	Early	Barenbrug	8
Impact2 NEA2					131	107	113	99	99	111	NEA2	Diploid	Late	Barenbrug	12
SF Hustle AR1					128	107	113	99	99	110	AR1	Diploid	Mid	Seedforce	6
One50					125	107	113	98	97	111	SE	Diploid	Late	Agricom	4
Shogun NEA2					125	105	112	100	98	112	NEA2	Tetraploid	Late	Barenbrug	6
Banquetll Endo5					118	107	112	96	98	111	Endo5	Tetraploid	Late	PGG Wrightson	9
Reward Endo5					113	107	112	97	98	110	Endo5	Tetraploid	Verylate	PGG Wrightson	5
One50AR37					112	107	113	98	97	110	AR37	Diploid	Late	Agricom	8
Fitzroy					110	106	112	102	97	108	SE	Diploid	Early	PGG Wrightson	4
Matrix-Festulolium					109	107	112	97	97	111	Nil	Diploid	Late	Cropmark	7
Excess AR37					109	108	112	97	97	110	AR37	Diploid	Mid	PGG Wrightson	6
One50AR1					108	106	113	97	97	111	AR1	Diploid	Late	Agricom	11
Expo AR37					108	107	112	97	98	109	AR37	Diploid	Late	PGG Wrightson	5
Ansa AR1					106	106	111	98	98	110	AR1	Diploid	Mid-Late	Seed Distributors	7
Arrow AR1					106	105	109	99	99	110	AR1	Diploid	Mid	Barenbrug	9
Jadkal AR1					105	107	111	98	98	109	AR1	Diploid	Mid	AGF Seeds	6
Prospect AR37					104	106	113	98	97	109	AR37	Diploid	Late	Agricom	7
Platinum					103	107	112	97	98	109	Low	Diploid	Late	Valley Seeds	5
Revolution-Festulolium					91	105	111	97	98	109	AR1	Diploid	Late	Seedforce	4
AusVic					88	105	109	98	98	109	Low	Diploid	Mid	Vic Seeds	3
Endure					85	105	110	98	98	108	SE	Tetraploid	Mid	Vic Seeds	5
Avalon AR1					70	105	110	96	99	106	AR1	Diploid	Mid	Vic Seeds	8
Ultra-Festulolium					63	104	108	96	97	109	AR1	Diploid	Late	Notman Seeds	6
Helix-Festulolium					62	103	108	97	97	108	AR1	Diploid	Mid	Cropmark	4
Jeta AR1					59	104	102	98	99	109	AR1	Tetraploid	Mid	Pasture Genetics	6
Victorian					0	100	100	100	100	100	SE	Diploid	Early	Many	12

GROWING BETTER PASTURES Value

For more information see Website: dairyaustralia.com.au/FVI Index



Cultivar		FVI Sth	Autumn	Winter	Early	Late	Summer	Endophyte	Ploidy		Marketer	No. of
		West Vic			Spring	Spring				Date		trials
Base AR37		152	111	119	98	99	113	AR37	Tetraploid	Late	PGG Wrightson	12
Bealey NEA2		134	111	116	98	99	113	NEA2	Tetraploid	Very Late	Barenbrug	13
Kidman AR1		116	109	113	100	98	110	AR1	Diploid	Early	Barenbrug	8
Impact2 NEA2		106	107	113	99	99	111	NEA2	Diploid	Late	Barenbrug	12
SF Hustle AR1		103	107	113	99	99	110	AR1	Diploid	Mid	Seedforce	6
Halo AR37		101	109	115	96	97	113	AR37	Tetraploid	Late	Agricom	12
Shogun NEA2		100	105	112	100	98	112	NEA2	Tetraploid	Late	Barenbrug	6
Fitzroy		97	106	112	102	97	108	SE	Diploid	Early	PGG Wrightson	4
One50		96	107	113	98	97	111	SE	Diploid	Late	Agricom	4
Arrow AR1		86	105	109	99	99	110	AR1	Diploid	Mid	Barenbrug	9
Banquetll Endo5		85	107	112	96	98	111	Endo5	Tetraploid	Late	PGG Wrightson	9
Reward Endo5		84	107	112	97	98	110	Endo5	Tetraploid	Verylate	PGG Wrightson	5
One50AR37		83	107	113	98	97	110	AR37	Diploid	Late	Agricom	8
Expo AR37		81	107	112	97	98	109	AR37	Diploid	Late	PGG Wrightson	5
Ansa AR1		81	106	111	98	98	110	AR1	Diploid	Mid-Late	Seed Distributors	7
Jadkal AR1		80	107	111	98	98	109	AR1	Diploid	Mid	AGF Seeds	6
Excess AR37		78	108	112	97	97	110	AR37	Diploid	Mid	PGG Wrightson	6
ProspectAR37		78	106	113	98	97	109	AR37	Diploid	Late	Agricom	7
Matrix-Festulolium		77	107	112	97	97	111	Nil	Diploid	Late	Cropmark	7
One50AR1		76	106	113	97	97	111	AR1	Diploid	Late	Agricom	11
Platinum		76	107	112	97	98	109	Low	Diploid	Late	Valley Seeds	5
AusVic		63	105	109	98	98	109	Low	Diploid	Mid	Vic Seeds	3
Revolution - Festulolium		62	105	111	97	98	109	AR1	Diploid	Late	Seedforce	4
Endure		60	105	110	98	98	108	SE	Tetraploid	Mid	Vic Seeds	5
Avalon AR1		48	105	110	96	99	106	AR1	Diploid	Mid	Vic Seeds	8
Helix-Festulolium		36	103	108	97	97	108	AR1	Diploid	Mid	Cropmark	4
leta AR1		35	104	102	98	99	109	AR1	Tetraploid	Mid	Pasture Genetics	6
Ultra-Festulolium		31	104	108	96	97	109	AR1	Diploid	Late	Notman Seeds	6
Victorian		0	100	100	100	100	100	SE	Diploid	Early	Many	12

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Measuring pasture intake with drones

 Researchers using drones to estimate pre-grazing and post-grazing pasture yields
 Refining current process to get high levels of accuracy

Not yet at a point where it is a

tool for farmers to use

By Armando Navas Department of Agriculture and Fisheries (DAF), Queensland

UEENSLAND Department of Agriculture and Fisheries staff based at Gatton are substituting traditional methods for measuring pastures, such as transects and rising-plate meters, for drones equipped with small cameras.

They not only believe they can accurately determine the available pasture crop mass in their paddocks but also estimate how much of it their cattle have consumed and how much was left behind.

For this objective, the researchers at DAF are currently flying a drone over lucerne and kikuyu field trials and gathering imagery that then can be processed at a later stage via a process called photogrammetry, into digital elevation maps (DEM). These maps display the height of the pasture across the paddock before and after cattle have grazed them.

To ensure the best height accuracy, the drone and its camera have to be flown very slowly, usually less than two metres per second, to avoid any abrupt breeze that may shake the drone and introduce distortion to the imagery.

These DEM maps then go through a second process, this time a geographical information system (GIS) mapping package, that takes the heights of the pasture and converts them to biomass (kilograms dry matter a hectare). The conversion of height to biomass is calculated through a set of calibration formulas developed from field measurement for each pasture or crop.

Preliminary results already show a good correlation between lucerne height and yield pre-grazing and a very strong relationship for pasture utilisation, with potential for improvement for both equations.

The result of the process is two maps, the first shows the crop's mass (kg DM/ha) distributed over a pad-58 The Australian Dairyfarmer March-April 2020



The drone with a high-resolution camera and ground control points with accurate GPS locations, which are necessary to accurately measure pasture height.

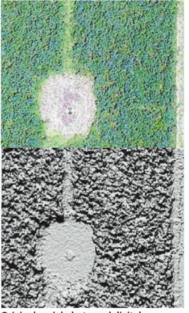
'The researchers at DAF are currently flying a drone over lucerne and kikuyu field trials and gathering imagery.'

dock and the second displays how much was consumed and how much was rejected by the livestock.

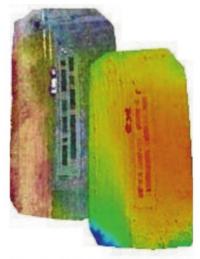
This information is valuable, as the first map permits the farmer to balance pasture availability to the amount of grazing pressure being applied to each individual paddock and the second map assists with determining if the livestock are eating the amount allocated.

The current method for taking pasture imagery and generating these pasture intake maps is still too time-consuming and convoluted to make it a tool that is easy for farmers to use.

The first objective for DAF is to refine the current process until a satisfactory level of accuracy is achieved and then use the findings to assist with collecting more accurate data within research experiments.



Original aerial photo and digital elevation map of lucerne plots.



Original aerial photo and digital elevation map of kikuyu plots.

Ultimately, researchers may be able to simplify and remove some of the intermediate steps that will allow drones to be used on farm with an immediate measure of pre and post-grazing yield plus pasture intake and utilisation. D Article courtesy of Subtropical Dairy's Northern Horizons

Pasture dieback threat to dairy farms

✓ Pasture dieback prevalent	
on beef farms for many	lind
Vears	

- Recent outbreaks on Queensland
- Research trying to find answers

ASTURE dieback has been seen on Queensland beef farms for almost 100 years. According to Meat and Livestock Australia, in early 2017, producers from across parts of central Queensland reported widespread dieback of pastures. In 2019, there have been two further suspected occurrences in northern NSW.

Subtropical Dairy says in recent years, there have also been reports of pasture dieback on dairy farms in Far North Queensland, east of Gympie and in the Sunshine Coast region.

Pasture dieback causes death of patches of pasture across a range of sown and native grasses. Symptoms include:

• Vivid yellowing and/or reddening of leaves.

• As the condition progresses, plants become unthrifty and eventually die in patches less than one metre in diameter to paddock scale (up to hundreds of hectares).

• Reduction in root system and grass density.

MLA is leading the research and development into containing pasture dieback.

A \$3 million Australian Government grant is assisting to progress further research on pasture dieback detection, causes, monitoring and solutions, with a focus on discovering more about mealybugs, their lifecycle and their impact on pastures.

Mealybug

One of the causes of pasture dieback has been confirmed. It is a root-feeding mealybug closely related to *Heliococcus summervillei* species. This mealybug has caused occasional bouts of dieback across coastal Queensland since 1926.

Most of the life stages of this sap-sucking insect live under the ground.

Only the tiny white immature crawlers are on the pasture leaf blades. These are readily spread by wind, passing animals or equipment.



Vivid yellowing of leaves is one of the signs of pasture dieback. Photo: Kelly Butterworth

Investigations into a range of causative fungal diseases and other microbes is continuing.

University of Queensland Gatton researchers have recently identified the white ground pearl, *Margarodes australis*, as another potential cause (see second story).

Management

Management of dieback-affected areas is also complex, with no clear recommendations currently available. MLA has compiled management tips and resources to help producers who have been affected by pasture dieback. These include:

• Sowing forage crops. For producers who need to feed stock, growing forage species is recommended.

• Re-sowing pasture or legumes. Consideration could also be given to sowing legumes and/or pasture species.

Increasing pasture diversity. Many Queensland pastures have become monocultures and are lacking diversity. The greater the diversity in the pasture, the greater the number of beneficial micro-organisms there are within the soil to help fend off attack from pathogens.
Incorporating intensive/cell grazing.

• Burning. Burning is often used as a management tool within a grazing operation. When mealybugs are present, and visible on the leaf, stalk and ground, burning will reduce their numbers. However, mealybugs will generally return since there will be many mealybugs under the ground not affected by the fire.

• Avoiding straight nitrogen fertiliser. It's been demonstrated that high levels of added nitrogen can increase mealybug size, growth rate and egg production.

• Minimising pesticides and insecticides. There are no insecticides that are legally approved for spraying on pastures in Queensland. Integrated Pest Management strategies, including the combination of control methods and grazing practices, aim to limit the insect populations to a manageable level without reliance on pesticide.

