

I select and write cover lines

INSIDE

Top cheese globally announced
Swiss gruyère is the 2022 World Champion

Dairy Code
Why you need to comply

... and more
Shepparton function a sell-out success,
dairy science, milk market report,
equipment, new products, people, news

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AUSTRALIAN Dairy Foods



Official magazine of the
Dairy Industry Association of Australia



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contents

VOLUME 43, NO. 6 DECEMBER 2022 / JANUARY 2023



32

Victorian Northern Region
Sold-out Shepparton gathering a hit.

Dairy Science

A scientific look at alt-milks.

14



03

Top World Cheese for 2022

Italian gorgonzola comes second.



20

Business Intelligence

ACCC's heavy hand in enforcing the new Code.



24

Productivity

Opportunities to reformulate recipes.



Also in this issue

- 2 President's Message: Honoured to be stepping into the role
- 3 News
- 4 CEO's Message: Thank you to all members, what a year
- 12 Milk Market Report: Rising costs shape global fundamentals
- 40 DIAA Women: Ecolab Scholarship closing Jan 2023
- 42 Dairy Diary: Australia and internationally
- 44 Final Washup: Merry Christmas, try some 'airag'?

About the cover



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Honoured to be stepping into the role, looking forward with enthusiasm

Welcome to the December 2022 / January 2023 edition of *Australian Dairy Foods* magazine, and to my first column as the new National President of the DIAA, following my election to the position in September this year.



Karen McIntyre
National President,
Dairy Industry
Association of
Australia

Stewardship

I am deeply honoured to take on the role of National President and to continue building on the great work laid by my predecessors, in conjunction with new Board directors **Phil Dayson, Ross Matthews**, and our new National Vice President, **Dean Carlish**. I would like to thank our existing board members, **Chase Williams** and **Ray de la Motte**, for their support in the transition, and our recently departed directors **Darryl Cardona, Monica Doyle**, and **Robin Johnson** for their dedicated stewardship.

Having been a member of the DIAA since 2006 (including roles on the State Branch Committee and National Board) I care deeply about our industry and the work of our Association. I am passionate about my and the Board's focus on making the organisation accessible and equitable in the delivery of

its purpose for all our members. I'm also passionate about some of the exciting developments we have in the planning stage that will enhance the value of membership to you all – something which is critical for the future success of the DIAA.

Future planning

Next year will be our 37th year since the amalgamation of the **Australian Dairy Institute** and the **Australian Society of Dairy Technology** to form the DIAA as we know it, and as custodians, it is our role to ensure that we have an organisation delivering on the needs of our members – not just for today but for future generations.

The direction that the Association will be taking is based on the very firm foundation left by my predecessor, **Darryl Cardona**, who, through his relentless efforts,

helped bring the DIAA branches closer together, cumulating in the transition to a single entity in 2019, allowing us to be more consistent in our service delivery. I would also like to sincerely thank the DIAA's CEO, **Carl Partridge**, for his vision, dedication and leadership.

While we have gone some way to getting back to "business as usual", I would also like to recognise the challenges the industry has undergone in recent months, with flooding in many parts of Victoria, Queensland and New South Wales devastating people's lives and the businesses for which they work. Our hearts and best wishes go out to you all.

Renewals

On a final note, it would be remiss of me not to use the "R" word in my signoff, and that is the renewal of your membership; please watch out for your renewal notices, which will hit your inboxes shortly.

The Board and I look forward to a very exciting 2023, and appreciate the continuous support from our members, as I pledge to do my best for you all. ■

The DIAA thanks its 2022 national partners

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Swiss gruyère named World Champion Cheese for 2022

Italian gorgonzola comes second

I seek & write News content

A Le Gruyère AOP surchoix, entered by Swiss cheesemaker **Vorderfultigen** and affineur **Gourmino**, was named World Champion Cheese 2022 at the International Convention Centre Wales, at Newport in November.

Atense finale unfolded with Gorgonzola Dolce DOP, made by **De' Magi** from Italy, coming in second place.

The 2022 World Champion Cheese beat a record-breaking 4,434 entries in this year's awards, where the best cheeses from around the globe are judged at the world's largest cheese-only event. The cheeses were scored on aspects including the appearance of the rind and paste, as well as the cheese's aroma, body and texture, with most points awarded for flavour and mouth-feel.

Dennis Kaser, International Marketing Manager of Le Gruyère AOP, said, "This is a result that shows the quality

behind all these people working together; 1,900 milk producers, 155 cheesemakers and 11 refiners. This collaborative work results in such a high quality cheese style, which is loved by the consumer. I'm so very proud to be representing Le Gruyère. Huge congratulations to cheesemaker Vorderfultigen and affineur Gourmino."

Made from raw cow's milk, this full-bodied Le Gruyère AOP surchoix is a matured cheese with a slightly crumbly texture.

Super Jury member **Christian Zuercher**, from Mifroma, described it as a "really perfect handcrafted cheese, smooth in your mouth and melting on your tongue".

The 4,434 international cheeses were sent to Wales by boat, truck, train and plane via 19 consolidation points around the world, removing barriers to entry for many artisan cheese producers. Each panel of judges included cheesemakers, cheesemongers, buyers, chefs, retailers and writers, judging for Bronze, Silver, Gold and Super Gold awards.

Through the judging process, the 4,434 entries were whittled down to become 98 Super Golds, and then 16 finalists. These cheeses went on to be re-judged by the International Super Jury, which included **Cathy Strange** from Whole Foods Market (USA), **Patricia Michelson** from

Continued page 5 >>

Thank you to all members, what a year – and keep an eye out for exciting developments

As another year comes to an end, it is pleasing to look back on where we are after the sacrifices we all made during the pandemic years of 2020 and 2021. And while COVID-19 still caused the “odd blip”, all I can say is: “what a year 2022 has been!”

Unlike 2021, this year has been one where we managed to get back up to speed quickly – and with many great accomplishments. And I believe 2023 will present more growth opportunities for our Association and the wider industry alike, as we launch a number of amazing new initiatives that we are finalising as we go to press. So watch this space.

Your patronage is important

Whether you have been a member for years or are new to us this year, I would like to personally thank you for your patronage. Your commitment to the Association is greatly appreciated, and we will continue to strive to earn your business every day by delivering the widest, and most comprehensive range of face-to-face and online professional development, industry recognition, networking, and industry-specific publications available.



Image: Bri Hammond

Carl Partridge
CEO
Dairy Industry
Association of
Australia

Thank you volunteers

I would also like to take a moment to thank our volunteers for their tireless work and without whom we would not be in the position we are today. The success of the DIAA is also built on the efforts of our national support team, and we have enjoyed many successes in this past year. Thank you for your dedication. I am truly grateful for your valuable contributions to the DIAA; 2022 saw:

- Over 50 face-to-face networking and professional development events run nationally
- 4 Dairy Science World Series Courses: Dairy, Cheese, Ice-Cream and Engineering
- 7 product competitions
- 4 scholarships awarded
- 6 *Australian Dairy Foods* magazine, with over 300 pages of content produced

- 140 archived editions of *Australian Dairy Foods* magazine read
- 230 archived editions of the *Australian Journal of Dairy Technology* read
- A new edition of the *Australian Dairy Listing* produced (hard copy and online)
- Over 1600 articles in the *Australian Journal of Dairy Technology* read
- Over 18,000 new users accessing our website, growing our reach
- An average member event booking discount of 63%
- And an amazing feature in the ALDI catalogue, featuring our product competitions

Next year will be the time for us to evolve further, with a number of new benefits to be announced to our membership. These will have a focus on ensuring that the needs of all our members are met – regardless of their role or geographic location.

Thank you once again for being with us in 2022, and we look forward to even more success next year in 2023! May you and your families have a safe, healthy, and very happy holiday. ■



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>> continued from page 3

La Fromagerie (UK), **Denis Priimagi** from Cheese Kingdom (Ukraine) and **Davide Fiori** from Luigi Guffanti 1876 (Italy), who put forward their preferred cheeses live on World Cheese TV, which was streamed globally, before crowning this year's World Champion Cheese.

The top 16 were:

- Le Gruyère AOP surchoix, by cheesemaker Vorderfultigen and affineur Gourmino
- Gorgonzola Dolce DOP from De' Magi
- Grosse Tomme de Bufflonne Cave Jacobine from **Prolactine France**
- Âlde Fryske from **De Fryske**
- Tomme de chèvre Cave Jacobine from Prolactine France
- Pata De Mulo Curado Los Payuelos from **Quesería Artesanal Los Payuelos**
- Greensward from **Murray's Cheese**
- Devon Blue from **Ticklemore Cheese**
- Spenwood from **Village Maid Cheese**
- Grosse Tomme de chèvre Cave Rousseau from Prolactine France
- Sinodun Hill from **Norton and Yarrow Cheese**
- Gorwydd Caerphilly from **Trethowan's Dairy**
- Großer Deichkäse 12 Monate from **Rohmilchkäserei Backensholz GmbH & Co. KG**
- MA-TRU' Pecorino Amatriciano from **F.LLI PETRUCCI SRL**
- L'Ambra di Talamello from **Rocca Toscana Formaggi S.R.L.**
- Gentenaer from **Little Cheese Farm**

Lesley Griffiths, Rural Affairs Minister of the Welsh Government, the Principal Global Partner of the World Cheese Awards, said, "I am proud Wales has hosted the world's biggest cheese awards.

“

... our cheese experts from all over the world, were clearly blown away by the quality

"This really is the 'World Cup of Cheese' and a celebration of excellence in cheesemaking from around the globe.

"In addition to the exceptional cheesemakers, we have welcomed 250 experts from 38 different countries to judge, and a Super Jury of 16 judges to select the coveted World Champion Cheese.

"It has also been great to see the strong Welsh presence at the awards, who have been able to showcase their high quality products. A huge congratulations to all of the winners and everyone competing this year."

John Farrand, managing director of the Guild of Fine Food, organisers of the World Cheese Awards, said, "What a finale. This year's World Cheese Awards has been a huge success and Wales has been the perfect canvas for this colourful event. We've seen more entries than ever before and it's great to see such a range of styles and regions represented.

"To crown Le Gruyère AOP surchoix as this year's World Champion Cheese is so well deserved. The judges in the room today, our cheese experts from all over the world, were clearly blown away by the quality of the cheese and dedication shown by the cheesemakers.

“

India followed its first entry in 2021 with several more in 2022.

"I'd like to thank our judges, sponsors and partners, particularly the Welsh Government, for all their continued support and for helping this year's awards to be bigger and better than ever before, giving the global cheese community a day of well-earned celebration."

This year's World Cheese Awards was the 34th edition and has seen more entries than ever before with a record-breaking number of cheeses submitted.

All entries were judged in a single day, as 250 experts from 38 different nations studied their appearance, texture, aroma, and flavour. Bronze, Silver, Gold, and Super Gold accolades were awarded during the morning session before the Super Golds were reassessed to find this year's top 16 cheeses and this year's World Champion Cheese.

For more information, including a video of judging, visit www.gff.co.uk/wca

2022 key facts:

- a record-breaking 4,434 cheeses were entered, up on last year's previous record of 4,079 cheeses (itself a 7.2% increase on the previous record)
- entries represented 42 different nations and 900 companies (10.9% UK based, 89.1% international)
- Canada, Argentina, Slovenia and Israel all had increased entries
- India followed its first entry in 2021 with several more this year
- Ukraine saw a huge increase in entries after the World Cheese Awards was moved to Wales from its original 2022 location of Kyiv
- the well-established cheesemaking nations of France, Italy, Spain and the UK were well represented by both returning and new entrants, with a notable increase in Swiss entries ■

Victorian flooding sees milk lost

Flooding in Victorian dairy regions has seen milk unavoidably lost and wasted on farm. The exact amount, due to lost power and unreachable farms, is unknown.

