



AUSTRALIAN DAIRY INDUSTRY

sustainability report

2020



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Message from the Chairs

When it comes to sustainability, no industry or company is perfect, but we strive for the best.

During 2020 the Australian dairy industry showed it is full of people who, despite major disruptions, are striving for a sustainable industry which will enable future generations to meet their needs.

These people are our heroes. On our farms and at our manufacturing sites, transporting milk and dairy products, they are the ones who make sustainable dairy production possible. In reporting our progress for 2020, we recognise these heroes. Their commitment to the environment, their animals, their communities, dairy consumers, and to each other underpins this progress.

The year began with very dry seasonal conditions across most dairy areas leading to an increase in the cost of feed and water. Fortunately, as the year progressed, weather conditions generally improved in most dairy regions in comparison with previous years.

Further impacts of climate change with its increased risk of extreme weather events were felt as the summer bushfires devastated families, farms and communities across dairying areas on the south coast of New South Wales, in east Gippsland and in north-eastern Victoria.

Fire-affected communities were just beginning to recover when the first cases of COVID-19 were detected in Australia. Despite the impact on people and businesses, the Australian dairy industry demonstrated its strength and resilience throughout the pandemic.

In September, we saw the publication of the *Australian Dairy Plan* which aims to deliver increased profitability, confidence and unity across the industry to ensure long-term sustained growth. Sustainability is one of five on-going programs in the Plan, with the Sustainability Framework identified as the key mechanism through which we respond to community expectations on issues like animal welfare, protecting the natural environment and reducing carbon emissions.

As the fourth largest rural industry in Australia, generating \$4.8 billion in farmgate value in 2019/20, the dairy industry is doing its part to support the National Farmers' Federation target of agriculture being a \$100 billion industry by 2030.

Following valuable input from our stakeholders gathered during two webinar series, we will review our sustainability goals, targets and indicators in 2021. We will consider if more ambitious targets are needed, particularly on greenhouse gas emissions, in light of the increasing expectations around addressing climate change.

In this report, we continue to monitor progress against our current goals using the traffic light system to indicate our performance. Next year, we will report in more detail against the refreshed goals and targets.

Ultimately, we are aiming to fulfil Our Dairy Promise – *to provide nutritious food for a healthier world*. In this report we showcase the work of individuals and businesses assisting the industry to become more sustainable. We dedicate this report to them, and all industry participants like them – our sustainability heroes. We look forward to your feedback on how we are progressing.



A handwritten signature in black ink that reads "Chris Griffin".

Chris Griffin Chair – Dairy Sustainability Steering Committee and Consultative Forum



A handwritten signature in black ink that reads "Terry Richardson".

Terry Richardson Chair – Australian Dairy Industry Council



About the Framework

The Australian Dairy Industry Sustainability Framework started as a conversation between people who shared a vision for demonstrating to our stakeholders how the industry is caring for people, animals and the environment, while keeping businesses successful.

Today, the Framework underpins a promise from one group of people – our dairy industry, to another – our stakeholders. The latter group includes anyone with an interest or ‘stake’ in the outcome of a decision, either because they can influence the decisions the industry makes, or are impacted by them.

This promise is *to provide nutritious food for a healthier world*. The Framework is a guide to what dairy people are doing to deliver on that promise. The Framework’s progress reports enable everyone, including dairy people, to know if we are living up to that promise.

Launched in 2020, the *Australian Dairy Plan* (ADP) recognises that the Sustainability Framework is the key mechanism through which industry responds to community expectations on issues such as animal welfare, protecting the natural environment and reducing carbon emissions. The ADP states that the industry will actively use the Framework to ensure government policymakers recognise and, where appropriate, support industry efforts to deliver a more sustainable industry.

Material issues

The Framework is informed by independent assessment of its material issues. The assessment was updated in 2019/20, with materiality defined according to two dimensions:

- 1 Significance of the industry’s economic, environmental and social impacts;
- 2 Significance to and influence on stakeholder assessments and decisions.

Identified topics were assessed and prioritised according to these two dimensions with the results used to develop a materiality matrix. The methodology reflects best practice in materiality and helps the industry remain in-step with the relevant and evolving global and industry materiality standards, particularly the GRI Standards 2016, and recent guidance from the European Union. Topics were rated as ‘important’, ‘material’ and ‘highly material’. Results were published in a separate [report](#) in 2020 and shared with stakeholders.

The most material topics were identified as animal care, animal husbandry, antimicrobial stewardship, calves (including bobby calves), farm biosecurity, resilience of dairy regions, product safety and quality, greenhouse gas (GHG) emissions, physical climate risk, and water availability and efficiency. In the ‘Impact along the value chain’ section (see [p50–1](#)), we indicate where these topics impact most and describe their scopes. For a full list of material topics and the materiality matrix, see [Appendix 3](#).

In 2020, a subcommittee of the Dairy Sustainability Steering Committee was formed to determine how industry might respond to findings from the materiality assessment. The subcommittee considered potential issues (including differences between stakeholder groups in their ratings of the importance of an issue) and the possibility for industry to address specific emerging issues and opportunities. A series of recommendations is now under consideration.

Download a copy of the Materiality Assessment [here](#).

Our Dairy Promise

To provide nutritious food for a healthier world



**enhancing
economic viability
and livelihoods**



**improving
wellbeing
of people**

Creating a vibrant industry that rewards dairy workers and their families, communities, business and investors



1 Increasing competitiveness and profitability



2 Increasing community resilience and prosperity



3 Ensuring a safe work environment for all dairy workers



4 Providing a productive and rewarding workplace

Providing nutritious, safe, quality dairy food



5 Ensuring safe dairy products



6 Contributing to improved health outcomes



providing best care for animals



reducing our environmental impact

Striving for health, welfare and best care for our animals throughout their lives



- 7 Providing best care for animals for whole-of-life
- Full compliance with animal welfare standards
 - Recommended practices adopted by all industry

Meeting the challenges of climate change and providing good stewardship of our natural resources



- 8 Improving land management



- 9 Increasing water use efficiency



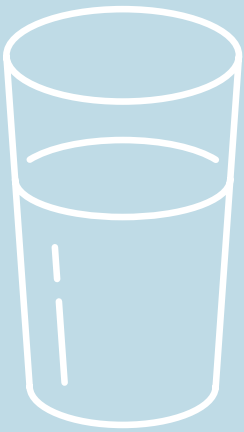
- 10 Reducing GHG emissions intensity



- 11 Reducing waste

2020

by numbers



86%

people in regional areas think dairy is an essential part of their community

79%

individuals agree dairy foods are essential for good health and wellbeing



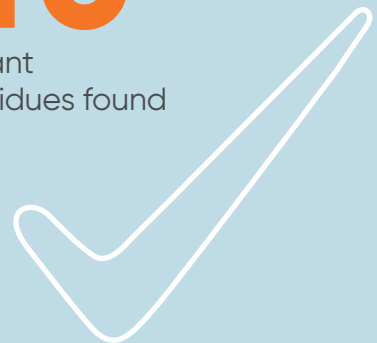
\$4.8 billion

total value of payments made to dairy farmers



zero

non-compliant chemical residues found





85%

consumers believe dairy industry produces safe products

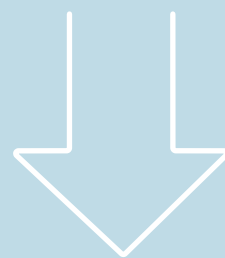
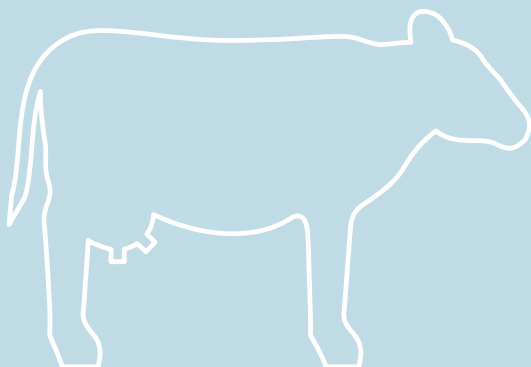
74%

farmers use recycled water in the dairy shed



76%

consumers believe dairy farmers do a good job caring for animals



94%

farms implemented practices to reduce GHG emissions

93%

of waste from dairy companies processing approx **80%** of milk, is diverted from landfill





commitment 1
enhancing
economic viability
and livelihoods



*Creating a vibrant industry
that rewards dairy workers and
families, their related communities,
business and investors*

2030 goals



1 Increasing competitiveness
and profitability



2 Increasing community
resilience and prosperity



3 Ensuring a safe work
environment for all dairy workers



4 Providing a productive
and rewarding workplace

“

Just by focusing on nutrition, we are looking at increasing the profit per cow by about \$300, with additional benefits for improving cow health

Dr Bill Wales – Research Manager
First 100 Days project, Dairy Feedbase



People are at the heart of everything we do

We are committed to creating a vibrant industry that rewards dairy people on farms and in factories, as well as their families and their communities

Central to providing satisfying livelihoods is the profitability of farm businesses. Dairy generated \$4.8 billion in farmgate value in 2019/20, contributing strongly to regional economies and the Australian gross domestic product (GDP).

Dairy processors also made a significant contribution. In 2020 while COVID-19 restrictions were in place, dairy was recognised as an essential industry, and companies worked hard to ensure milk was collected from farms and production was maintained. Dairy companies continued to employ people, while many other industries had to shut down. Milk tanker operators remained committed to their critical role and met the complex requirements of border restrictions to ensure farm pickups could continue. Freight operators continued to transport dairy products to ensure continued supply to our domestic and international customers. Dairy products remained available on supermarket shelves so all could have access to safe, nutritious and affordable products.

Beyond its financial contribution, dairy is a pillar of the communities in which we operate. Dairy businesses create employment, services and community engagement, which in turn leads to vibrant and resilient communities. Dairy people are an intrinsic part of the community – volunteering for local fire brigades, participating in sporting clubs and contributing to a range of community organisations and initiatives.

Launched in 2020, the *Australian Dairy Plan* is designed to make substantial, measurable impacts on profit, business confidence and industry unity. It identifies a set of commitments aligned with the Framework's commitment to *Enhancing economic viability and livelihoods*. These include attracting and supporting new people and investment to build our industry; increasing our effort in marketing and promotion to build greater levels of trust and improve the value of dairy; and intensifying the focus on farm business skills to improve profitability and better manage risk.



The ADP sets a target of more than 50% of farm businesses achieving at least \$1.50 in earnings before interest and taxes (EBIT) per kilogram of milk solids, over a five-year average. This has been adopted by the Sustainability Framework as *Goal 1 – Increase the competitiveness and profitability of the Australian dairy industry*. In 2019/20, 58% of farm businesses achieved an EBIT of more than \$1.50/Kg MS, with this contributing to an average of 26% over five years. This compares to 2019 when 16% of farm businesses achieved an EBIT of greater than \$1.50/kg MS over a five-year average.

In particular, we need to work harder on building resilience of dairy communities and ensuring dairy's contribution is recognised

The *Dairy Australia Strategic Plan 2020–25* has six priorities which will guide investment to deliver improved profitability and a more sustainable dairy industry and a seventh priority that gives focus to organisational drivers of performance for the next five years. The Plan acknowledges that people are at the heart of the industry and includes key priorities to attract and develop great people. Dairy Australia commissioned a Dairy Workforce Survey, which took place in November/December 2020, in order to understand the current position. Results indicated progress against a number of goals and targets in this commitment, but some gaps remain. In particular, we need to work harder on building resilience of dairy communities and ensuring dairy's contribution is recognised (Goal 2). We also want to make sure that the industry has access to the labour it needs (Target 4.4).

Keeping our workers safe remains a key priority for the industry. According to the latest figures from Safe Work Australia, injuries are still occurring. As we report against Goal 3, the Lost Time Injury Frequency Rates for dairy farming were recorded as 6.9 injuries per million hours worked and 6.3 per million hours worked for dairy product manufacturing (2017/18). Very sadly, there have been 11 fatalities on dairy farms over the last six years.

Stakeholders' interest in the impact of the dairy industry on human rights in the value chain remains high, and all companies with revenue greater than \$100 million, including dairy companies, are now required under new legislation to report on their actions to assess and address modern slavery risks in their supply chains.

Progressing our goals

The industry has a number of actions underway to achieve the goals under this sustainability commitment. In particular, investments to shape future success in farm performance have led to a range of innovations in critical areas such as feedbase, water use, development of people, genetics and business capability. Dairy companies also continue to play a key role in local community support. We outline some highlights below.

Business skills fast tracked

Launched in 2020, Our Farm, Our Plan is a flagship learning program to support the rapid increase of farmers' business skills. It helps farmers to identify long-term goals, improve business performance and manage volatility. The program uses a simple 'Now, Where, How, Review' planning process and provides one-on-one support for farmers over two years to assist them to develop their plan and put it into action. It was developed by Dairy Australia, with support from the Gardiner Dairy Foundation and DairyNZ. There will be a strong focus on rollout in 2021.

Finding profit opportunities

DairyBase is an online tool enabling dairy farmers and their advisors to measure and compare farm business performance over time. Through an upgrade during the year, farmers can now forward-budget for the coming season with ease. By combining existing data with estimated milk price and input costs, farmers can build a more accurate picture of where opportunities for profit might be found. DairyBase has been running since 2015 and currently has 2,500 users, including 1,800 farmers, jointly managing more than 10,000 unique data sets.

Monitoring performance

The Dairy Farm Monitor Project (DFMP) provides a comprehensive physical and financial analysis of 250 dairy farms across Australia. It informs decision making and prioritisation by key stakeholders across the industry including Dairy Australia, government bodies and other stakeholders in the industry.

The data collected through the DFMP provides high quality comparative data in DairyBase. All dairy farmers can access this data through DairyBase to measure and compare their own farm business performance and identify areas for improvement.

The DFMP is in its 14th year. While the first six months of the financial year were challenging, the second half of 2019/20 saw conditions improve and overall farm earnings increase threefold on the year before amongst DFMP participants.

Building capability with Dairy Passport

Also launched this year was Dairy Passport – an online platform or 'app' that allows dairy farmers to manage farm team members and link them to the key tasks that need to be undertaken. It provides standard operating procedures for easy training, as well as farm policies to ensure all team members are clear on what is required. Victorian dairy farmers will also have access to a capability coach to provide additional training support. The app provides an easier way for employers looking to quickly and safely develop workers' skills, while providing detail on the knowledge and capabilities needed for on-farm roles. Topics covered include farm safety, animal handling and essential tasks such as milking. Development of the app was supported by the Victorian Government's Agriculture Workforce Plan. Dairy Passport is now being extended to other states.

Understanding the dairy workforce

Conducted late in 2020, the Dairy Workforce Survey builds on the evidence base established in the 2017 Power of People research. The 2020 Survey of 400 dairy farmers across Australia was designed to obtain information and insights into a range of workforce-related measures, behaviours and perceptions. The 2020 survey was conducted at an unusual time – with the impacts of bushfires, drought and COVID-19 creating an unusual operating environment. Key insights included:

- current average workforce size is 5.1
- almost half (47%) of farmers reported they had recruited staff over the last 12 months; 40% had let go at least one staff member; 29% expect to be recruiting in the next few months
- 69% of farmers are utilising practices to help retain their employees
- farmers are reverting to on the job training to fill staff knowledge or skills gaps
- 18% of farmers have an agreed, written down succession/transition plan, with 38% knowing their plan but have not formalised it

- 56% of farmers have a written workplace health and safety (WH&S) plan
- 16% of farmers have had an injury on-farm requiring at least one day off
- uptake of safety practices across farmers varies – with 75% undertaking safety scans and 50% holding regular meetings to discuss safety.

Human rights and modern slavery

Modern slavery refers to situations of exploitation where a person cannot refuse or leave work because of threats, violence, coercion, abuse of power or deception. Australia has introduced the *Modern Slavery Act 2018*, which requires any company operating in Australia with revenue greater than \$100 million to report how they assess any risks of modern slavery in their supply chain. Companies are now submitting their modern slavery reports. Saputo Dairy Australia was the first dairy company to provide its report and other dairy companies will do so over the next few months.

A dairy industry position statement on human rights was endorsed by the Australian Dairy Industry Council in late 2019 and publicly reported in the *2019 Dairy Sustainability Report*. In 2020, the Sustainability Steering Committee began reviewing potential human rights risks in the Australian dairy value chain.

We are committed to further developing and continuously refining our program as we learn more about our modern slavery risks and ways to mitigate them

Saputo Dairy Australia – [Modern Slavery Statement 2019/20](#)

This topic was also interrogated in the Dairy Workforce Survey. Of those farmers who had heard of the Act (16%), 71% said they understood the implications for the processors they supply.

Post farmgate, a working group comprising procurement people from the dairy companies is examining the ethical sourcing of non-milk inputs to dairy companies and what opportunities there may be for companies to work together pre-competitively to understand and reduce the human rights risks in their non-milk supply chains. This covers suppliers of items such as ingredients, chemicals and cleaning products.

Sustainable pasture-based systems

Tasmanian Institute of Agriculture (TIA) and Dairy Australia are delivering a five-year \$6.5 million program focusing on feedbase research to help dairy farmers maintain efficient, profitable and sustainable pasture-based dairy systems in the future. To maximise the results of the research, mini-farms will be established in Tasmania to test research theories under real farm conditions. The program, known as HIGH-2 (for high integrity grass-fed herds) has an ambitious target to help dairy farmers grow the same amount of dry forage matter from irrigated pasture, and produce the same amount of milk solids per hectare, but halve the amount of nitrogen fertiliser.

Future plans

In 2021, the goals and targets for this commitment will be reviewed with the aim of simplifying them and more explicitly aligning with those in the *Australian Dairy Plan*.