• Using insecticide in seed coatings. Consider using registered systemic insecticide products such as Poncho (BASF) or Gaucho (Bayer) in seed coatings when re-sowing forage or pasture crops as per label directions.

New information will be published on the MLA website plus producers can directly subscribe to the pasture dieback e-newsletter on https://www. mla.com.au/news-and-events/enewsletters/.

Good practice for mealybug mitigation

- Regularly monitor pastures and livestock.
- Report any suspicious symptoms.
- Ensure all farm inputs are pest-free.
- Develop a documented farm biosecurity plan.
- Communicate farm biosecurity requirements to farm staff and visitors.
- Make wash-down facilities available on farm.
- · Place biosecurity signs at the farm entry points.
- Ensure vehicles and machinery come onto farm mud and trash free.
- Use farm vehicles to transport visitors around the farm. Source: Agforce





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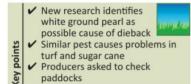
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AUSTRALIAN BRED & GROWN



Dieback linked to white ground pearl



By Victoria Nugent

RESEARCHERS from the University of Queensland's Gatton campus are closing in on the mystery of what's causing pasture dieback.

The research team at UQ have found the white ground pearl, *Margarodes australis*, at about a dozen pasture dieback sites across the state and are now asking farmers to check their own affected paddocks.

The sap-sucking insect pest is related to the pink ground pearl, *Eumargarodes laingi*, which has wreaked havoc on the turf industry and has also been known to cause significant damage to sugar cane.

The mysterious death of pastures since the early 1990s has been baffling scientists and primary producers alike, with bodies including Queensland's Department of Agriculture and Fisheries, Meat & Livestock Australia and the NSW Department of Primary Industries all invested in the hunt for a cause.

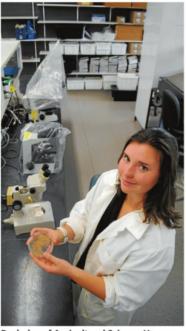
While the presence of mealybug has been linked to dieback, the UQ team now believe that it's more likely to be the white ground pearl at the root of the problem.

But it's not the adult ground pearls that seem to be connected to dieback, with researchers instead focusing on the cyst stage of the life cycle.

UQ School of Agriculture and Food Sciences lecturer Anthony Young said little was known about the damaging pest but judging by the pink ground pearl, they might prove difficult to control.

"In Florida, they've been using attempted steam controlling... they pump steam in to try to kill them because when they're in their cyst, they're extremely resilient to chemical attack because a chemical can't penetrate the cyst," he said.

"So your standard lawn treatments that you might use to kill white grubs, for example, just don't work on these guys."



Bachelor of Agricultural Science Honours graduate Melody Thomson displays white ground pearl cysts found at pasture dieback sites.

Dr Young described the ground pearls, which resemble gold balls measuring only 1-2 millimetres long, as looking like Osmocote fertiliser.

While researchers are stopping short of saying that white ground pearls are definitely the culprit, they have been able to confirm that they are present at numerous pasture dieback sites in Queensland and northern NSW.

Bachelor of Agricultural Science with Honours graduate Melody Thomson's work on the Gatton campus has shown that the higher the number of ground pearls beneath a plant, the greater the symptoms above the ground surface.

Ms Thomson, who is hoping to do her doctoral studies on the insect pest, said ground pearls had a wide range of host plants, with species within the insect family attacking grasses, wheat, barley, grapevines and sugar cane.

'There's been very little research on them, even overseas.'



Pasture dieback on the UQ Gatton campus, where researchers have found white ground pearls at the root level of grasses.



Ground pearl cysts are being studied by University of Queensland researchers delving into the issue of pasture dieback.

"There's been very little research on them, even overseas," she said.

"The pink one, the related species that we've had to draw a lot of information from, may have come from Florida or may have come from here and been transferred to Florida. In Australia, the pink one and the white one are both present in sugar cane and previous work has found the damage that they did... they decreased cane yields and caused plant deaths in some cases."

It has been suggested that the white ground pearl is native to Australia.

Ms Thomson said there was also a plan to look at the genetics of the ground pearl populations in different areas to figure out how they've been spread. At the moment, the team believes the insects have been transported in soil clinging to boots, wheels or animal hooves or else dislodged during major flooding events.

The focus will now turn to securing funding for further research but in the meantime, primary producers can play their part in the search for the answers.

GROWING BETTER PASTURES



The University of Queensland's Melody Thomson and Anthony Young take a look at samples of white ground pearls collected from pasture dieback sites across the state.

Dr Young called for graziers to look at pasture dieback affected areas on their properties by digging up to 30-centimetres below the surface and then getting in contact with researchers with details of what they've found to help build a database.

UQ student Julie Orr went looking for signs of the tiny pest during her mid-semester break on her grandparents Lance and Beryl Howkins properties at Kalapa and Dululu.

It didn't take long to find what she was looking for after she and her grandmother dug up a patch of dieback on the roadside, softened after some recent rain.



The white ground pearl appears as tiny gold cysts at the root level of the grasses.

"All we did was turn a couple of tussocks of grass over and we found them," she said.

Producers or anyone else who is interested in the research can contact Dr Young on email anthony.young@ uq.edu.au to help progress the team's white ground pearl research.



7/9/2020

eEdition

GROWING BETTER PASTURES

Different species key to adaption

- Perennial ryegrass pastures struggling to persist
- Vital to manage alternative
- species correctly
- New varieties adapted to tougher climates

CHANGING to more robust pasture species may help farms adapt to warmer, drier climatic conditions, a field day in western Victoria last year was told.

But it is vital farmers understood the basics of managing alternative species to ensure success with these.

Valley Seeds plant breeder Anthony Leddin told the field day about the limitations of some species and solutions to these limitations.

"The engine room of a species is the genetics of a variety that has the capacity to deliver higher-yielding and more persistent varieties," he said.

"This is the kind of adaptation that we need for our current climate challenges. More than that, however, is the need for producers to adapt to this challenge by first understanding the basics of managing these alternative species."

Mr Leddin said recent trials and feedback from many farmers indicated in areas where perennial ryegrass was once a stable base to a pasture system, these were struggling to hold due to environmental conditions.

As a result, farmers were looking for species that were better adapted to fluctuating rainfall and temperature patterns. "All the perennial ryegrass varieties in my trials, both at Yarck and Yambuk near Warrnambool (Vic) have repeatedly died out after one or at most two years," he said.

"In adjacent trials, other species such as cocksfoot, phalaris and Mediterranean tall fescue have persisted extremely well.

"While much of our breeding effort is based around these species, we need to manage them differently to perennial ryegrass.

"The most important part is to start with clean, weed-free paddocks. This can be achieved in a profitable and sustainable way by starting with at least one year of annual or Italian ryegrass.

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Valley Seeds plant breeder Anthony Leddin discusses the attributes of adaptive pastures.



A range of adaptive and sustainable pasture varieties were on display during the Valley Seeds open day.

"More production from fewer acres takes the pressure off other parts of the farm.

"At the same time, we have the opportunity to reduce weeds and prepare a clean paddock to sow a new more persistent species."

Valley Seeds has been plant breeding since 1972. The company now exports to Europe, Argentina, Chile and the United States.

'In adjacent trials, other species such as cocksfoot, phalaris and Mediterranean tall fescue have persisted extremely well.' The company's managing director Donald Coles said these were all countries with similar climate challenges to those experienced in Australia.

"Many of our new varieties have produced more than the latest varieties bred in Europe, at least that was the results of the European Union official trials in Portugal, which gave varieties like Amass and our new annual ryegrass Astound official registration for entry into the EU."

Valley Seeds has the largest private pasture breeding program in Australia and has generated 12 new varieties including Amass ryegrass. The company said Amass was the first Italian ryegrass to better match the Australian climate and in many regions persisted in to the second year, while at the same time producing herbage yields similar to annual ryegrass. Article supplied by Valley Seeds,

website valleyseeds.com/.

Pasture research aims for \$100m benefit



cultivars best suited to their farm

By Carlene Dowie

PASTURE is front and centre of an \$8.5 million a year research project based at the Ellinbank Research Centre in Gippsland.

The Dairy Feedbase project is a joint venture between Dairy Australia, Agriculture Victoria and the Gardiner Dairy Foundation.

Dairy Australia director of major innovation and co-director of Dairy Feedbase Kevin Argyle said the project focused on how farmers could grow and utilise more pasture and how feeding could be optimised at an individual cow and herd level to produce more profitable milk.

"This is really exciting in terms of what we are seeing," he told visitors to the centre late last year. "It is really transformational. The program has only been running for 18 months but we've already had significant breakthroughs."

Mr Argyle said \$1.5 million of the annual investment was DA levy money. This was good leverage, particularly in light of what the project was aiming

Crusadei

Italian Ryegrass



Dr Martin Auldist explains research is looking at how Rumi Watches could be used to measure individual cow pasture dry matter intake.

to achieve – a \$100 million benefit a year to the industry in 10 years time.

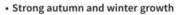
Pasture research as part of the project includes looking at ways to better allocate pastures, developing tools such as drones to better measure pasture growth and tools to allow farmers to select cultivars better suited to their farms.

Allocating pastures

Senior research scientist Dr Martin Auldist told visitors the Smart Feeding Project was about trying to find better or more profitable ways to allocate onfarm feed resources, including pasture.

Dr Auldist said initial case studies had revealed that some cows on large farms walked more than 10 kilometres per day to and from the dairy and spent up to nine hours away from the paddock. It had also revealed that there was a consistency in the order in which cows came into the dairy each day – something of which most farmers were well aware.





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GROWING BETTER PASTURES



Ellinbank researchers are assessing various tools, including drones, for measuring pasture dry matter.

The other observation was the relationship between milking order and milk yield, which revealed that the first cows produced more than the last cows. "Our case study data, as well as previous research by others, shows that difference is in the order of around about five kilograms of milk per cow per day," Dr Auldist said.

The first part of the research looked at releasing random groups of cows back to the paddock at 45-minute intervals, sequentially for three hours for up to 10-15 days. "Lo and behold, we found that the first cows produced that magic figure 5kg more than the last cows," he said.

The research showed that the difference was purely down to when the cows went to the paddock – not whether, as farmers sometimes assumed, some animals were hungrier, higher-producing cows while others were lame or sick cows.

The research also showed that 40 per cent the pasture dry matter was gone by the time the last cows got to the paddock and that the remaining grass was of lower quality. This meant the last cows spent more time grazing as they tried to get the same level of intake.

The next part of the project was looking to find mitigation options and testing those. These could include splitting the herd, holding back pasture for later cows, holding back cows until all were finished milking, feeding in the dairy differentially based on milking order or pre-grazing topping to reduce selection.

Dr Auldist said the project was also attempting to try to measure dry matter intake in grazing cows in near real time. "It's a massive challenge," he said.

The project was testing on-cow jaw movement recorders called Rumi Watches. These sensors could already distinguish between harvesting bites and chewing bites.

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Professor Kevin Smith with the portable NIR machine that they are using to measure pasture guality.

'The program has only been running for 18 months but we've already had significant breakthroughs.'

So that was one part of the equation solved. Researchers were now looking at the variation in bite size to combine with the number of bites information to produce an estimate of dry matter intake.

They were also looking at other ways to measure this intake, including measuring methane pulses.

Measuring pasture growth

Senior research scientist Dr Liz Morse-McNabb said the Pasture Smarts Project was testing pasture-measurement tools to prove their capability and ease of use to improve pasture utilisation.

"So it is all about utilisation, if you can't measure it, you can't manage it," she said.

Technology being assessed included different types of sensors attached to drones or side-by-side vehicles. All of this is calibrated using precise GPS measurements.

The project is also working on a sensor that could assess plant health, based on the colour.

Dr Morse-McNbb said six partner farms across Victoria were involved in the project, to help researchers assess how technology would work on different farms. Some preferred a simple tool like a sonar on a side-by-side vehicle, but people were also interested in using drones.