Richard Lange, Commercial Director of **Milk Exchange**, said around 20% of Victoria's milk was produced in regions affected by floods with northern Victoria home to some 900 dairy farmers and 30 factories.

He said the inability of trucks to reach farms meant milk was tipped, obviously having an impact on incomes.

Murray Watt, Federal Emergency Management and Agriculture Minister, forecast food shortages due to the extensive flooding across Victoria, New South Wales and Tasmania. He said this will have a heavy impact on food production and prices.

He joined **Prime Minister Anthony Albanese** touring flooded areas

in October, taking in Bendigo and heading north to Dubbo and Gunnedah in NSW.

He said crops that were nearing harvest were "destroyed", which will "hit farmers, and it'll also hit consumers when they go to buy their fruit and vegetables and other agricultural products".

Mr Watt said up to 90,000 people had been affected by flooding in Victoria.

Tatura plant hit

Bega Foods' Tatura plant lost electricity in October, with the company accessing generators to power the factory and process some two million litres of milk in time.

Bega Foods Nutritionals Business Manager **Hamish Reid** said storing

milk on farm or in the factory for more than three days could result in the product not being fit for sale.

He said with many suppliers also without power, Bega worked with local electricians, moving generators around the district to enable cows to be milked. Milk that was able to be collected went "into other processors who are supporting us at this time".

"There will be milk dumped on farm unfortunately which is a real tragedy when it's in such scarce supply. If there is any milk that is lost on farm we cover those costs with our suppliers — we ensure they are as protected as possible from any financial impacts of this." ■

Maleny Dairies launches 1L lactose free

Maleny Dairies has released a new, one-litre lactose-free, full-cream milk.

CEO (or "Chief Enthusiasm Officer") **Stephen Tait** said the team had "once again gone above and beyond by developing and launching" this new product.

"The team are excited and energised by the focus on creating new products that will add to our existing range, and appeal to new customer segments. On the back of our recent successful two-litre launch, our one-litre, lactose-free will be available from our incredibly supportive independent retailers throughout South-East Queensland from November onwards, with more new products on the way in 2023." ■



London's Little Moons lands at Bondi

Launching here with three popular flavours, mochi ice-cream brand Little Moons made its Australian debut in October.

The London-based brand gained popularity on social media platform TikTok last year, earning \$33.28 million (£20 million) in ice-cream sales in the UK with its soft, chewy mochi dough that encases creamy balls of mochi ice-cream.

Co-founder **Howard Wong** said Little Moons "knows Australia is a nation of ice-cream lovers". Howard and sister Vivien created the brand in 2010; the company now produces 180 million mochis a year, sold in more than 20 countries.

Launch flavours were Belgian Chocolate & Hazelnut, Vegan Tropical Passionfruit & Mango, and Honey Roasted Pistachio.

Available in Woolworths, the balls retail at \$10 for a six-pack. The company handed out free samples at Bondi Beach when it launched. ■

Saputo closes Maffra factory, scales down in Leongatha, Mt Gambier

After announcing in February that it would cut jobs at its Maffra dairy factory, Saputo has now announced that it will close that factory and scale back production at a second Victorian Gippsland factory in Leongatha, along with its Mil-Lel plant in Mount Gambier, South Australia.

Both bulk powder production at Leongatha and cheese packaging at Mil-Lel will be shut down.

These latest changes, which will take effect in early 2023, will impact 75 employees. They come on top of the February announcements that the Canadian milk processor made about plans to cut 18 jobs at Maffra and in its northern Victorian factory at Cobram.

After the November announcements were made, Saputo's President and Chief Operating Officer **Leanne Cutts** told ABC Radio that the 75 employees

would be redeployed where possible or otherwise be severed.

Ms Cutts said some functions of the three sites would be relocated.

"Many of the impacted production and packaging functions at those three facilities will be integrated into facilities across the network."

She said suppliers' milk would continue to be collected and processed across the Saputo network, with the company "committed to the Australian dairy industry" and wanting "every litre of milk".

When asked on ABC Radio whether Saputo might close more plants, Ms Cutts said the company was "always reviewing our network ... because we want to make sure we continue to be efficient".



In closing the Maffra factory, the Montreal-based processor has ended a century of dairy processing in the town, which has a population of 4,000. ■

Highs to lows in 7 years

Just four years ago, Saputo considerably expanded its presence in the Australian market by buying Murray Goulburn. At its 2014–15 peak, the former farmer-owned dairy co-operative collected more than 3.6 billion litres of milk from Australian dairy farmers.

Saputo's milk intake has since fallen to less than 2 billion litres. ■

Fonterra \$60m clawback class action settles for \$25m

A class action by dairy farmers against Fonterra Australia has settled for \$25 million.

The company said in a statement that the agreement was reached without an admission of liability, and was subject to court approval.

The class action stems from retrospectively cut milk payments, which instigated a \$60 million price clawback in 2016.

Dairy farmers affected by the clawback had alleged the decision was unlawful, misleading and deceptive and unconscionable conduct that caused financial and mental distress.



Before it was bought by Saputo, the former Murray Goulburn also engaged in a price clawback; however, in 2017 it scrapped the repayments and recorded a \$148 million write-down.

The Australian Competition and Consumer Commission (ACCC) launched legal proceedings against the former farmer-owned dairy co-op and an 18-month inquiry after the clawbacks by both Murray Goulburn and Fonterra. That inquiry led to the introduction of the mandatory code of conduct between dairy processors and farmers.

In a statement, Fonterra said the \$25m included interest and all costs, and had been provided for in last year's financial statements.

The company has appointed a new CFO, **Neil Beaumont**, who will start in the role in February 2023. ■



DIAA members' businesses shine at 2022 SA Premier's Food & Beverage Industry Awards

Fifty of South Australia's most outstanding contributors to the food & beverage industry have been formally recognised for their achievement and innovation in the 2022 South Australian Premier's Food and Beverage Industry Awards.

Announced in mid November during a Gala Dinner at the Adelaide Convention Centre, award winners included **La Casa Del Formaggio**, which was presented the highly coveted Business Excellence Award for businesses with more than 15 FTEs.

Haigh's Chocolates also received the hotly contested Consumer Award, chosen after more than 10,000 public votes were cast from across the globe. **Golden North** was named "Legends for Life", an accolade recognising the strong relationship between consumer and product, and one that is only provided to businesses that have won the Consumer Award at least three times.

Several other businesses were also recognised across 14 other categories, selected via a robust process undertaken by 35 independent judges, led by Chair of Judging, **Brenton Leitch**.

Food South Australia CEO **Catherine Sayer** said the passion, innovation and unity of SA's food & beverage industry was on full display at the gala event, which was attended by food & beverage business owners, industry leaders and the **Hon Peter Malinauskas MP, Premier of South Australia**.

Ms Sayer said, "Announcing these awards is a proud moment for all of us at Food South Australia. It's a moment to showcase our state's best products, while formally recognising how our food & beverage industry continues to lead South Australia's business sector through innovation and growth."

Presented every year, the South Australian Premier's Food and Beverage Industry Awards recognise excellence,

leadership, vision and innovation across the SA food & beverage industry, and are presented by Food South Australia thanks to funding support from the South Australian State Government.

Premier Peter Malinauskas said SA's food & beverage industry continued to be a vital part of the State's growing economy.

"The high level of entrants, finalists and award winners showcased through this year's awards shows exactly why our food & beverage industry continues to be a vital part of our state's future. Not only is it an industry that showed incredible leadership through some difficult challenges over the past few years, but importantly, it continues to create new opportunities, products and services. I'm excited to keep watching these outstanding companies as they continue to grow, and take the best our State has to offer to the rest of Australia and beyond."

2022 South Australian Premier's Food and Beverage Industry Awards – Winners

Business Excellence Award, sponsored by Visy

- **La Casa Del Formaggio** (for businesses with more than 15 FTEs)
- **Eyrewoolf Abalone** (for businesses with up to 15 FTEs)

Emerging Business Award, sponsored by the Department for Trade and Investment

- **mumamoo** (Australian made and owned baby formula)

Export Award, sponsored by the Department for Trade and Investment

- **Yumbah Aquaculture** (for businesses with more than 15 FTEs)
- **KIN Premium Australian Seafood**

(for businesses with up to 15 FTEs)

Innovation in Business Award, sponsored by the Department for Trade and Investment

- **Spring Gully Foods** (for businesses with more than 15 FTEs)
- **Ashton Valley Fresh** (for businesses with up to 15 FTEs)

Innovation in Food or Beverage Award, sponsored by Food Processing Equipment

- **Clean Seas Seafood** (for businesses with more than 15 FTEs)

Mental Health and Wellbeing Award, sponsored by Breakthrough Mental Health Research Foundation

- **Harvest the Fleurieu**

New Product Award, sponsored by Foodland Supermarkets

- **LifeStyle Bakery** (for businesses with more than 15 FTEs)
- **Bowlsome** (for businesses with up to 15 FTEs)

Primary Producer Award, sponsored by Thomas Foods International

- **Ceravolo Orchards** (for businesses with more than 15 FTEs)
- **Eyrewoolf Abalone** (for businesses with up to 15 FTEs)

Sustainability Award, sponsored by Peats Soil & Garden Supplies

- **La Casa Del Formaggio** (for businesses with more than 15 FTEs)
- **feather&PECK** (for businesses with up to 15 FTEs)

Service Provider Award, sponsored by Mitani Group

- **Complexica** (for businesses with more than 15 FTEs)
- **Bright Engineering Consultants** (for businesses with up to 15 FTEs) ■

50 years of manufacturing Philly cheese in SA

Wednesday 9 November celebrated 50 years of Philadelphia cream cheese being made in South Australia.

Owned by Mondelez International, the Mount Gambier factory produces some 80 million tubs of cream cheese annually, sourcing close to 150 million litres of fresh milk from SA dairy farms to do so.

Past and present employees and dairy farmers, along with **South Australian Premier Peter Malinauskas** and **Minister for Primary Industries Clare Scriven** (who spoke at the DIAA SA Gala Awards this year) gathered in Mount Gambier to celebrate the milestone.

Premier Malinauskas said Philadelphia cream cheese was one of SA's most iconic exports, with the Limestone Coast a key economic driver for SA.

Mondelez
International



In the past decade, the Mount Gambier plant has invested \$50 million to support growth ambitions and export opportunities. Local demand for cream cheese has surged since the COVID-19 pandemic, with

Australians doing far more home cooking.

Factory Site Manager **Adam Borchers** said he felt humbled and honoured to work with the iconic, loved product. With one-third of volume exported he said it was "a thrill to know there's a taste of South Australia in every cheesecake and on every bagel made using our brand". Exports head to markets including Japan, South Korea and Taiwan.

A joint product with CADBURY saw a Marble and Caramilk-inspired Philadelphia, which did well both at home and in New Zealand. ■



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Naturo's global dairy-digestibility breakthrough

After patenting its Haelen milk-processing technology in 2019 to extend the shelf life of fresh milk to 60 days, **Naturo** has now developed a fresh, natural milk that is twice as digestible as other cow milk on the Australian market.

The breakthrough, a world first for the Australian dairy technology company, uses technology to aid the digestion of dairy products.

Jeff Hastings, Naturo's founder and CEO, said the development was one of the biggest in the milk industry since pasteurisation.

He said the latest digestibility market breakthrough had seen the company shift its business strategy to allow worldwide Haelen Technology partnerships and licensing agreements, rather than just focus on processing and exporting fresh milk from its South-East Queensland production facility. Thus it has further cemented the company's global expansion plans via partnerships and licensing agreements.

Last year, Naturo undertook consumer trials of milk that had been



through the Haelen system, with two-thirds of the trial participants who normally experienced an adverse reaction to cow milk finding their symptoms were either eliminated or reduced when they drank the Haelen-processed milk.

How the milk's whey proteins are treated is one difference between standard milk processing – such as pasteurisation, UHT and ESL. The Haelen method further breaks down whey proteins, allowing for easier and faster digestion – as well as enhanced nutrient absorption.

