



# Australian Dairy Industry **Sustainability Report 2016**





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# Message from the Chairs



**As an industry, Australian dairy further strengthened our commitment to sustainability in 2016.**

Enhancing livelihoods, improving wellbeing and reducing our environmental impact remain the cornerstones of our approach, however the Australian Dairy Sustainability Framework is a living document and must evolve in line with the industry and the expectations of our customers, as well as broader developments in sustainability. We have highlighted animal welfare to provide greater transparency to our stakeholders on what we are doing in this area.

In 2016, we are enhancing the Framework with our Dairy Promise. The Promise states our key commitments to industry profitability, human health and nutrition, animal welfare and adapting to climate change, and outlines the goals and actions aligned with each commitment.

This year has been a challenging one for the industry. Many producers have faced difficult financial situations as a result of pricing revisions by processors. Poor seasonal conditions have also impacted in some regions. Internationally, commodity prices have fallen. Together, these factors have impacted on the wellbeing of our people and the profitability of the industry, and our dairy communities.

From the beginning, the Framework has been about keeping the dairy industry in business for the long term with a key pillar being industry profitability.

The Framework was developed as a 'living' strategy with a deliberate intention to periodically review progress and revise to ensure currency and relevance. In 2016, we have put significant effort into reviewing our material issues. In 2017 we will update the Framework goals and targets to guide our path beyond 2020 and towards 2030 and establish baseline data for all the targets and indicators. We will also continue to focus on measuring our contribution and commitment to the communities in which we work and live.

We are very proud of the fact that the Framework was recognised during the year by the United Nations Association of Australia with an award for leadership in the field of sustainability.

*We thank our stakeholders for their contribution to progression of the Framework this past year, and in particular our Dairy Sustainability Consultative Forum members for their considered input.*

We commend to you our fourth report, now including our Dairy Promise, which details progress against the Australian Dairy Sustainability Framework, and outlines our future goals. We welcome any feedback you may have.

**Chris Griffin**

Chair, Dairy Sustainability  
Steering Committee and  
Consultative Forum



**Terry Richardson**

Chair, Australian Dairy Industry  
Council





# Our Dairy Promise: To provide nutritious food for a healthier world

- We are committed to:**
- Creating a vibrant industry that rewards dairy workers and families, their related communities, business and investors
  - Providing nutritious, safe, quality dairy food
  - Striving for health, welfare and best care for all our animals throughout their lives
  - Meeting the challenge of climate change and providing good stewardship of our natural resources

**We measure and publicly report our progress against our commitments:**



## Dairy Industry Goals to 2020\*

- |  |   |  |   |
|--|---|--|---|
| <p><b>1</b> Increase the future competitiveness and profitability of the Australian dairy industry</p> <p><b>2</b> Increase the resilience and prosperity of dairy communities</p> <p><b>3</b> Provide a safe work environment for all dairy workers</p> <p><b>4</b> Attract, develop and retain a skilled and motivated dairy workforce</p> | <p><b>5</b> All dairy products and ingredients sold are safe</p> <p><b>6</b> Dairy contributes to improved health outcomes for Australian communities</p> | <p><b>7</b> Provide best care for all our animals</p> <ul style="list-style-type: none"> <li>• All of industry complying with legislated Animal Welfare Standards</li> <li>• All of industry adopting relevant recommended industry practices: <ul style="list-style-type: none"> <li>– Reduced use of routine calving induction</li> <li>– Don't dock tails</li> <li>– Disbud prior to 2 months of age</li> <li>– Have a lameness strategy</li> <li>– Have cool infrastructure</li> <li>– Bobby calves fed within 6 hours prior to transport</li> </ul> </li> </ul> | <p><b>8</b> Improve nutrient, land and water management</p> <p><b>9</b> Reduce the consumptive water intensity of dairy manufacturers by 20%</p> <p><b>10</b> Reduce greenhouse gas emissions intensity by 30%</p> <p><b>11</b> Reduce waste to landfill by 40%</p> |
|--|---|--|---|