The research was aiming to find quick and easy tools that farmers could use to measure pasture every day.

Cultivar research

Professor Kevin Smith said the Future Forage Value Index was looking to develop tools to allow farmers to choose between cultivars based on their relative performance and value in particular seasons.

The FVI already provided a comparison of perennial ryegrass cultivars for three Victorian regions and Tasmania across five different seasons.

"But a dairy farmer goes on our website and says that's great, but it's just perennial ryegrass, it's just yield, so how do we bring these new traits that are important to me – whether that's that I want short-term ryegrass, I want tall fescue data or I am interested in persistence or I am interested in forage quality between varieties," Prof Smith said.

So this project aimed to get new species and new traits into the FVI and to help breed more persistent varieties.

One part of the research involved developing a better tool to give faster and cheaper pasture quality results.

"If we think about forage quality there is also not enough data," Prof Smith said. "It is about \$70-\$100 to send a sample through to be feed-tested. So if you have a ryegrass trial with 120 plots and you harvest them eight times a year, you realise why people don't do it, it's too expensive."

The research is looking at using a portable near-infrared machine attached to a bucket to exclude sunlight. This would allow within about 30 seconds enough data to be captured to give a real-time estimate of the quality of that sample.

The current cost of the NIR machine at \$100,000 would make it too expensive for use outside of research but the next phase it to identify what was the important information in the measurement. This could allow the development of a \$10,000 machine that could be used by a consultant agronomist or a farmer themselves.

"It's not there yet but it's not science fiction either," Prof Smith said. "In three years time, farmers could have access to real-time estimates of forage quality."

It would mean farmers could measure a pasture's metabolisable energy and then make adjustments to the amount of pasture offered or the supplementary feed ration.

More information about the projects is available on dairyfeedbase.com.au/.

eEdition

Sidw.

Holsteins dominate IDW interbreed



The IDW Australia's Grand Champion cow Avonlea Reginald Jacobonia with owner Matt Templeton, Tarwin Lower, Vic.

By Carlene and Alastair Dowie

H OLSTEINS dominated the interbreed championships at International Dairy Week in January, taking the senior and intermediate awards. The Illawarra exhibit won the junior

interbreed championship.

The Jerseys also performed well in the interbreed competition, being named reserve in all three categories.

A six-year-old cow Gippsland-bred and owned Holstein cow was named Australia's Grand Champion Cow.

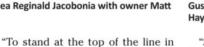
Avonlea Reginald Jacobonia was shown by Matt and Nicola Templeton and his parents Bruce and Jan, Tarwin Lower, Vic.

It was bred by John Gardiner's renowned Avonlea Holstein stud, Cardinia, Vic, and was from Avonlea Ignite Jacobonia by Regancrest Reginald.

The Templetons bought the cow after Matt spotted it at IDW in 2019.

"Matt was walking around and saw the cow and she really took his fancy," Nicola said.

"IDW is the number one show. It's absolutely amazing to win because it's an internationally recognised show.



all breeds but also in the Holsteins because there are so many great cows."

The intermediate champion interbreed cow was from the famous Elmar Holstein's Jessica family.

Elmar Solomon Jessica 5, was bred and shown by Steven and Deanne Hore and children Kelsie, Marty and Brady, Elmar Holsteins, Leitchville, Vic.

Elmar's Jessicas have won many awards at IDW, including this champion's mother, Elmar Goldwyn Jessica 11, which was Australia's Grand Champion cow and supreme Holstein at IDW in 2018. Steven Hore said it was the two-year-old's first show.

Mr Hore said the Jessicas were their strongest family and had been "very successful" at IDW.

The interbreed junior champion was shown by the Hayes family, Llandovery Illawarras, Girgarre, Vic.

Llandovery Guses Freda was from one of the herd's foundation families, the Fredas, Zoe Hayes said.

"They are usually real good herd cows, production cows," she said. "We don't show many of them.



The intermediate interbreed champion Elmar Solomon Jessica 5-ET with owners Deanne, Brady and Steve Hore, Elmar Holsteins, Leitchville, Vic.



The junior interbreed champion Llandovery Guses Freda with one of the owners Zoe Hayes, Llandovery Illawarras, Girgarre, Vic.

"She's such a sweet stylish calf; I think she has a good future ahead of her."

The young calf was in its first show but was calm in the ring.

"I couldn't believe it – she just loved it out there," Ms Hayes said.

INTERBREED HONOUR ROLL

Australia's Grand Champion: Avonlea Reginald Jacobonia, B, J, M & N Templeton, Tarwin, Vic.

Reserve: Windy Ways Galaxies Dawn 7 Cherrylock Cattle Co & Windy Ways Jersey, Tallygaroopna, Vic.

Interbreed intermediate champion: Elmar Solomon Jessica 5-ET, Elmar Holsteins, Leitchville, Vic.

Reserve: Jimann Tequila Maree, TJ & JH Campbell, Rochester, Vic.

Interbreed Junior Champion: Llandovery Guses Freda, the Hayes Family, Girgarre, Vic.

Reserve: Philmar FC Upto Mischief, Andy Cullen, Cohuna, Vic.



Champion Ayrshire owners look to future

By Carlene Dowie

YOUNG couple who have returned to dairy farming in the past 18 months took the grand champion Ayrshire award at International Dairy Week in January.

Greg and Kim Wilson, Irrewillipe, Vic, have only a few Ayrshires in their herd but are looking to grow that – with Mr Wilson's interest spurred on by his parents' involvement with the breed for many years.

The couple sees a bright future for the industry.

"We are really confident about the dairy industry going forward," Mr Wilson said.

The Ayrshires had a spectacular show as the feature breed with a large exhibition in front of a crowd of more than 100 international visitors, attending IDW as part of the World Ayrshire Conference.

The grand and senior champion and the intermediate champion were bought in October at the dispersal of one of Australia's top Ayrshire herds – the Hillcrest Ayrshire stud of Kevin and Sharon Smith, Borallon, Queensland.

The grand champion was sevenyear-old Hillcrest Ambush Bangle.

Judge Francois Beaudry, Canada, said all the cows vying for the senior champion showed a lot of true breed character.

"This cow today really represents what the Ayrshire breed is," he said. "I think she is just perfect."

He earlier awarded Hillcrest Ambush Bangle the champion udder.

Mr Wilson said the couple bought the champion, along with two other cows, at the Hillcrest dispersal.

"My father saw her grandmother at dairy week – that's the Retake cow – and had raved about her ever since," Mr Wilson said.

"So when the sale came up with the opportunity to buy one of the Bangle family, we took it."

Mr Wilson said the three cows fitted well into their 1000-cow herd, but the champion stood out.

"We are just really happy with her – she's as milky as a cow you'd see, if nothing else," he said.

"Even if she didn't win today, she's just a treat to milk every day – she takes your eye out of a 1000 cows."

Mr Wilson said he had always had a keen interest in the breed.

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The grand champion Ayrshire Hillcrest Ambush Bangle with owners Kim and Greg Wilson, Irrewillipe, Vic, and their children Ella and Henry.

"I grew up milking Ayrshires not far from where Kim and I farm now," he said.

"My brother and I milked our family herd for a few years together and then we dispersed in 2014 – the 300 Ayrshires that were bred by my mother and father."

Greg and Kim spent a few years out of the industry before taking on a share-farming position together.

Their herd comprises mostly Holsteins and some crossbreds.

"We're not breed-specific, the bulk of our herd will be Holsteins but we will have some really good Ayrshires," Mr Wilson said.

"We just like good cows, no matter what colour they are."

The couple has already flushed the cow and has seven eggs from her, which they hope to use to produce a cow that's even better than the champion.

They said the season where they farm had been fantastic.

The intermediate cow, Hillcrest Jumper Lorette 2nd, was shown by Scott Braendler's Boldview Farms.

It had topped the Hillcrest dispersal sale for a new Australian Ayrshire record price of \$21,000.

"So I suppose with that everyone was hanging in the balance to see what she was going to do - she was either going to be too dear if she didn't win the thing or if she won, she was going to be worth it," Mr Braendler said.

"She was just an awesome looking cow and had the pedigree. We'd never spent that sort of money on a cow before.

"It was a once-in-a-lifetime opportunity to go to a sale and be able to buy ge-

AYRSHIRE HONOUR ROLL

Grand champion: Hillcrest Ambush Bangle, Greg and Kim Wilson, Irrewillipe, Vic.

Senior champion: Hillcrest Ambush Bangle.

Reserve: Rockvale Burdette Olga, SN Cole & RL Byrne, Wagga Wagga, NSW. Best udder: Hillcrest Ambush Bangle.

Intermediate champion: Hillcrest Jumper Lorette 2nd, Boldview Farms, Kalangadoo, SA.

Reserve: Paschendaele Forever Gigi-IMP-ET, Eagles Partnership, Gooloogong, NSW.

Junior champion: Parkville Rockstar Lorna-ET, James Dillon, Ruby, Vic.

Reserve: Mayfield Farms Vicking Showcase, Vicki and Paul Timbs, Jaspers Brush, NSW.

Premier breeder: Kevin Smith, Hillcrest Ayrshires, Qld.

Premier exhibitor: Scott and Cheryl Braendler, Boldview Farms, SA.

C

INTERNATIONAL DAIRY WEEK REPORT

netics from a herd of 106 years of breeding and of the quality of something we really wanted to do to move our own farm and our own stud forward."

The cow also offered an outcross pedigree for the Boldview herd.

Mr Braendler said they hoped to get Jumper Lorette 2nd in calf for dairy week next year or would look to flush her if it missed.

"She is only young so she has a good future ahead of her," he said.

IDW director Brian Leslie praised the breeding of Kevin Smith, who won the show's premier breeder award.

"This guy has not shown cows for many years and when they did no one could get near them," he said.

"To be not only premier breeder but breeder of the intermediate and grand champion is nothing short of unique."

The junior champion Parkville Rockstar Lorna-ET was shown by James Dillon, Ruby, Vic.

Mr Dillon said the calf, which was shown in the first class of the day, was



The junior champion Ayrshire Parkville Rockstar Lorna with owner James Dillon, Parkville, Ruby, Vic, and leader Matilda Cole.

an embryo transfer born in July out of a flushing from a cow he bought from Max Hyland's dispersal.

He still had five eggs from that flushing.

The calf was by Rockstar, which Mr Dillon had not used much previously, but he was after something with a really good udder.

"I am extremely happy with how it went," he said.



The intermediate champion Ayrshire Hillcrest Jumper Lorette 2nd with owners Scott Braendler and Cheryl Liebich, leader Alex Hentschke and judge Francois Beaudry.

Mr Dillon is also enjoying the move from northern Victoria to Gippsland.

"It has been a brilliant season," he said.

"To be not feeding silage or hay on Christmas day was great."

Mr Beaudry said although the calf was the youngest in the junior championship class, he was impressed with its rib and sharpness.

Ayrshires pass \$10,000 twice

NILMA North, Vic, Ayrshire breeders, Munden Farms, set a new record for an Ayrshire cow at \$10,200 at the Ayrshire World Conference sale at International Dairy Week.

The lot was one of two that sold for more than \$10,000 in the catalogue that averaged \$4437, a new breed record.

The previous best at IDW was \$3485 in 2015. The breed's previous best Australian average was \$3636.

The top lot was Munden Farms Rubicon Maiden by Des Coteaux Rubicon.

The buyers were breeder Karl Munden, along with Stuart Beverley and US-based

Greg Evans, Sunny Acres, New York state. Mr Munden said he was happy to re-

tain a third share in the September 2019drop heifer out of Magic Park Model Maiden.

Mr Munden later combined with W Macadam and Steiner Partnership to pay \$9500 for the "pick of the Geelunga herd".

The offer gave the buyer the choice of around 200-head of Geelunga-owned females.

Lot 1 of the catalogue, the Edmonds family's Geelunga Burdette Dea, got the sale off to a great start selling for \$10,000. The lot was bought by TA Saunders & AG Day, Shady Creek, Vic.