The industry is also seeking to understand the modern slavery risks in the value chain and determine if it has programs to address them. In 2021, the Steering Committee proposes to set a target and identify indicators for *Target 4.6 Human rights* so the Framework can better incorporate modern slavery requirements.

Amongst initiatives to support future profitability of farm businesses, the DairyFeedbase Pasture Smarts project is preparing for the commercial release of its pasture utilisation app and dashboard. Project managers say it will be game changing, and represents significant profit opportunities for farmers.

During 2021, the Sustainability Steering Committee will investigate the possibility of setting a target and indicators for dairy company profitability. Dairy Australia will also hold a series of workshops with farmers and advisors regarding farm profitability and productivity, in line with recommendations in the *Australian Dairy Plan*.



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It's not just about planning for tomorrow, but planning for next month, next year, and even the next decade

Julia and Derek Gale, dairy farmers, Timboon, Victoria
Speaking about benefits of Our Farm Our Plan





commitment 2
improving
wellbeing of people



*Providing nutritious,
safe, quality dairy food*

2030 goals



5

Ensuring safe dairy products



6

Contributing to improved health outcomes



“

I believe the low bulk milk cell count is very much related to the health and happiness of the animals, and my approach is pretty simple – happy cows equal quality milk

Brett Fiebig – dairy farmer, Strathalbyn, South Australia
2020 Australian Milk Quality Awards – Top 5% producer



People's health relies on a balanced, nutritious diet

Dairy foods provide a unique package of more than ten essential nutrients important for healthy bones, nervous and immune systems, eyesight, muscle function, healthy skin, energy levels and growth and repair in all parts of the body

Scientists and nutritionists are increasingly recognising the value of the dairy matrix, as the effects of dairy foods go beyond the benefits of the individual nutrients they contain.

Despite this, there is increasing pressure on the role of animal-based proteins, including dairy, in a sustainable diet. The demand for plant-based food and beverages, such as soy and almond, is increasing.

In September 2021, United Nations Secretary General António Guterres will convene a Food Systems Summit that aims to lead the way towards the achievement of all the UN Sustainable Development Goals (SDGs).

The UN believes the 2021 Summit will serve as a turning point in the world's journey to achieve all the SDGs by maximising the benefits that lie within our food systems. Billed as 'A People's Summit' and 'A Solutions Summit',

it recognises that food systems touch all society, and all stakeholders – every government, organisation, individual – need to work together to transform the way the world produces, consumes and thinks about food.

The discussion in the lead-up to the Food Systems Summit is focusing heavily on the environmental impacts of animal proteins and the outcomes from the Summit will influence community perceptions of different food choices.

Milk, cheese and yoghurt continue to be recognised in the National Health and Medical Research Council (NHMRC) *Australian Dietary Guidelines* as part of a healthy diet. The guidelines are set to undergo a major review, commencing in 2021. The NHMRC has outlined the first step of the review: a scan of the latest nutrition science research and evidence from Australia and overseas. Non-health sustainability impacts of foods are included in some countries' national dietary guidelines.

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Food matrix science provides us with an opportunity to change the narrative, remove nutrient-based barriers to dairy consumption and fully appreciate the health benefits of whole dairy foods

Cath Gooden – Health Professional Communications Manager
Dairy Australia



It goes without saying that all dairy foods sold must be safe to eat. Dairy people take this responsibility very seriously. Safety standards remain extremely high in the Australian dairy industry. This year, 85% of consumers agreed that the dairy industry produces safe products and 86% agreed that the products produced are high quality.

Ideally, we would like these figures to be closer to the 2030 target of 95% (Target 5.3). We also need to consider an effective way to monitor food safety culture. We would also like increased recognition of dairy's role in a healthy diet (Goal 6).

Progressing our goals

The industry has a number of actions underway to achieve the goals under this sustainability commitment. Individual companies are also doing their part to promote dairy and ensuring consumers are aspiring to meet the recommended daily intake.

A place in diets that are good for people, planet

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) published research in the *European Journal of Nutrition, 2021* that shows a healthy balanced diet should include dairy foods such as milk and yoghurt; and this has lower greenhouse gas (GHG) emissions compared to other less healthy options. Researchers examined a subset of 1,732 Australian adult diets that had higher diet quality scores and lower GHG emissions. These diets are of interest because they show habits that could realistically be adopted by more Australians. The research found that 90% of these healthier and lower GHG emission diets included dairy foods, particularly milk, then cheese and yoghurt. What set these diets apart was much less discretionary foods, including sweets, fast foods and soft drinks. The dairy industry is working to ensure dairy is seen as part of the solution – as unhealthy diets are not sustainable.

A healthy balanced diet should include dairy foods such as milk and yoghurt . . . this has lower greenhouse gas emissions compared to other less healthy options

CSIRO, *European Journal of Nutrition, 2021*

The dairy matrix

Scientists and nutritionists are recognising that the effects of dairy foods go beyond the benefits of the individual nutrients they contain. The whole dairy food is greater than the sum of its parts and the unique 'dairy matrix' is responsible for its many health benefits. In 2020, Dairy Australia launched a communications program on the dairy matrix aimed at health professionals to reinforce dairy's unique health benefits. This contributed to 88% of general practitioners feeling confident to recommend dairy as part of a balanced diet, as indicated by Dairy Australia research.

Dairy Matters

'What matters to you, matters to us too' is the catchline for consumer communications which showcase the industry's commitments around sustainability. The dairy industry launched the **Dairy Matters** campaign to help consumers learn more about the Australian dairy industry. This included sharing our four sustainability commitments. The 'You Ask, We Answer' component allows consumers to ask questions online and get answers from experts. The 2020 Dairy Australia Trust Tracker survey revealed that over 80% of socially conscious consumers, which is a key target audience, trust dairy as a healthy and wholesome food.

Health resources hub

A wide selection of health fact sheets and healthy recipes featuring dairy has been collected on the **Dairy Product Health Resources** website, to make it easy for consumers and health professionals to find the information they need. Topics covered include dietary guidelines and nutrients, health benefits (including bone and cardiovascular health), and intolerances and allergies. Information is also provided for different life stages and levels of activity.

Improving labelling for consumer clarity

In September, the Minister for Agriculture, David Littleproud hosted a roundtable to discuss the labelling of plant-based products. Members of the plant-based, dairy, meat, egg, manufacturing and retail sectors attended.

Participants discussed how to ensure food labelling is clear, unambiguous, and accurate for consumers. Following the roundtable, an industry working group was established to investigate and provide an industry view on whether the current labelling and marketing requirements (including imagery) of plant-based alternatives to meat and meat-based products and dairy products can be improved.

Australian Milk Quality Awards

The [Australian Milk Quality Awards](#) recognise farms across Australia with the highest quality milk. This is defined by farms having an annual average bulk milk cell count (BMCC) in the lowest 5% during the previous calendar year. To be eligible, dairy farms must have BMCC data supplied by their processor for a minimum of nine months. Monthly averages are then used to calculate the annual average BMCC for each farm and the winners are the top 5% of farms with the lowest BMCC. Those in the top 100 receive a gold plaque for their farmgate and those in the top 5% receive a silver plaque. The awards enable the industry to celebrate success. It is a great collaboration between dairy companies and Dairy Australia's Countdown program.

Encouraging food safety culture

[Dairy Food Safety Victoria](#) is responsible for regulating the Victorian dairy industry to safeguard public health. In 2020 it launched [Dairy RegTech](#) – a different way to monitor food safety compliance, with a greater focus on people and behaviour to encourage improvement. This approach recognises that food safety systems depend on the people who implement them, and importantly the food safety culture of a business. Dairy RegTech uses two powerful resources – information about food safety performance combined with food safety culture – to drive performance, help prevent food safety incidents and provide a framework to guide continuous improvement for businesses.

Dairy Australia provides broad support to manufacturers to assist them to meet all food safety requirements. Learn more [here](#).

Future plans

A communications and engagement plan to support dairy as part of a healthy, sustainable diet in Australia has been developed for rollout in 2021. The two-year strategy aims to balance the debate about dairy's role in a sustainable diet during the review of the *Australian Dietary Guidelines*. The ongoing recognition of milk, cheese and yoghurt as part of a healthy diet is Target 6.2 under Goal 6 in the Framework.

A dedicated taskforce set up by the International Dairy Federation (IDF) in collaboration with the Global Dairy Platform (GDP) will give the global dairy industry a voice during 2021 when the UN Food Systems Summit creates an action plan for how the world produces and consumes food. The Australian dairy industry is represented on the taskforce.

The next instalment of the dairy industry's Dairy Matters campaign – Buy, Support, Enjoy Aussie Dairy, will be launched in 2021. The industry has partnered with Airbnb to curate a series of itineraries from Australian cities to dairy regions across the country, as part of the [Dairy Destinations](#) campaign. The campaign will showcase some of the best of Australia's dairy industry and encourages Australians to actively support local dairy farmers, producers, and communities by visiting dairy regions around the country.

Goal 6 and the relevant targets will be reviewed against the language and ambition used in the *Australian Dairy Plan* and Dairy Australia strategic plans.

Where and how dairy fits as part of a sustainable food system will be the theme for the first Dairy Sustainability Consultative Forum meeting in 2021.



“

It doesn't matter what role you play in society, it matters that everyone is trying to serve the future; one, for the environment, and two, for their families

Brodie Game (with son Harry), dairy farmer, Bemboka, NSW
Speaking on National Agriculture Day





commitment 3
providing
best care for animals



*Striving for health, welfare
and best care for our animals
throughout their lives*

2030 goals



- 7 Providing best care for animals for whole-of-life
 - Full compliance with animal welfare standards
 - Recommended practices adopted by all industry



“

An index with a strong weighting towards health and fertility will help to maintain my single-calving system and future-proof my bottom line. I'm optimistic that as the Health Weighted Index evolves, it will deliver the cow efficiency that underlines my business profitability

Janet Auchterlonie, dairy farmer, Gippsland, Victoria

The health and wellbeing of their animals is a top priority for the people who care for dairy cows

Providing best care for animals is fundamental to the success of every dairy business – and it's the right thing to do

Animal care also remains a focus for our stakeholders. Animal care, animal husbandry, antimicrobial stewardship, calf management (including bobby calves) and preventative health are all highly material topics for the industry.

The industry is committed to adhering to the *Australian Animal Welfare Standards and Guidelines for Cattle* and the *Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock*.

Australian Dairy Farmers (ADF) has a dedicated [Animal Welfare Policy Advisory Group](#), and a number of industry policies to manage the welfare of dairy cows. Agreed industry policies include no tail docking, providing pain relief for disbudding horns, and promoting positive stock handling practices. Industry has also agreed to phase out the routine use of calving induction by 1 January 2022.

Preventative health is fundamental to the care of dairy cows. This includes installing cooling infrastructure, developing strategies for lameness, animal nutrition and fertility. Care of calves is a high priority for the dairy industry and is a focus for 2021.

The 2020 Dairy Consumer Tracker survey indicated that 74% of consumers believe dairy farmers do a good job caring for animals, which represents a significant increase against the 2018 baseline of 58%.

The Consultative Forum online webinars in 2020 reinforced the need for the dairy industry to focus on animal wellbeing and reset its targets. Many of the existing targets relating to the adoption of recommended industry practice have been achieved (e.g. no tail docking), or need to be redefined (e.g. changing emphasis of disbudding with pain relief to use of genetics to produce polled animals). This is being considered as part of the review of *Commitment 3: Providing best care for all our animals*.

Progressing our goals

Although we have minimal new data to report against Goal 7 this year, a number of initiatives supported progress towards achieving our sustainability goal to provide best care for animals for whole of life.

Monitoring performance and sharing learnings

Industry performance on animal care is monitored through the three-yearly Genetics and Animal Husbandry Survey. The survey has been regularly conducted since 2005 to track on-farm practices and to provide insights into decision making on animal health, welfare, fertility and genetics over time. Results of the 2019 survey were released publicly in 2020 and shared with stakeholders, with the latest survey indicating improved performance trends in animal husbandry practices. The report can be downloaded [here](#).

Calving induction phase out on track

'Routine calving induction' is a practice that is adopted by a minority of seasonally calving dairy farms. Calving induction is undertaken to achieve a tight timeframe

for calving and align it to the time when feed is most available. Undesirable consequences of routine calving induction for animal welfare are well documented and include poor calf viability and increased post-parturient disease. The Australian dairy industry does not support routine calving induction. The practice is set to be phased out by 1 January 2022. To assess progress, a survey of veterinary clinics known to be actively undertaking calving induction is carried out each year. The last survey took place in November 2020. Overall, there is evidence that the proportion of clients using routine calving induction is decreasing within veterinary practices offering this service since the limits were imposed in 2015. In 2020, approximately 93% of dairy farms did not use routine calving induction. Of the approximately 7% of dairy farmers used calving induction, it was used on an average of 6% of the animals within their herds.

This aligns with the industry target for 2020 of a maximum of 6% of cows that can be induced within a dairy herd without special dispensation. The target for 2021 is 5%, with the routine practice to be phased out by 1 January 2022.

“

Herd health groups provide a great space for people to learn from experienced farmers about practical ways to improve disease control or how they are using treatments, including precious antibiotics

Dr Mark Humphris – Gippsland
Vet and Herd Health Facilitator

Promoting best practice in antibiotic stewardship

The responsible use of antibiotics – as little as possible, as much as necessary, under veterinary direction – by 100% of dairy farmers by 2030 is Target 7.4 in the Framework. Antibiotics are a critically important tool for dairy farmers to ensure the health and welfare of their animals, however care must be taken to avoid their misuse which could lead to antibiotic resistance. To mark the World Health Organisation's Antimicrobial Awareness Week in November 2020, Dairy Australia delivered an antimicrobial stewardship communications campaign targeted at farmers and vets. It emphasised that everybody has a role to play in improving antibiotic use on farm. A [podcast](#) and [video](#) were developed and promoted through social media channels; content was shared in regional newsletters; and an electronic newsletter was sent to vets and other service providers.

To obtain information on the type and amount of antibiotics being prescribed for use by dairy farmers, in 2020 Dairy Australia commissioned a review of veterinary sales during calendar year 2019. The last review looked at 2016/17 usage and the same veterinary practices were contacted for the 2020 review. While the figures obtained in the review were of the amount of veterinary antibiotics sold, they were not directly related to dose rate. However, the results are indicative of the types of antibiotics being used – and the 2020 review indicated that the situation had not changed markedly since 2016/17. All antibiotics used in the dairy industry must be provided via a prescription. Industry is working on ways to get a better understanding of actual use on farm.

Better treatment of mastitis through new tech tool

DataGene is currently developing a tool to assist those farmers who are herd testing to generate cow lists for Selective Dry Cow therapy that will be available through DataVat. The tool will enable farmers to detect mastitis more easily and use antibiotics selectively to target individual cow needs rather than blanket herd treatments at dry off.

Animal health a priority in national herd improvement

Health performance was a focus of refinements to Australia's dairy breeding indices, as the industry improves how animals are evaluated to reflect the evolution of the nation's herd improvement priorities. The latest updates of the Australian Breeding Values released by DataGene in December 2020 included an increased emphasis on health, with changes to both the Balanced Performance Index (BPI) and Health Weighted Index (HWI) making it easier to choose animals to fast-track breeding priorities such as fertility and mastitis resistance. The increased emphasis on health sees animals that are strong for health traits rise in both the BPI and HWI values and rank.

Antimicrobial stewardship is a focus for Australian agriculture, as every country is being asked . . . to report its antibiotic use, in order to combat the growing issue of antimicrobial resistance

Future plans

Future research priorities for animal health and welfare are being considered as well as a research strategy to improve outcomes. This will align with the priorities for Goal 7 in the Framework.

Antimicrobial stewardship is a focus for Australian agriculture including dairy, as every country is being asked under the OIE/WHO One Health Initiative to report its antibiotic use, in order to combat the growing issue of antimicrobial resistance. Dairy Australia is reviewing how Australia is positioned in the global context and how it can collaborate with Meat & Livestock Australia on antibiotic usage.

During 2021, Dairy Australia will run a veterinary engagement strategy to support the phase out of routine calving induction from 1 January 2022.

The welfare of bobby calves will also be a key focus for industry in 2021 with the ADF committed to developing a whole-of-industry policy to support further work.

In the 2021 review of the Framework, *Target 7.1 100% ongoing compliance with legislated animal welfare standards* and *Target 7.2 All of industry adopting relevant recommended industry practices for animal care* are set to be reviewed.





commitment 4
reducing
our environmental
impact



*Meeting the challenges
of climate change and
providing good stewardship
of our natural resources*

2030 goals



8 Improving land
management



9 Increasing water
use efficiency



10 Reducing GHG
emissions intensity



11 Reducing waste

“

Over the last 30 years the Australian dairy industry has reduced enteric methane emissions by 40% – that’s a reduction we’ve seen across our farm as well. Better breeding and better feeding of cows has a significant impact on our largest GHG emission

Graeme Nicoll, Dairy Farmer, South Gippsland, Victoria
[Learn more](#)



The whole dairy supply chain is dependent on natural resources to run our businesses

We take our stewardship responsibilities very seriously

Globally, commitments relating to climate change and environmental stewardship are a key focus of many groups.

Failure to respond to climate change, together with issues related to global warming, including extreme weather and biodiversity loss, are rated by world leaders as their biggest worry in the next decade, according to the *2020 Global Risks Report*, released in January 2020. For the first time in the report's 15-year history, the five biggest risks are all related to the environment.

Central banks, regulators and global investors are responding to climate change as a threat to the economy. Customers are increasingly setting reduction targets for emissions in their supply chains, with increasing expectations for their suppliers to do the same. Key competitors have adopted net zero or carbon neutral targets and are building capacity to measure and reduce emissions at farm level. They are also moving to better understand the risks and opportunities presented by climate change.