CSIRO research-validation trials were carried out after Naturo's consumer trials.

Jeff Hastings said CSIRO's results confirmed that Haelen-processed milk was twice as digestible as other processed cow milk, and that the system made the milk's nutrients more bio-accessible, providing the potential for increased absorption by the body.

He said that the significant digestibility result would provide unique opportunities in the health and wellness space, while complementing the fresh milk's long shelf-life advantage, both domestically and globally.

"We know consumers are going to love the health benefits of our 100% natural milk when we launch it to the retail market, however this digestibility finding opens the door to new products and new market opportunities." ■

Gelatissimo enters FMCG market in Coles

Gelatissimo has entered the FMCG market, launching five of its bestselling flavours in tubs in Coles supermarkets nationwide.



DIAA member Filiz Kaya, Gelatissimo's Product Development Manager said, "We looked at our most popular flavours, as well as ones that have stood the test of time, then also considered current trends both here and around the world to create this range."

Celebrating its 20th birthday this year, the gelato maker described the supermarket launch as "an exciting step". With 42 stores around Australia and a further 26 overseas (including Saudi Arabia, the Philippines, the USA and Singapore), the company also plans to open several new stores in the country by the end of this year.

- Tubs retail at RRP\$12.50 each after an introductory price of \$10 for the first two weeks.
- Flavours in the new scoopable tub range are Peanut Butter Brownie (with brownie pieces and salted caramel sauce), Italian Hazelnut (with dark chocolate flakes), Caramel Cookie Butter (with caramel swirl and speculoos pieces), Decadent Chocolate (with dark chocolate flakes) and Cheesecake Swirl (with dulce de leche and buttery crumble). ■

Danone transfers plant control from Russia

Danone SA is planning to transfer control of its Essential Dairy and Plant-based (EDP) business in Russia. The Yale School of Management said the transaction could result in a write-off of up to US\$1 billion.

The school, based at Yale University in the USA, ranks corporations based on how they do business in Russia following that country's invasion of Ukraine in February.

In the first nine months, Danone's dairy operations in Russia accounted for 5% of the business's net sales, having a dilutive contribution to its like-for-like sales growth and recurring operating margin.

The Paris-based Danone stated it "considers that this is the best option to ensure long-term local business continuity for its employees, consumers and partners".

As of mid October, Danone was in



the "buying time" category, which applies to companies holding off on new investments and developments. Before then, the company had suspended all investment projects, but continued with its dairy products, having suspended imports of Evian and Alpro products.

Yale School of Management ranks corporations in five groups:

- withdrawal: companies that halted Russian operations completely

- suspension: companies that temporarily curtailed operations but kept return options open
- scaling back: companies that reduced current operations and held off on new investments
- buying time;
- digging in: meaning companies not exiting Russia or reducing activities.

According to the Yale School of Management, more than 1,000 companies globally have announced that they are curtailing operations in Russia, to varying degrees, beyond the bare minimum legally required by international sanctions. ■

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Rising costs shape global fundamentals



Reduced consumer spending has begun filtering through globally. The impact on dairy is not unique.

Around the world, reduced consumer spending is starting to filter throughout the supply chain. With higher-than-expected inflation and rising interest rates driving a more cautious approach to importing, this has resulted in a corresponding shift in the demand for dairy. While this is not unique to the dairy industry, such pressures drive changes to procurement activity and therefore add to the market's volatility.

On the demand side, weakened currencies and a shift in consumer spending are presenting importers with a new challenge. The frenzy to secure product in light of limited supply and logistical bottlenecks



Image Supplied

Isabel Dando
Industry Analyst
Dairy Australia



throughout 2021 has subsided, as recessions curb dairy consumption in some markets.

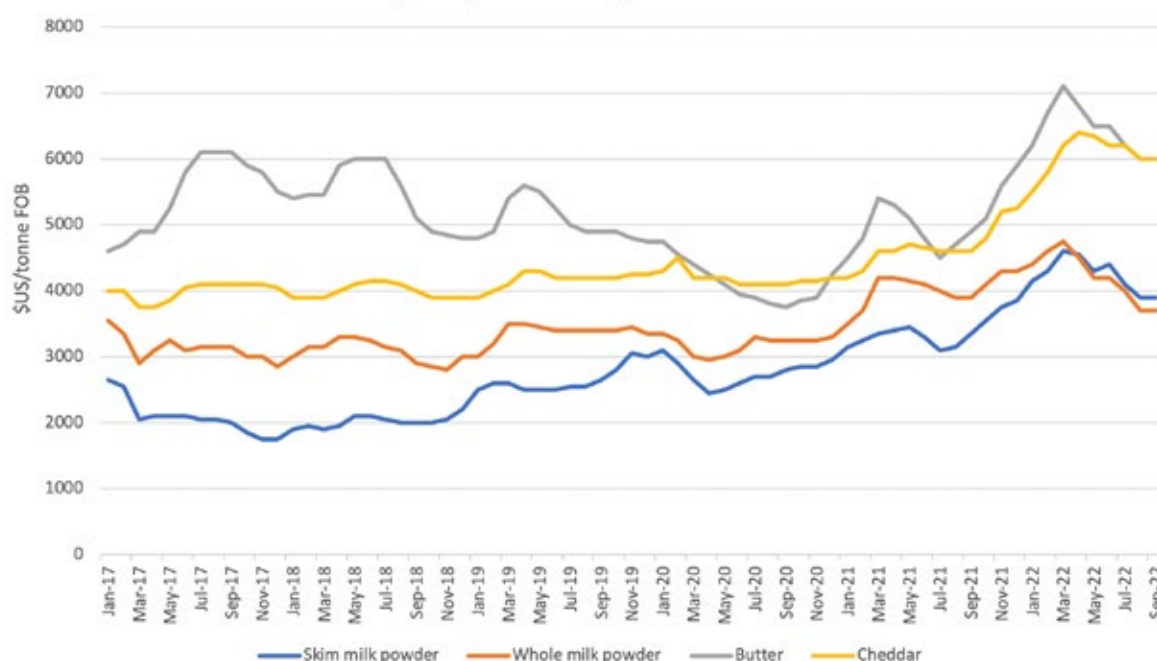
Across the globe, importers are starting to purchase product in a more "hand to mouth" fashion, as commodity prices and shipping rates continue to fall. As such, demand is still active, albeit at subdued levels.

Chinese domestic scene strengthens

In China, a weakened economy and regular lockdowns in accordance with COVID-19 elimination policies, are contributing to lower domestic dairy consumption and reduced importing activity.

Domestic milk production has also been strong over the year. As such, subdued purchasing activity from Chinese buyers has been a key driver of the commodity downturn. Despite recent reports of local milk production taking a hit from unfavourable weather conditions, there is limited evidence to support a shift in China's COVID-19 approach,

Key dairy commodity price indicators



and, therefore, a surge of imports into the country.

High global input costs squeeze flow

While buyers from many markets are tempering what they purchase, the amount of product available for export is still limited in many cases.

Milk flows globally continue to be squeezed by high input costs, smaller national herds, farm exits and labour challenges.

In Australia, this situation is being amplified by a third consecutive La Niña event and widespread flooding across the eastern half of the country. Peak-season milk flows have been underwhelming so far, and hopes of high-quality feed production have been slashed.

Across New Zealand, milk production continues to lag, with adverse weather conditions weakening pasture quality

“
[Chinese] domestic milk production has been strong over the year
”

and growth. Meanwhile, after months of dry conditions and slow milk flows across the United States, production has started to pick up (on account of increased per-cow yields), at a time when sky-high inflation has deterred domestic dairy consumption. A similar situation is playing out across Europe, with retail prices reaching record levels and reports of product inventories in manufacturer warehouses increasing.

Hence, the price support provided by constrained global milk supply will ebb as increased product availability for export from the USA and EU starts to drag values down. Against the backdrop of a

looming global recession and buyers waiting to purchase product at more economically viable levels, the pressure has started to mount for product from all key exporting regions.

Nevertheless, many Australian exporters continue to report they are well sold into 2023, which is likely to slow the rate of decline from Australian dairy commodities.

Global-demand dynamics remain very much at the whim of consumer behaviour, although the constraints felt throughout key exporting regions will likely keep supply growth limited in the medium term. Despite the recent commodity downturn and general expectations that there may be more room to move, the continuing, if reduced, activity of buyers indicates that many are operating in a “wait and see” pattern rather than completely withdrawing from the market. ■

Source: Dairy Australia

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Alternative ‘milks’ and ‘dairy’ products – a scientific view



Hilton Deeth
Emeritus Professor
of Food Science,
University of
Queensland

The plant-based, alternative milk market is growing exponentially. In this article, DIAA member Emeritus Professor Hilton Deeth looks at these beverages from a scientific viewpoint.

In recent years, there has been a major increase in sales of alternative “milks” and “dairy” products – and this increase is predicted to continue.

Currently dominated by plant-based “milks”, “alt-milks” as they are sometimes called, were worth \$237 million in 2020 in Australia, and are increasing at 8.3% per annum. In addition, the markets for non-dairy creamers, yoghurts and cheeses are substantial – and also increasing. Several dairy companies accept that alt-milks and dairy-free products are here to stay, and so are investing in them, with Lactalis, Nestlé, Danone and Bega among this number.

Plant-based milks











Plant-based milks include soy, almond, oat, rice, macadamia, hemp, cashew, hazel nut and coconut.

Soy is the most popular, with around 50% of the market in Australia. The relatively recent entrant of oat, has been increasing in popularity and now occupies some 20% of the market. Interestingly, oat is already the second most popular in the USA.

Originally, plant-based milks were mainly consumed by vegans, people who chose plant-based foods rather than animal-based foods; however, the market has now shifted to include “flexitarians”, people who replace some, but not all, of their animal-based foods with plant-based foods. The main consumer drivers for plant milks are health and moral grounds, and environmental beliefs that they have a smaller greenhouse gas footprint than dairy (Hale 2021).

In general, plant-based milks try to mimic real milk in composition. They don’t, however, contain lactose, and



									
Pauls Physical Reduced Fat Hi... A\$4.70 Coles Supermarke...	Pauls Zymil Lactose Free Full... A\$3.70 Woolworths	Made By Cow Cold Pressed Raw... A\$7.65 Woolworths	Coco Earth Dairy Free Choco Flavo... A\$4.00 Woolworths	Blue Diamond Almond Breeze... A\$1.50 Coles Supermarke...	Pauls Physical Low Fat Milk With... A\$5.60 Woolworths	Chobani Oat Milk Vanilla 1L A\$2.30 Woolworths	Lactose Free Lite Milk Coles A\$2.60 Coles Supermarke...	Nutty Bruce Organic... A\$6.00 Woolworths	Vitasoy Soy & Protein... A\$3.60 Woolworths

so therefore are suitable for people with lactose intolerance, and instead of milk fat, they contain vegetable oils which contains cholesterol. Many contain added minerals – particularly calcium, which is a major beneficial component of real milk.

The protein content of alt-milks varies considerably; in products available in Australia, it ranges from 0.1 to 3.0% (compared with real milk at around 3.2%). In a recent survey of plant-based beverages in New Zealand, with the exception of soy products, they had protein contents less than 1% (Smith et al. 2022). Thus, the

“
cell-cultured ‘milk’ differs considerably from cell-based ‘milk’
”

cost-per-unit of protein in some of these products in Australia and New Zealand is very high.

Plant-based milks require processing of the raw material, either whole nuts or grains, or the powders made from them. These are soaked in water and, in the case of the whole nuts/

grains, are ground and then filtered to remove large insoluble particles before the addition of ingredients such as calcium and oils, stabilisers and sometimes enzymes (e.g. in oat milk production). The dispersions are homogenised and either pasteurised or UHT processed.