The January 2019-drop heifer was sired by US sire Palmyra Tristar Burdette. Dairy Livestock Services auctioneer Brian Leslie said the sale top and record price of \$10,200 was an incredible result for the breed.

"I know we've never sold an Ayrshire here for \$10,000 and now we've sold two," Mr Leslie said.

He said it was a strong sale given the conditions.

"We have to remember that people across Australia are looking to buy hay and the cost of one of those heifers would buy a lot of hay," he said.

"To be able to have the result that we have in the climate we have is fantastic."

Hillcrest Gentle Rose sold by the Intrepid Syndicate made \$6200 to B & M Hayter, Euberta, NSW.

The lot was an August 2016-drop female by Duo Star Gentleman and out of Hillcrest Poker Rose.

A pick-of-the-pair offer at Lot 6 saw Beardrock Reagans Joyce 4th selling for \$5300 to Greg Klatt, Mount Barker, SA.

The August 2019-drop heifer was sired by Palmyra Berkely Reagan.

Cher-bar Famous Secret, sold by Boldview Farms, Kalangadoo, SA, was knocked down for \$4250. The buyers were Steiner Partnership, NZ, and S Hentscke.

It was sired by United Kingdom sire, Hunnington Famous and out of Cher-Bar Burdette Secret.

Paul and Vicki Timbs, Jaspers Brush, NSW, sold a March 2019-drop heifer for \$4200. - Alastair Dowie



With the \$10,200 top-priced lot are Imogen Steiner and partner vendor Karl Munden, Nilma North, Vic, and one of three buyers Stuart Beverley.



Buyer of lot 1 at \$10,000, Anthea Day, Araluen Park, Shady Creek, Gippsland, Vic, with Jessica Bailey, Geelunga Ayrshires, Meadows, SA.

eEdition

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Winning ribbons thrill Jersey breeders



Breeder and part-owner of the senior and grand champion Jersey exhibit Windy Ways Galaxies Dawn 7, Frank Walsh, Stanhope, Vic, with another part-owner Brad Gavenlock.

By Alastair Dowie

THE 2019 Jersey intermediate champion cow has brought more joy to its owners by taking out the senior and grand champion exhibit in the 2020 International Dairy Week Jersey Show.

"I've won footy premierships and played in footy premierships and this is right up there with the top," breeder and part-owner of the cow Frank Walsh said.

"This is what you do all your life and this tops it off."

The champion cow was Windy Ways Galaxies Dawn 7 shown by Cherrylock Cattle Co & Windy Ways Jersey, Tallygaroopna, Victoria.

Mr Walsh said they milked up to 400 cows this year.

"This makes everything look up. She's a great cow, easy to handle and has just kept improving all the time."

Mr Walsh said the win and genetics of the winner went back to 1925 when the family started milking. "She has never been beaten," he said.

The other part-owner Brad Gavenlock said he hoped the cow was pregnant.

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"The plan was always to get her pregnant and hopefully bring her back next year," he said.

"We didn't know if this was going to be a fairy tale or not.

"We'll do some IVF work with her. She was supreme intermediate at Sydney last year, so I guess she's got some unfinished business up there. I'm not ruling out a trip to Sydney in April yet."

'I've won footy premierships and played in footy premierships and this is right up there with the top.'

Mr Gavonlock said the win ranked right up there

"Our last grand champion that we owned was 2005, so it's been a while between drinks," he said.

Judge Chris Hill, Maryland, US, said the winner represented "why we do this".

He said the champion had the perfect combination of strength and dairyness. It walked on tremendous feet and legs and had a beautiful udder.



Junior champion Jersey Philmar FC Upto Mischief with owner Andrew Cullen, Cohuna, Vic, and judge Chris Hill, Maryland, US.

JERSEY HONOUR ROLL

Grand chawmpion: Windy Ways Galaxies Dawn 7, Cherrylock Cattle Co & Windy Ways Jersey, Tallygaroopna, Vic. Senior champion: Windy Ways Galaxies Dawn 7.

Reserve: Brookbora Love Lies 678, Brookbora, Aspire, Parrabel & Rockstar, Tennyson, Vic.

Best udder: Brookbora Love Lies 678. Intermediate champion: Jimann Tequila Maree, TJ & JH Campbell, Rochester, Vic.

Reserve: Bushlea Viral Iris, Shae Tweddle, SA.

Junior champion: Philmar FC Upto Mischief Andy Cullen, Cohuna, Vic.

Reserve: Rivendell Victorious Valana Hayley Menzies, Worrigee, NSW.

Premier breeder: Brookbora Jerseys, Tennyson, Vic.

Premier exhibitor: Brookbora Jerseys, Tennyson, Vic.



INTERNATIONAL DAIRY WEEK REPORT

"What a dairy machine," he said. The reserve senior champion was

Brookbora Love Lies 678 shown by Brookbora, Aspire, Parrabel & Rockstar, Tennyson, Vic.

Intermediate champion was another thrilling story for Trevor and Julie Campbell, Rochester, Vic, who bred and showed Jimann Tequila Maree.

Mr Campbell said the cow had never been to IDW before but had been shown at local shows.

The winning cow was out of a Spiritual cow in the M family.

Mr Campbell said the cow was from a humble background that went back 50 years ago when he started milking with a line of heifers for which he paid \$60 each.

"She descends from one of those heifers. She is the culmination of 50 years of breeding," he said.

He said they had dispersed their herd but retained the cow plus another.



Jersey judge, Chris Hill, Maryland, US, with the intermediate champion Jersey cow, Jimann Teguila Maree and leader Murray Polson, Taree, NSW.

"It's a great thrill to win something like this at dairy week – it's not a bad way to finish," he said.

Reserve intermediate was Bushlea Viral Iris shown by Shae Tweddle, SA.

The junior champion was shown by Andrew Cullen, Cohuna, Vic. The heifer was Philmar FC Upto Mischief. The reserve junior was Rivendell Victorious Valana, shown by Hayley Menzies, Worrigee, NSW.

The best sire award was Tower Vue Prime Tequila from Agri-Gene.

The premier breeder and premier exhibitor was the Bacon family's Brookbora Jerseys, Tennyson.

Jersey heifer record at \$24,000

AN unjoined Jersey heifer set a new Australian record of \$24,000 at the Global Impact Supremacy Jersey sale at International Dairy Week.

In a night of records, the sale average of \$5876 was also a record for IDW, beating the previous record of \$5386 set in 2015.

The top-priced lot was Lot 1, Lightning Ridge MB VIP Fabienne. The July 2019drop heifer was sired by River Valley Venus VIP and out of MB Lucky Lady Feliz Navido. The buyers were Mitchell Flemming and Lukas Randle, Newry, Vic.

Mr Flemming said they had been keeping an eye on the heifer's dam for a long time.

The vendors were Declan Patten and Callum Moscript, Sale, Vic.

Mr Patten said the heifer's history went back to a visit he made to World Dairy Expo where he saw the "most complete Jersey cow" he had seen.

The cow was Feliz Navidad, and he bought embryos. "We are incredibly happy with how she went," he said.

The syndicate also sold the second-highest priced lot at \$10,300 for Lightning Ridge Applejack Chilli. Chilli was by Steinhauers Applejack and out of Chilli Premier Cinema.

The buyer was Rocky Allen, Cobargo, NSW.

The same vendor also received \$6500 for Lot 2, Lightning Ridge MB



An Australian record price for an unjoined Jersey heifer at \$24,000 with buyers Mitchell Flemming and Lukas Randle, Newry, Vic, with vendors Callum Moscript and Declan Patton, and handler Casey Treloar. At back are Dairy Livestock Services manager Scott Lord and auctioneer Brian Leslie.

Premier Sunrise. It was sired by Hawarden Impuls Premier and out of Bri-Line Valson Spritz.

The buyer was Bushlea Farms, Koonwarra, Vic.

Another lot by the same vendor Lightning Ridge MB Showdown Dixie made \$7000, bought by Menzies Farms and John Andrews, Numbaa, NSW.

Wallacedale Jerseys, Poowong North, Vic, offered an August 2017-drop female, Wallacedale Brax Melys. Melys sold for \$7900 to Cohen Harrison, Nerrena, Vic.

- Alastair Dowie

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Gippsland Holstein grand champion

By Alastair Dowie

GIPPSLAND cow bred by the renowned Avonlea Holstein stud and owned and exhibited by fellow Gippslanders, the Templeton family, came away with top honours in the National Holstein Show at International Dairy Week.

Matt and Nicola Templeton and parents Bruce and Jan, Tarwin Lower, Vic, were the proud owners of Avonlea Reginald Jacobonia, the senior champion and grand champion exhibit.

The six-year-old, sired by Regancrest Reginald, beat another Avonlea-bred female, Avonlea-YF Windbrook Cinnamon, shown by Cinnamin Partners, Blighty, NSW, for the champion ribbon.

Nicola Templeton said they had bought the cow in 2019 after husband Matt spotted her at IDW in John Gardiner's team.

"Matt was walking around and saw the cow and she really took his fancy," she said.

"Matt and John have a close relationship when it comes to special cows and John trusts Matt's ability and eye when it comes to special cows. Just developing the cows and looking after them and getting the most of out of them, whether that be showing or progeny wise."

The cow was "very youthful" and had a lot more to come.

"IDW is the number one show. It's absolutely amazing to win because it's an internationally recognised show," Nicola said.

"The judges spell it out every time about how astounded they are at the quality of the animals.

"To stand at the top of the line in all breeds but also in the Holsteins because there are so many great cows."

The Templetons milk up to a peak of 250 and brought five Holsteins and a Jersey cow to IDW.

Nicola said they didn't employ people but did all the show preparation themselves while Bruce milked the herd at home.

"We don't necessarily breed show cows, we breed for good, functional cows," she said.

"They have to produce milk, that's how we make money.

"We have a very commercial base. It's been ingrained in me that we have to make money from milk.

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The grand champion Holstein Avonlea Reginald Jacobonia with owners Matt and Nicola Templeton, Tarwin Lower, Vic, and judge Brent Walker, Canada.

"We won the pen of three cows, which was nice to see the representation of our cows."

The breeder of the cow, John Gardiner, said she was from the Jacobonia cow family that went back 30 years.

He said when he was approached to sell the cow, he knew what Matt Templeton could do with a cow like that.

Judge Brent Walker, Guelph, Ontario, Canada, said there was a fair bit at stake when judging.

"You just want to do a good job and everyone thinks they have a shot," he said.

"You come with the expectations that they are going to be good cows. The cattle were so well presented, the cows were comfortable and the people were comfortable. 'The judges spell it out every time about how astounded they are at the quality of the animals.'

"She (the champion Holstein) is a complete package. She's not a young cow, she has calved multiple times, she's really good uddered and strongjust a really good cow," he said.

Mr Walker judged Mario Park Atwood Midas, shown by MD & JE Polson, Oxley Island, NSW, as senior best udder.

The intermediate champion Holstein cow was Elmar Solomon Jessica 5, bred and shown by Steven and

Deanne Hore and children Kelsie, Marty and Brady, Elmar Holsteins, Leitchville, Vic.

Cordw

Steven Hore said it was the twoyear-old's first show. "We concentrate on showing in-milk cows," he said.

He said the cow's mother Elmar Goldwyn Jessica 11, was champion Holstein cow at IDW in 2018 and supreme cow that year.

Mr Hore said the Jessicas were their strongest family and had been "very successful" at IDW.

"The show team is nearly all Jessicas," he said.

"We hope we can bring her back again. She was fifth in the state in the Semex on-farm competition.

"We've been showing for a long time. We had a small team of milkers this year. We try to show quality and look after them."

Reserve intermediate champion was Lightning Ridge Beemer Camilla, shown by Busybrook Holsteins, P Smit & G Fullerton, New Zealand. Camilla was also the intermediate best udder cow.

The champion junior heifer, Cherrylock Chassitys Innocence, came from class eight.