\* The Framework is currently under revision and the revised goals, targets, indicators and baseline data for beyond 2020 will be reported in the 2017 Sustainability Report



## Key actions to support our commitments

### Enhancing economic viability and livelihoods



- ✓ Deliver RD&E farm business strategies
- ✓ Promote the dairy sector to investors
- ✓ Create career pathways for dairy people
- ✓ Drive RD&E to increase productivity/profitability
- ✓ Measure our contribution to communities
- ✓ Develop and implement programs to enhance worker safety

### Improving wellbeing of people



- ✓ Promote responsible consumption of dairy foods as part of a healthy diet
- ✓ Develop products with less sugar, fewer additives
- ✓ Reward farmers for producing top-quality milk
- ✓ Help our communities have access to nutritious food
- ✓ Continue to focus on making high quality, safe dairy products

### Providing best care for our animals



- ✓ Invest in RD&E programs that address disease and illness
- ✓ Help industry identify, prioritise and respond positively to key welfare issues
- ✓ Support farmers to adopt recommended animal welfare practices
- ✓ Build confidence in animal husbandry practices and welfare outcomes

### Reducing environmental impact



- ✓ Assist dairy farmers to adapt their production systems and respond to climate variability
- ✓ Strive to increase resource efficiency, water use intensity
- ✓ Measure and monitor carbon intensity in manufacturing
- ✓ Invest in RD&E to mitigate GHG emissions
- ✓ Support farmers to calculate their greenhouse gas emissions
- ✓ Participate in food recovery and food donation programs
- ✓ Develop products and packaging that reduce food loss and waste

## Key issues and challenges

### Industry profitability

- Volatile markets, rising input costs affect profitability
- Modest production increases and a changing global supply situation are continuing threats
- Banks, investors are more aware of business risks and challenges associated with sustainability, and the need for a proactive response
- Increasing focus on ethical investments
- Attracting and retaining capable people is challenging

### Human health & nutrition

- Poor diet is the leading preventable health risk factor globally
- Only 10% of Australians are eating enough milk, cheese, yoghurt and/or alternatives
- People need more nutritious and less discretionary food — not necessarily more food
- The increasing proliferation of mis-information about the nutritional value of dairy foods

### Animal health & welfare

- Farm activity depends on social licence to operate
- Dairy animals are farmed in a range of environments
- Intensively-managed indoor systems are emerging
- Dairy products are sourced from animals providing potential challenges, especially with the growth in dairy alternatives

### Climate change

- Increased likelihood of heatwaves, storms and drought
- Water resources are under increasing pressure
- Up to \$129 million of milk either lost or wasted annually across farm, manufacturing and consumers
- Competition for natural resources worldwide is mounting





# Addressing the key issues

Four material sustainability issues have been identified as posing significant challenges for the Australian dairy industry. They are industry profitability (including ethical investment), human health and nutrition, animal health and welfare, and climate change (including water scarcity). The industry has a position on each material issue. Food waste is an emerging issue in global sustainability which may become more significant to the industry and our stakeholders.



## Industry profitability

### Our challenge

Volatile markets, rising input costs, modest productivity gains and a changing climate have served to make dairy farming challenging for many producers at various times. Banks, investors and market analysts are becoming more aware of the sustainability risks associated with investments in livestock-based food production. They want to see proof these risks are being managed.

### Our position

The dairy industry is a \$13.7 billion cornerstone of the Australian economy. We underpin vibrant regional economies and resilient communities with \$4.3 billion of farm gate production in 2015/16. We provide people with rewarding livelihoods and investors with responsible investments. We believe the industry needs to be profitable to maintain this contribution in the long term.

*“We are committed to creating a vibrant industry that rewards dairy workers and families, their related communities, business and investors.”*

### Our approach

**Research** — We're implementing the RD&E strategy, Dairy Moving Forward, to support dairy farmers' wealth creation through tactical and strategic management decisions, including those made to minimise negative impacts of external drivers.