The size of the solid particles in the milks is highly correlated with their stability during storage: the smaller the particles, the greater the stability. This was demonstrated by an Australian group (Durand et al. 2003) for UHT soy, oat and rice milks in a comparison with UHT cow milk. The



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diameters of the sediment particles obtained by mild centrifugation varied from 1.2 µm for cow milk to 4.9 µm for rice milk, and these correlated well (inversely) with the products' stability.

In a recent survey in New Zealand (Smith et al. 2022), the nutrient composition of UHT plant-based beverages when consumed was shown to be very dependent on how well they were shaken or mixed. Over 90% of the calcium and around 50% of the protein was in the sediment of some unshaken samples – again this is a function of the particle sizes.

Several authors have concluded that, in general, plant-based milks should not be seen as nutritional substitutes for milk, particularly for infants and young children (Angelino et al. 2020; Clegg et al. 2021; Smith et al. 2022). However, they are valuable for people who cannot consume milk for medical reasons. The generally lower nutritional value of plant-based milks relative to real milk has led to calls for establishment of regulations that require these products to meet certain nutrient level standards (Drewnowski et al. 2021; Smith et al. 2022).

NotMilk

Several companies are using R&D to develop alt-milks that mimic real milk. An example is NotCo who developed *NotMilk*, which is claimed to be “the first alt-milk made using artificial intelligence” and to be “the most like cow’s milk in terms of taste, smell, and texture” (www.wellandgood.com/what-is-notmilk).

According to the company, they searched plant-based foods for compounds similar to those in

“*plant-based ‘milks’ should not be seen as nutritional substitutes for milk*”

real milk and incorporated these into *NotMilk*. They reported that suitable compounds were found in sources such as pineapple juice concentrate, chicory root and cabbage juice concentrate. Pea protein and vitamins D and B12 are also incorporated. *NotMilk* therefore differs from other plant-based milks in that it is not derived from a single plant source but multiple plant sources.

Cell-based milk

A bold approach to making an artificial milk is precision fermentation in which milk components, principally proteins, are made by fermentation using genetically modified yeast. The genetic material in the modified yeast which codes for milk protein(s) is originally from cows. Milks made using this approach are sometimes called “cell-based milks”.

Several companies worldwide are following this approach. While a product very close to real milk is

“*the first alt-milk made using artificial intelligence*”

the holy grail for these companies, cheese, particularly mozzarella-type cheese, is the target for many of them, with Dairy Lab in New Zealand and Change Foods in Australia among those.

One of the first companies to produce cell-based milk was ReMilk, established in 2019 in Israel. Interestingly, it is funded by large German and Israeli dairy companies.

ReMilk maintains their milk and cheese are “indistinguishable from old-fashioned dairy”. Like other companies involved in producing cell-based milks, they believe they are “on to something huge, so huge it will literally change the world”.

In April 2022, it was announced that they will “create a full-scale factory in Denmark which would be the world’s largest animal-free dairy production facility” (www.greenqueen.com.hk/remilk-factory-denmark/).

Some companies, such as the US company Tomorrow Farms – whose “animal-free dairy milk” is sold under the name of *Bored Cow* – have based their milks on whey proteins; while others such as EdenBrew use caseins as the base for their milks. Eden Brew is a US-Australian precision fermentation start-up company, with funding from Digitalis Ventures (USA), Main Sequence (CSIRO) and Norco.

They are making casein micelles in the lab, and are able to produce artificial milk which they claim “tastes the same as natural milk”. Their fermentation is based on yeasts containing genetic material for four caseins sourced from CSIRO (www.edenbrew.com.au).



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Another Australian company using precision fermentation to “develop dairy proteins for milk and other dairy products” is All G Foods. This company already produces cell-based “meat” products, which are marketed under the name of *Love Buds*.

Cell-cultured milk

Another approach to producing cell-based milk is to culture mammary gland cells, and then manipulate them to produce milk. By producing such “cell-cultured” milk, all the milk components – including structures such as the milk fat globule membrane – can be produced.

So, this cell-cultured milk differs considerably from the cell-based milk produced by yeasts via precision fermentation in which a small number of compounds, mostly proteins, are produced.

An Israeli start-up company, Biomilk, was established to make

genetic material in the modified yeast which codes for milk protein is originally from cows

milk by this method. They explain their system as being like “the late stages of pregnancy when cells in the mammary gland proliferate”. When sufficient numbers of cells have divided/proliferated, BioMilk induces the cells to stop dividing and start producing milk. According to Watson (2021), Biomilk knows “when to stop the proliferation step and start the differentiation step, which enables the cells to synthesise milk”.

A major stated goal of Biomilk is to produce cell-cultured human milk and disrupt the infant nutrition

market. It is still early days for this technology, so watch this space.

Alternative-milk fat globules

We are used to regarding the fat globules in milk as unique particles cunningly produced in nature to disperse the fat (mostly triglyceride) throughout the milk.

The fat globules are small (average diameter about 3 µm) and are coated in a membrane (the milk fat globule membrane) which consists mainly of phospholipids with interspersed proteins. Nature has produced similar particles in plants which are known as **oil bodies**, or **oleosomes** [Plant Life: Oil Bodies (lifeofplant.blogspot.com)]. They are triglyceride-containing particles coated in a single-layer phospholipid membrane with embedded proteins called **oleosins**, which keep them from coalescing (see Figure). They are

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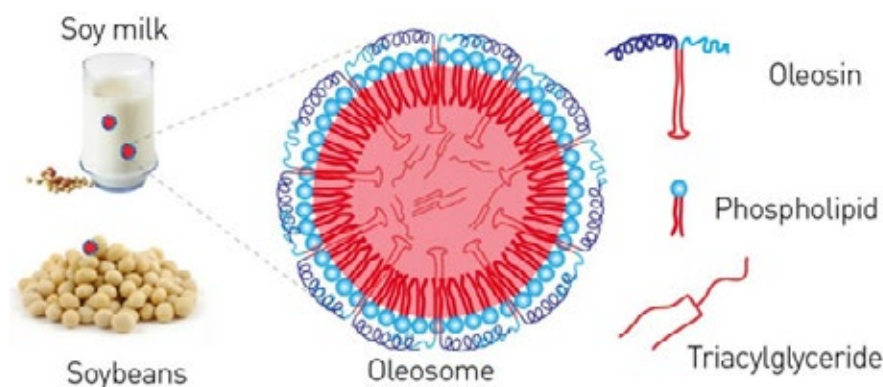


Figure: A plant oil body which is similar to a milk fat globule (Credit: [Plant Life: Oil Bodies \(lifeofplant.blogspot.com\)](https://lifeofplant.blogspot.com))

0.5 to ~3 μm in diameter, a little smaller than cow milk fat globules.

Recently, milk-fat globules have been successfully substituted with these oil bodies in plant-based “yoghurts” (Mantzouridou et al. 2019; Dou et al. 2022) and “ice-cream” (Wang et al. 2022). The oil bodies used were isolated from maize and soybeans.

Other alternative ‘milk’ products

Along with the growth in the plant-based milks market, there has been a corresponding increase in other “dairy product” alternatives. These include plant-based creamers, sales

of which topped US\$500 million last year, yoghurts and cheeses (Boukid et al. 2021). These all pose challenges for traditional dairy manufacturers, some of whom are already diversifying to cash in on this trend. ■

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Hungry for more science content?

The DIAA website is home to more than 1,700 scientific papers and technical articles, published in the *Australian Journal of Dairy Technology* between 1960 and 2010.

DIAA members can download individual articles and full issues of the journal for free.

Non-members can buy articles for \$15 each.

Find out more on www.diaa.asn.au > Resources > Australian Journal of Dairy Technology



Yoplait releases snack pouch yoghurt

YOP is Yoplait's new yoghurt snack in a pouch for kids, available in Coles stores nationally and selected independent retailers.

Made with real fruit, YOP offers a great source of calcium for growing bones, and contains probiotics and eight essential nutrients.



Yoplait Australia's Marketing Manager, **David Salter**, said, "While developing YOP, we have taken a collaborative approach by seeking the input of both kids and parents. With this product, we feel we have struck the perfect balance between fun for the kids and a nutritionally sound product for the parents."

He said people forget the benefits of yoghurt as a snack between mealtimes: it's filling but not too heavy.

YOP's flavour range is aimed at kids: Strawberry Jam Donut, Cola Spider, Banana Choc, Apple Chills and Lemon Burst. Mr Salter said that as a flavour, Strawberry Jam Donut sounds appealing to kids yet parents would love its four-star health rating and natural ingredients including strawberry and cinnamon. ■

Dare clocks on to coffee

Dare launched its strongest-ever iced coffee flavour just in time for Daylight Savings Time starting.



Sharon Winton, Bega Dairy and Drinks' Marketing Director, said Dare Intense Espresso used Rainforest Alliance Certified coffee beans.

"Dare's new 'flavour intensity' rating on pack, crafted especially for Intense Espresso, adds an additional level to Dare's coffee bean intensity scale for our more daring customers."

She said the new Dare Intense Espresso made "what felt like the fastest day of the year" a little more tolerable.

The product, which uses a blend of Robusta and Arabica coffee, is available for a limited time, exclusively at Woolworths stores nationally. ■

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ACCC's heavy hand in enforcing the new Code

For the first time ever, the Federal Court has found a dairy processor to be in breach of the Dairy Code. Food & beverage legal experts explain the potential consequences for Australian dairy processors.

With the Federal Court having recently found a large dairy processor to be in breach of the Dairy Code of Conduct, we thought we'd look at the allegations of the Australian Competition and Consumer Commission (ACCC) – and see which allegations were upheld by the Federal Court.



Dairy Code of Conduct explained

DIAA members will find a detailed explanation of the Dairy Code of Conduct, and the full Code itself, on the DIAA website. Simply log on, click the green "Visit Member Area" button, then Resources > Industry Reports and choose from:

- 2020 Milk Code Explanation and/or
- 2020 Milk Code

Members can download both PDFs for free.



Image supplied

Charles Fisher

Principal Solicitor and head of KHQ Lawyers' Food & Beverage team

ABOUT THE AUTHOR

Charles Fisher leads KHQ Lawyers' Food & Beverage team, and has spent the entirety of his legal career staring at the Food Standards Code (among many other pieces of food-specific regulation). This has led to Charles being one of the leading consultants and trainers on food marketing, compliance, labelling, classification, licensing, safety and food crisis management.



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Matthew Hamblin

ABOUT THE AUTHOR

A recent law graduate, Matthew Hamblin is currently completing KHQ Lawyers' graduate program. Matthew has previously worked as a paralegal in a national class action, advising group members on their settlement outcomes and dispute mechanisms. He holds a Bachelor of Laws (Honours) and Bachelor of Arts (Indonesian studies) from Monash University.

It's worthwhile noting that this case should serve as a timely reminder for dairy processors to review their compliance with the Code.

What is it?

Firstly, a recap: what is the Dairy Code?

The "Dairy Code (the Competition and Consumer (Industry Codes – Dairy) Regulations 2019", more easily known as "the Code", began on 1 January 2020.

It aims to regulate both the conduct of dairy farmers and that of dairy processors and businesses who buy raw milk from those farmers. The Code seeks to minimise the power imbalance that currently exists between dairy farmers and large

processors, and the main mechanism it uses to do so is to regulate the milk supply agreements between farmers and processors.

In short, the Code provides that:

- Processors and farmers must deal with each other in good faith.
- Processors must only purchase milk under milk supply agreements that are in writing and meet the key requirements, including:
 - specifying a minimum price paid for the milk
 - banning retrospective cuts to milk price
 - that they are contained within a single document
 - specifying the quality and quantity requirements (including testing procedures)

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“

an upcoming review of the Code may see changes resulting from this case

- outlining circumstances whereby the processor can unilaterally terminate the milk supply agreement (this can only be done where there is a ‘material breach’ by the farmer).
- For every exclusive milk supply agreement published by the processors, they are also required to offer a non-exclusive supply option to farmers.
- Large processors (i.e. those who have an annual aggregated turnover greater than \$10 million in the previous financial year) are required to publish on their website standard forms of milk supply agreements on or before 2pm on 1 June each year.
- Farmers and processors are required to keep written records of milk supply agreements (including any agreement variations/ terminations) and other specified records for six years.