The cow was bred and shown by the Cherrylock Cattle Co, of Brad and Jessica Gavenlock, Tallygaroopna, Vic.

Judge Mr Walker said in the class judging that the eventual winner "comes to the top, she's is a very clean heifer, open rib, beautiful leg she's a heifer that's pretty hard not to like'

Brad Gavenlock said the heifer's grandmother was a Schottle-Chassity from the United States, known as the \$1.2 million cow.

The Gavenlocks bought the dam, Chassity Atwood, in the US and imported embryos to Australia, producing the winning junior.

He said the heifer was due in April, "hopefully for the Winter Fair"

Mr Gavenlock said the IDW result topped off her show record - "the big fish"

"She has an unbelievable show record. She was junior champion at Sydney Royal in 2019 and junior champion at the Winter Fair last year," he said. "She has never been beaten at any local show.'

He said the win was a "special feeling" with the heifer's breeding background to take the ribbon.

Nine years ago they visited Butler View Farms where the grandmother was and had their photo taken with her.



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The intermediate champion Holstein Elmar Solomon Jessica 5 with Brady, Deanna and Steven Hore, Leitchville, Vic.



The junior champion Holstein Cherrylock **Chassitys Innocence with leader** Murray Polson, owners Jessica and Brad Gavenlock, Cherrylock Cattle Co, Tallygaroopna, Vic, and judge Brent Walker, Canada.

HOLSTEIN HONOUR ROLL

OVERALL HOLSTEIN SHOW

Grand champion: Avonlea Reginald Jacobonia, B, J, M & N Templeton, Tarwin Lower, Vic.

Senior champion: Avonlea Reginald Jacobonia.

Reserve: Avonlea-YF Windbrook Cinnamon-ET, Cinnamon Partners. Blighty, NSW.

Best udder: Holstein Mario Park Atwood Midas-ET, MD & JE Polson, Oxley Island, NSW.

Intermediate champion: Elmar Solomon Jessica 5-ET, Elmar Holsteins, Leitchville, Vic

Reserve: Lightning Ridge Beemer Camilla-IMP-ET, Busybrook Holsteins, P Smit & G Fullerton, New Zealand.

Junior champion: Cherrylock Chassitys Innocence, Cherrylock Cattle Co, Tallygaroopna, Vic.

Reserve: Cherrylock BH Apple Vale Holsteins, Cider-RED, Sun G Hargraves, D&M Schirm & F&D Borba, Cashmore, Vic.

Premier breeder: JH & CJ Gardiner, Cardinia, Vic.

"We said one day we would like to own something out of her. We bought the daughter and now have the Chassity heifer," he said.

The Templetons also had an interest in the intermediate champion Red & White Show Holstein along with Menzies Farms. The cow was Cairnsdale Absolute Red Delight. The

Premier exhibitor: Gorbro Holsteins, Cohuna, Vic.

RED-AND-WHITE HOLSTEIN SHOW

Grand champion: Rusty Red Liner Georgie-RED, Judson Jennings, Chapple Vale, Vic.

Senior champion: Rusty Red Liner Georgie-RED.

Reserve: Mitch Chipper Beauty-IMP-ET-RED, Mitch Holsteins & TPM, Bamawm, Vic

Best udder: Mitch Chipper Beauty-IMP-ET-RED

Intermediate champion: Cairnsdale Absolute Red Delight-RED, Menzies Farms & M & N Templeton, Tarwin Lower, Vic. Reserve: Bluechip EV Shesaawesome Apple-ET-RED, Cherrylock Cattle Co, Tallygaroopna, Vic.

Junior champion: Cherrylock BH Apple Cider-RED, Sun Vale Holsteins, G Hargraves, D&M Schirm & F&D Borba, Cashmore, Vic.

Reserve: Rusty Red Jordy George-RED, Judson Jennings, Chapple Vale, Vic.

reserve was Bluechip EV Shesaawesome Apple, shown by Cherrylock Cattle Co.

The reserve junior Holstein heifer was Cherrylock BH Apple Cider, shown by Sun Vale Holsteins, G Hargraves, D&M Schirm & F&D Borba, Cashmore, Vic. The heifer was earlier judged the junior Red & White heifer champion. The Australian Dairyfarmer March-April 2020 73

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Bushfire donation headlines sale

By Carlene Dowie

\$65,000 bushfire fundraiser was one of the highlights World Wide Sires Evolution Sale at International Dairy Week in January.

The fundraiser at the start of the sale saw a special offering – the pick of the 10,000-strong herd from Australia's largest dairy operation Australian Fresh Milk Holdings, owned by the Moxey and Perich families.

Bidding was brisk on the enticing offering, which sold for \$50,000 to a syndicate of Ulupna Pastoral Company, (Danny Thomas and John Nicoletti), Coppertree Farms, Flanagan Marketing Services and Woodlawn Holsteins. World Wide Sires added \$15,000 to the donation.

These funds were added to \$50,000 raised by Jersey Australia and Global Impact Supremacy through donations including Rob and Kerrie Anderson, of Kings Ville Jerseys, who matched the \$5880 Global Impact Supremacy Jersey sale average, and the sale of a Casino pregnancy due in July out of Lightning Ridge Tequila Fernleaf VG87, which was auctioned for \$5000, and donated by Frank and Diane Borba, Callum Moscript and Declan Patten. Funds were also raised through a silent auction and the sale of coffees and doughnuts by Jersey Australia during the event.

Holstein genomics attract interest

After the bushfire item was auctioned, the Holstein sale proper started slowly but picked up with two highly genomically rated offerings.

One of these – 10-month-old Cypress Grove V3 Ronimo Tiffany – fetched the \$12,000 top price.

The heifer is currently the number 17 Balanced Performance Index female in Australia at 359 and boasts an Australian Selection Index of 252. Sired by Jeronimo-Poll, its dam is a VG 87 Doorman with 4 per cent protein from the current Australian Cow of the Year, Orchard Vale Informer Tiffany, EX 91.

The heifer was offered by Mitchell Jones, Foster, Vic, and bought by Bryan and Jo Dickson, Terang, Vic.

It was number 18 on the January list of the Australian Breeding Values top genomically tested Holstein cows and heifers with a Balanced Performance 74 The Australian Dairyfarmer March-April 2020



The \$12,000 top-priced lot at the World Wide Sires Evolution Sale with vendors Kevin, Helen, Katie, Alanna, Paisley and Mitchell Jones and pictured in the centre Dairy Livestock Sales staff Andrew Mackie and Brian Leslie and handler Connor Griffiths.

Index of 365 and a Type Weighted Index of 344.

Mr Jones bought its mother at IDW four years ago as a 10-month-old heifer. "The mother has bred on very, very

well for me," he said. It had already produced 16 heifer

calves through being flushed to sexed semen, with four by Jeronimo.

"She's a fantastic cow, a herd favourite, a family favourite," Mr Jones said.

"We call her Tiffany – she will never go anywhere, she will die on the place.

"She carries one of the best families in the country, she breeds really well for us, she milks extremely well, she continues to get back in calf and flush for us and her daughters that we have bred have been exceptional, absolutely exceptional."

The Jones family milks 600 cows with the herd now containing 20 Tiffanys.

Mr Jones said he was "pretty stoked" to get the top price and had not expected the heifer to make anywhere near that price.

Buyer Bryan Dickson said he liked the heifer because he did not have any cows out of the Doorman branch of the Tiffany family.

"I owned the Tiffany Informer cow – I bought her at dairy week lots of years ago – and it has always haunted me that I gave her away," he said.

He was also impressed with the

genomic results. "It's mainly her BPI – she's in the

top 10-15 heifers in the country – she's out of a very good family," he said.

"There's three main production daughters out of the Tiffanys and I have animals now out of those three branches."

Mr Dickson plans to flush the heifer to produce more animals to show, but mainly to milk.

He admitted that the \$12,000 price tag didn't necessarily make commercial sense for his dairy farm operation.

"It's a hobby – people have train sets, people race motor cows, people do other things, I buy expensive cows and lose money on them," he said.

"My kids will hopefully retire from showing cows in the next eight to 10 years and then I will just milk them."

The second-highest price was \$10,000 for Windy Vale Unstopabull Angle, offered by CJ and KA Royans, Myponga, SA, and sold to G & P Angi, Yarloop, WA. Its dam is a Jacoby from an eighth-generation EX Uno from Regiment Apple-Red, EX 96.

Two lots made \$8000.

Lightning Ridge SMDW Crusbull Princess, which was highly rated on the US genomic system, was offered by the PMDW Syndicate and sold to NR & MA Stanley, Yarram, Vic. It is a daughter of the VG89 max Eclipse Octane Princess 13.

Quality Ridge Undenied Bonnie 81, offered by Quality Ridge, Girgarre, Vic, sold to Roydon Zanders, Kialla, Vic. This three-month-old heifer is a daughter of third-generation IDW champion Ashbury Damion Bonnie, VG 88.



INTERNATIONAL DAIRY WEEK REPORT

The fine young in-milk heifer Rusty Red Diamondback Becky, a daughter of the 2016 Red and White Champion of the Victorian Winter Fair sold was by /c Judson Jennings for \$7100 to Kelvin Jackson, Welshpool. Mr Jackson also selected Vala Bouyancy Chandie, a grand daughter of the renowned Larcrest MS Chanda, VG at \$5000.

The very correct Lightning Ridge-CMD Tatoo Brittany, which had won its class at the IDW Youth Show earlier in the week, was sold by M Matius, Portugal, to L & K Liccardello, Mardan, Vic, for \$7000.

NSW buyers A & C Coombes paid \$6900 for Waldunc Unix Valana (Imp. ET), a daughter of the EX 95 Jacobs Atwood Vedette, which was sold by /c Cherrylock Cattle Co.

Dairy Livestock Services manager Scott Lord said although the sale started slowly, the average at \$5294 was \$400 higher than last year's sale and all lots offered were sold.

The genomic ratings of the toppriced lot were sought after and had generated a lot of inquiry, he said.

Mr Lord said competition was strong from Gippsland, Tasmania, as well as WA and SA.



The group behind the \$65,000 bushfire fundraising effort at the Holstein sale – Tim Weller, World Wide Sires, Michael Perich, AFMH, Geoff Wood, World Wide Sires, Rose Philipzen, AFMH, Nick Flanagan, Flanagan Marketing Services, Brian Leslie, DLS, Marcus Flanagan, Woodlawn Holsteins, Jed Flanagan, Ron Perich, AFMH, and Lawrie Flanagan, Flanagan Marketing Services.

The four sales across the week at IDW had shown signs that things were picking up across the industry.

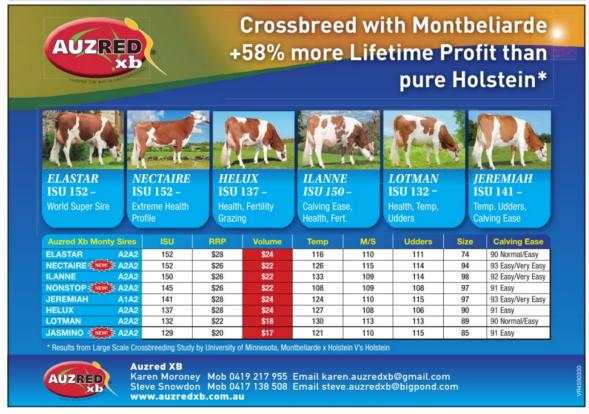
There were 159 buyers registered for the sales – 20 or 30 more than last year – with 71 buying animals, embryo packages or semen.

"So there was a willingness to operate but clearly at Wednesday night's sale, there was some strong Gippsland interest and they realised they could purchase some above-average genetic quality at reasonable value, so they got in," he said

Mr Lord said sales leading into Christmas were improved on the first half of the year and he anticipated demand later in the year could exceed supply.

There was strong interest from the export market.

"We've got a number of air freight shipments of breeder stock to South East Asia and they are going to be tight to find supply for," he said.