The industry needs to respond to these pressures and, at the very least, keep up with a rapidly changing and global agenda. Climate change is now a mainstream concern. The scale, ambition and pace of change all require attention as well as the scope of work across both greenhouse gas mitigation and addressing the risks associated with a changing climate.

Language around natural resource management is also changing – terms such as 'restorative' and 'regenerative' are being used.

On the farm side, the top land management challenges for dairy farmers highlighted in the 2020 Land, Water and Carbon Survey include pest animals, noxious weeds and soil health, with insect pests, biodiversity and waterway management also named.

Dairy farmers are also at the front-line of dealing with the impact of climate change. Dairy Australia modelling indicates there has been a loss of dairy farm business productivity in the order of 0.6–0.9 % per year since 2000 as a direct result of climate change. Impacts are being felt through changing pasture growth patterns, reduced rainfall, heat impacts on milk production and an increase in extreme events like fire, flood and drought. Many are adapting their farm system to continue to thrive.

Australian dairy manufacturers continue to work together pre-competitively on a number of projects to reduce their environmental impact through the Dairy Manufacturers Sustainability Council (DMSC). The Council produces an annual environmental scorecard (see [Appendix 2](#)).

Progressing our goals

In a pleasing trend, new data from dairy manufacturers indicates the sector is reducing water use (Goal 8) and waste to landfill (Goal 11). The data also shows the sector continues to reduce emissions with 23.5% decrease in emissions intensity and absolute emissions by 27% since 2010/11. More work needs to be done at farm level to measure emissions (Goal 10) and address water security risk (Goal 9). A wide variety of initiatives by industry, both pre- and post-farmgate, supported progress towards achieving our sustainability goals for 'Reducing environmental impact' this year.

Understanding land, water and carbon trends

In 2020, Dairy Australia undertook the Land, Water and Carbon Survey to collect information on dairy farmer practices to provide insights into attitudes, behaviour and practices relating to natural resource management. A subset of the results is used to track and report progress towards natural resources management goals in the Framework. The previous survey was undertaken in 2015.

The 2020 survey asked questions relating to: land management issues, irrigation water use efficiencies, fertiliser use, farm effluent management, managing land for conservation and biodiversity, renewable energy, and

recycling and re-use activities. There were new questions about perceptions of climate change, the impact of adverse weather, the constraints of managing soil health, and the uptake of technology to mitigate and adapt to the changing climate. Five hundred interviews were conducted with farmers across all dairy regions.

Smarter irrigation

Dairy farming is a decision intensive business. Farmers face an increasingly complex set of management, technical and risk issues. Farmers need access to the best information to use irrigation water effectively and efficiently.

The Smarter Irrigation for Profit – Phase 2 (SIP2) project is a partnership between the dairy, cotton, horticulture, rice and grain sectors, supported by funding from the Australian Government Department of Agriculture, Water and the Environment as part of its Rural R&D for Profit program and from each of the industries involved.

SIP2 is being delivered from 2019 to 2022 across three irrigation seasons. There are four dairy industry projects that collectively aim to get the irrigation fundamentals right on farm, increase adoption of existing technologies, and explore the potential of new strategies and technologies not yet adopted in dairy.

Land, Water and Carbon Survey highlights

- Pest animals, noxious weeds and dealing with soil health identified as the top land management challenges
- Widespread confidence in understanding soil constraints, managing periods of extreme heat, prolonged drought and extreme weather events (bushfires or floods)
- 58% of dairy farms are irrigated, using an average 586ML of water per year
- 55% of respondents with a water security or management plan
- 74% of farmers re-use water from the dairy shed, with 62% of all dairy shed water re-used
- 8 in 10 farms have fenced off areas of specifically planted shelter belts (68%) and/or native/remnant vegetation (54%)
- Proportion of farms where all naturally occurring waterways are fenced continues to trend upwards – with 74% of farmers having some fencing in place
- Considerable rise in proportion of dairy farms with renewable energy saving devices installed – 71% of farms now have at least one device installed
- 1 in 10 respondents are aware of their farm's carbon footprint or GHG emissions
- Almost all farms (94%) have implemented practices that reduce GHGs, including tree planting, strategic N application, improving energy efficiency and soil carbon
- Drums or containers recycled on the vast majority of farms
- 30% of farms using silage wrap recycle it – increasing to 49% where there is a community option to recycle

Getting paid for protecting biodiversity

The Australian Government is seeking to establish a method to certify or verify farm biodiversity as part of the national Agriculture Stewardship Package. A certification scheme trial, which aims to see land managers, including dairy farmers, paid for the public benefits they generate from environmental stewardship, is underway. Dairy Australia is part of the trial. A pilot project will commence in 2021.

Defining best practice in environmental stewardship

The aim of the Sustainable Dairy Products project is to assess and improve environmental stewardship along the dairy supply chain. It is funded by the Commonwealth Government through the National Landcare Program Smart Farming Partnership. The project is currently analysing insights captured during farmer interviews and focus groups with industry stakeholders. The project will define best practice in environmental stewardship; set pathways to achieve environmental standards across the industry; and design a learning tool that advances the sustainability of dairy production.

Options to reduce emissions

In 2019, the industry commissioned a Marginal Abatement Cost Curve (MACC) report which provided 14 options for the Australian dairy industry to reduce GHG emissions. In 2020, work began on a communication to farmers about their options for achieving the emissions target in the Framework (*Target 10.1 – 30% reduction in GHG emissions intensity on 2015 baseline by 2030*). For example, farmers can breed for low-emissions cows at the same time as breeding for genetic gain. If high-emissions farms reduce their GHGs, this would represent a reduction of more than 20%. Further work to support investment decisions will occur in 2021.

Food loss, waste and packaging

Several projects are underway to address food loss, waste and packaging. The Australian dairy industry's target to recycle 100% of plastic silage wrap waste on farms by 2030 has been backed by a \$965,400 grant from the Commonwealth Government. Talks continue between dairy manufacturers and the Australian Packaging Covenant Organisation (APCO) on the development of a dairy packaging roadmap. A project is underway to increase the recycled plastic content of milk bottles. In other sustainability work, manufacturers aim to achieve better recycling outcomes by improving the adhesive



“

Chobani is committed to continued progressive change that makes a positive impact on Australia's sustainable packaging ecosystem – and we are proud our work has been recognised by APCO. We have developed a robust system to ensure recyclability is a key factor in the design and development of our packaging. A cross-functional team works closely with our suppliers to maximise recycling or reuse from within our own operations, to the end users – consumers

Andrew Pekin – GM Technical
Chobani Australia

Winners of the 2020 Australian Packaging Covenant Organisation's Food and Beverage Industry Sector award for their leadership in sustainable packaging



L-R Richard Rawnsley, Area Manager, Fonterra; Pim Drenth, Sea Forest; Sam Elsom Sea Forest. Photo: Fonterra

removal process for milk bottle labels and add value to whey waste streams from small to medium (SME) dairy processors in the Melbourne region.

Sector leaders in sustainable packaging

Chobani were named winners of the 2020 APCO Industry Sector award for the Food and Beverage sector which recognised their leadership in sustainable packaging. Chobani developed an internal Sustainable Packaging Roadmap that consciously considers the Sustainable Packaging Guidelines and the 2025 National Packaging Targets. This demonstrates its commitment to continually reviewing and improving packaging sustainability and waste management practices. Chobani has now applied the Australasian Recycling Label across all packaging. More than 75% of its total packaging is now recyclable through Australian kerbside systems. Chobani is also committed to reducing business-to-business packaging and is working with suppliers to establish reuse systems for bulk packaging. A member of the Dairy Manufacturers Sustainability Council, Chobani has also partnered with REDcycle and Clean-Up Australia.

Reducing farm emissions with seaweed

Helping farmers to produce milk more sustainably is a priority for Fonterra. The dairy company is partnering with Sea Forest to see if using a seaweed-based feed supplement can reduce emissions from commercial dairy herds. The trial will use *Asparagopsis*, a seaweed grown naturally in Australia and New Zealand, as a feed supplement. In laboratory testing led by CSIRO, seaweed has shown the potential to reduce emissions from cows by more than 80%. The project is investigating if those results can be replicated in dairy herds at scale. The main focus to date has been understanding the food safety risks and the impacts on farm operations and profitability. Following early work, Fonterra is 'cautiously optimistic' about the seaweed's potential.

Tackling food waste in the value chain

Dairy Australia partnered with Sustainability Victoria and Stop Food Waste Australia to deliver a series of workshops and roundtables aimed at developing pathways to reduce food waste in the dairy supply chain.



“

Fonterra is pleased with the progress of the [Tasmanian trial](#) over recent months. We remain cautiously optimistic about the potential for red seaweed to reduce emissions. We are keen to do our bit to find solutions for our farmers and the industry

Richard Rawnsley

Farm Source Paddock Specialist (Tasmania) Fonterra Australia

Exploring wastewater options

Burra Foods in Korumburra has consistently increased manufacturing throughput over the last 20 years, and whilst focusing on resource efficiency during that journey, wastewater production has increased. With the support of Dairy Australia and Food Innovation Australia Ltd, Burra Foods worked with RMCG and local stakeholders to develop four options for better wastewater management. A triple bottom line approach and a SWOT analysis were then undertaken to better understand the benefits and risks of each option. Burra Foods is currently undertaking detailed design to implement an optimised solution which meets strict environmental criteria and provides options for nutrient re-use and the future possibility for energy production from biogas.

Environmental focus to consumer campaign

The environment is increasingly being cited by consumers as a reason to consume less dairy; it has been identified as one of the main risk areas to the industry's social licence and is a key reason for consumers seeking milk alternatives. The latest phase of the Dairy Matters consumer campaign, running from November 2020 to February 2021, consists of online advertising and is about environmental sustainability.

Reducing energy costs – and emissions

Energy remains a significant input cost for Australian milk processing facilities. In response to rising electricity and gas prices, and with renewable options increasing, the Union Dairy Company was keen to explore supply options for its processing site in Penola. With support from Dairy Australia's Technology Assessment (DATA) funding, the project investigated whether a change from the conventional approach to energy supply might result in business benefits – in terms of reduced cost, reduced carbon emissions and longer-term price security. The project examined options – including solar, biomass and natural gas as well as off-site power purchase agreements (PPAs) via third-party solar and wind projects – in terms of cost and carbon emission reductions. The project has provided a framework for prioritising energy supply options with broad outcomes applicable across the wider dairy manufacturing sector. Detailed case study can be found [here](#).

Future plans

The environmental goals in the Framework seek to respond to the drivers of climate action and the global agenda on climate and nature. They also seek to better manage resources and impacts. However, they need to be reviewed in light of increasing pressures in this area.

The Australian dairy industry is committed to playing its part in ensuring a healthy climate and Dairy Australia released its new Climate Change Strategy in March 2021. The strategy focuses on emissions reduction and adaptation to climate change. It articulates Dairy Australia's climate commitment and formulates investment intent and priorities across research, development and extension. The planned outcomes from the strategy by 2025 are:

- Dairy businesses successfully adapting to (and continually evolving to meet) future climate challenges
- Australian dairy industry's low carbon footprint recognised internationally, and within the top 10 globally
- Requirements for managing the environment in the face of a changing climate known and being adopted by dairy businesses
- Market and community recognition of the positive contributions of the dairy industry in addressing climate change

Early in 2021, Dairy Australia, Australian Dairy Products Federation and Stop Food Waste Australia submitted a funding proposal to the Recycling Victoria Business Support Fund to develop a Dairy Food Waste Sector Action Plan.

Commitment 4 Reducing environmental impact is set to be reviewed in 2021 with particular attention given to its name, the language used for the goals and targets, the availability and frequency of data collection to measure progress, and to the elements of biodiversity and climate change. The review will be conducted with consideration of the global narrative and how these goals contribute to the UN SDGs.





Collaborating on sustainability actions

Australian dairy manufacturers continue to work together to reduce their environmental impact through the Dairy Manufacturers Sustainability Council (DMSC). The DMSC is a nationally recognised community of practice, comprised primarily of environmental and sustainability group managers from Australian dairy manufacturing companies. The DMSC has an industry-wide focus that assists company members to work together pre-competitively to improve environmental performance and the sustainability of their operations.

In order to support dairy manufacturers in efforts to reduce environmental impact, targets were established in the Framework to reduce water, GHG emissions and waste.

The performance reported each year is based on the aggregated information provided by participating DMSC members. For 2019/20, data was contributed by Bega Cheese, Bulla Dairy Foods, Burra Foods, Chobani Australia, Lion Dairy & Drinks, Fonterra, Lactalis Australia, the Union Dairy Company, and Saputo Dairy Australia. Together these companies represent up to 86% of the milk volume processed nationally.

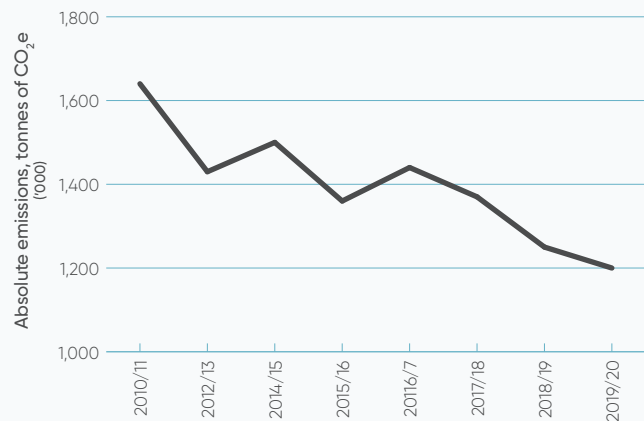
In order to support dairy manufacturers in efforts to reduce environmental impact, targets were established in the Framework to reduce water, greenhouse gas emissions and waste

Contributing manufacturers made good progress in 2019/20 towards each of the Framework sustainability goals. Highlights include:

- **Water use** – a decrease of 5.7% in the consumptive water intensity of dairy companies compared to the previous year
- **GHG emissions intensity** – a decrease of 3.3% in GHG emissions intensity over the year, representing a 23.5% decrease since 2010/11 and a 10% decrease since 2015
- **Absolute GHG emissions** – a 27% reduction in absolute GHG emissions since 2010/11
- **Waste to landfill** – dairy companies diverted 93% of waste generated from landfill, compared to 76% in the previous year.

For further details and trend information on performance against Framework goals, see [Appendix 2 DMSC 2020 Scorecard](#).

Figure 1 Australian dairy manufacturing GHG emissions



Australian dairy manufacturing has reduced absolute GHG emissions by 27% since 2010/11 (representing approximately 86% coverage of all milk processed).

Progressing our goals

DMSC members participated in a number of specific initiatives to support progress towards achieving our sustainability goals for 'Reducing environmental impact'.

Priorities for more sustainable manufacturing

During the year, the DMSC undertook an innovation needs assessment and technology screening exercise to identify technologies best suited to meeting the needs of manufacturers. The project identified three key areas of sustainability innovation for dairy companies: reducing water intensity at factory; reducing food waste at production; and energy cost reduction. A global scan and mapping of potential technologies and solutions is now underway.

Roadmap to sustainable packaging

Dairy Australia has secured support from the Australian Packaging Covenant Organisation (APCO) to develop a Dairy Packaging Roadmap to 2025. The dairy industry's Sustainable Packaging Working Group, comprised of packaging professionals from DMSC member organisations, will collaborate to draft the Roadmap. It will highlight the industry's packaging opportunities, challenges and positive case studies with respect to meeting the 2025 targets (100% of Australian dairy packaging to be recyclable, compostable or reusable).



Back row, L-R Peter Coates (Bega Cheese), Adriaan van Dijk (Bega Cheese), Ian Olmstead (Dairy Australia), Kelvin Davies (Nextek). Front row Paul Frigo (Qenos), Lauren Mann (Qenos), Andrew Baroutas (Bega Cheese), Shalini Singh (Bega Cheese)

Increasing recycled content in milk bottles

A project is underway by Bega Cheese to increase the recycled plastic content of milk bottles, working with technical experts Qenos and Nextek, and supported by co-funding from Food Innovation Australia Limited. Results of the study are anticipated to set a new benchmark for the ability to introduce food-grade recycled plastics into milk bottles.

Delivering better recycling outcomes

Saputo Dairy Australia, Bega Cheese and Lactalis Australia are supporting a project with University of Technology Sydney and PEGRAS Technologies to develop a process which will improve label adhesive removal from dairy products. If successful, this will facilitate much more efficient recycling of these materials and result in production of higher-grade recycled material.

Turning dairy food waste into profit

There are significant opportunities to create new business models for improved management of wastes, unlocking new revenue streams for Australia's livestock industries, including dairy. The Wastes to Profits Project is developing technologies and business models for the conversion of wastes from livestock and municipal waste industries into valuable products resulting in productivity and profitability improvements. For the dairy sector, the project has recently been working with Dairy Australia and dairy processors from around Australia to better characterise whey streams with a view to identifying enhanced treatment options and value-added product opportunities. These opportunities can reduce costs and increase revenues for participants across the dairy value chain. The Wastes to Profits project is supported by Meat & Livestock Australia through funding from the Australian Government Department of Agriculture, Water and the Environment, as part of its Rural R&D for Profit program, and program partners including Dairy Australia.

Engaging with our stakeholders

Despite physical distancing and travel restrictions due to COVID-19, dialogue between the Australian dairy industry and our stakeholders about sustainable development increased during 2020.