So what happened in this case?

In this case, the ACCC pursued Lactalis Australia Pty Ltd for a number of alleged breaches of the Code. Previously known as Parmalat, Lactalis produces well-known dairy brands including Pauls, Oak, Vaalia and Ice Break.

However, the ACCC was not successful in every one of its allegations.

Justice Roger Derrington held that Lactalis had breached the Code through:

1. Failing to publish its milk supply agreements on its website by the 1 June 2020 deadline. The agreements were available via a web portal that required farmers to “sign-up”; however, this was found to be insufficient.
2. More importantly, Lactalis published and entered into agreements that allowed Lactalis to terminate such agreements for **non-material breaches**. Under such agreements, any “public denigration” by farmers of processors/clients (which would be unlikely to be material breaches of the agreement) could result in termination. This is not permitted by the Code.

However, Justice Derrington did **not** agree with the ACCC allegation that the non-exclusive supply provisions were breached by requiring 90% supply of the farmers’ monthly milk production. Lactalis was also found to have not breached the requirement

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to have its milk supply agreement in one single document.

Penalties have yet to be determined, but this case demonstrates the lengths the ACCC is prepared to go to in order to enforce both technical requirements of the Code (such as publishing requirements) as well as the more important elements, such as termination rights.

Takeaways for dairy processors

- The successful enforcement action serves as a timely reminder for all dairy processors that they must comply with the Code when purchasing milk from dairy farmers, or else they may be liable for significant financial penalties.
- Despite the Code's relative infancy, the ACCC has shown a preparedness to pursue and seek punishment for non-compliance; having also taken action against other companies for breaches of the Code, resulting in infringement notices.
- It is now clear the Federal Court is also prepared to punish breaches of the Code by large dairy companies.
- To avoid liability for financial penalties and potential enforcement action, it is strongly recommended that dairy processors review their milk supply agreements prior to upcoming milk seasons to align with Code requirements, as well as ensuring that publishing deadlines are met. We can assist you with this. ■

No more 'light touch'

While the ACCC initially adopted what it called "a light touch", the body now considers that dairy processors have had sufficient time to familiarise themselves with their obligations under the Code.

It has signalled a focus on ensuring compliance as part of its "2022-23 Compliance and Enforcement Policy and Priorities". Readers can find that document here: www.accc.gov.au/media-release/compliance-and-enforcement-priorities-for-2022-23 ■

Hardest so far, but not the first

The action against Lactalis is not the first against dairy processors since the Code came into effect.

ACCC Deputy Chair **Mick Keogh** said in the Code's first year of operation, the ACCC took action against several processors who were alleged to have breached the Code.

He described these infringement notices as being like a "speeding fine". Typically, an unlisted company was fined \$13,000-\$15,000, while listed companies received \$60,000 notices, with this then having "resolved those matters quite quickly".

Mr Keogh said Lactalis deciding "to go through with the full contest" was "their right, there's no issue with that". Indeed, he said it was "useful to have a judge interpret the Code and make determinations on exactly what is required so that clarifies it for everyone".

While Mr Keogh had not ruled out an ACCC appeal, he also flagged an upcoming review of the Code may see changes resulting from this case.

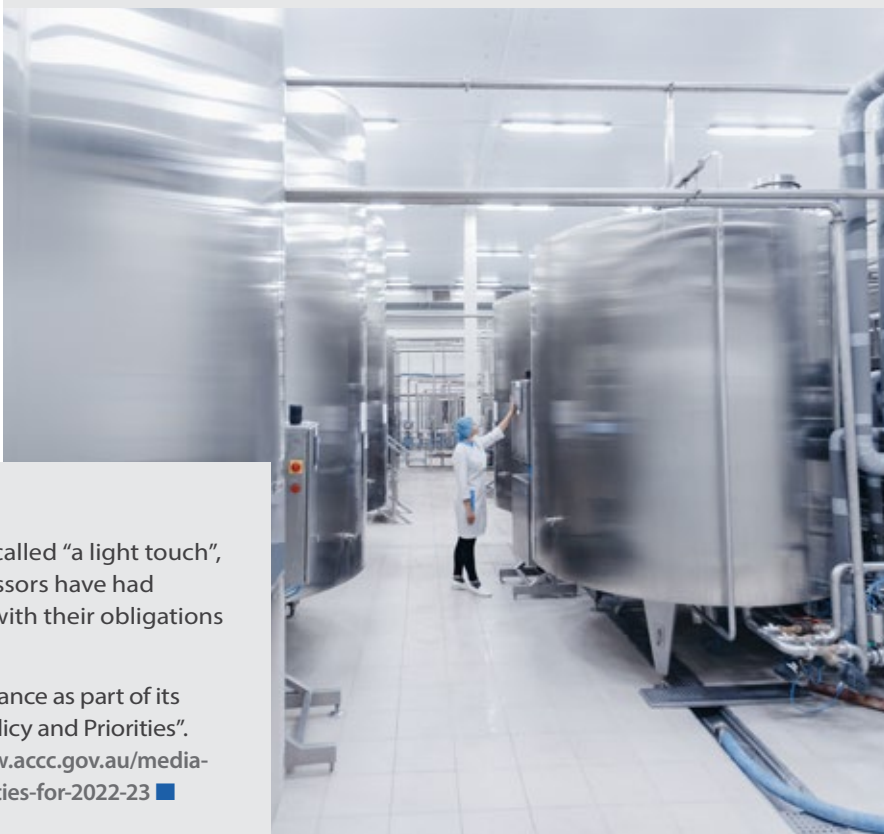
Lactalis: practical approach

After the judgement, Lactalis said it sought to comply with the Code at all times, and rather than looking to adversely impact farmers, had aimed for "a practical approach" to working with them under the Code.

Lactalis said it would carefully consider the judgement and that the ACCC had made no allegations against it in subsequent milk-supply seasons.

The ACCC is seeking penalties, declarations, injunctions, a corrective advertising order and costs, with the aim of signalling that the consequences of breaching the Code are significant.

These penalties will be determined at a future hearing. ■





Buttering up The Sydney Morning Herald

Pepe Saya founders, Melissa Allman and her husband DIAA member Pierre Issa, featured in *The Sydney Morning Herald* "Entrepreneur" section.

The couple sat down with business reporter Jessica Yun to chat about the next chapter for Pepe Saya. Melissa and Pierre said they were excited to share the story about their "little round butter and where we will be buttering up next".

Procal team celebrates MICE 2022

Several DIAA members were at this year's Melbourne International Coffee Expo, including Riverina Fresh, Hunt & Brew and Procal Dairies.

DIAA member Eve Vafiadis, National Sales & Marketing Manager for the family-run Procal, said it was great to be back at the coffee expo.



Members of the Procal Dairies team at this year's Melbourne International Coffee Expo.



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Opportunities to reformulate recipes in seeking productivity improvements

Has the global focus on cost saving, across business and consumers, provided dairy manufacturers with an opportunity? *DIAA member Lisa Flower* explores the possibilities for reformulating recipes that meet consumer desires.

Cost saving is a focus for both businesses and consumers right now. And with very good reason. In Australia, we have seen inflation skyrocket to 6.1% – the fastest annual increase in 20 years – while input costs, including gas and electricity, have been driven up due to the supply crisis, and exacerbated by the war in Ukraine and the decline in coal-fired generators.

Meanwhile, milk production plummeted to -8.8% year on year (YOY) in May, to a current 3.5% year to date (YTD) drop in production, resulting in a milk pool totalling 8.57 billion litres.



Image Supplied

Lisa Flower
Chr Hansen's
Marketing Manager
for Australia and New
Zealand

Australian annual wage growth is sitting at only 2.6%, making it even harder for consumers to pay for the price increases happening on supermarket shelves – let alone what is potentially to come.

Combined, it's an environment that places immense pressure on manufacturers and the cost of goods.

A perfect storm?

So is this a perfect storm? Or is there, in fact, light at the end of the tunnel to be able to reduce recipe cost without compromising taste, texture, quality and safety of your products and brand?

There are indeed many ways to reduce cost, but with consumers continually rating "great taste" as a key contributor to brand loyalty, this needs to be done without



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compromising the taste of a product that the consumer knows and loves.

The consumer interpretation of “taste” encompasses a wide array of sensory characteristics, including flavour, texture, mouthfeel and consistency. Whether the end application be yoghurt, sour cream or cheese, the careful selection of cultures and enzymes, combined with technical experience, can offer significant cost savings without compromising quality.

An optimised solution can really make a big difference, finding that balance between productivity gains and product quality.

Milk solids reduction

Modifying inputs can enable cost reduction. There are many levers that can be pulled – including fat, protein, thickeners, cultures and enzymes. Process parameters can be considered at the same time.

Yoghurt:

The ability to reduce protein by 0.3% in a 5,000 mega tonne (MT) per annum yoghurt base alone, enables a cost saving in the order of \$250,000 per year, or around \$60 per MT of yoghurt produced. (These estimates are based on averaged input costs, recipe and Chr. Hansen calculations.)

Of course the reduction of texture needs to be compensated for, and this is where high-texture-producing fermentation cultures can play a role.

High-texture-producing cultures, such as the Chr. Hansen Perfect Partner solutions, typically have an increased production of EPS (exo-poly saccharides), compensating





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for the loss of body due to solids reduction, so it is critical to optimise the culture and process to avoid textural changes.

Combined with formulation expertise, savings in this order have been realised locally and in overseas markets, without compromise to the end product.

Cheese:

Solids reduction in cheese, and the corresponding significant cost savings, without compromise to flavour and texture is also infinitely achievable. This relies on a combination of market-leading low proteolytic coagulants, such as CHY-MAX® M, CHY-MAX® Special and enzymes, such as YieldMax™, where solids recovery in cheese can be improved, and allowing for an increase in moisture while maintaining the same product quality.

A cost benefit of \$250,000 in a 1,000 MT cheese-manufacturing plant can be realised by 0.5% increased yield, through a combination of solid recovery and moisture increase. This is, of course, dependent on the starting point and specific coagulants in use.

Efficiency improvements

The time taken for fermentation impacts the efficiencies and the volume of product to go through the manufacturing plant. Selecting a faster fermenting culture can increase plant capacity and reduce operational costs.

In yoghurt production, a fast-fermenting culture solution (such

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and this is where high-texture-producing fermentation cultures can play a role

as the YoFlex™ Express range) can enable savings, particularly in pot-set yoghurt production.

Coagulants, combined with cultures, have an important role to play in the optimisation of cheese recipes, for example: with set time and stir-out times. CHY-MAX®- M for instance, has been used to reduce the set time by 15-20 minutes, allowing the production of an additional vat in a day.

Another example is in mozzarella production, where ripening times can be reduced by using fast acidifying cultures.

Reducing maturation time is another lever for cost saving, where there are examples of cheddar cheese released for sale up to three months early.

However, increased natural maturation equates to intense flavour. The use of adjunct cultures, such as CR-Savory or the CR-500 series can naturally boost flavour, replicating maturation, and enabling this time and cost saving.

Innovate to add consumer value

While productivity is top of mind in this economic climate, consumers are still looking for the new “new” in the

dairy case. It makes perfect sense to differentiate offerings and add extra value in this space.

Reducing sugar

Emerging, interesting ways to differentiate with no added sugar or lactose free include using lactase, such as NOLA™ Fit, to create a lactose-free product, with the added benefit of reducing sugar, or even providing a subtle sweetness if the formulation requires “No Added Sugar”. NOLA™ Fit works cost efficiently especially in fermented milk products. Lactose-free drinking milk and flavoured milk drinks are currently a very popular innovation platform and NOLA™ Fit works equally well thanks to the premium flavour it provides.