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Three generations build Guernsey success

By Carlene Dowie

THREE generations of the one family were involved in two of the champions named in the Guernsey show at International Dairy Week in January.

Tyson and Mark Shea and Neville Wilkie, Bacchus Marsh, Vic, are behind a Guernsey stud operation that has enjoyed considerable success at IDW for many years.

This year they showed the grand champion Rockmar Miami Graceful and the junior champion Rockmar Pilot Madison.

The six-year-old grand champion claimed her second grand champion title, having won the award in 2018 and being runner up in 2019.

Tyson said the cow was fully home bred on both sides of its pedigree by his parents Mark and Roxanne, who own the cow.

"The Gracefuls are one of dad's original families – nearly every second cow we own is a Graceful," he said.

"They have been good cows for a long time."

The Sheas have only a small herd of about 20 milking cows and Rockmar Miami Graceful is dominant in that herd.

"She's the queen, she's the boss; any cow that tries to go through the gate on her and she doesn't let them," Tyson said.

The cow had only calved on December 23 but had a great transition to be right for showing at IDW.

The junior champion was owned by all three generations after they bought her mother in partnership three years ago.

Mark said the mother was reserve IDW champion that year and the calf was the first from it.

The calf had the breeding behind her.

Mark said the secret of their success was having the right cow families and then getting the right bull to click for the breeding.

"We haven't got big numbers so we can concentrate on getting the right bull," he said.

Judge Grant Liebelt, South Australia, was impressed with the length of all his champions.

He said the champion was a beautiful cow, long bodied with a long rump and beautiful udder.

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The junior champion Guernsey Rockmar Pilot Madison and grand champion Guernsey Rockmar Miami Graceful with owners Mark and Tyson Shea and Tyson's grandfather Neville Wilkie, who was part owner of the junior champion.



The intermediate champion Guerney Gilbert Sigrid 20 with part-owner Darby Norris, judge Grant Liebelt and IDW director Brian Leslie.

The intermediate champion Gilbert Sigrid 20 was picked up by its owners Darby Norris, Kyabram, Vic, and Digby Gribble, from the United Kingdom, at the IDW Guernsey sale two years ago.

The pair paid the second top price of \$8700.

"I liked her frame and her body because she never had an udder on her at that time, but she had a magnificent frame and body and that continued on," Mr Norris said.

The cow is milked by the Joyces at Girgarre, Vic, for Mr Norris, who works in animal nutrition, but has a passion for the Guernsey breed, having recently stepped down as president of the Guernsey Society.

"My family been in Guernseys for four generations," he said.

'The Gracefuls are one of dad's original families – nearly every second cow we own is a Graceful.'

GUERNSEY HONOUR ROLL

Grand champion: Rockmar Miami Graceful, Mark & Roxanne Shea, Bacchus Marsh, Vic.

Senior champion: Rockmar Miami Graceful.

Reserve: Exkwizit Active Barbell, Crawford Family, Numbaa, NSW.

Best udder: Rockmar Miami Graceful. Intermediate champion: Gilbert Sigrid 20, DD Guernseys, Kyabram, Vic. Reserve: Brookleigh Jocette, LF & JM Cleggett, Glencoe, SA.

Junior champion: Rockmar Pilot Madison, M&R Shea, T&S Shea, N&M Wilkie, Bacchus Marsh, Vic.

Reserve: Crookslea Kakadu Doreen, N & M Wilkie, Bacchus Marsh, Vic. Premier breeder: L & J Cleggett,

Brookleigh, Glencoe, SA.

Premier exhibitor: L & J Cleggett, Brookleigh, Glencoe, SA.

7/9/2020

eEdition

Holstein exchange rewarding experience

By Carlene Dowie

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COLLABORATION between Holstein Australia and Holstein UK allows young people from both countries to get a taste of the dairy industry overseas.

The two most recent exchange scholarship recipients attended International Dairy Week in January.

Catherine Bunting, from Derbyshire in the United Kingdom, flew into Australia in early January and was able to visit farms in Victoria, South Australia and Western Australia as part of her exchange, as well as attending IDW.

Ms Bunting graduated from agricultural college in 2017 and has worked on a number of dairy farms since 2015, with herd sizes ranging from 250 to 550 animals. She now works for UK breeder Sterndale and Peak Holsteins, where her role includes calf rearing, milking, artificial insemination, record keeping and drying off procedures, as well as forming part of their prepping and show team.

She said she was really impressed with how Australian cows looked. "They've got good condition, and the feet and legs are brilliant from all the walking they do," she said.

The milk yield from cows raised on predominantly grazing systems was also impressive.

Ms Bunting said the herd sizes were larger in Australia than in the UK.

"With it not being as intensive over here, I think people can have the larger herds, and there can still be only two or three people working on the farm," she said

"You don't need four or five like us over wintertime, when we've got 350 head of cattle inside and we are scraping out every day and things like that."

Oakley Henry, from Tinamba in Gippsland, Vic, visited the UK last year, spending time in England, Wales, Northern Ireland and Scotland.

The biggest difference he noticed was the stricter requirements around cattle movement as a result of biosecurity issues experienced in the UK in the past.

Every animal had a passport and farmers needed to submit an application on a centralised system before any animal was moved. "It doesn't matter if it is from farm to farm or wherever it's from or to the show, it has to be recorded and logged," he said.

Mr Henry said the farming systems were more intensive than those in Australia.

"So it's a lot more labour intensive with scraping up after cows, feeding them, scraping up the feed," he said.

"But they have the advantage of the consistency in the feed 365 days of the year.



Holstein youth exchange scholarship recipients Oakey Henry and Catherine Bunting watching the judging at International Dairy Week in January.

"Whereas in Australia they are on different grass every 12 hours so it is a lot harder on the cows, they have to adjust all the time.

"But those cows get the same feed all year round so production plateaus a lot longer than what ours does."

Mr Henry said he would encourage anyone given the opportunity to take part in an exchange such as this.

"It's an incredible experience to go and see a totally different system than what we have in Australia," he said.

"Even though we are doing the same job, the day-to-day things are completely different and it is fascinating to see how a different country's dairy industry operates."

Guernseys sell to \$7800

ADAUGHTER of the 2019 International Dairy Week Guernsey champion sold for the \$7800 top price at the Guernsey sale at IDW.

The July-2019 drop calf Glamorous Knight Barbell is already starting to make a name for itself on the show scene, winning its class and being named honourable mention junior champion in the Guernsey show earlier that day.

Its dam Exkwizit Active Barbell was reserve champion in the 2020 show, almost matching its performance of the previous year.

The top-priced lot was offered by Andrew and Abbey Crawford, Numbaa, NSW, and bought by their neighbour and employee Hayden Watts, Pyree, NSW, who was attending IDW for the first time.

"She looked like a really good calf," Mr Watts said. "I thought I could make some money off her and improve my Guernsey herd."

Mr Watts also works on his family's farm, which milks 130 cows.

He hoped the calf would become the base of a bigger Guernsey component in that herd. "Guernseys look a bit better in show," he said.

The Guernsey sale averaged \$4807 for the seven females offered but numbers were diminished with three lots from Western Australia withdrawn after they were unable to travel due to bushfires.

Embryo packages averaged \$3250 and

semen packages averaged \$156.25. - Carlene Dowie



Buyer of the top-price Guernsey Hayden Watts, Pyree, NSW, hopes the calf will be the basis of more Guernseys in his family's herd.

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Cw

Long haul pays off in Illawarras



The grand champion Illawarra Ovensdale Pearl 534 with owners Shane Bourke, Gladfield, Qld, and Matt Henry, Hodgson Vale, Qld, who made the long journey from Queensland for the event.

By Carlene Dowie

THE long haul from Queensland paid off for two dairy farmers when their cow took the Illawarra grand champion award at International Dairy Week in January.

The pair – Matt Henry, Hodgson Vale, Qld, and Shane Bourke, Gladfield, Qld – have attended IDW for many years but not exhibited before.

"I've always come and helped the Hayes family (Llandovery Illawarras), and we always sit around after judging and say we should have brought a few down, then you go home and never do anything about it," Mr Henry said.

"This year Shane was keen, he was the driving force behind it. It's obviously made the trip worthwhile.

"We said before the show we'd be happy if we got one blue ribbon, so to win champion at our first crack is pretty pleasing."

Mr Bourke said it took 18 hours to transport the four entries the pair had in the event.

He was keen because he thought the champion cow, Ovensdale Pearl 534, which Mr Henry and he bought in partnership at last year's Ovensdale dispersal sale. looked in form.

Mr Henry said they chose the cow after inspecting the herd when they were in Victoria last year for IDW.

"They were all dry at the time – so it was a bit hard to tell how they were going to turn out but we thought she was the best type cow there, and we decided she was the pick of them and the one we would buy," he said.

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ILLAWARRA HONOUR ROLL

Grand champion: Ovensdale Pearl 534, Henry & Bourke, Hodgsonvale, Qld. Senior champion: Ovensdale Pearl 534. Reserve: Springvale Pride 29, Springvale Enterprises, Murray Bridge, SA. Best udder: Ovensdale Pearl 534. Intermediate champion: Panorama Angeline 48, Cherrylock Cattle Co, Tallygaroopna, Vic. Reserve: Llandovery Visions, Joan Hayes Family & Charlie Lloyd, Girgarre, Vic. Junior champion: Llandovery Guses

Junior champion: Llandovery Guses Freda, Hayes Family, Girgarre, Vic. Reserve: Llandovery Foremans, Betty

Hayes Family, Girgarre, Vic.

Premier breeder: Hayes Family, Girgarre, Vic.

Premier exhibitor: Hayes Family, Girgarre, Vic.

The cow was from one of the oldest and most successful families, the Pearl family, in Rob Newton's Ovensdale herd.

Both farms run predominantly Illawarra herds.

Mr Bourke milks 600 cows, about 80 per cent Illawarra, and likes the breed for its placid, high production, calving-ease cows.

"We've always milked Illawarras – they suit the way we farm," he said.

Mr Henry milks 150 cows and likes the Illawarras for the mix of production and management traits.



The intermediate champion Illawarra Panorama Angeline 48 with owners Jessica and Brad Gavenlock, Tallygaroopna, Vic, judge Greg English, Malanda, Qld, and sponsor Joe Losinno, Nutrien Ag Solutions.



The junior champion Illawarra Llandovery Guses Freda with leader Zoe Hayes, Llandovery Illawarras, Girgaree, Vic, and judge Greg English, Malanda, Qld.

"They are hardier sort of animal and go back in calf," he said.

The intermediate champion Panorama Angeline 48 won its fourth championship in four outings.

The impressive cow, owned by Jessica and Brad Gavenlock, Cherrylock Cattle Company, Tallygaroopna, Vic, won the IDW Illawarra junior championship in 2017 and 2018 and the intermediate championship in 2019.

"She's so special because we bought her as a heifer, as a young calf, and just have developed and worked with her," Mrs Gavenlock said of the cow that was a gift from her husband for her birthday four years ago.

The junior champion Llandovery Guses Freda was shown by the Hayes family, Llandovery Illawarras, Girgarre, Vic.

The calf came from one of the herd's foundation families, the Fredas, Zoe Hayes said.

"They are usually real good herd cows, production cows," she said. "We don't show many of them.

"She's such a sweet stylish calf; I think she has a good future ahead of her."

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"It's really all about providing the right tools to our customers so that they may be successful and profitable."

NATE ZWALD, ABS Global COO-Dairy

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"Genus R&D is extremely proud of the role we have played in the success of Sexcel in the marketplace and the impact it has made in the industry," says Elena Rice, Genus plc Chief Scientific Officer. "Our team looked at a problem and developed a solution for ABS customers through Sexcel. I look forward to the other problems that we will solve for bovine producers in the future!"