Members of the Dairy Sustainability Consultative Forum – a whole of value chain stakeholder reference group for the Framework – had 12 virtual events to choose from in 2020 – rather than two half-yearly physical events as in previous years. Two series of webinars were hosted by the Dairy Sustainability Steering Committee, each with six webinars. Organisations represented at the Consultative Forum are listed in Appendix 6, [Table 4](#).

The first series ran from May to July 2020. This sought to make sense of what sustainable dairy production will look like in a world with or without COVID-19. Featuring guest speakers from outside the industry, including high-profile company director Sam Mostyn, and Melanie Norris from Nielsen, the first webinar, ‘A brave new world’, looked at the big picture and the likely retail environment and consumer behaviour post COVID, and set the scene for the series. It revealed that communications about sustainability will need to be more personalised and that consumers’ desire for value and transparency in food production will likely increase in the wake of the COVID-19 pandemic.

The following four webinars in the first series focused on the Framework’s four commitments – to dairy businesses and people, consumers, animals and the planet – and all included online breakout rooms where stakeholders identified barriers and benefits for sustainable dairy production in a world changed by COVID-19. External presenters included Ian McConnel (WWF), Ben Pearson (World Animal Protection) and dietician Sharon Natoli. At the sixth seminar, ‘What will be different: how will dairy adapt?’, five panellists from the dairy industry summarised the key insights they had heard at the previous webinars and flagged priorities for sustainable dairy production in a world disrupted by COVID-19.

The second webinar series, from November to December 2020, asked stakeholders to share their thoughts on ‘What is the path for navigating the future of nutritious food?’ At the first webinar, scenario planner Steve Tighe revealed four possible scenarios for the future of nutritious food to 2030, including plausible challenges and opportunities for the Australian dairy industry in each of the scenarios. The next four webinars investigated what the Australian dairy industry might need to do to meet its commitments to animals, consumers, the environment and dairy people in 2030 as a result of these scenarios. At the final webinar, participants reviewed the ideas generated at the four commitment-based webinars and discussed how the Framework might evolve between now and 2030 in order for the Australian dairy industry to deliver on its commitments and keep its sustainability promise: *to provide nutritious food for a healthier world*.

Approximately 385 people attended at least one of the webinars during the two series of webinars in 2020, with several attending multiple events. The total of 385 attendees at these engagement activities in 2020 is more than three times the annual attendance figure of 110 for the physical workshop meetings in previous years. In 2020, approximately 70% of the attendees were from industry and 30% were external.

Is dairy being ambitious enough and should it have targets along the way to 2030?

In response to the feedback from stakeholders at the 2020 events, the Dairy Sustainability Steering Committee has agreed to review the goals, targets, indicators and metrics for each of the four commitments in the Framework. The aim of this review in 2021 is to test how future-ready the Framework is for managing the sustainability risks and impacts for the dairy industry during the next decade. Is dairy being ambitious enough and should it have targets along the way to 2030? The pace of change expected and the level of scrutiny on industries like dairy has escalated in recent years – especially in environmental sustainability and climate action. The agreed review is an opportunity to rethink both the actions needed and the pace of change required and reset our goals, targets and actions where needed.

The membership of the Consultative Forum comprises dairy farmers, manufacturers, dairy organisations, customers, investors, financial institutions, retailers, buyers, suppliers, government representatives, non-government groups, special interest groups, agricultural industry groups, and others. It has had input into the development and management of the Framework since 2013. For more Information, see [Appendix 6](#).

Additional activities

Throughout the year we also engaged with our stakeholders via our monthly *Dairy Sustainability eNews*, which features updates on our progress, and links to relevant articles and events. It is distributed to a targeted list of more than 300 recipients. Over the ten editions distributed in 2020 (once a month except for January and March), it achieved an average 'open' rate of 44.18% and 'click through' rate of 9.02%. This performance is higher than the industry average for other agriculture and food service e-newsletters (34.5% and 5.6% respectively, as at December 2020¹). Information on the open and click through rates helps the dairy industry obtain insights into what our stakeholders want to hear about and enables the industry to understand the importance of the actions being undertaken to meet our sustainability goals and targets.

Through Dairy Australia, we are also members of the global Dairy Sustainability Framework (DSF), the Global Dairy Platform (GDP), the International Dairy Federation (IDF), the global Sustainable Agriculture Initiatives Dairy Working Group (SAI DWG) and the Australian platform of SAI. All of these organisations provide an opportunity for the Australian dairy industry to collaborate and obtain a broad perspective on what is happening in sustainability that impacts us.

¹ MailChimp industry performance statistics for 'Agriculture and Food Services', December 2020



ABOUT THE AUSTRALIAN DAIRY INDUSTRY



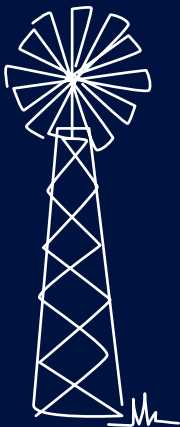
29%

of milk production is exported

32% of which to Greater China – China, Hong Kong and Macau



4th
Australia is the world's fourth largest dairy exporter



4th

Dairy is Australia's fourth largest rural industry

5,055

dairy farm businesses



MAJOR EXPORT MARKETS

244,460 t
Greater China

86,269 t
Japan

73,984 t
Singapore

61,858 t
Malaysia

51,843 t
Indonesia

VALUE OF FARMGATE PRODUCTION

\$4.8 billion



TOTAL ANNUAL MILK PRODUCTION

8,776
million litres

AVERAGE ANNUAL MILK PRODUCTION PER COW

6,170
litres





ANNUAL PER CAPITA CONSUMPTION

97 litres
milk
13.6 kg
cheese

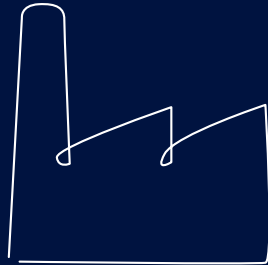
AUSTRALIAN MILK UTILISATION

39% Cheese	4% Whole milk powder
32% Drinking milk	3% Other
22% Skim milk powder or butter	



INDICATIVE FACTORY-PAID PRICES AUSTRALIA-WIDE

54.7¢/litre
milk
\$7.19/kg
milk solids



DAIRY COMPANIES

140

includes those who source milk direct from farms and from other companies



43,500

Dairy industry workforce

ANNUAL PRODUCTION OF MAIN COMMODITIES

371,131 tonnes
Cheese

185,316 tonnes
Milk powders

72,548 tonnes
Butter



AVERAGE HERD SIZE

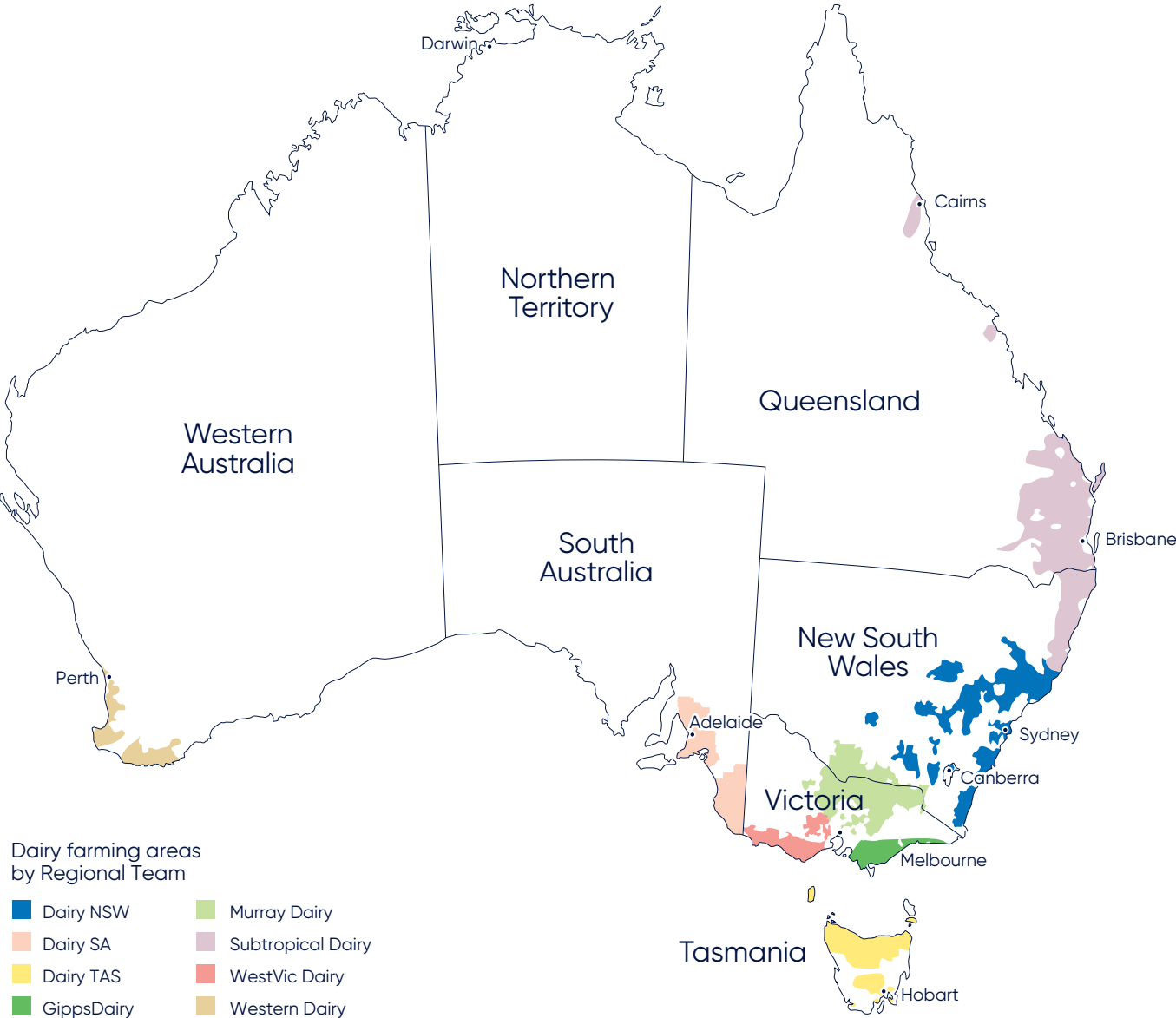
279
COWS

AUSTRALIAN DAIRY HERD

1.41 million
COWS



Australian dairy regions



Changes in 2020

Demand for dairy products remained strong in the face of lockdowns in Australia and overseas.

The pandemic did cause some change in domestic consumer behaviour, with demand for dairy products used in cooking and baking increasing as people spent more time at home. In the first three months, sales of UHT milk spiked as consumers stockpiled products.

Not only does this demonstrate the importance of dairy in people's diets, but also the resilience of the Australian dairy supply chain.

Key changes during the year include a 3% reduction in the number of dairy farms in 2019/20, in line with long-term trends. While farm numbers have decreased, the average farm size has increased. The national herd decreased by 0.3% as a challenging start to the year resulted in an increase in farm exits and a move to smaller herd sizes on many farms. National milk production was down 0.2%, however prices were up. Australian dairy farmers received an average close to US\$41 per 100kg of milk solids in 2019/20.

This was due to strong competition for milk between processors which resulted in a record high domestic farmgate price. Indicative factory paid milk prices Australia-wide were 54.7¢/litre (up from 49.7¢/litre in 2018/19) and \$7.19/kg milk solids (up from \$6.64/kg milk solids). The proportion of milk production exported fell from 35% in 2018/19 to 29% in 2019/20. This was also partly due to increased domestic demand and a smaller milk pool – resulting in less milk being available for export.

Consolidation in processing capacity also continued with Nestle closing its Tongala factory (primarily producing tinned products) and Fonterra selling their Dennington factory to Proviso (a company specialising in animal nutrition), both in Victoria. Major manufacturing developments included Saputo Dairy Australia acquiring Lion Dairy & Drinks speciality cheese brand and production facilities. Beston Global Food Company announced plans to invest in a major expansion of its lactoferrin production.

The new Dairy Mandatory Code of Conduct came into effect on the 1 January 2020, prescribing the introduction of minimum pricing announcements occurring on 1 June each year.¹

¹ 2019/20 Dairy Australia Annual Report, Australian Dairy in Focus, and dairyaustralia.com.au





Global context

For the first time since 2014, milk production in the four largest dairy exporting regions, including Australia, was increasing towards the end of 2020.

Strong Chinese demand for dairy has continued to keep the market relatively well balanced and has been the main driver of growth in global dairy trade.

Australia's top five export markets by value in 2019/20 were Greater China, Japan, Indonesia, Malaysia and Singapore. The major products are butter, milk powder, cheese and milk.

In 2020, the COVID-19 virus created uncertainty in global and domestic markets, however the global dairy market was relatively balanced and commodity prices proved resilient.

In the domestic market, COVID presented challenges, especially for those companies predominantly supplying food service. With restaurants closed and large events cancelled, many had to move to different markets and different ways of selling their products. Online sales for specialty cheeses were also developed.

Managing climate risk

Key competitors have adopted net zero or carbon neutral targets and are building capacity to measure and reduce emissions at farm level. They are also moving to better understand the risks and opportunities presented by climate change.

Global dairy and food customers and domestic retailers have also adopted targets consistent with the Paris Agreement. They have also raised their expectations and requirements of suppliers when it comes to both emissions and understanding where climate risks lie in their broader supply chains, and what that means for their own business models. Science-based climate targets are now mainstream with 81 global food and beverage companies joining the [Science-based Targets Initiative](#) including Nestle, Mars, Danone and Woolworths Group. Woolworths has set a target to reduce emissions from its own operations by 63% from a 2015 base year by 2030.

Goal 10 of the Framework is a 30% reduction in greenhouse gas (GHG) emissions intensity across the whole industry (from a baseline of 2015). This target will be reviewed in 2021.

Global cooperation on sustainability

The commitments in the Framework align with the United Nations Sustainable Development Goals (UN SDGs) for ending hunger, promoting good health and wellbeing, taking action on climate change and providing decent work and economic growth. Alignment of the Framework goals with the UN SDGs is detailed in [Appendix 4](#).

In setting goals and targets in the Framework, the Australian dairy industry has heeded warnings from the FAO and the World Health Organisation (WHO) that major steps forward to reduce food loss and food waste, and combat antimicrobial stewardship, are critical to achieving the SDGs by 2030.

The Australian dairy industry participates in a number of global initiatives which enhance our capacity to operate sustainability.

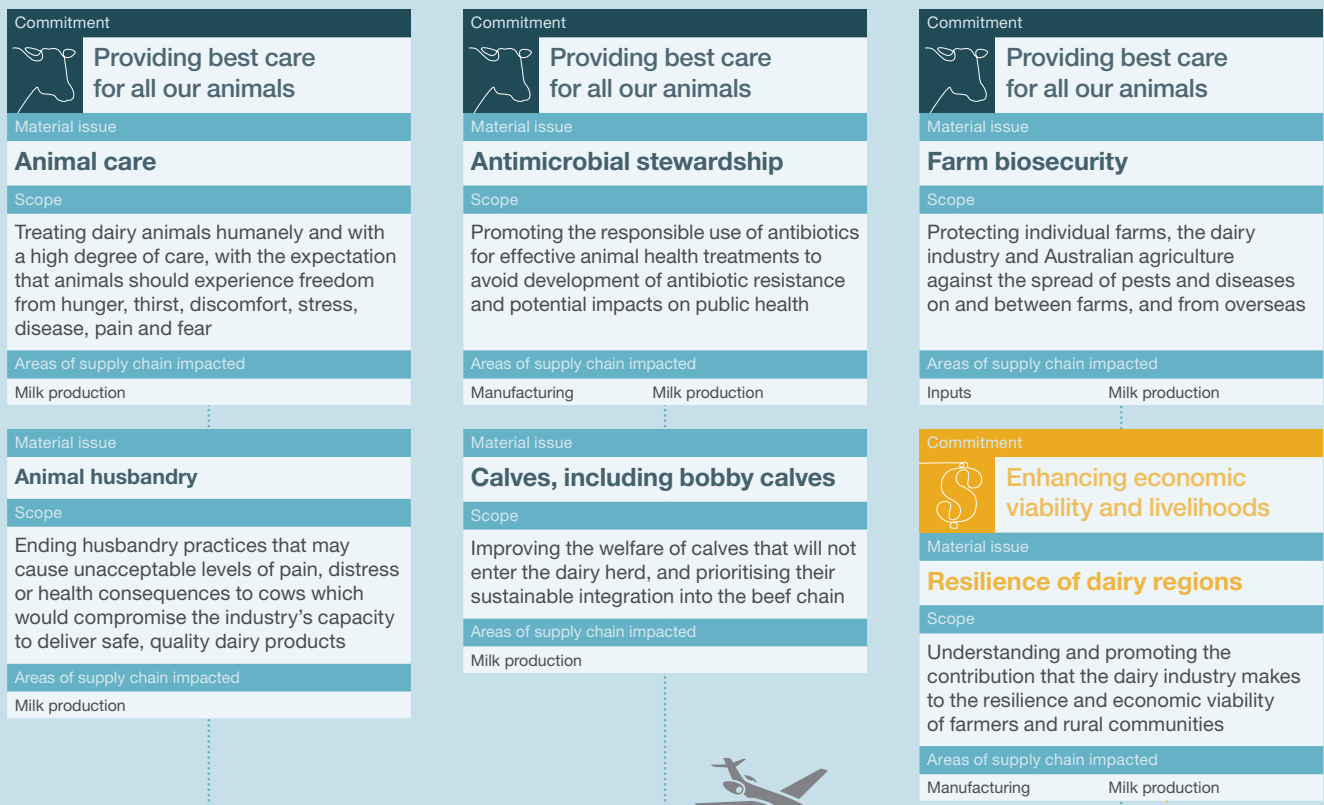
The global Sustainable Agriculture Initiative Platform (SAI) Dairy Working Group has finalised the Sustainable Dairy Partnership (SDP), a business-to-business model for sustainable practices. The purpose of this work – which has been supported by Dairy Australia and Fonterra as members of SAI – is to have a model that enables buyers and processors to verify the sustainability credentials of the processors' farm suppliers without the need for individual farm audits. The SDP helps processors to verify what occurs on farm and the verification should be accepted by all buyers signed up to the SDP. Practices on dairy farms in Australia are in line with the SDP.