**Investment** — We're promoting the dairy farming sector to investors. A guide for farmers and investors interested in emerging opportunities in the growing sector has been launched. [Download the guide.](#)

**Communities** — We're developing a method and dashboard for measuring and reporting the resilience of dairy communities and the contribution of dairy activity to the level of resilience and wellbeing in these communities.

**Livelihoods** — We're creating career pathways for dairy people. Our drive to attract, retain and develop capable people continues (e.g. [People in Dairy](#)).

**Innovation** — We're driving RD&E to achieve increased pasture production and utilisation, increased supplementary feeding and more efficient cows, increased economies of scale, improved animal health and natural resource management.





## Human health and nutrition

### Our challenge

Australians are consuming far too much junk food, with on average 35% of total energy intake coming from foods such as cakes, pies, biscuits, pastries and soft drinks<sup>1</sup>. Poor diet is the leading preventable risk factor globally, contributing to 10.5% of diseases in Australia<sup>2</sup>. In 2011/12 only 10% of Australians were having enough milk, cheese and yoghurt for optimal health. Our consumption of discretionary foods puts pressure on the environment through higher food (energy) intake, food production, disposal of food waste and packaging — all unsustainable eating patterns.

There is an increasing proliferation of mis-information about the nutritional value of dairy foods. Disseminating the latest science to combat these myths and miss-information is a constant challenge for the dairy industry.

### Our position

Milk, yoghurt and cheese are not discretionary foods. They are all part of a well-balanced, sustainable diet and are essential to the everyday health and wellbeing of consumers. We believe people need more nutritious and less discretionary food — not necessarily more food. Independent research indicates that an estimated \$2 billion could be saved from the nation's annual healthcare budget if Australians increased their dairy intake to the recommended levels<sup>3</sup>.

*“We are committed to providing nutritious, safe, quality dairy food.”*

### Our approach

*Nutrition* — We're using the Australian Dietary Guidelines recommendations (supported by a growing body of scientific evidence) to promote consumption of locally-produced dairy foods, as part of a balanced diet (see [Australian Dietary Guidelines](#)).

*Innovation* — We're developing more products with less added sugar to meet increasing demand for full-flavoured dairy products with fewer additives (e.g. [Lion's Dairy Goodness project](#)).

*Quality* — We're rewarding dairy farmers each year for producing top-quality milk, and showing the link between animal care and milk quality (e.g. [Dairy Australia's Milk Quality Awards](#)).

*Health* — We're contributing to the United Nations Sustainable Development Goal 3: to “ensure healthy lives and promote well-being for all at all ages” and Goal 2: to ensure access by all people to nutritious and sufficient food...” (e.g. [Healthy Bones program](#)).

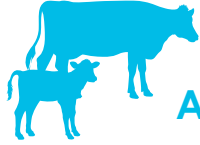
*Resources* — We're striving to make high quality, safe dairy products, working to improve shelf life, packaging requirements and reducing environmental impacts.



<sup>1</sup> [www.abs.gov.au/ausstats/abs@.nsf/Lookup/4364.0.55.012main+features12011-12](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4364.0.55.012main+features12011-12)

<sup>2</sup> [www.aihw.gov.au/australias-health/2014/ill-health](http://www.aihw.gov.au/australias-health/2014/ill-health)

<sup>3</sup> <http://search.ror.unisa.edu.au/media/researcharchive/open/9915909342101831/53108499770001831>



## Animal health and welfare

### Our challenge

Milk is sourced from animals and the dairy industry recognises the importance of community acceptance of the way the industry farms to continue operating. Dairy animals in Australia are managed in environments that vary from subtropical to temperate regions, predominantly extensive pasture based systems with a few intensively-managed indoor systems

### Our position

High-quality milk, yoghurt and cheese begin with healthy and well cared for dairy animals. We use recommended practices for every animal because they are important and it's the right thing to do.