ABS Global has focused on our customers for almost 80 years and we have become a trusted supplier to producers around the world. We look forward to bringing even more innovation to the ever-changing dairy industry in the future!



eEdition

Tandara blood sweeps Brown Swiss



Breeder and long-time exhibitor at International Dairy Week, Ben Govett, Tandara Brown Swiss, Dingee, Vic, with his grand champion Brown Swiss exhibit, Tandara Etvei Heidi 217

By Alastair Dowie

BROWN Swiss breeder Ben Govett and his team of cattle and people enjoyed a successful 2020 International Dairy Week culminating in taking out the grand champion exhibit.

Mr Govett said with eight in-milk females at the show, the memorable success was his aged cow, Tandara Etvie Heidi 217, a July 2008-born cow, taking the major ribbon at her 10th IDW.

"I'm pretty proud of her," he said. "She's done pretty much everything else."

The female was by a German sire, Etvie, out of a Tandara cow.

Mr Govett said the stud had bred the junior champion, bred and shown the reserve junior champion, won all three intermediate broad ribbons and all three senior entries.

"That's pretty special," he said.

Brown Swiss judge Kevin Ziemba, United States, said the quality of the show had been tremendous.

"The cow is awesome, I love a cow that has that maturity," Mr Ziemba said.

"She's had seven calves, she is a tremendous dairy cow.

"We all strive to have a cow that can last that long and function at that level and still look this beautiful doing that."

He made the honourable mention senior cow, Miss Payssli Lola, the best udder of the Brown Swiss show. Mr Ziemba said he was most impressed by the quality of the animals on show.

"There wasn't the milking cow that was even average," he said.

Mr Ziemba said he "fell in love" with the eventual intermediate champion, Tandara Livid Lunda 260, shown by Tandara Brown Swiss.

The September 2017-drop, in-milk heifer, was sired by Superbrown Livid and out Tandara Denver Lunda 216.

The reserve was another Tandara female, Tandara Biver Sarajevo 125.

Mr Ziemba said he was "pumped" to find a group of intermediate cows as good as this.

He said the four females in line for the broad ribbon were tremendous young cows.

The junior champion was an entry from the Drop Bear Syndicate, Tallygaroopna, Tandara Superstar Sarajevo 146, led by Brad Gavenlock.

The April 2019-drop heifer was sired by Superbrown Kiba Superstar and out of Tandara Paray Sarajevo 120.

Mr Ziemba said his first trip to the event was highlighted by the fun and good spirit shown.

He had visited dairy farms and heard the industry story.

He said that included hearing what dairy farmers were dealing with water and staying pertinent.

"It is really exciting to have events like this to bring that spirit of camaraderie together," he said.



The junior champion Brown Swiss Tandara Superstar Sarajevo 146, entered by Drop Bear Syndicate, Tallygaroopna, Vic, leader Brad Gavenlock and judge Kevin Ziemba, US.



The intermediate champion Brown Swiss Tandara Livid Lunda 260 with Jennifer Charlton, Ontario, Canada, judge Kevin Ziemba, US, and Colin Daley.

BROWN SWISS HONOUR ROLL

Grand champion: Tandara Etvei Heidi 217, Tandara Brown Swiss, Dingee, Vic. Senior champion: Tandara Etvei Heidi 217. Reserve: Tandara Mobby Sarajevo 101, Tandara Brown Swiss & M Dennis, Dingee, Vic.

Best udder: Miss Payssli Lola, Tandara Brown Swiss, Dingee, Vic.

Intermediate champion: Tandara Vivid Lunda 260, Tandara Brown Swiss, Dingee, Vic.

Reserve: Tandara Biver Sarajevo 125, Tandara Brown Swiss, Dingee, Vic.

Junior champion: Tandara Superstar Sarajevo 146, Drop Bear Syndicate, Tal-Iygaroopna, Vic.

Reserve: Tandara Bender Lotus 3-TWIN, Tandara Brown Swiss, Bacon & Leppart, Dingee, Vic.

Premier breeder: Tandara Brown Swiss, Dingee, Vic.

Premier exhibitor: Tandara Brown Swiss, Dingee, Vic

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Brindabella dominates youth show



Georgia Sieben, Brindabella Holsteins, Torrumbarry, Vic, and the Youth Show grand champion heifer Brindabella Solomon R Midge take a well-earned break together at the end of judging.



Reserve grand champion heifer Brookbora Love Lies 748 with leader Aila Bevan and judge Waylon Barron, Cambooya, Qld.

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By Carlene Dowie

G EORGIA Sieben and her family's Brindabella Holsteins from Torrumbarry, Vic, swept all before them at the 2020 International Dairy Week youth show in January.

Brindabella Solomon R Midge was named the grand champion heifer of the show after earlier taking the senior champion in milk heifer – senior leader award.

Another entry from the stud Brindabella Meridian Connie was named the junior champion heifer – senior leader earlier in the show.

Ms Sieben said winning the two championships was a bit overwhelming.

"I can't believe it – it's pretty crazy," she said.

It was a great way to start the year as she heads into Year 12.

She said she was keen to eventually work in the dairy industry and hoped to study veterinary science and then work on a big dairy stud farm somewhere.

Ms Sieben said the family had only decided to show the champion after it had calved in September.

"We didn't break her in as a heifer, so we were a bit worried, you know, to break her in as a milker," she said.

"She was pretty good at the start – she's a sweetheart, she loves love.

"She can be a bit of a pain to work with, but it has been really fun."

The heifer is a Solomon out of a Razor and its dam was also in Brindabella's show team.

The dam was a "nice young cow, but doesn't have the big frame (of its daughter)", Ms Sieben said.

The champion Solomon R Midge was a great cow in the herd.

"She has a lot of grunt about her, so she is first into food – that's pretty much how we won her over, with food," she said.

"She's our type of cow; you will see a lot of cows like her at our farm – big framed, strong front-end type cows."

Judge Waylon Barron, Cambooya, Qld, was impressed with the heifer's size.

"The heifer out here that was champion today was quite an outstanding heifer and you have to admire her for her size and scale and that beautiful udder and fore rib and the height in the udder," he said.

Cordw.

Senior champion handler Cally O'Shannessy.



Primary champion handler Anna Dickson.

Ms Sieben said the junior champion was shown for the first time at the Echuca, Vic, show a few months ago, where it had scored an honourable mention.

She was surprised at how well the heifer, which belongs to her brother, performed.

The heifer was a Meredian out of an Alexander.

Mr Barron was also impressed with this heifer. "I just can't go past the Holstein heifer," he said.

"Just the overall hardness through her top and openness right throughout. "She has plenty of style and that's

what I like to see in my heifers."

The senior heifer in milk junior leader championship was won by Brookbora Love Lies 748, Brookbora Jerseys, Tennyson, Vic, with leader Aila Bevan.

The young Jersey, which is to be sold at IDW, impressed Mr Barron with its "size and scale right throughout her back and beautiful high-line rear udder".

The junior champion heifer junior leader was awarded to Philmar FC Upto Mischief, Elm Banks, Crossley, Vic, with leader Hannah Gleeson.

Mr Barron said he loved the overall length of the heifer and its top line. 'She's our type of cow; you will see a lot of cows like her at our farm – big framed, strong front-end type cows.'

The Sheri Martin Youth Showmanship Competition attracted a large number of competitors across the four age groups.

It was judged by multiple IDW award winner Ben Govett, Bendara Dairies, Dingley, Vic.

YOUTH SHOW AND SHOWMANSHIP RESULTS

Grand champion heifer

Champion: Brindabella Solomon R Midge, SD & JL Sieben, Torrumbarry, Vic, leader Georgia Sieben.

Reserve: Brookbora Love Lies 748, Brookbora Jerseys, Tennyson, Vic, leader Aila Bevan.

Senior Champion in Milk Heifer – Senior Leader

Champion: Brindabella Solomon R Midge. Reserve: First Choice Galaxie Evening, Foleama Jerseys, Tatura, Vic, leader Sarah Lloyd.

Senior Champion in Milk Heifer – Junior Leader **Champion:** Brookbora Love Lies 748. **Reserve:** Wallacedale Brax Melys, Wallacedale Jerseys, Poowong North, Vic, leader Angus Fraser.

Junior Champion Heifer – Senior Leader Champion: Brindabella Meridian Connie, SD & JL Sieben, Torrumbarry, Vic, leader Georgia Sieben.

Reserve: Billaview Burdette Jazmine, Courtney Afford, Woods Point, SA, leader Tegan Afford.

Junior Champion Heifer – Junior Leader Champion: Philmar FC Upto Mischief, Elm Banks, Crossley, Vic, leader Hannah Gleeson. **Reserve:** Merseybank Tequila Song, Benlargo Holsteins, Glencoe, SA, leader Shae Tweddle.

Sheri Martin Memorial Showmanship Competition

Senior champion handler: Cally OShannassy.

Reserve: Jaxon Gillam.

Intermediate champion handler: Abbie Hanks.

Reserve: Angus Fraser.

Primary champion handler: Anna Dickson. Reserve: Matilda Cole.

Junior champion handler: Indiana Cole. Reserve: Scarlett Bawden.

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INTERNATIONAL DAIRY WEEK REPORT

Junior champion handler Indiana Cole.

WHAT'S ON

March 19 Devonport, Tas	Tasmanian Dairy Conference and awards dinner Phone: (03) 6432 2233 Email: admin@dairytas.net.au Website: http://www.dairytas.com.au/
March 25 Warrnambool, Vic	Great South West Dairy Awards Phone: (03) 5557 1000 Email: awards@westvicdairy.com.au Website: http://westvicdairy.com.au
March 26-29 Warragul, Vic	Farm World Field Days Phone: (03) 5626 1373 Email: office@lardnerpark.com.au Website: https://lardnerpark.com.au/farm-world/
April 3-14 Homebush, NSW	Sydney Royal Easter Show Phone: (02) 9704 1111 Email: enquiries@rasnsw.com.au Website: www.eastershow.com.au
May 1-3 Paterson, NSW	Tocal Field Days Contact: Wendy Franklin Phone: (02) 4939 8820 Email: fielddays@tocal.com Website: www.tocalfielddays.com
September 22-24 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

Genetic developments focus of conference

WORLD-LEADING genetics experts will outline what the future is likely to hold for the industry at a major Victorian conference in March.

Genetics Australia will host the threeday conference on March 18-20 to examine future directions in genetics with a horizon of 2030.

The GA 2020 Conference will start with a one-day forum at Tabcorp Park in Melton on March 18 followed by farm tours in South and West Gippsland in the next two days to showcase progressive breeding programs.

The event has attracted leading international and Australian speakers, including Select Sires international development vice-president Joel Mergler, Sexing Technologies CEO Juan Moreno, Assistant Professor, Texas A&M University, Dr Ky Pohler, Dairy Australia senior industry analyst John Droppert and Agriculture Victoria principal research scientist (genomic and cellular sciences), Professor Jennie Pryce.

Genetics Australia CEO Anthony Shelly said the conference would be a great opportunity to hear from some of the best geneticists and genetic professionals in the world.

"The conference will give dairy farmers and industry professionals a glimpse into what the future is likely to hold," Mr Shelly said.

"It is rare to have such an outstanding group of local and international speakers all in one place."

The conference will look at genetic developments in the global space and determine how these developments will impact the Australian breeding industry and the broader dairy industry.

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The conference keynote speaker will be CEO of Sexing Technologies Juan Moreno.

"Over the past few years the progression of genetics in the dairy industry and more broadly in agriculture has been phenomenal, and with the volume of research and development happening, that will expand even further the next decade," Mr Shelly said.

"This conference will pull together all relevant information and help any interested farmer or industry member to understand how we can adapt to these new technologies to make sure we're ahead of the game and achieving the best possible and most profitable outcomes."

Day one of the conference will conclude with a dinner with Mr Moreno speaking on his ST journey.

Participants can choose to attend the day one conference, the day one conference and dinner or all three days of the event.

The farm tours on day two and three will showcase the daughters and family members from Australia's best bull team and from Genetics Australia's international portfolio.

People wanting to attend the conference can register via the Genetics Australia website genaust.com.au.