A dedicated taskforce set up by the International Dairy Federation will give the global dairy industry, including Australia, a voice during 2021 when a UN Food Systems Summit creates an action plan for how the world produces and consumes food. The Australian dairy industry is represented on the taskforce.

The Framework has informed the development of a global Dairy Sustainability Framework which provides a Framework for a holistic approach to sustainability in the dairy value chain worldwide, as well as frameworks in other agricultural sectors in Australia. The development of the National Farmers Federation (NFF) 2030 Roadmap with the goal of Australian agriculture being a \$100 billion Industry by 2030 is also a key influencer.

Impact along the value chain

The diagram shows the extended dairy value chain, the material and emerging issues, and where these issues impact



Commitment

 **Improved wellbeing of people**

Material issue

Product safety and quality


Scope

Maintaining the safety and quality of dairy products throughout the supply chain in a transparent manner

Areas of supply chain impacted

Consumer	Marketing and distribution
Exports	Milk production
Manufacturing	Retail and food service

Commitment

 **Reducing environmental impact**

Material issue

Greenhouse gas emissions

Scope

Quantifying and reducing GHG emissions across the value chain through all economically viable mechanisms

Areas of supply chain impacted

Consumer	Milk production
Manufacturing	

Commitment

 **Reducing environmental impact**

Material issue

Water availability and efficiency

Scope

Efficient and responsible use and management of water across the dairy supply chain, helping to increase resilience of the industry and maintain productivity in the face of the challenges of climate change

Areas of supply chain impacted

Manufacturing	Milk production
---------------	-----------------

Material issue

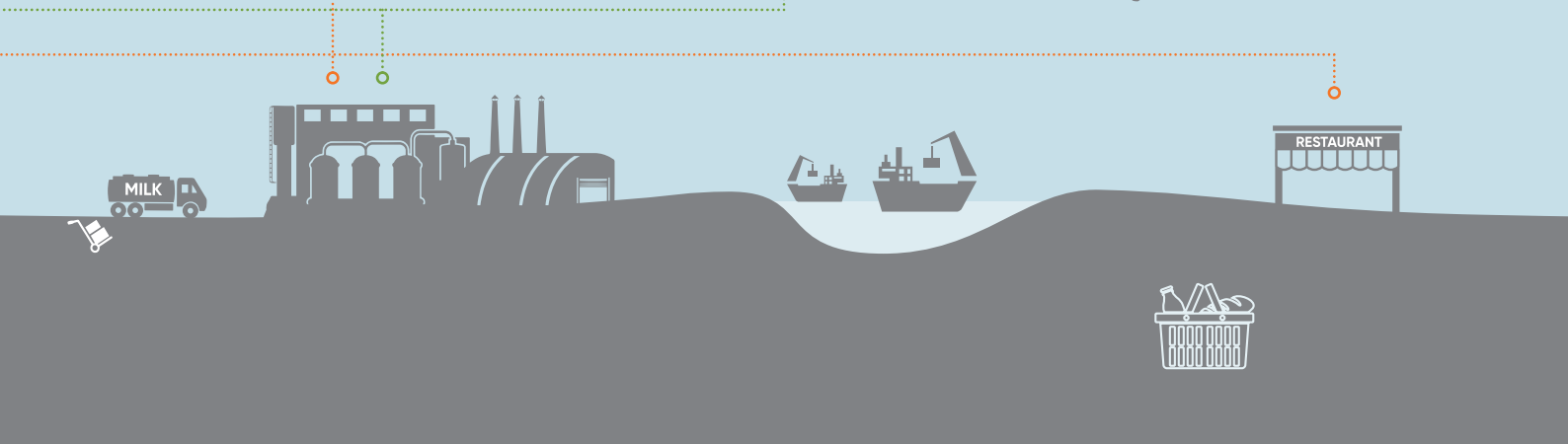
Physical climate risk

Scope

Adapting wherever possible to avoid impacts of climate change such as water scarcity, temperature increase and extreme weather events, which can affect animal welfare, milk supply and the viability of the industry in some regions

Areas of supply chain impacted

Manufacturing	Milk production
---------------	-----------------





2012



Building

2012

- Materiality study
- National consultation
- Priority areas, goals and objectives agreed
- Framework endorsed and released

2013

- Consultative Forum established
- Sustainability Steering Committee established
- Targets, measures and baselines explored and agreed to 2020
- Unilever recognises Australian Milk Production as 100% sustainable, based on meeting its Sustainable Sourcing Code and the Framework
- First Progress Report released

Establishing

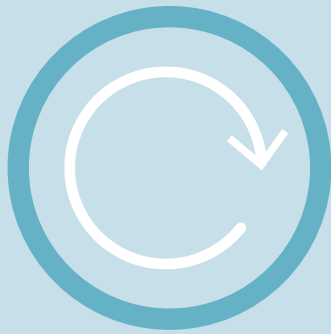
2014

- Consultative Forum continues
- Framework website established
- Progress Report released

2015

- Consultative Forum continues
- Further progress on targets, measures and baselines
- Framework recognised with Banksia award
- Progress Report released

Our sustainability journey



2020

Refreshing

2016

Consultative Forum continues

Materiality review refreshed

Our Dairy Promise agreed – four commitments underpin the promise

Framework mapped to UN SDGs

Framework recognised with United Nations Australia Association award

Progress Report released and aligned with GRI Disclosers

2017

Consultative Forum continues

Framework reviewed, including goals and targets

Extensive consultation

Dairy story published

2018

Consultative Forum continues

Goals and targets reset from 2020 to 2030 and aligned to UN SDGs

New emerging issues identified and included in the Framework

2018 Sustainability Report released, aligned with GRI disclosures

Embedding

2019

Consultative Forum continues

Materiality study undertaken with stakeholder survey

2020

Consultative forum online

Australian Dairy Plan released with sustainability as a key pillar

Review of goals and targets commences

Public release of materiality report

2019 Sustainability Report released, reporting against 2030 goals, targets and indicators, aligned with GRI disclosures

2021

2020 Sustainability Report released

Dairy Sustainability 2020 Scorecard

Towards our 2030 goals

Through the Australian Dairy Industry Sustainability Framework, we publicly report progress against Our Dairy Promise – *to provide nutritious food for a healthier world*. This promise is underpinned by four Sustainability Commitments and 11 goals.

Our 2030 goals align with the United Nations Sustainable Development Goals (UN SDGs) – also set for achievement by 2030 – in recognition of dairy’s role in the global effort to address the world’s sustainability issues. These UN SDGs are the global blueprint to achieve a better and more sustainable future for all.

The Australian dairy industry remains committed to continuous improvement to address evolving community and consumer expectations and emerging issues. The Sustainability Framework will continue to be revised and enhanced to respond to a changing world, and stakeholder and industry priorities.

Sustainability is one of five pillars in the *Australian Dairy Plan*. The Framework is identified as the key mechanism through which we respond to community expectations on issues like animal welfare, protecting the natural environment and reducing carbon emissions.



A summary of our 2020 progress

This year, we are reporting against our 2030 goals and targets for the second time. In some areas, we are yet to finalise the target metrics and/or baseline metrics. These will be developed during 2021.

		Baseline	2019	2020	2030 Target	Progress
Enhancing economic viability and livelihoods						
1 Increase the competitiveness and profitability of the Australian dairy industry	1.1 More than 50% of farm businesses achieve at least \$1.50 EBIT/kg MS over a five year average ⁱ	20% (2018)	16%	26%	>50%	●
	1.2 Increase the Australian dairy industry's share of global dairy trade to 10% by volume ⁱⁱ	6% (2018)	6%	5%	10%	●
	1.3 Increase RD&E expenditure in the dairy sector by 2% per annum	\$47 m (2019)	\$47 m	\$44.2 m	\$58.5 m	●
	– % dairy farmers constantly looking for new information to improve farm business ⁱⁱⁱ	79% (2018)	83%	76%	↑	●
	– % dairy farmers reporting new farming ideas were very important to them ⁱⁱⁱ	74% (2018)	78%	72%	↑	●
	– % dairy farmers reporting they were amongst the first in their area to try new ideas and products ⁱⁱⁱ	46% (2018)	48%	45%	↑	●
1.4 Provide consumers with greater choice and access to a variety of dairy products and/or ingredients to meet their specific nutritional needs ^{iv}	85% (2018)	88%	88%	100%	●	
2 Increase the resilience and prosperity of dairy communities	2.1 Increase the contribution the dairy industry makes to supporting the economy of dairy regions					
	– The total value of payments made to dairy farmers on a region-by-region basis ⁱⁱ	\$4.3b (2018)	\$4.4b	\$4.8b	↑	●
	– The number of jobs supported by dairy economic activity in each dairy region – indicated by number of people directly employed in the dairy industry ⁱⁱ	42,600 (2018)	46,200	43,500	↑	●
	2.2 Increase the recognition of the dairy industry's benefit to regional communities					
	– The community sees the dairy industry as vital to the Australian economy ^{iii, xii}	44% (2018)	51%	n/a	75%	●
	– % of people in regional areas who think dairy is an essential part of their community ^{iv}	88% (2018)	90%	86%	95%	●
– % of farmers who agree "people in my region appreciate the role that dairy farmers like myself play in our community" ^{iv}	67% (2018)	68%	70%	90%	●	

i DairyBase, Dairy Farm Monitor Project data

ii In Focus 2020

iii National Dairy Farmer Survey 2020

iv Dairy Trust Tracker Survey 2020

xii Not asked in 2020

Key

● Progress towards 2030 targets against baseline

● Result maintained or marginal change

● Regression

n/a = no data available or target metrics still to be finalised

		Baseline	2019	2020	2030 Target	Progress
Enhancing economic viability and livelihoods						
2 Increase the resilience and prosperity of dairy communities <i>continued</i>	2.3 Increase the contribution people in dairy make to social capital (community initiatives) in their community					
	– % of farmers who say they/their employees actively participate in their local community initiatives ⁱⁱⁱ	69% (2019)	69%	70%	100%	●
	– % of farmers who believe it's important for them/their employees to support their local community initiatives ⁱⁱⁱ	87% (2019)	87%	88%	100%	●
	– % of dairy companies investing funds and participating in local community initiatives	n/a	n/a	n/a	100%	n/a
	– % of dairy people who agree their community has effective leaders and strong social networks – scale: 1 (strongly disagree) to 7 (strongly agree) ^v	4.6 (2018)	4.6	n/a	n/a	n/a
3 Provide a safe work environment for all dairy workers	3.1 Zero workplace fatalities on farm and in manufacturing ^{vi}					
	– Dairy farming	2 (2017)	0	11 (2014–19)	0	●
	– Dairy companies	0 (2017)	0	0 (2014–19)	0	●
	3.2 100% of dairy workers to be implementing good safety practices	n/a	n/a	84%	100%	●
	3.3 More than 90% of dairy workers working less than 50 hours per week	n/a	n/a	19%	90%	●
	3.4 30% reduction in Lost Time Injury Frequency Rate (LTIFR) for farm and manufacturing workplaces on figures reported in 2017 ^{vi}					
	– Dairy farming [~]	9.3 (2017)	n/a	6.9 (2017/18)	6.5	●
– Dairy companies [~]	6.4 (2017)	n/a	6.3 (2017/18)	4.5	●	
4 Provide a productive and rewarding work environment for all dairy workers	4.1 Less than 25% of dairy workers report low levels of life satisfaction	n/a	n/a	n/a	<25%	n/a
	4.2 Rates of dairy remuneration are similar to or higher than for other regional industries	n/a	n/a	n/a	Yes	n/a
	4.3 80% of dairy employees are retained within the industry year-on-year ^{vii}	71% (2017)	n/a	91%	80%	●
	4.4 Less than 20% of dairy employers report difficulty in sourcing suitable applicants	n/a	n/a	70%	<20%	●
	4.5 More than 70% of dairy farm owners have an agreed farm transition/succession plan ^{vii}	21% (2017)	n/a	56%	>70%	●
	4.6 Human rights – dairy industry has a national human rights position. Indicators to be developed in 2020	n/a	n/a	Under development	Under development	

iii National Dairy Farmer Survey 2020
vi Safe Work Australia

~ Latest figures available
v University of Canberra Regional Wellbeing Survey
vii Dairy Workforce Survey 2020

Key

- Progress towards 2030 targets against baseline
- Result maintained or marginal change
- Regression
- n/a = no data available or target metrics still to be finalised

		Baseline	2019	2020	2030 Target	Progress
Improving wellbeing of people						
5 All dairy products and ingredients sold are safe	5.1 Zero non-compliant chemical residues found during the Australian Milk Residue Analysis (AMRA) Survey	0	0	0	0	●
	5.2 Zero product recalls due to food contamination (as reported by Product Safety Recalls Australia)*	8	11	8	0	●
	5.3 95% of consumers agree Australia produces safe and high quality dairy products ^{iv}					
	– The dairy industry produces safe products	81% (2018)	82%	85%	95%	●
	– The dairy industry produces high quality products	83% (2018)	86%	86%	95%	●
5.4 Food Safety Culture embedded into the dairy food business	n/a	n/a	Under development	Under development	n/a	
6 Dairy contributes to improved health outcomes for all Australians	6.1 Improve consumers' perception of the health and nutrition benefits of dairy foods ^v					
	– 90% of consumers believe dairy foods such as milk, cheese and yoghurt play an important role in a healthy well-balanced diet	67% (2019)	67%	61%	90%	●
	– 90% of individuals agree "Dairy foods are essential for good health and wellbeing"	72% (2018)	80%	79%	90%	●
	– <20% of individuals agree "I'm concerned consuming dairy foods will increase my weight" ^{iv}	32% (2018)	34%	35%	<20%	●
	6.2 The National Health and Medical Research Council (NHMRC) Australian Dietary Guidelines continue to recommend milk, cheese and yoghurt as part of a healthy diet	Recognised	Recognised	Recognised	Recognised	●
	6.3 Australians meet recommended daily serves for dairy	n/a	n/a	n/a	n/a	n/a
6.4 All dairy companies adopt a stated position on responsible consumption by 2020 and publicly report on progress by 2030	n/a	n/a	n/a	n/a	n/a	

iv Dairy Trust Tracker Survey 2020

vi Safe Work Australia

vii Dairy Workforce Survey 2020

* Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services within the reporting period, by:

- incidents of non-compliance with regulations resulting in a fine or penalty;
- incidents of non-compliance with regulations resulting in a warning;
- incidents of non-compliance with voluntary codes.

		Baseline	2019	2020	2030 Target	Progress
Providing best care for animals						
7 Provide best care for all animals for whole-of-life	7.1 100% ongoing compliance with legislated animal welfare standards					
	– % of farmers who have a copy of the <i>AHW Standards and Guidelines</i>	47%	77%	n/a	100%	n/a
	– % of farmers who agree complying with animal welfare standards is an important sustainability requirement ⁱⁱⁱ	95%	98%	n/a	100%	n/a
	7.2 All of industry adopting relevant recommended industry practices for animal care^{viii}					
	– No tail docking	91%	96%	Not collected in 2020	100%	n/a
	– No routine use of calving induction ^{ix}	90%	91%	93% ^{xii}	100%	●
	– All calves managed appropriately					n/a
	– sale calves sold at a minimum of 5 days old	78%	91%	Not collected in 2020	100%	
	– sale calves fed within 6 hours of transport	96%	99%		100%	
	– All calves disbudded					n/a
	– prior to two months of age	63	72%	Not collected in 2020	100%	
	– with pain relief (for calves <2 months)	n/a	76%		100%	
	– All farmers implementing a lameness strategy	95%	96%	Not collected in 2020	100%	n/a
	– All farmers where relevant have infrastructure to keep cows cool	92%	96%	Not collected in 2020	100%	n/a
	– All farmers have a documented biosecurity plan	58% (2019)	58%	Not collected in 2020	100%	n/a
7.3 90% of consumers believe dairy farmers do a good job caring for animals^{iv}	58% (2018)	74%	76%	90%	●	
7.4 Antimicrobial Stewardship (AMS) – the dairy industry uses antibiotics responsibly – as little as possible, as much as necessary – to protect the health and welfare of our animals						
– All dairy farmers access antibiotics from a registered vet ^{vii}	100%	100%	Not collected in 2020	100%	n/a	
– All dairy farmers use antibiotics responsibly under veterinary direction ^{viii}	90%	90%	Not collected in 2020	100%	n/a	
– Antibiotics of high importance to human Antimicrobial Resistance (AMR) in Australia are only used to treat dairy livestock in exceptional circumstances where no other alternative exists	n/a	n/a	Under development	Under development	n/a	

iv Dairy Trust Tracker Survey 2020

vii Dairy Workforce Survey 2020

viii Genetics and Animal Husbandry Survey 2019, not undertaken in 2020

ix Veterinary Survey – in-house

xii Of the 7% who do induce: only do so to an average of 6% of cows in their herd