Immune support

There continues to be a strong launch push with yoghurts with immune support claims. An ideal way to do that is by using probiotics, including *L. casei* 431® or LGG®, as both have multiple, high-quality clinical studies demonstrating immune support.

Digestive health

Digestive health is a mainstay in the health credentials of yoghurt, and this can be achieved using probiotics such as BB-12®.

Provenance

Provenance has been a long-running popular launch platform, from Greek to Icelandic Skyr, to kefirs with Russian origin, Yoplait Oui French style and now also delicious Indian-inspired lassi products. Unique culture blends, including



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PRODUCTIVITY



cultures originating from these countries, can help dairy manufacturers tell their unique provenance brand story.

In cheese, provenance is often a crucial part of the brand story. You just need to look at the Italian cheese stories about Denominazione di Origine Protetta (which translates to Protected Designation of Origin, also known as "designation of origin" or DOP), or those from the Appellation

d'Origine Contrôlée (AOC) in France. Other European brands further leverage tradition and provenance.

Signature flavour and texture

Cheese is a staple in every Aussie family fridge, and it is not unusual to find more than five different styles or formats of cheese at any one time. The ability to be able to create your signature flavour and texture can ensure your product becomes – and remains – a loyally sought brand by consumers. French soft cheeses,

such as D'Affinois Double Cream, or Castello from Denmark and Dodoni Feta from Greece all have a signature flavour and texture.

Whether it be an immediate cost saving in yoghurt, sour cream or cheese, or a new and innovative idea for new product development, the roles of cultures and enzymes is not one to be overlooked, and can provide a unique signature to your portfolio of products. ■

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of Australia**



Bulla Dairy Foods team members at Foodbank Victoria.

Bulla team pitches in at Foodbank Victoria

A team from Bulla Dairy Foods, including DIIA members, spent time at Foodbank Victoria at the end of October. In a social media post, Bulla said the team packed “the equivalent of 41,158 meals for Victorians doing it tough”.

“It’s amazing to know that with our help, Foodbank Victoria is feeding the equivalent of an MCG crowd every two days – that’s 100,000 people who live in our cities, towns and local neighbourhoods. Thank you to the Foodbank team for having us and educating us on the important work that you do.”

Lactalis efforts highlight need to reduce food loss

On this year’s international Day of Food Loss and Waste, Lactalis highlighted the fact that around 14% of food produced for consumption each year doesn’t even make it to the shelves, according to the Food and Agriculture Organization of the United Nations.

“Tackling food loss and waste is essential to increase the efficiency in the way our food is produced, distributed and consumed. At Lactalis Australia, we recognise the need to reduce food waste and loss, both as a way to more sustainably feed the planet, reduce pressure on land and water resources and increase food available to the vulnerable.

“Our long-standing partnership with Foodbank Australia is one way

we are helping to support the food insecurity crisis, providing nutritious dairy, such as milk and yoghurt, to those in need.”



Bonza moves for Ashgrove

Ashgrove Cheese’s Amazeballs have been selected by Bonza Airlines to be included in their Australian inflight menu.

Bonza’s menu features products made by Australian small businesses, including one social enterprise and several others that give a percentage of profits to charity. ■



Bega CFO resigns, COO steps up

After a decade with Bega Cheese, Chief Executive **Paul van Heerwaarden** is stepping down, with Chief Operating Officer **Pete Findlay** taking over the reins.

In history repeating itself, Paul first joined Bega as COO, before he became CEO in December 2017.

In his tenure, Paul oversaw the acquisition of US multinational snacking giant Mondelez’s grocery business in Australia – which included Vegemite and other Kraft brands, as well as the acquisition of Lion Dairy and Drinks, bringing household names Yoplait, Big M and Pura Milk back into Australian hands.

Bega Executive Chairman **Barry Irwin** commended his outgoing CEO for managing the company through many changes, and for his dedication to dealing with challenges and opportunities.

Pete Findlay has been with Bega Cheese since December 2019. ■

This is advertorial, which I sub edited



Part of the supply chain continuum

It is with great pleasure that the South Australian Dairyfarmers' Association (SADA) takes this opportunity to write an article in a processor magazine.

While a farmer-representative organisation, SADA has adopted a posture different to many associations in other jurisdictions. SADA sees both itself and the dairy farmer as part of a continuum shared by all participants in the supply chain rather than discrete and divisible sections of the supply chain.



Action plan

It was for this reason that SADA, ably assisted by the DIAA's SA Branch, implemented the South Australian Dairy Industry Action Plan 2019-2024. This plan was adopted by the SA Government as policy, and enabled a quality of communication along the supply chain unrivalled in the rest of the nation. Risks shared are risks halved.

SADA also participates in the value chain as a processor, as we oversee the SADA Fresh line of cheese and milk products. Part of the reason for doing that was to enable us to see the supply chain from the view of the processor. We feel your pain.

Blockchain

On a more serious note, the plan has enabled SADA to move ahead with a number of projects which would not be readily reproduced in other jurisdictions. An example is the now-completed Alpha trial of our distributed ledger (blockchain) traceability system, which is now entering its Beta trial phase.

This would not be possible without the co-operation of participants in the trial along the whole supply chain. SADA is also working in the area of making certain that the dairy farmer in SA ticks the ESG boxes as we move forward as an industry, and again, if there are ways that we can partner with processors, we will.

Collaborative approach

For context, through SADA's lens, if the dairy industry in SA was a pea, then in Australia it's a tennis ball. When compared to basketballs such as New Zealand, it has become clear that the way forward for the industry, our State and this nation, will be based on collaboration for mutual survival rather than division aimed at short-term advantage.



Sell-out success at DIAA Northern Victorian technical and social event

The long-awaited northern function, held in Shepparton, was a sell-out success.

After a two-year hiatus, the DIAA Victorian Committee was able to host an event for members from the State's north. Together with fellow Victorian Branch Committee member, and now DIAA Board member and DIAA Vice President, **Dean Carlish**, we secured a private room at the highly recommended **Cellar 47** in Shepparton's High Street.

Registrations filled fast, and we were well supported by **Kyabram Cold Storage, Australian Consolidated Milk (ACM)** and **Bega**.

Breaking from the traditional run sheet for the event, we invited two guest speakers to present on the night: ACM's **Jason Limbrick** and DIAA member **Megan Williams**, co-founder of **The Camel Milk Co Australia**.

Interesting dairy stories

Jason Limbrick told the story of ACM in the north, from its foundation in 2008 to where the business is today – a milk intake of 500 million litres per annum from 360 suppliers, and with 100 staff, most being local. ACM also provided a nice prize for the quiz; we thanked Jason for his presentation and time, and presented him with a good bottle of wine.

Megan Williams then presented with enthusiasm and passion the story of the business she founded with husband **Chris Williams** in 2014. Megan spoke about the challenges of farming camels brought from the Outback to northern Victoria, and marketing the milk and beauty products derived from the camel milk.

We also had the opportunity to sample some fresh camel milk, which, surprisingly, tasted very similar to cow milk to me, along with sampling



Leigh Norrie
Committee Member
DIAA Victoria Branch

“

which the Cellar 47 kitchen staff used in creating dessert.

some of the skin care range. Megan was kind enough to provide several of her skin-care products as a prize for the quiz. We thanked Megan for her support of the DIAA, and presented her with a good bottle of red wine.

... and on to the quiz

With the formal aspects of the night done and dusted, it was time to start the much-anticipated trivia quiz.

Members had previously requested we run a trivia quiz and, given the due diligence and preparation of Dean and myself, they were not going to be disappointed.

DIAA member Chris Fairless, Director of Kyabram Cold Storage, donated a very generous major prize for the

“

the team had enjoyed the speaker presentations, dinner and quiz.

quiz of an overnight stay at the Lady Bay Resort at Warrnambool. **Darren Gledhill** gave a short presentation and overview of the Kyabram Cold Storage operation and their expertise within the cold-storage business.

Now the fun began, as 54 contestants cleared their heads and checked their buzzers.

I asked 30 general knowledge questions and Dean played 20 popular songs, with the contestants having to identify the song title and the artist.

The quiz evoked some excitement as participants put their minds to the task of answering questions and identifying songs, some old and some new. (I felt there could have been more from the '70s.)

At the conclusion of the quiz there was a draw for first place, with a very respectable score of 44 points between **DIAA member Jean Tyrrell**, QA at **Lactalis's Echuca plant**, and **Darren Gledhill** from Kyabram Cold Storage. Darren graciously accepted second place and received a beautiful cheese board and butter dish donated by ACM, with first prize being outright awarded to Jean, and third place going to **DIAA member Matthew O'Dwyer** Quality Specialist Bega Tatura Milk Industries on 43 points.

Chris Fairless presented the first prize and thanked the DIAA Committee for hosting the event, adding that he and the Kyabram Cold Storage team had enjoyed the speaker presentations, dinner and quiz.

Thankyous

It was good to see some familiar faces able to come out and about, including **DIAA Victoria Branch State President Tim Blanchfield**, DIAA Victoria

I liaise with the organisers of DIAA events to send material post events. I wrote this article from their information and put their name on it (to give variation through the magazine)



The audience listens to Darren Gledhill, from Kyabram Cold Stores.



ACMs Jason Limbrick (guest speaker) and Adam Tyson of Produco.



Event organiser and MC, Leigh Norrie (left), of the DIAA VIC Committee, and Adam Tyson (right) of Produco, present Megan Williams of Camel Milk Co Australia with a bottle of wine for being a guest speaker.



Jia Han Chew, of Bega Nutritional.



Peter Johnson and Samantha Horton, both of Bega.



DIAA Victoria Branch President Tim Blanchfield with ACM co-founder Tom Auld.



Chris Fairless and Darren Gledhill.



L-R: Sam Dong and Hope Dong of Auscare Group with Kerry Fairless of Kyabram Cold Storage.



Leigh Norrie (left), Jean Tyrrell (centre), QA at Lactalis Echuca who won the trivia quiz with 44 points, and Chris Fairless.

Continued page 32 >>

I liaise with the organisers of DIAA events to send material post events. I wrote this article from their information and put their name on it (to give variation through the magazine)

Committee members Donna Jack, from Dairy Food Safety Victoria, and Adam Tyson from Produco Australia (who donated the wine for the speaker gifts), as well as Janos Kaldy, the DIAA's National Business Development Manager, and Australian Dairy Foods magazine editor Samantha Schelling (who agreed with me about more 1970s songs being needed).

And while DIAA member Peter Ferrante, GM of Montefiore Cheese,

could not attend in person, he was kind enough to donate the delicious cheese product, which the Cellar 47 kitchen staff used in creating the cannoli dessert – Peter would be very pleased to know that the cannoli was all polished off pretty quickly.

A big vote of thanks to DIAA member Ross Russo, Quality Manager at Bega Cheese, Tatura, who organised that site's team, and DIAA member Bruce Manson, ACM Factory Manager

– Milk Powder & Ingredients, for getting together the ACM team, and also to Chris Fairless for gathering the Kyabram Cold Storage team.

As the event wound up, it was evident that DIAA members and their guests had enjoyed the night's activities and appreciated the quality of offerings at Cellar 47. As they were leaving, many members asked if we would be doing this again next year and I think it will be a "yes from me". ■



L-R: Leigh Norrie, Chris Fairless and Matthew O'Dwyer, Quality Specialist at Bega Tatura Milk Industries.



DIAA National Vice President Dean Carlish (left) and Kane Jarman of Bega Nutritionals.



Darren Gledhill, from Kyabram Cold Stores, donated first prize for the trivia to Jean Tyrrell from Lactalis Echuca.



L-R: DIAA members Olivia Marshall, Bega Nutritionals Administration; Ross Russo, Bega Cheese Tatura Quality Manager; Lynne Rockman, Bega Nutritionals Account Manager; and Jennifer Setiawan of Bega Nutritionals.