Uses for genomic testing



By Ee Cheng Ooi*

(ev

- Genomic testing can help verify
- parentage ✔ Aids decision making about what
- to do with surplus heifers
- Genomically tested animals may
- eventually be worth more.

N the last edition of the Australian Dairyfarmer, I outlined some of the basic science underlying genomic testing. In short: genomic testing looks at the genetic code of an individual animal. It gives us information about that animal by comparing parts of their genetic code to a reference population of animals with known codes and performance characteristics.

Okay, so it's nice that there's this new tool – it's shiny, Australian-made, and pioneered in dairy cattle. Other industries are desperately trying to catch up to us, and it's been a great advance for agriculture in general. But what about individual dairy farmers? Does it have a place in your farm business? Let's look at how genomic testing might be used.

First and most simply, genomic testing can be used to verify parentage. Any farmer who has had to pull 10 calves out of the calving pad in the morning knows how tricky it can be to match them to their mothers. For a farmer who cares about accurate record-keeping and the pedigree of their animals, this can be a frustrating issue. Genomic testing can also be used to screen for a variety of diseases and desirable traits, such as bovine leukocyte adhesion deficiency (bad!) or polled/A2A2 status (good).

Secondly, at a deeper level, genomic testing can be used to peer into the future. The process can tell you – before a calf has done anything more interesting than suck on its herd mate's ear and bawl endlessly at your rearer – how that animal is going to perform in the dairy, how fertile it's going to be and if it'll be worth the \$1300 to \$2000 it's going to cost you to rear it to maturity. Growing out heifers is an expensive process when done correctly. Farmers in denial about the true cost of heifer rearing should sit down and figure out the cost of supplements fed, of milk lost or calf milk replacer bought, health costs, the cost of labour, agistment/ lease costs or the opportunity cost of using land to raise youngstock. This isn't even mentioning the heartache and stress that can come along with raising a large number of sometimes terminally curious young animals who insist on getting into things they shouldn't and licking things that aren't supposed to be licked...

However, good rearing should result in an animal that will calve without assistance, survive a first lactation producing at least 80 per cent of a mature cow's milk yield, compete well upon entering the herd, and get in calf again without issue. One way to assess for yourself is to compare first-calving heifer reproductive performance with the rest of the herd – if they're not your most fertile animals, something has gone wrong.

Growing out heifers is also an expensive process when done incorrectly. Heifers that are not fed appropriately post-weaning, and that end up in a back paddock and are ignored for long periods, are unlikely to cope well or milk well when entering the herd. Also, heifers that leave the herd due to infertility after a single lactation are not profitable cows – in fact, they are costing you money.

Genomic testing can be a way of reducing these rearing costs by only keeping the best animals and selling the remainder with absolute confidence. This works best for a farmer who has excess replacement heifers due to sexed semen use or great fertility (or both) and is interested in pursuing genetic improvement. Some farmers also see it as part of the story of reducing non-replacement calves, addressing the concerns of consumers (and in many cases, themselves).

Other genomic-testing strategies include the selective use of sexed semen on genetically elite animals, or if not sexed semen, then things like embryo transfer or sire selection. In an ideal future, animals that have been genomically tested should also be worth more than untested animals – although this is largely going to be up



Genomic testing can be used to peer into the future – to show what a calf might become when it is still young

'Farmers are highly capable of figuring out new ways of using new tools.'

to who buys your heifers, or at some point, your whole herd.

These are a few ways I think genomic testing can be useful. However, one of the fascinating things about working in the dairy industry but not actually being a dairy farmer, is watching to see how tools and new developments are implemented on-farm. One has only to see the multitude of ways that baling twine or perfectly shaped rocks can be used in order to recognise the day-to-day creativity of farmers. (This becomes a negative is when it is used to prop up failing safety equipment - to the farmers using bits of string, chains or leg straps to hold your crush together, ves friend, I'm looking at you.)

Farmers are highly capable of figuring out new ways of using new tools. So, at the industry level, all we can do is make recommendations on how we think the things we build should be used, and then watch with interest as farmers work out ways to take it further. In what ways are you using genomic testing in your herd?

*Ee Cheng Ooi is a cattle veterinarian undertaking a PhD at Agribio in dairy fertility and genetics. 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.

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Driving genetic gain and herd improvement



Selecting sires for tomorrow

 Breeding decisions should consider economics and

environment points

Data plays key role in selection

decisions

To start genomic testing heifers

REEDING a dairy cow for the future should take economic and environmental changes into consideration. That's according to Tasmanian dairy farmer James Greenacre.

James and wife Sophie are equity partners in a 1150-cow operation at Cressy, just south of Launceston in Tasmania with Rob and Jo Bradley.

At 30 years old, he wants to build a robust farm business that thrives in the industry long-term - regardless of the macro and micro-economic or social conditions.

"I'm looking to breed the most efficient cow, so in the back of my mind, when the \$4 (a kilogram of milk solids) milk price comes, or the government comes in and savs we have to cut herd numbers by 20 per cent or something, we are in a position to take it as an opportunity rather than something that would completely undermine our business," he said.

Mr Greenacre looks across the Tasman for an insight into what might occur in Australia.

farmers "You speak to in New Zealand who were milking 1100 cows and are now milking 950 but they produce just as much," he said. "That sort of pressure, to reduce cow numbers, might come here at some point.

That's where data will play a role in future-proofing his business.

The farm Mr Greenacre manages has recently joined DataGene's Ginfo project, the industry's national reference database of genomic information.

As part of this industry project, they will genomically test their rising two-year-old heifers before they are joined to calve.

Genomic testing uses DNA patterns to determine an animal's genetic merit for traits, such as production and fertility, that otherwise wouldn't have been known until the heifer had calved and was milking.

Mr Greenacre wants to use this genomic information for joining. Practically, this would mean higher 88 The Australian Dairyfarmer March-April 2020



James Greenacre's breeding vision includes a Holstein/Jersey cow with Red Breed infusion

genetic merit heifers would be used to breed herd replacements. Those with lower genetic merit would either be joined to beef or culled.

In time, Mr Greenacre hopes genomics will guide culling and breeding decisions within the herd.

"For me, genomic testing is about getting a bit more certainty and robustness around culling decisions and herd-testing data. It could be used in conjunction with herd tests," he said.

For the past two years, the herd has grown 47 per cent thanks to retaining all female animals and buying some additional cows.

Now herd numbers have stabilised, they want to limit "passengers" and make sure they are milking the most efficient animals.

The "liquorice all-sorts herd" has been put together over the past six years and includes mostly crossbreds with some Red breed cows from the highly ranked Balanced Performance Index (BPI) Graham herd from Pyree, NSW.

The herd's average liveweight is about 480kg with average production at about 460 kilograms of milk solids across a 300-day lactation. The herd calves seasonally from August 10 until the middle of October and eats about one tonne of grain, 300 kilograms of turnips, four tonnes of pasture and silage. Cows are wintered off-farm.

The farm is 400ha with 250ha under pivot irrigation. The dryland "pretty much useless" from late is spring through to April, which means

'I then rule them out based on fertility and cost comes into it.'

the summer stocking rate its "quite heavy" at 4.5 cows/ha.

system is This management considered when Mr Greenacre selects bulls - fertility is the biggest factor in bull selection.

He uses DataGene's Good Bulls App to rank bulls on Balanced Performance Index before selection.

"We are slowly moving towards the New Zealand-type cow, so I look through a New Zealand catalogue and then from that I look at the Good Bulls Guide to see what these bulls do in Australia," Mr Greenacre said.

"I then rule them out based on fertility and cost comes into it. I also look at production and then I really look at stature - their capacity - I really like capacious cows.

Mr Greenacre's breeding vision includes a Holstein/Jersey cross cow with Red Breed infusion but he is "more than happy" to crossbreed his way to achieving this "type" of cow.

Increasing the genetic merit of their herd held the key to unlocking future profitability, he said.

Contact: DataGene. phone (03) 9032 7191 or email abv@ datagene.com.au.



DAIRY MARKET REPORT

Falling sentiment sees prices ease

By Sam Leishman Industry analyst Dairy Australia

AIRY markets have entered 2020 with strong supply and demand fundamentals that are supporting global commodity prices. It has been widely reported the current market is operating in a well-balanced state, with demand marginally ahead of supply.

Production growth in Europe and the United States has offset lower volumes coming from Australia and New Zealand this season. Consumption of dairy in key export regions including South East Asia and China remains favourable.

However, recent speculation around coronavirus and its potential impact on world trade has cast some doubt over global dairy trade. This uncertainty contributed to a 4.7 per cent drop in the weighted average price at the last Global Dairy Trade auction.

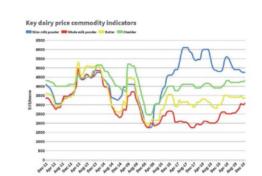
It was reported this price drop was not caused by a lack of demand but motivated by sentiment. If underlying demand remains robust throughout the outbreak and production tracks to forecast, markets should prove resilient.

Global milk production is expected to climb about 1pc in 2020. The Oceania region is showing limited growth as adverse weather impedes supply.

New Zealand's production is expected to finish the season slightly lower (-1pc) due to a variety of weather events. The northern half of the country remains dry, slowing pasture growth while the south is experiencing flooding.

Meanwhile, Australia saw the fastest (in relative terms) national production growth since mid-August 2018 with flat production in December. Notwithstanding this, the ongoing drought and recent bushfires are keeping any substantial form of production recovery unlikely in the short term.

Dairy markets in Europe have remained stable despite recent political instability, trade disruptions and exchange rate volatility in the United Kingdom. Milk availability for Europe overall is forecast to finish up 1pc year-on-year. A mild winter has helped push production volumes



higher ahead of the peak spring period. Production in Germany, France and the United Kingdom improved in December to a total monthly production growth (1.1pc) slightly above the predicted seasonal increase.

The US is in line to match the growth trajectory of Europe, increasing by about 1pc year-on-year. Overall production was down 0.7pc in December.

Reductions occurred in many states. On farm, lower-quality corn silage following a wet harvest is one factor hampering production growth. As climate and production inputs influence supply around the world, demand and market sentiment will play the key influence on prices.

In the past year, global demand outweighed production. Continued growth in many developing nations supported this trend, which is anticipated to continue for the near future. However, the recent outbreak of coronavirus and ongoing impact of African Swine Fever have the potential to curb demand in key export destinations.

Demand from Greater China (China, Hong Kong, Macau) in the last GDT auction remained strong despite the drop in sentiment (and prices). Export demand has been widely supported by the growth in domestic consumption in China and South East Asia. However, as the outbreak spreads into neighbouring countries and further abroad, it has the potential to significantly disrupt the trade of dairy.

Australia's dairy industry has become closely linked China in recent years and China is now the single largest market for Australian dairy exports. Following the rapid outbreak, China has quarantined regions while the Australian government has closed its border to mainland Chinese visitors. As the Chinese government recommends residents to stay inside, many restaurants and food stores have shut. These direct measures to restrict the spread of the virus are having varied impacts on different products in the dairy sector.

On one hand, demand for dairy products used in food outlets such as pizza cheese will decrease. On the other, sales of health and wellbeing dairy products such as infant formula and lactoferrin have increased. Additionally, health professionals have advised Chinese residents that having a healthy diet, including dairy, will aid their chances to fight the virus. This message has been strongly communicated and could increase the overall consumption of dairy, particularly in higher-value categories.

Lastly, there is the potential to cause logistical impacts on the distribution channels. This includes the number of cancelled flights, temporarily limiting the amount of product able to enter the market - especially limited shelf-life products such as air-freighted fresh milk.

While the global markets have entered 2020 with strong fundamentals, the pressures of coronavirus and AFS have the potential to curb demand for global dairy. While it's too early to quantify the immediate impact, the duration and concentration of these conditions will be critical. The conditions have the ability to both increase and decrease demand for certain products, but overall, they will disrupt the flow of trade and supply chains, which is never a welcome thing.





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