Key

● Progress towards 2030 targets against baseline

● Result maintained or marginal change

● Regression

n/a = no data available or target metrics still to be finalised

			Baseline	2019	2020	2030 Target	Progress
Reducing environmental impact							
8 Improve land management	8.1	100% of stock excluded from waterways ^x	76% (2015)	n/a	75% ^{xi}	100%	●
	8.2	100% of riparian zones actively managed and maintained	n/a	n/a	Under development	100%	n/a
	8.3	100% of farmers complete and implement a soil and nutrient management plan ^x	58% (2015)	n/a		100%	n/a
	8.4	100% of farmers have and implement a documented biodiversity action plan ^{x, xiii}	81% (2018)	n/a		100%	n/a
	8.5	Zero net deforestation by 2020 ^{xiv}	n/a	n/a	Under development	100%	n/a
9 Increase water use efficiency	9.1	Reduce the consumptive water intensity of dairy companies by 30% by 2030 (on 2010/11 levels) (ML water consumed per ML of milk processed) ^{xii, xv, xxi}	1.75	1.97	1.86	1.22	●
	9.2	Improve water use and water productivity to utilise 2.0 tonnes of dry matter per ML used ^{xvi}	n/a	n/a	n/a	2.0 t	n/a
	9.3	100% of farmers recycling water from dairy sheds ^x	75% (2015)	n/a	74%	100%	●
	9.4	100% of farmers monitoring water consumption	n/a	n/a	45%	100%	n/a
	9.5	100% of farmers have a water security risk management plan by 2020 and are implementing it by 2030	60%	n/a	55%	100%	●
10 Reduce greenhouse gas emissions intensity	10.1	Reduce greenhouse gas emissions intensity by 30% across whole industry on 2015 levels ^{xxi}					
		– Manufacturers (tonnes CO ₂ ~e/ML milk processed) ^{xii, xvii}	140	141.4	136.7	98	●
		– Farmers (kg CO ₂ ~e/kg FPCM) ^{x, xviii}	1	n/a	1	0.72	●
11 Reduce waste	11.1	100% diversion rate from landfill (for dairy companies) (tonnes of waste per ML milk processed) ^{xii, xxi}	2.69 (2011)	1.74	1.69	0	●
	11.2	100% of silage wrap recycled (for farm) ^{x, xix}	28% (2015)	n/a	30% of farmers	100%	●
	11.3	All dairy companies participate in the Australian Packaging Covenant (APCO) or equivalent scheme	9	10		All dairy companies	●
	11.4	100% of Australian dairy packaging to be recyclable, compostable or reusable by 2025 or earlier	n/a	n/a	Work underway	100%	n/a
	11.5	Halve food waste by 2030 (placeholder – tonnes of dairy products per ML of milk processed)	630,000 (2017)	n/a	Work underway ^{xx}	n/a	n/a

x Land Water Carbon Survey 2020

xi 75% of dairy farmers do some fencing, with 44% fencing all waterways – up from 35% in 2015

xii Dairy Manufacturers Sustainability Council

xiii Question changed in 2020, so unable to compare with 2018.

The proportion with a formal documented biodiversity plan has dropped – but 43% of farms use a map to highlight areas of environmental management, 54% fence native vegetation, 68% fence shelter belts, 26% provide buffer zones and 30% have areas specifically managed or conservation

xiv Dairy farmers are ensuring native vegetation or shelter belts are included on their farms and only 1% appear to be reducing significant amounts of native vegetation

xv Recalculated for 2018/19 to be 1.97 – additional processor information

xvi 77% of farms have some irrigation automation to use water more efficiently

xvii Recalculated for 2018/19

xviii 94% of farms have implemented practices to reduce GHG emissions. 71% of farms use some renewable energy

xix 88% of farms use silage wrap (77% in 2015), and of those: 30% recycle; 49% recycle where recycle facilities are available. Many areas have no facilities. The silage wrap project underway aims to provide viable long-term recyclable options

xx DMSC have several projects to map waste streams and look for ways to reduce or utilise waste product better

xxi Baseline figures updated. Since publication of the 2019 Dairy Sustainability Report, data was submitted from an additional company which increased coverage

DMSC 2020 scorecard

Dairy manufacturers' environmental performance

In processing milk and dairy products, the Australian dairy industry has an impact on its environment.

To support dairy manufacturers in efforts to reduce environmental impact, targets were established in the Framework to reduce water, greenhouse gas (GHG) emissions and waste.

Each year, members of the Dairy Manufacturing Sustainability Council (DMSC) report on their performance with regards to these elements. The aggregated data is used to report against the Framework goals and deliver an Environmental Scorecard.

For 2019/20, data was contributed by Bega Cheese, Bulla Dairy Foods, Burra Foods, Chobani Australia, Lion Dairy & Drinks, Fonterra, Lactalis Australia, the Union Dairy Company, and Saputo Dairy Australia. Together these companies represent up to 86% of the milk volume processed nationally.

Each manufacturer can use the scorecard to benchmark their performance against their peers, share learnings, and identify areas of opportunity for further improvement.

Goal 9 Increase water use efficiency

Target 9.1 30% reduction in the consumptive water intensity of dairy companies (on 2010/11 levels) by 2030

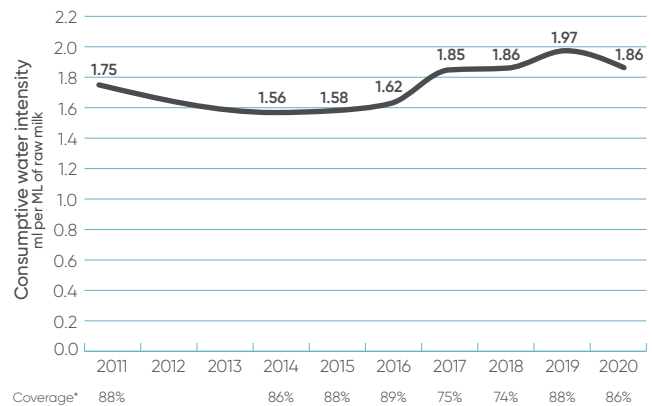
Most of the water used in the dairy industry is on farms. In the processing and manufacturing of dairy products, cleaning is the single largest water-consuming process. This is mainly driven by the need for food safety. However, a range of other factors can influence water consumption at processing sites including:

- **Product mix** In factories which produce milk powder, water can be recovered and re-used while other products may need water when reconstituting dry ingredients.
- **Milk supply** Declining milk supply in some regions, often impacted by drought, requires factories to operate at a lower capacity and this can impact resource efficiency.
- **Water supply** A drought presents additional challenges as water quality can deteriorate as supply diminishes, requiring additional treatment or dilution.
- **Customers** An expanding range and diversity of dairy products for consumers requires more frequent changeovers and associated washing of plant and equipment.

Results

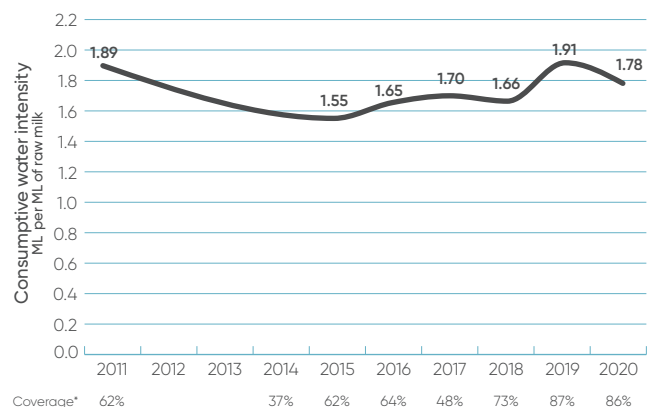
This year water intensity decreased slightly from 1.97 ML per megalitre (ML) of milk processed to 1.86 M) per ML of milk processed. While this represents a decrease of 5.7% over the year, the overall trend since 2010/2011 is an increase of 6.5%. Related to water consumption, wastewater intensity also decreased by 7% over the past year. The decrease in both water intensity and wastewater intensity demonstrates an improvement to efficiency despite a slight drop in the volume of milk processed this year. This figure represents 86% of the milk volume processed nationally. Water intensity has fluctuated since 2010/2011 with an initial drop in intensity to 1.56 ML per ML of milk processed in 2012/2013 followed by a steady increase until 2018/2019.

Figure 2 Consumptive water



In 2019/20 DMSC members consumed on average, an estimated 1.86ML of water per ML of raw milk.

Figure 3 Wastewater



In 2019/20 DMSC members generated on average, an estimated 1.78ML of wastewater per ML of raw milk.

Goal 10 Reduce greenhouse gas emissions intensity

Target 10.1 30% reduction in greenhouse gas (GHG) emissions intensity across the whole industry (from a baseline of 2015) by 2030

For dairy companies, this is measured by tonnes of carbon dioxide equivalent (tCO₂-e) per ML of milk processed.

Dairy processing contributes to scope 1 (direct) and scope 2 (indirect) GHG emissions through energy and fuel consumption, particularly from fossil fuels. In 2019/20 DMSC members consumed on average, an estimated 1.24 terajoules of energy per ML of raw milk processed.

A number of manufacturers and global customers have committed to reduce their emissions and actively participate in global programs such as the Science-Based Targets Initiative. Many members of the DMSC are also subject to Australia's national legislation which requires public reporting of scope 1 and scope 2 emissions which form the basis of performance reporting for this target.

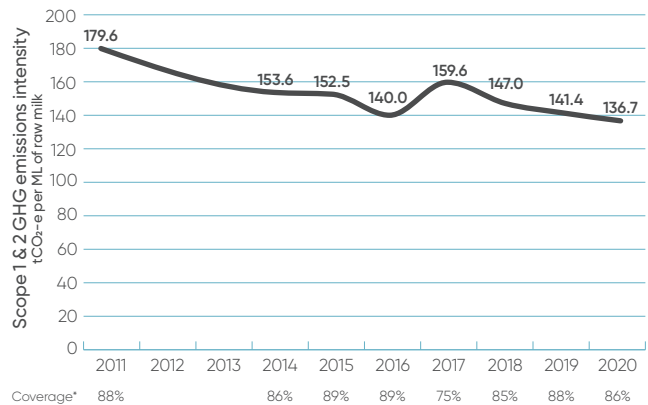
Results

Greenhouse gas emissions intensity decreased from 141.4 tCO₂-e per ML of milk processed to 136.7 tCO₂-e per ML of milk processed. This represents a decrease of 3.3% over the year, a 23.5% decrease since the original baseline of 2010/2011 and a 10% decrease on the revised baseline of 2015. There has also been a substantial decrease in absolute emissions. Since 2010/11 these have decreased by 27%.

During the year, energy intensity decreased by 13%. In the previous reporting cycle this trend in greenhouse gas emissions and energy intensity was attributed to a move away from natural gas to renewable energy due to increasing cost, and this has been maintained this year.

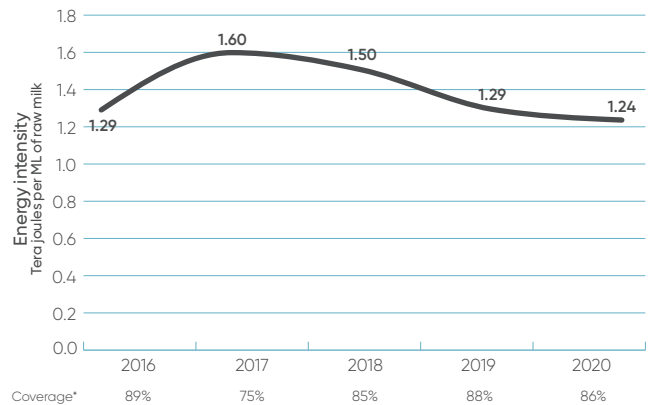
Both figures are representative of 86% of the milk volume processed nationally.

Figure 4 Greenhouse gas emissions



In 2019/20 DMSC members consumed on average, an estimated 136.7 tCO₂-e per ML of raw milk.

Figure 5 Energy



In 2019/20 DMSC members consumed on average, an estimated 1.24 terajoules of energy per ML of raw milk.

Retrospective change to energy intensity: In this reporting year (2019/20), it was noted that the manufacturers reporting of 'energy consumed' and 'renewable energy consumed' were different to how they were treated in the calculation of energy intensity. Moreover, total energy consumed was previously assumed to be the sum of reported 'energy consumed' and 'renewable energy consumed, however it was found that manufacturers had been treating renewables as a subset of their reported energy consumed. This has been amended in all prior year calculations of energy intensity (resulting in minor corrections).

* Coverage is the proportion of milk produced by reporting manufacturers compared with the total industry volume

Goal 11 Reduce waste

Target 11.1 100% diversion rate from landfill (for dairy companies) by 2030

Dairy manufacturers typically generate a variety of waste types including: packaging waste such as cardboard, paper, cartons and plastic; organic wastes such as sludge and rejected product; waste from disposable personal protection equipment such as hair/beard nets; and office waste.

Waste streams can vary significantly across sites and a small number of sites with specific waste challenges can impact on the sector-wide data. Some sites report 100% waste diversion already. Regional locations of many manufacturing sites also have challenges in accessing recycling services.

The industry has embraced the 2025 National Packaging Targets committing to 100% of Australian dairy packaging to be recyclable, compostable or reusable by 2025 or earlier. An industry working group has been established to drive industry-wide progress towards meeting those targets and to support the development of circular economies for dairy product packaging.

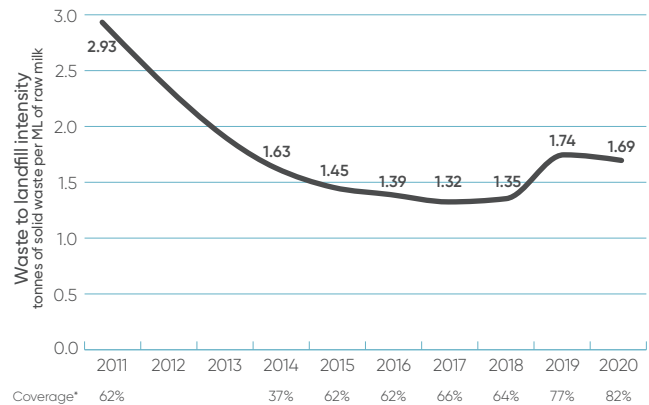
The disposal of waste to landfill is both costly and a waste of resources, including raw materials. Some of the improved performance in waste diversion and reduction this year may be attributed to planned and actual increases to landfill levy charges across key states. Most states have initiated significant changes to these charges in recent years.

Results

The diversion of waste from landfill increased by 17% from 76% in 2018/19 to 93% in 2019/20. This is also supported by data from DMSC members showing an overall decrease in tonnes of waste to landfill per ML of milk processed of nearly 3%. This figure represents 82% of the milk volume processed nationally.

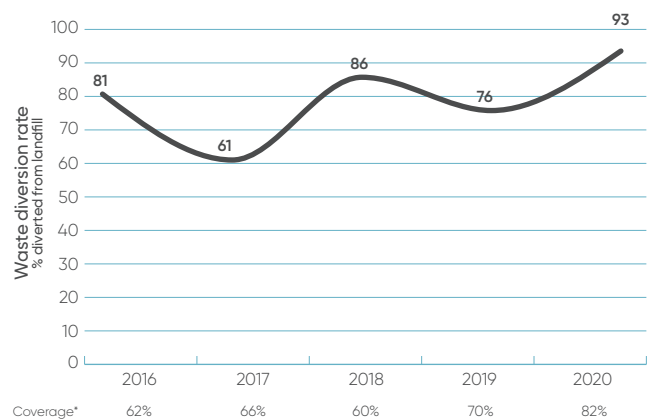
In 2019/20 DMSC members generated on average an estimated 1.69 tonnes of solid waste per ML of raw milk.

Figure 6 Waste to landfill



In 2019/20 DMSC members generated on average, an estimated 1.69 tonnes of solid waste per ML of raw milk.

Figure 7 Waste diversion



In 2019/20 DMSC members diverted on average, an estimated 93.4% of waste from landfill.

Target 11.3 All dairy companies participate in the Australian Packaging Covenant (APCO) or equivalent scheme

In 2019/20 nine out of 10 large dairy companies were signatories to APCO.

Target 11.4 100% of Australian dairy packaging to be recyclable, compostable or reusable by 2025 or earlier

No data is yet available to report progress against this target, however work is underway to address this gap and a number of initiatives in progress are aimed at meeting this target.

Target 11.5 Halve food waste by 2030 (placeholder – tonnes of dairy products per ML of milk processed)

No updated data is available to report progress against this target. DMSC have projects underway to map waste streams and look for ways to reduce or utilise waste product better.

* Coverage is the proportion of milk produced by reporting manufacturers compared with the total industry volume

Material topics

The materiality review conducted in 2019 confirmed significant topics for the industry.