L-R: Donna Jack of Dairy Food Safety Victoria, ACM Business Manager Tracy Morris and ACM's Value Stream Manager – Cheese & Butter Craig Spencely.



Jason Limbrick from ACM was a guest speaker.



ACM's Jason Limbrick (right) presenting trivia winner Darren Gledhill of Kyabram Cold Stores with a cheese board.



Megan Williams of Camel Milk Co Australia presenting trivia winner Matthew O'Dwyer of Bega – Tatura Milk Industries with skin care products.



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So, which DIAA member’s business won a WPO Award this year?

Find out in an upcoming issue of *Australian Dairy Foods*! Make sure you don’t miss an edition in 2023! ■

Howarth a keynote speaker at annual packaging event

DIAA member Joanne Howarth was a keynote speaker at the annual Women in Packaging event, held at the State Library of Victoria.

Jo, who founded **Planet Protector Packaging**, said she was honoured to be part of the Champions of Change: Women Walking The Talk event. Her Woolpack thermal packaging technology, which is a disruptive alternative to polystyrene, is used by several DIAA members.

The November event included several keynote speakers and a panel discussion, featuring women in the packaging industry who are leaders in the sustainability movement. These inspiring business women are “walking the talk” by pioneering new solutions, developing policies and industry programs and taking authentic action that will drive real sustainable change. ■



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Vale Tom Bartholomew

Thomas Bartholomew, a significant contributor to the Australian dairy industry, has passed away aged 88.

Australia's dairy industry has grown from small farms supplying a local dairy, to co-operative small town-based factories, then consolidated into larger-scale regional manufacturing sites. Most recently, these regional factories have come together to form networked and co-ordinated manufacturing facilities linked to major city corporate headquarters.

Tom Bartholomew played a pivotal role in the latter stages of the industry's development.

Tom had a key role in the formation of **Bonlac Foods** in 1986, and the merging of the **Factory Managers & Secretaries** with the **Australian Society of Dairy Technology** to form the **Dairy Industry Association of Australia (DIAA)**. For his efforts and contribution to the industry, he was awarded a life membership of the DIAA.

However, like so many other stalwarts of our industry, there was more to Tom and his dairy industry history.

Roseworthy beginnings

Born in Gawler (SA) in 1934, Tom began in the dairy industry in South Australia by putting himself through education at the **Roseworthy Agricultural College** in 1957-58, reportedly the first agricultural college in Australia, having begun in 1883.

Eldest son **Michael** recounts that Tom often told the story of how he worked in a factory washing milk



bottles to pay his way through college.

After achieving his Dairy Management Diploma, Tom's first full-time job was with Farmers Union in Gawler.

In the early 1960s, the family moved to Murray Bridge (east of Adelaide) for two years, where Tom took up a position

as Assistant Manager at the Butter Factory.

In 1965, the family moved to Cobden in Western Victoria, which had become the centre of Western District dairying, and Tom joined the Cobden Butter Factory as assistant manager under **Jim Gleeson**. After Jim retired, Tom then stepped into the manager's role in the early '70s, taking up residence in the factory manager's house. After 13 years in Cobden, the family moved to Colac, where Tom was assistant manager of the Colac Dairy Factory. Two years after this, the family again moved, this time to Melbourne, where Tom took up a senior position within the **ACMAL** company (**Amalgamated Co-operative Marketers of Australia Limited**) in 1980. In 1986, ACMAL

joined with **Ibis Milk Products, Camperdown-Glenormiston Dairy Company** and the **Colac Dairying Company** to form Bonlac Foods, a major industry player rivalling the **Murray Goulburn Co-operative** for both milk intake and gross earnings.

Tom had the role of General Manager Technical Services from Bonlac's inception, retiring from his career in the mid 1990s as a director of Bonlac. Key roles of his technical services function were production planning, research & development and quality assurance. These were all new corporate roles, and were tricky to deploy because Bonlac had been created from a number of strongly independent regional dairy co-ops, each with its own management systems and regional cultures.

Wise use of technology

Tom loved new technology and pioneered the use of computer systems to forecast the most profitable mix of dairy products that could be produced by the group as a whole.

Michael mentioned at Tom's funeral that Tom even had a spreadsheet to manage his spreadsheets. The new technology combined with Tom's deep understanding of what made dairy factories tick allowed a seamless transformation in the deployment of these systems.

Extensive personal networks

Tom proactively built the size and diversity of his personal networks.

This was especially the case with

“

*his management skills
were matched by his
technical understanding*



Recaldent is now a world-wide, oral pharmaceutical

legendary dairy researchers. **Lawrie Muller**, **Les Hammond** and **DIAA member Dr Ron Hull** from the **CSIRO Dairy Research Laboratory** were personal friends, and many new products and process techniques were developed over an after-hours glass of wine.

Clever commercialisation

In 1989, Melbourne University researcher **Dr Eric Reynolds** gave the industry a presentation on the discovery of what makes milk and cheese prevent tooth decay. He sought assistance from the industry to commercialise the discovery, and Tom jumped at the opportunity for Bonlac to work on such a novel dairy product. While the commercialisation took a few years, **Recaldent** is now a world-wide, oral pharmaceutical, and in the past few years has grossed more than \$2 billion.

Changing quality systems

At the same time, systems for quality and food safety were undergoing radical change.

Since the late 1980s, quality control had largely been the responsibility of State or Commonwealth graders, who tasted a sample of each batch of butter or cheese at the end of the line. What was evolving were companies assuming responsibility for their own quality and food safety by identifying, documenting and managing critical controls along the production process – Quality Assurance.

Under Tom's leadership, six of the Bonlac plants were among the first 10 Australian food companies accredited by the Australian Department of Agriculture to the International Standard Organisation 9000 Quality Standards.

Supporter of people

Tom was a supporter of people development within dairy. He actively encouraged his staff to play a role in the networking within our industry, and his management



Bonlac plants were among the first Australian food companies accredited ... to International Standard Organisation 9000 Quality Standards



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PEOPLE: VALE

skills were matched by his technical understanding of milk processing and the many facets of dairy product manufacture.

Apart from his astute business sense and wide knowledge of dairy-product manufacture, Tom will be remembered by his co-workers for his laughter and sense of fair play.

He contributed greatly to the industry, and the skills development of all those with whom he worked. Many who worked at Bonlac will remember him fondly, and the development of the DIAA would not have gone as smoothly without the efforts by Tom to forge a united dairy industry association.

A devoted and loving family man, Tom will be missed by all. ■



Written by **Paul Ford** (DIAA Life Member), **Paul Woods** (DIAA member), **Wayne Kelly** (Past DIAA member) and **Doug Eddy** (DIAA Life Member).

World School Milk Day celebrates program value



Maretha Vermaak, a registered dietitian at Consumer Education Project of MILK SA (in South Africa), says school milk programs were recognised over a century ago for their contribution to nutritional adequacy, health and learning.

She says the International Dairy Federation (IDF) has highlighted the importance of these programs, which contribute to children's development across the globe.

"Milk and dairy products are nutrient-rich, easy to consume, highly palatable, affordable and often locally produced. Over 160 million children around the world currently receive and benefit from school milk.

"School meal programs are a significant safety net for children. As one of the primary means for children to get healthy meals, they help combat poverty and malnutrition. Their impact on education is seen in increased engagement from students. They also serve as incentives for families to send their children, especially girls, to school, thus supporting children's rights to education,

nutrition, and well-being.

"These programs play an important role as a community solution for nutrition adequacy, and this supports not only children's health but also their ability to learn. Research suggests that consuming nutrient-dense foods that are readily available in school meal programs — such as fruit, vegetables and dairy products — is associated with improved academic and health outcomes among children and adolescents."

She says the dairy sector understands the role that milk and dairy foods play in supporting the health of children worldwide, and shares information through the IDF School Milk Knowledge Hub and School Milk Bulletin.

"By partnering with organisations across all levels – from local and regional to national and global – the dairy sector can empower stakeholders to understand and incorporate policies and programs, such as school milk programs and milk and dairy foods in school meal programs, to support children's access to nutritious foods." ■



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diaa.asn.au

DSWS ice-cream short course a winner

This year's Dairy Science World Series (DSWS) Ice-Cream Science Short Course was again a winner.

Taught by Canadian ice-cream guru **Professor Doug Goff**, the intensive short course has always been highly sought after. Over three days, Doug imparted the technical skills and subtle techniques needed to create a superior ice-cream.

Doug, who has run the highly respected course for the DIAA several times, is Professor and Undergraduate

Faculty Advisor and Instructor of the annual University of Guelph Ice Cream Technology Course in the USA.

Attendees came from 14 companies, including Avon River Farmhouse, Bulla Dairy Foods, Everest Ice Cream, Food Ingredient Solutions, Frosty Boy Australia, Gelatissimo, Golden North, Harry and Larrys, IFF, Modern Food and Beverage, Sensient Technologies,

Tetra Pak, The Ice Cream Embassy and Timboon Fine Ice Cream.

DIAA member Tim Marwood and his wife **Caroline Simmons**, founders of Timboon Fine Ice Cream, were the first two to sign up. The couple was excited about the learning opportunity from the global ice-cream guru, with "a smidge of networking" on the side. ■



The fun part of sampling time and putting new analytical skills to use.

Taught by recognised global and Australian experts, the DIAA DSWS Technical Short Courses focus on subjects of particular relevance to the post-farmgate dairy industry.

Upgrade your skills: check the DIAA website regularly to see when the next course is coming up.

DIAA members are eligible for reduced rates to attend DIAA DSWS Technical Short Courses.

2023 DIAA Women Ecolab Scholarship

Award criteria:

- The chosen candidate must submit a write-up for **Australian Dairy Foods** magazine and be able to present at appropriate and agreed-upon DIAA conferences.

Candidate criteria:

- You must be an Australian citizen or permanent resident.
- You must be female, a current DIAA member (and have been for at least two years).
- If an applicant has submitted an application before but not been chosen, she can re-apply again. Past scholarship winners are ineligible to re-apply.

Application criteria:

- Scholarship must be used within 12 months of bestowal.
- If you have not previously been awarded the scholarship, and wish to apply again, you must submit a new application the next year.
- You must register any conflict of interest. (In the case of conflict of interest where the applicant is a close contact of a DIAA Women team member – based on the Nepotism/Conflict of Interest Clause – that committee member will step aside from the judging panel for that applicant only.)

Application closing date 31 January 2023

Please send your application, outlining how the course or project you are doing/propose to do, will benefit the dairy industry and the DIAA, to:
carl.partridge@diaa.asn.au

For more information, see
diaa.asn.au/career/diaa-women/

DIAA
Women

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As always, we thank our advertisers for their support throughout 2022. We encourage readers to head to these businesses first if you're seeking inputs or advice.

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DIAA & Chr. Hansen Young Australians in Dairy Scholarship 2023

Applications have now closed for the next DIAA & Chr. Hansen Young Australians in Dairy Scholarship for 2023. An announcement of the awardee will be made in early December.

This scholarship includes:

- travel (including airfares, accommodation and meals)
- registration to Gulfood Dubai 2023, which is on from 20-23 February 2023
- a hosted site visit to the Chr. Hansen facilities in Denmark
- potential site visits to other European factories.

Like to hear what they learnt?

Keep an eye out for the chosen candidate's report in *Australian Dairy Foods* magazine next year; they will also present at DIAA conferences.

If you'd like to apply for scholarships to help improve your career, please keep an eye on: diaa.asn.au/members/scholarships

Last year's awardee Jai Han Chew reported back to us, see last edition of *Australian Dairy Foods*, Vol 43, No. 5 October / November 2022

Dairy expedition from Tatura to the Midwest

Victorian DIAA member Jia Han Chew used his Chr Hansen-DIAA Young Australians in US Dairy Scholarship to visit and learn from famed cheesemaking sites in the USA, including the Wisconsin Cheese Expo.