Figure 8 Australian dairy industry materiality matrix

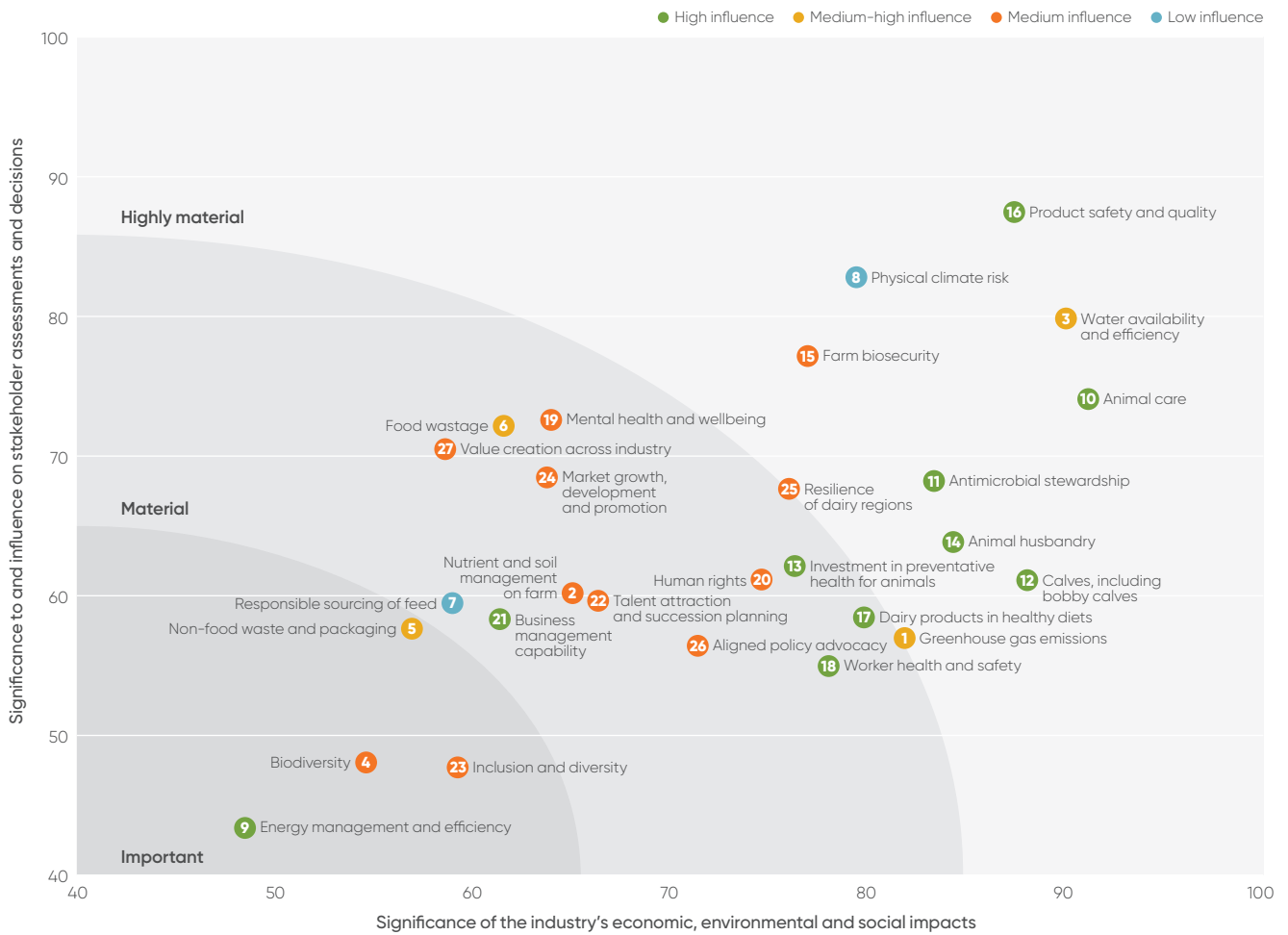


Table 1, below, outlines the topics, the level of influence the industry has in managing these topics and major industry programs designed to address these topics. The assessment of influence was based on our consultant’s knowledge of the industry, feedback gathered through the Consultative Forum workshop in October 2019 and the online stakeholder survey, combined with an analysis

of how the US dairy industry has assessed this aspect in their recent Materiality Review. The rationale for the assigned level of influence, together with a full description of each topic’s scope can be found in the *Australian Dairy Industry Materiality Assessment Report 2019* which can be downloaded from sustainabledairyoz.com.au.

Table 1 Material topics, level of influence and major industry programs

No.	Topic	Relevant ADSF commitments	Influence of industry	Major industry programs
1	Greenhouse gas emissions	Reducing environmental impact	Medium-high	DA Climate Change Support
2	Nutrient and soil management on farm	Reducing environmental impact	Medium	DA On Farm Soil and Nutrient Management
3	Water availability and efficiency	Reducing environmental impact	Medium-high	DA Smarter Irrigation for Profit
4	Biodiversity	Reducing environmental impact	Medium-high	DA On Farm Soil and Nutrient Management
5	Non-food waste and packaging	Reducing environmental impact	Medium-high	Dairy Manufacturers Sustainability Council
6	Food wastage	Reducing environmental impact	Medium-high	DA Supporting Manufacturing Innovation and Sustainability
7	Responsible sourcing of feed	Reducing environmental impact	Low	DA Integrated Feedbase RD&E DA Advanced Management Technologies DA Animal Nutrition and Feed Systems DA Dairy Feedbase
8	Physical climate risk	Reducing environmental impact	Low	DA Climate Change Support
9	Energy management and efficiency	Reducing environmental impact	High	DA Climate Change Support
10	Animal care	Providing best care for all our animals	High	DA Managing Milk Quality DA Improving Reproductive Performance DA Animal Health and Welfare – On-farm DA Genetics and Herd Improvement DA Dairy Bioscience – Animal Improvement DA Herd Improvement
11	Antimicrobial stewardship	Providing best care for all our animals	High	DA Animal Health and Welfare – On-farm DA Policy Support for Improving Animal Health and Welfare
12	Calves, including bobby calves	Providing best care for all our animals	High	DA Animal Health and Welfare – On-farm DA Policy Support for Improving Animal Health and Welfare

No.	Topic	Relevant ADSF commitments	Influence of industry	Major industry programs
13	Investment in preventative health for animals	Providing best care for all our animals	High	DA Animal Health and Welfare – On-farm DA Policy Support for Improving Animal Health and Welfare
14	Animal husbandry	Providing best care for all our animals	High	DA Animal Health and Welfare – On-farm DA Policy Support for Improving Animal Health and Welfare
15	Farm biosecurity	Providing best care for all our animals	Medium	DA Animal Health and Welfare – On-farm
16	Product safety and quality	Improving well-being of people	High	DA Managing Supply Chain, Food Safety and Integrity Issues
17	Dairy products in healthy diets	Improving well-being of people	High	DA Human Health and Wellness Partnerships and Engagement DA Influencer Engagement – Health DA Primary Schools Engagement
18	Worker health and safety	Enhancing economic wellbeing and livelihoods (Part A – Industry)	High	DA Farm Safety
19	Mental health and wellbeing	Enhancing economic wellbeing and livelihoods (Part A – Industry)	Medium	DA Farm Safety
20	Human rights	Enhancing economic wellbeing and livelihoods (Part A – Industry)	Medium	DA Workforce Strategy, Planning and Action
21	Business management capability	Enhancing economic wellbeing and livelihoods (Part A – Industry)	High	DA Farm Business Information
22	Talent attraction and succession planning	Enhancing economic wellbeing and livelihoods (Part A – Industry)	Medium	DA Attracting and Retaining People
23	Inclusion and diversity	Enhancing economic wellbeing and livelihoods (Part A – Industry)	Medium	DA Workforce Strategy, Planning and Action
24	Market growth, development and promotion	Enhancing economic wellbeing and livelihoods (Part B – Viability and innovation)	Medium	DA International Market Support (China, Japan, SE Asia, other markets)
25	Resilience of dairy regions	Enhancing economic wellbeing and livelihoods (Part B – Viability and innovation)	Medium	DA Regional Development and Extension Programs
26	Aligned policy advocacy	Enhancing economic wellbeing and livelihoods (Part B – Viability and innovation)	Medium	DA Technical Policy Support
27	Value creation and profitability across industry	Enhancing economic wellbeing and livelihoods (Part B – Viability and innovation)	Medium	DA Dairy Bioscience – Animal Improvement DA Supporting Practice Change DA Supporting Manufacturing Innovation and Sustainability

UN SDG alignment

The 17 United Nations Sustainable Development Goals (UN SDGs) underpin the United Nations 2030 Agenda which aims to set the world on a more sustainable path. They are guiding a global effort to meet sustainability challenges, including climate change, population growth, water scarcity, responsible consumption and rewarding work.

The goals challenge businesses, governments and civil society to do their part towards ensuring our planet is prosperous, healthy and peaceful.

Global dairy’s contribution to the SDGs is recognised in the 2016 Dairy Declaration of Rotterdam, a joint declaration of the Food and Agriculture Organisation (FAO) and the International Dairy Federation (IDF). The European Dairy Association (EDA) has also demonstrated how it contributes to the UN SDGs as has the Global Dairy Sustainability Framework.

The Australian dairy industry is also contributing to the UN SDGs. The Framework’s 11 goals were mapped to the UN SDGs using a robust methodology which examined each of the UN SDGs and their targets. This alignment will be considered as part of the 2021 review of goals and targets.

	1 No Poverty	2 Zero Hunger	3 Good Health and Well-being	4 Quality Education	5 Gender Equality	6 Clean Water and Sanitation	7 Affordable and Clean Energy	8 Decent Work and Economic Growth	9 Industry, Innovation and Infrastructure	10 Reduced Inequality	11 Sustainable Cities and Communities	12 Responsible Consumption and Production	13 Climate Action	14 Life Below Water	15 Life on Land	16 Peace and Justice Strong Institutions	17 Partnerships to achieve the Goal
1	Increase the competitiveness and profitability of the Australian dairy industry	●						●									
2	Increase the resilience and prosperity of dairy communities							●									
3	Provide a safe work environment for all dairy workers		●					●									
4	Provide a productive and rewarding work environment for all dairy workers							●									
5	All dairy products and ingredients sold are safe	●	●														
6	Dairy contributes to improved health outcomes for all Australians	●	●														
7	Provide best care for all animals for whole-of-life	●	●					●									
8	Improve land management	●						●						●			
9	Increase water use efficiency	●				●			●								
10	Reduce greenhouse gas emissions intensity	●							●				●				
11	Reduce waste	●				●			●			●					

Governance arrangements

The Australian Dairy Industry Council (ADIC), comprised of the dairy industry’s two peak policy bodies Australian Dairy Farmers (ADF) and Australian Dairy Products Federation (ADPF), has overall responsibility for the Framework. It sets the Framework goals, targets and performance measures, and reports progress against these.

Policy Advisory Groups (PAGs) play a key role in setting the ADF’s advocacy objectives and driving policy formulation which feeds into the Framework. There are PAGs for animal health and welfare; farming systems and herd improvement; markets, trade and value chain; natural resources; and people and human capacity.

Dairy Australia, the industry-owned national service body, facilitates and supports the ADIC in developing and implementing the Framework. A Steering Committee was established in 2012 to drive the ongoing development and implementation of the Framework. The Steering Committee meets approximately quarterly and includes representatives from farmer organisations as well as dairy companies and Dairy Australia.

The Steering Committee seeks endorsement from the ADIC on any major recommendations. Representation and members of the Steering Committee are listed in [Appendix 3](#).

The Dairy Sustainability Consultative Forum was established in 2013. Consisting of industry and non-industry stakeholders, the Consultative Forum provides feedback on our progress and facilitates two-way discussion on emerging issues both nationally and internationally. In general, the Consultative Forum meets twice a year however in 2020, meetings were replaced with two series of webinars. Groups and organisations which are members of the Consultative Forum are listed below.

The Board members of the governing bodies serve on multiple bodies. For full list see the following websites:

- [ADIC](#)
- [ADF](#)
- [ADPF](#)



Stakeholder engagement

The Australian dairy industry operates in a dynamic environment, and community and consumers' expectations are continually rising.

Engagement with our stakeholders within and outside of the dairy industry has been essential to the development and implementation of the Framework and is crucial to ensuring it remains robust and relevant.

The stakeholders we consult with include dairy farmers, dairy manufacturers, customers, retailers, buyers, suppliers, government representatives, non-government groups, special interest groups, investors and others.

Our approach to engagement is based on the International Association of Public Participation (IAP2) spectrum. This best-practice approach describes five levels of engagement: inform, consult, involve, collaborate and empower. Stakeholders are classified in these categories depending on their interest and influence. We use criteria from the AA1000 Stakeholder Engagement Standard (AA1000SES) to identify relevant organisations and individuals to engage with.

The criteria are:

- **Dependency** – groups or individuals who are directly or indirectly dependent on the industry's activities, products or services and associated performance, or on whom the industry is dependent in order to operate
- **Responsibility** – groups of individuals to whom the industry has, or in the future may have, legal, commercial, operational or ethical/moral responsibilities
- **Tension** – groups or individuals who need immediate attention from the industry with regard to financial, wider economic, social or environmental issues
- **Influence** – groups or individuals who can have an impact on the industry or a stakeholder's strategic or operational decision-making
- **Diverse perspectives** – groups or individuals whose different views can lead to a new understanding of the situation and the identification of opportunities for action that may not otherwise occur.

Engagement takes place through the formal mechanisms of the Sustainability Steering Committee and the Consultative Forum, as well as consultation with industry representative bodies and other stakeholders on specific issues, or as required.

We engage directly with international groups including like the Dairy Sustainability Framework, Global Dairy Platform, International Dairy Federation, Sustainable Agriculture Initiative (SAI) Dairy Working Group and SAI Australia. We also engage with other commodity groups including the Red Meat Advisory Council, GrainGrowers and Cotton Australia, and the National Farmers Federation on areas of common ground.

Steering Committee

The Steering Committee met six times in 2020. As well as discussing emerging issues for the Australian dairy industry, the Steering Committee concentrated on ongoing engagement with the Consultative Forum and discussion of the Materiality Assessment, particularly the different responses from different stakeholder groups (see [Appendix 3](#) for more information). The Steering Committee also reviewed the 2020 Sustainability Report. A list of members is included in [Table 2](#).

Consultative Forum

Membership of the Consultative Forum comprises dairy farmers, manufacturers, dairy organisations, customers, investors, financial institutions, retailers, buyers, suppliers, government representatives, non-government groups, special interest groups, agricultural industry groups, and others. It has had input into the development and management of the Framework since 2013.

In 2020, due to COVID restrictions, our twice yearly face to face Consultative Forum Workshops had to be cancelled. Instead, twelve webinars were conducted for the Consultative Forum with a total of 385 attendees (note: these are not unique attendees as people may have attended multiple webinars), representing 74 organisations. For a full description of the webinar series, see '[Engaging with our stakeholders](#)'.

Table 2 Steering Committee members in 2020

Name	Organisation
Rob Adin	Dairy Australia
Carolina Arango	Lion Dairy & Drinks
Melissa Balas	Bega Cheese/Tatura
Jeremy Bayard	ACE Farms
Amber Beaumont	Dairy Australia
Patten Bridge	Bridge Logic
Mark Callow	Norco
Allan Cameron	GippsDairy
Melissa Cameron	Dairy Australia
Stewart Carson/Peter Fort	Burra Foods
Bruce Donnison	Australian Dairy Farmers
Helen Dornom	Dairy Australia
Chris Griffin (Chair)	Australian Dairy Industry Council
Megan Hill	Dairy Australia
Daryl Hoey	Australian Dairy Farmers
Jack Holden	Fonterra
David Inall/Craig Hough	Australian Dairy Farmers/ Australian Dairy Industry Council
Ben James	Warakirri Dairies
Simone Jolliffe	Australian Dairy Farmers
Alison Kelly	Dairy Australia
Cath Lescun	Dairy Australia
Matt Morrow	Lactalis Australia
Ian Olmstead	Dairy Australia
Ian Porter	Lactalis Australia
Neil Rosier	Saputo Dairy Australia
Maree Sarkis	Saputo Dairy Australia
Louise Sundermann	Dairy Australia
Antonietta Timms	Bega Cheese
Susannah Tymms	Dairy Australia
Adriaan van Dijk	Lion Dairy & Drinks
Janine Waller	Dairy Australia

Name	Organisation
Support	
Robyn Leeson	STR Consulting
Mark Paterson	Currie Communications
Gabrielle Sheehan	Currie Communications
John Steer	Dairy Australia

Table 3 Stakeholder interests identified in the 2019 Materiality Assessment

Stakeholders	Stakeholder interests	
Industry	Producers, dairy companies, dairy industry organisations	The profitability of dairy farmers
Customers	Major Australian retailers/multinational companies	Consumer and community perceptions
Suppliers	Financial institutions	Animal health and welfare
Government	Federal departments, state departments	Managing people Provenance
NGOs and special interest groups	Community development groups, environmental NGOs, Animal welfare groups	Modernisation Health and nutrition
Other primary industry	Beef	Climate change and water
Other	Sustainability practitioners, researchers	Food waste Ethical investment/ responsible sourcing

Table 4 Consultative Forum attendees (companies represented)

Customers	Australian Food and Grocery Council	Industry – Manufacturers continued	Fonterra	
	Coles		Freedom Foods Group Limited	
	David Jones		Lactalis Australia	
	Ferrero		Lion Dairy & Drinks	
	McDonalds		Mondelez International	
	PZ Cussons		Nestle Australia	
	Woolworths Limited		Norco Co-operative Limited	
Government	Agriculture Victoria	Interest groups	Saputo Dairy Australia Pty Ltd	
	Animal Medicines Australia		Warrnambool Cheese & Butter	
	Dairy Food Safety Victoria		Investors	Ethics Centre
	Dairy Safe SA			Farmers for Climate Action
	Department of Agriculture, Water and the Environment			NRM Regions Australia
	Department of Economic Development, Jobs, Transport and Resources			Nutrition Australia
	Department of Environment and Energy			RSPCA Australia
	Murray Darling Basin Authority (MDBA)			World Animal Protection
	PrimeSafe			WWF
	Sustainability Victoria			Other agricultural industry
Industry – Farm sector	Alltech E-CO ₂	NAB		
	DairyNSW – Regional Development Program (RDP)	Rabobank Australia Limited		
	DairyNZ	Responsible Investment Association Australasia		
	DairyTas – RDP	Researchers	Australian Beef Sustainability Framework	
	DataGene		Australian Lot Feeders Association (ALTA)	
	GippsDairy – RDP		Cattle Council of Australia	
	Murray Dairy – RDP		Meat & Livestock Australia	
	Subtropical Dairy – RDP		National Farmers Federation	
	The Australian Dairyfarmer		NSW Farmers Association	
	United Dairyfarmers of Victoria (UDV)		Red Meat Advisory Council	
WestVic Dairy – RDP	Ridley AgriProducts Pty Ltd			
Industry – Manufacturers	Australian Dairy Products Federation (ADPF)		Rural Financial Counselling Service	
	Australian Specialist Cheesemakers' Association		Advisors	CSIRO
	Bega Cheese	Fight Food Waste CRC		
	Brownes Dairy	Food Innovation Australia Ltd		
	Bulla Dairy Foods	Bridge Logic Consulting		
	Burra Foods	ClimateWorks		
	Chobani Pty Ltd	Currie Communications		
	Danone	Dairy Australia		
		NOW Digital		
		STR Consulting		

GRI content table

The Australian Dairy Industry Sustainability Report 2020 has been prepared in accordance with the GRI Standards: Core option. Additional guidance from GRI's G4 Food Processing Sector Disclosures has been used for material topics, where relevant.