I have been in the dairy sector for more than a decade now, starting off with a PhD funded by Dairy Innovation Australia Ltd (DIAL). My first job following that was at the now-Bega-owned yoghurt factory in Morwell, and currently I am based at Bega's cream cheese and infant formula plant in Tatura, right in Australia's dairy heartland in northern Victoria.

At the end of last year, I was fortunate to be the inaugural recipient of the Chr. Hansen-DIAA Scholarship for Young Australians in US Dairy. The scholarship included full registration to the Cheese Expo in Milwaukee in the US state of Wisconsin, a tour of Chr. Hansen culture-manufacturing factory and the opportunity to explore new products, extend my dairy network and enhance my know-how to help Bega Cheese get closer to becoming the "Great Australian Food Company".

Jia Han Chew
Continuous Improvement Engineer
Bega Cheese

Good start brewing

I flew out to America's Midwest in early April this year. With the Cheese Expo to begin the day after I'd landed, Rebecca Henrickson, Chr. Hansen's Marketing Manager, thoughtfully dropped off a ticket for me to visit the Harley-Davidson Museum. Being the birthplace of this iconic brand, a visit to Milwaukee is not complete without a visit to this museum, so I spent a few solid hours here immersing myself in its culture and history as well as its exhibits of products from past to present.

I made my way back to the hotel after that for the first official activity on my itinerary. Rebecca organised a beer tour and dinner at the Lakefront Brewery, renowned for its craft beers.

I had the opportunity to meet with a few Chr. Hansen staff: Mike Neu, Senior Director; Susan Hanson, Product Manager; and Norberto Scungio, Head of Sales from the Argentine office. The 45-minute tour involved a quick rundown on how it all started, a walk through of the brewery, as well as a 32 ounce (946.35 millilitre) "taste" of award-winning beer!

We arrived back at the beer hall soon after for dinner. Mike ordered a Wisconsin signature for me to taste – some beer-battered, fried cheese

“

I strongly believe Australia being the underdog could ... give the Americans a run for their money.

”

Exhibits at Harley-Davidson Museum. Milwaukee is the birthplace of this iconic brand.

I toured the Lakefront Brewery, which is renowned for its craft beers.

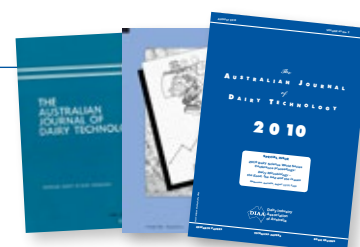
26 Australian Dairy Foods October / November 2022

www.diaa.asn.au

Hungry for more science content?

The DIAA website is home to more than 1,700 scientific papers and technical articles, published in the *Australian Journal of Dairy Technology* between 1960 and 2010. DIAA members can download individual articles and full issues of the journal for free. Non-members can buy articles for \$15 each.

Find out more on www.diaa.asn.au > Resources > Australian Journal of Dairy Technology



Like us to cover a science topic in this magazine? Email editor@diaa.asn.au



Although many events have been held face to face, some re-emergence of COVID-19 outbreaks mean it's wise to double check the website of any event you wish to attend regarding changes in location, date, etc. Double check the date before making any bookings or travel arrangements!

DIAA events

Keep an eye on this page and the DIAA website for dates and registration details.

Australia wide / National

16 January 2023: DIAA Australian Dairy Product Competition entries open

Tasmania

22 June 2023: DIAA Tasmania Branch Conference Welcoming Event

23 June 2023: DIAA Tasmania Branch Conference

Victoria

6 December: DIAA VIC Christmas Party 2022

4 January 2023: DIAA Victorian Dairy Product Competition entries open

23 February 2023: DIAA Victoria Golf Day

4-5 May 2023: DIAA Victoria Branch Conference

Please see website for details
diaa.asn.au/events



2023

14-19 Jan

International Dairy Week 2023
Tatura Park, Tatura, VIC
www.eventbrite.com.au/e/international-dairy-week-2023-tickets-399861345047

22-25 Jan

Dairy Forum 2023
Orlando, Florida, USA
www.idfa.org/events/dairy-forum-2023

1 Feb

Dairy-Tech 2023
Stoneleigh Park, Kenilworth, UK
dairy-tech.uk/

1-2 February

International Conference on Dairy Science and Technology
Melbourne, VIC
conferenceindex.org/event/international-conference-on-dairy-science-and-technology-icdst-2023-february-melbourne-au

1-3 February

Propak Philippines 2023
Metro Manila, Philippines
aipack.com.au/events/

20-24 February

Gulfood
Dubai World Trade Centre
Dubai, United Arab Emirates
www.gulfood.com

23 February

DIAA Victoria Branch Golf Day
TBA, VIC
diaa.asn.au/events/

27 February – 1 March

Foodservice Australia Melbourne
MCEC, Melbourne, VIC
www.eventalways.com/foodservice-australia-melbourne

TBC March

DIAA Australian & Victorian Dairy Product Competition Receival
Werribee, VIC
diaa.asn.au/competitions-and-results/

TBC March

DIAA Australian & Victorian Dairy Product Competition Judging
Werribee, VIC
diaa.asn.au/competitions-and-results/

7-10 March

Foodex Japan 2023
Tokyo Big Sight
3 Chome-11-1 Ariake, Koto City, Tokyo
www.jma.or.jp/foodex/en/

13-15 March

Dairy Ingredient Technical Symposium
Santa Barbara, CA, USA
www.eventseye.com/fairs/f-morocco-foodexpo-23195-1.html

To join the Dairy Industry Association of Australia, or if you have any questions about the dairy foods industry, contact the officers listed here or visit www.diaa.asn.au

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South Australia: Karen McIntyre, Lion Bega, ph: 0400 800 356, karen.mcintyre@diaa.asn.au

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Victoria: Tim Blanchfield, ph: 0438 313 926, tim.blanchfield@saputo.com

Western Australia: Colin James, ph: 0419 969 223, cwj101@my.nlv.com.au

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from ad list

Advertiser Index

18-20 April
WorldFood Poland 2023
Warsaw, Poland, EXPO XXI
Warsaw International Expocentre
diaa.asn.au/events/

4 May 2023
Interpack 2023
Messe Dusseldorf, Am Staad,
40474 Dusseldorf, Germany
[www.appma.com.au/
eventdetails/11474/
interpack-2023](http://www.appma.com.au/eventdetails/11474/interpack-2023)

4-5 May
**DIAA Victoria Branch
Conference**
Flemington, VIC
diaa.asn.au/events/

4-5 May
**DIAA Victoria Branch
Conference**
Flemington, VIC
diaa.asn.au/events/

4-10 May
Interpack 2023
Dusseldorf, Germany
auspack.com.au

17-19 June
**Food Asia International Trade
Fair 2023**
Karachi Expo Center, Karachi,
Pakistan
www.foodasia.net/

25-27 June
Fine Food New Zealand
ASB Showgrounds
New Zealand
[hub.xpo.co.nz/events/fine-food-
new-zealand/](http://hub.xpo.co.nz/events/fine-food-new-zealand/)

23-26 July
foodpro Melbourne
MCEC, Melbourne, VIC
foodproexh.com/ 11-14
September
Fine Food Australia 2023
International Convention Centre,
Sydney, NSW
[www.showsbee.com/fairs/Fine-
Food-Australia.html](http://www.showsbee.com/fairs/Fine-Food-Australia.html)

19-21 September
Foodtech Packtech
Auckland Showgrounds
www.foodtechpacktech.co.nz

3-5 October
Dairy Industries Expo
Harrogate Convention Centre,
Harrogate, UK
[www.dairyindustries.com/
events-diary/](http://www.dairyindustries.com/events-diary/)

15-16 October
Foodservice & Hospitality
Brisbane Convention & Exhibition
Centre, Brisbane, QLD
foodserviceaustralia.com.au

	Page
Australian Dairy Listing	38
Babbage Consulting	9
Chr Hansen	19
DIAA Membership	28
DIAA Product Comps	OBC
Ecolab	Cover
FMCG Industry Solutions	15
Heat and Control	25
IFF/Danisco	21
Ifm Efactor	13
Process Partners	11
Relco Pacific Ltd	27
Rowe Scientific	23
SADA	30-31
SWA Water	IBC
Technomilk	35
Tetra Pak	IFC
Trescal Australia	17
WR & D Wells	37

I seek & write this content



Could this be you in 2023,
at the top dairy industry
awards in Australia?

Image credits: Nigel Welch, Pulse Photography

Final Washup

Merry Christmas, try some 'airag'?

What are the seven most unusual dairy animals producing milk for human consumption?

Years ago in Australia, answers might have included "goat", "camel" or "sheep" – although our DIAA members producing milk products from these livestock breeds may well not have agreed even back then. (And when I was growing up, I loved getting milk straight from the bucket at our neighbours' small-scale, dairy goat operation.)

Well, according to an article from India in *eDairy News*, the seven most unusual animals producing milk for human consumption are

1. Yaks: A bovid species raised by high mountain people who live in conditions of extreme hardship and deprivation, yaks live predominantly on the Tibetan-Qinghai plateau. The local population uses these animals for to provide milk, meat, fibre, farm labour and dung (which is used mainly as fuel). A yak's milk yield doesn't exceed the volume ingested by its offspring, so in no way can be compared with cow

milk yield. Yak lactation is seasonal, and yaks produce between 150-500 litres, varying by breed and locality. Importantly for the people who rely on them, yaks don't go dry in winter, and continue to produce small amounts of milk, with yields as low as two to four litres a month.

- 2. Donkey:** Like I was, you may also be surprised to learn that the world's most expensive cheese is made from donkey milk, and was developed on a farm in Serbia. "Pule", which has an international reputation for excellence, sells for about US\$1,000 a kilogram.
- 3. Camel:** Although far from common in Australia, DIAA members who make camel milk products may find this inclusion interesting. In north-east Africa's nomadic tribes, centuries-old traditions include milking camels to produce dairy products such as cheese.
- 4. Alpacas:** Cows simply do not survive in the Andes region. Alpacas, however, exist in abundance. As a result, locals use alpaca products to create everything from clothing to fuel. Andes alpacas are the main source of cheese throughout South America, a very salty, rich product.

5. Horse: In Central Asia, horses provide milk for "airag" – or "horse cheese" – a product that can only be made in animals during parturition. Farmers take fresh mare's milk, mix it with airag left over from the previous year, then gradually stir the new product over several days.

6. Moose: Apparently the first attempt to make dairy products from moose milk was in Sweden, where three lactating animals were milked for five months each year to provide enough to make some cheese.

7. Rena: In regions that are too warm, wet or dry for conventional dairy farming, the populations get creative to make dairy products. For instance, in Scandinavia reindeer milk is a nutrient-rich delicacy used in a wide variety of traditional dishes.

Merry Christmas

On behalf of all the National Office staff – **Kristine Manser, Janos Kaldy, David Manser and Carl Partridge** – we wish you the very best of the season. Merry Christmas and a Happy New Year for 2023!

– *Samantha Schelling, Editor, Australian Dairy Foods*

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DIAA Dairy Product Competitions opening again in 2023!

The DIAA's annual National and State Dairy Product Competitions offer entrants many commercial benefits.

Competitions are based on the entries' technical merit, and are judged by industry experts selected for their specific dairy product knowledge.

- Benchmark against your competition
- Receive technical feedback
- Gold medal winners are eligible for the Australian Grand Dairy Awards

Make your products stand out on retail shelves to consumers: Gold and Silver medal winners are invited to use the medal artwork on winning product packaging.

Opening 16 January 2023:

- **2023 DIAA Australian Dairy Product Competition**
- **2023 DIAA Victorian Dairy Product Competition**

Competitions in Western Australia, Tasmania, NSW, Queensland and South Australia will open progressively through the year, with some also starting in January and February. Keep an eye on the website!



For more details, see the DIAA website: diaa.asn.au/competitions-and-results