GRI Standard Disclosure ¹	Location	Omissions/notes
GRI 101: Foundation 2016		
GRI 102 General Disclosures 2016		
102-1 Name of the organisation	Inside back cover	
102-2 A description of the organisation's activities	1, 11–12, 44–45	
102-3 Location of the organisation's headquarters	Inside back cover	
102-4 Number of countries where the organisation operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report	46	
102-5 Nature of ownership and legal form	68	
102-6 Markets served, including: geographic locations where products and services are offered; sectors served; types of customers and beneficiaries	44–45	
102-7 Scale of the organisation, including: total number of employees; total number of operations; net sales; total capitalisation broken down in terms of debt and equity; quantity of products or services provided	6–7, 11–13, 44–45	Total capitalisation not available sector-wide
102-8 Total number of employees by employment contract (permanent and temporary), by gender	45	Information by contract type, gender, region and tenure is not available sector-wide
102-9 A description of the organisation's supply chain, including its main elements as they relate to the organisation's activities, primary brands, products, and services	50–51	Information broken down by brands is not available sector-wide but remains with individual companies
102-10 Significant changes to the organisation's size, structure, ownership, or supply chain	1, 47–49	
102-11 Whether and how the organisation applies the Precautionary Principle or approach	78	Refer to Dairy Australia's Audit and Risk Committee Charter
102-12 A list of externally-developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes, or which it endorses	43, 49, 67	
102-13 A list of the main memberships of industry or other associations, and national or international advocacy organisations	43	
102-14 A statement from the most senior decision-maker of the organisation about the relevance of sustainability to the organisation and its strategy for addressing sustainability	1	
102-15 A description of key impacts, risks, and opportunities	3, 64–65	
102-16 A description of the organisation's values, principles, standards, and norms of behaviour	78	
102-18 Governance structure of the organisation	68	

¹ Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

GRI Standard Disclosure ¹ <i>continued</i>	Location	Omissions/notes
GRI 102 General Disclosures 2016		
102-40 A list of stakeholder groups engaged by the organisation	69–71	
102-41 Percentage of total employees covered by collective bargaining agreements		Information unavailable sector-wide
102-42 The basis for identifying and selecting stakeholders with whom to engage	69	
102-43 The organisation's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	42, 69–71	See also Materiality Assessment Report 2019
102-44 Key topics and concerns that have been raised through stakeholder engagement	70	See also Materiality Assessment Report 2019
102-45 A list of all entities included in the organisation's consolidated financial statements or equivalent documents		Not applicable to a sector-wide report
102-46 An explanation of the process for defining the report content and the topic Boundaries. An explanation of how the organisation has implemented the Reporting Principles for defining report content	3, 49, 63–64, 69–71	See also Materiality Assessment Report 2019
102-47 A list of the material topics identified in the process for defining report content	3, 50–51, 64–66	See also Materiality Assessment Report 2019
102-48 The effect of any restatements of information given in previous reports, and the reasons for such restatements.	Re-statements are noted in the text	
102-49 Significant changes from previous reporting periods in the list of material topics and topic boundaries	50–51, 64–66	
102-50 Reporting period for the information provided	Inside back cover	
102-51 If applicable, the date of the most recent previous report	Inside back cover	
102-52 Reporting cycle	Inside back cover	
102-53 The contact point for questions regarding the report or its contents	Inside back cover	
102-54 The claim made by the organisation, if it has prepared a report in accordance with the GRI Standards	Inside back cover	
102-55 The GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report	72–77	
102-56 A description of the organisation's policy and current practice with regard to seeking external assurance for the report	Inside back cover	

1 Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

GRI Standard Disclosure ¹ <i>continued</i>	Location	Omissions/notes
Material topic: Product Safety and Quality		
GRI 416: Customer Health and Safety 2016		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 17–22, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	22, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	22	
GRI 416-2		
Incidents of non-compliance concerning the health and safety impacts of products and services	57	
FP5		
Percentage of production volume manufactured in sites certified by an independent third party according to internationally recognised food safety management systems standards	57	Not available industry-wide. Embedding a food safety culture in dairy food businesses is under development
Material topic: Greenhouse Gas Emissions		
GRI 305: Emissions 2016		
GRI 103 Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	1, 3, 33–34, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	33–36, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	38	
GRI 305-4		
GHG emissions intensity	59, 61	Emissions intensity of manufacturing (scope 1 and 2) is reported separately to farm emissions (scope 3). Both use different denominators to reflect intensity

¹ Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

GRI Standard Disclosure ¹ <i>continued</i>	Location	Omissions/notes
Material topic: Water Availability and Efficiency		
GRI 303: Water and Effluents 2018		
103-1 Explanation of why the topic is material and the Boundary for the material topic	1, 3, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	34, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	38	
GRI 303-1		Information unavailable.
Interactions with water as a shared resource		The review of the Framework in 2021 will examine the requirements of GRI 303: Water and Effluents 2018 for disclosure in the next reporting cycle
GRI 303-2		
Management of water discharge-related impacts		
GRI 303-3		
Water withdrawal		
GRI 303-4		
Water discharge		
GRI 303-5		
Water consumption		
Material topic: Physical Climate Risk		
GRI 201: Economic Performance 2016		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	1, 3, 5, 33–38, 50–51	See also Materiality Assessment Report 2019 ; Dairy Australia Climate Change Strategy
103-2 Explanation of how the organisation manages the topic	33–38, 65–66	See also Dairy Australia Climate Change Strategy
103-3 Explanation of how the organisation evaluates the management approach	38	See also Dairy Australia Climate Change Strategy
GRI 201-2		
Financial implications and other risks and opportunities due to climate change	33	See also Dairy Australia Climate Change Strategy

¹ Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

GRI Standard Disclosure ¹ <i>continued</i>	Location	Omissions/notes
Material topic: Animal Care		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 5, 27–29, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	27–29, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	28–29	
All of industry adopting relevant recommended industry practices for animal care	58	
Material topic: Calves, including bobby calves		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 5, 27–29, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	27–29, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	28–29	
All calves managed appropriately	58	
All calves disbudded	58	
Material topic: Animal husbandry		
GRI 103 Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 5, 27–29, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	27–29, 65–66	
103-3 Explanation of how the organisation evaluates the management approach	28–29	
Compliance with legislated animal welfare standards	58	
FP10		
Policies and practices, by species and breed type, related to physical alterations and the use of anaesthetic	58	Information not available by breed type
Material topic: Farm Biosecurity		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 50–51, 66	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	65–66	See Dairy Biosecurity Healthy Farms
103-3 Explanation of how the organisation evaluates the management approach		See Dairy Biosecurity Healthy Farms
Farmers have a documented biosecurity plan	58	

1 Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

GRI Standard Disclosure ¹ <i>continued</i>	Location	Omissions/notes
Material topic: Antimicrobial Stewardship		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	3, 50–51, 65–66	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	29, 65–66	See also dairyaustralia.com.au/animal-management-and-milk-quality/antimicrobial-stewardship
103-3 Explanation of how the organisation evaluates the management approach	29	See also dairyaustralia.com.au/animal-management-and-milk-quality/antimicrobial-stewardship
FP12		
Policies and practices on antibiotic, anti-inflammatory, hormone, and/or growth promotion treatments, by species and breed type	58	Information not available by breed type
Dairy farmers access antibiotics from a registered vet	58	
Dairy farmers use antibiotics responsibly under veterinary direction	58	
Material topic: Resilience of Dairy Regions		
GRI 103: Management Approach 2016		
103-1 Explanation of why the topic is material and the Boundary for the material topic	1, 3, 50–51	See also Materiality Assessment Report 2019
103-2 Explanation of how the organisation manages the topic	11–14	
103-3 Explanation of how the organisation evaluates the management approach	11–14, 55–56	
Contribution the dairy industry makes to supporting the economy of dairy regions	55	
Recognition of the dairy industry's benefit to regional communities	55	
Contribution people in dairy make to social capital (community initiatives) in their community	55	

¹ Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards globalreporting.org/standards

Framework principles and guidance

A set of agreed principles was developed to help identify and prioritise issues and guide ongoing action and decision-making. These principles include an appreciation of stakeholder interests which ensures that stakeholders from across the dairy value chain are engaged directly in the ongoing development of the Framework. These principles are:

- Ethical behaviour
- Transparency and accountability
- Appreciation of stakeholder interest
- Competitive neutrality ‘not providing competitive advantage’
- Collective action that delivers mutual benefit
- Inclusivity.

The approach to developing and implementing the Framework has been influenced by the United Nations Sustainable Development Goals (UN SDGs). There are 17 UN SDGs, designed to achieve a better and more sustainable future for all. They cover areas including poverty reduction, food security and energy and will directly influence national policy settings.

The Framework is also informed by the Global Dairy Sustainability Framework of which Dairy Australia is a Governor and Aggregating Member, and ADPF is an affiliate member; and by Dairy Australia’s membership of the Sustainable Agriculture Initiative (SAI) Platform’s Dairy Working Group.



References, data sources, abbreviations and glossary

Internal references and surveys

DairyBase A web-based tool developed by Dairy Australia that allows dairy farmers and their advisors to assess farm business performance using a consistent industry agreed methodology. DairyBase contains additional verified and validated datasets from farm business consultants and service providers. It also contains information from the Dairy Farm Monitor Project that gathers financial and production data from a selection of dairy farms across Victoria and the Queensland Dairy Accounting Scheme.

Dairy Manufacturers Sustainability Council (DMSC) DMSC is a nationally-recognised community of practice comprised primarily of environmental and sustainability group managers from Australian dairy manufacturing companies. Established in 1995, the DMSC has an industry-wide focus that assists company members to improve environmental compliance and the sustainability of their operations.

It produces an **Environmental Sustainability Scorecard** each year, reporting on manufacturers' progress against the environmental sustainability goals and targets in the Australia Dairy Industry Sustainability Framework – see [Appendix 2](#).

Dairy Trust Tracker This national survey of 1300 members of the public is undertaken by Dairy Australia and conducted annually online. The data generated enables Dairy Australia to monitor levels of trust, identify emerging issues, and track the public's perceptions of dairy foods and the industry in general.

Dairy Situation and Outlook This regular **report** from Dairy Australia is undertaken three times per year to update and appraise farmers and industry stakeholders about the current situation affecting the outlook for the Australian dairy industry.

Genetics and Animal Husbandry Survey Conducted every two years from 2008 to 2016. It is now undertaken every three years with the most recent survey undertaken in November 2019. It is a national **survey** of Australian dairy farmers designed to monitor performance in key priority areas. While self-reported, survey results are validated through independent mechanisms (e.g. focus groups). Funded by Dairy Australia, over 400 dairy farmers are surveyed nationally. The most recent survey was conducted in October/November 2019.

In Focus An annual **publication** highlighting key statistics from across the supply chain, acting as a reference document with easily accessible information used by stakeholders inside and outside the dairy industry. The report provides one source of truth in relation to the dairy industry's key characteristics and has been produced for more than two decades. In Focus 2020 is based on statistics for the 2019/20 year.

Dairy Workforce Survey (previously the Power of People on Australian Dairy Farms POP survey) This independent **survey** of around 400 dairy farmers was conducted in 2014, 2017 and 2020. Commissioned by Dairy Australia, it is used to identify the need for support, training and development and seeks to understand farmer attitudes, behaviours and needs on topics such as farm safety, employee capabilities and employee attraction, retention and transition. In 2020, the survey was expanded to include questions on modern slavery and other data required to support reporting against the Framework.

Land, Water, Carbon Survey Since 2000, various Dairy Australia surveys have collected data providing insights into attitudes, behaviour and practices relating to land, soil, effluent, energy and water management on-farm. The current survey was conducted in May 2020, with the previous one undertaken in 2015. Data included in the 2020 Land, Water, Carbon Survey Report is based on responses from 500 dairy farmers selected randomly from the Dairy Australia levy payer database who participated in a Computer Assisted Telephone Interview (CATI), providing an estimated sampling margin for error of $\pm 3.8\%$ (at the 95% confidence level). Quotas were set by NRM sub-region and data was weighted at computer stage to ensure the national result was not disproportionately affected by regions with smaller numbers of dairy farmers.

The 2020 Report focused on the following areas:

- Land management issues such as soil, noxious weed and pest management
- Irrigation water use efficiencies
- Fertiliser use management
- Farm effluent management
- Managing land for conservation and biodiversity
- Using renewable energy
- Recycling and re-use activities.

National Dairy Farmer Survey A biannual survey conducted with dairy farmers nationally (in 2019, n=800 for main survey and n=200 for supplementary survey) to understand their current views of the industry, the challenges they are facing and the impact of these on their businesses. It also provides information on production, herd sizes and future intentions. The main survey is conducted in February each year and a smaller supplementary survey takes place in August each year amongst a portion of respondents interviewed in the main survey.

The survey is funded by Dairy Australia but conducted by an independent organisation.

External references and surveys

Australian Animal Welfare Standards and Guidelines for Cattle Developed under the Australian Animal Welfare Strategy and endorsed by state and territory governments in 2016. Overall, the [Standards and Guidelines](#) aim to harmonise and streamline livestock welfare legislation in Australia, ensuring that it results in improved welfare outcomes and is practical for industry. These underpin access to domestic and overseas markets and reinforce Australia's commitment to advancing meaningful and effective animal welfare outcomes.

Australian Dietary Guidelines Developed by the National Health and Medical Research Council. The [guidelines](#) use the best available scientific evidence to provide information on the types and amounts of foods, food groups and dietary patterns that aim to promote health and wellbeing, reduce the risk of diet-related conditions, and reduce the risk of chronic disease. The guidelines are for use by health professionals, policy makers, educators, food manufacturers, food retailers and researchers.

Australian Milk Residue Analysis (AMRA) Survey The AMRA [survey](#) provides a national, independent chemical residue monitoring program of Australian bovine milk. The survey has a key role in promoting the dairy industry's reputation and facilitating ongoing market access by monitoring on-farm chemical use.

Throughout each year around 1000 samples of raw milk are collected from farms across all dairying regions of Australia. These samples are used to conduct around 13,000 analyses for nearly 70 different compounds covering antimicrobials, animal parasite control chemicals, feed contaminants and environmental contaminants.

Australian Packaging Covenant Organisation (APCO)

APCO is a not-for-profit organisation that partners with government and industry to reduce the harmful impact of packaging on the Australian environment.

Dairy Sustainability Framework (DSF) The global DSF provides a holistic approach to global dairy sustainability activity, generating a common sustainability commitment. The DSF has been developed to provide overarching goals and align the sector's actions globally on the path to sustainability. The DSF enables the dairy sector to take a holistic approach to sustainability through a common language, alignment of international sustainability activity and through this generate a common sustainability commitment that can be expressed at a global level, but also regional, national and organisational levels.

Product Safety Recalls Australia The Australian Competition and Consumer Commission manages a national internet database, the Recalls Australia website, for all product safety recalls directed at consumers.

Queensland Dairy Accounting Scheme (QDAS) A service of the Queensland Department of Agriculture, Fisheries and Forestry. It was established to improve the understanding of business principles among advisors and dairy farmers by providing farm management accounting and analysis. QDAS has evolved to now examine the business traits of profitability, solvency and efficiency and continues to help dairy farmers make informed decisions based on business information. The QDAS reports provide a summary of physical and financial data from various dairy production systems in Queensland. Farmer participation in QDAS is voluntary and free. Information from the QDAS is incorporated into DairyBase.

Dairy Farm Monitor Project Provides a comprehensive physical and financial analysis for 250 farms across Australia. Reports are used by industry and government to inform policy and service delivery to generate economic growth. Farmers can compare their performance and identify areas for improvement. The data collected through the Dairy Farm Monitor Project is now stored in DairyBase.

Regional Wellbeing Survey (RWS) The University of Canberra RWS is an annual survey of residents living in Australia's rural and regional areas. First conducted in 2013, it examines the wellbeing of people in rural and regional communities, and how this wellbeing is influenced by the many social, economic and environmental changes occurring in these communities. The results of the RWS enable the provision of insights that support the development of strategies to build wellbeing, resilience and adaptive capacity in rural and regional Australia.

Safe Work Australia An independent statutory agency responsible for improving occupational health and safety and workers' compensation arrangements across Australia.



About this report

This report shows the progress of the Australian Dairy Industry Sustainability Framework for the period 1 January to 31 December 2020 unless otherwise stated.

The reporting focus is on performance against the 2030 goals and targets. This report reflects the Framework's scope which covers all aspects of the Australian dairy industry, with specific focus on farm and manufacturing activities.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option (see Appendix 7 GRI Content Index).

This report has not been externally assured. A policy on external assurance for the Framework and associated performance reporting is yet to be developed. Some data provided by third party agencies may have been assured for other purposes.

Disclaimer

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