*“We are committed to striving for health, welfare and best care for all our animals throughout their lives.”*

### Our approach

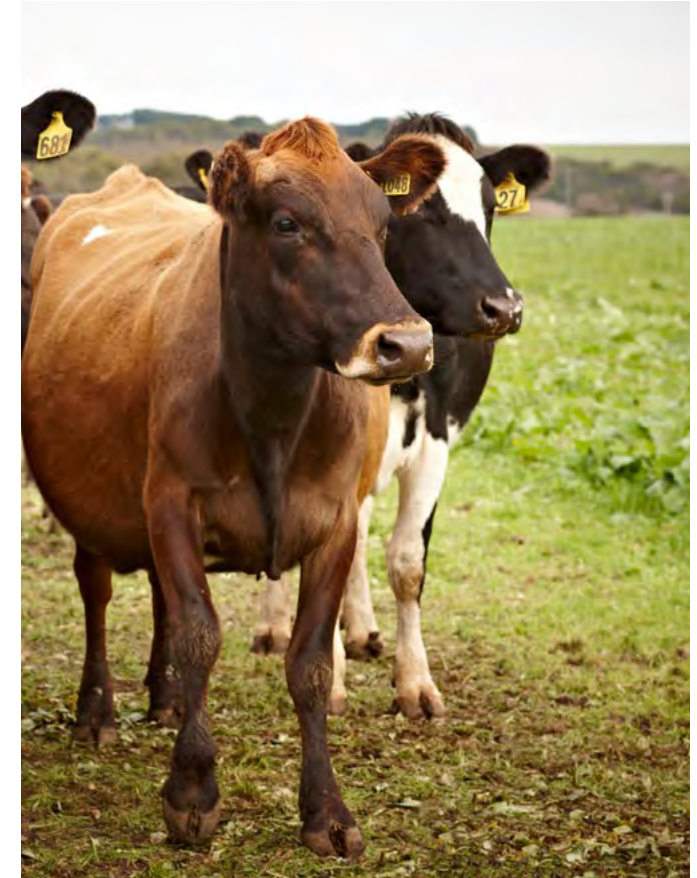
*Health* — We're investing in RD&E programs that address the prevention, timely identification and treatment of diseases and illnesses, as well as management of downer cows (see [www.dairyaustralia.com.au/farm/animal-management](http://www.dairyaustralia.com.au/farm/animal-management)).

*Welfare* — We're ensuring there are effective projects and processes in place to identify, prioritise and respond to animal welfare issues at an industry-wide level.

*Practices* — We're providing farmers with adequate information to understand and adopt recommended animal welfare practices, and to speak confidently about these practices (e.g. [Cool Cows program](#)).

*Quality* — We're encouraging dairy farmers to take part in farm milk quality programs that include achieving good animal welfare outcomes. (e.g. [Countdown 2020, Milk Quality Awards](#))

*Standards* — We're building trust and confidence in the dairy industry's animal husbandry practices and welfare outcomes among government, investors, the community and consumers by demonstrating compliance with national [Animal Welfare Standards and Guidelines](#).







## Climate change

### Our challenge

An increase in heatwaves, storms and drought will affect animal welfare and milk production, and limit pasture growth. Competition for natural resources worldwide is mounting. A drying climate is likely to place increasing pressure on already stressed water resources. According to the Department of the Environment and Energy (Australia's Emissions Projections, Dec. 2016), Australian agriculture contributes 15% of Australia's greenhouse gas emissions (GHGs) with the dairy industry as a whole contributing 12% of Australian agriculture's emissions. Of this, 95% is from farms and 5% from manufacturing.

### Our position

A significant long term response to climate change impacts is required. As part of this response we will mitigate our own greenhouse gas emissions, and reduce water intensity in manufacturing and on farms.

*"We are committed to meeting the challenge of climate change and providing good stewardship of our natural resources."*

### Our approach

*Profitability* — We're delivering programs to support farmers to adapt their production systems for a changing climate and reduce their energy costs and greenhouse emissions.

*Resources* — We're striving to increase our resource efficiency by measuring and reporting water use intensity through the Dairy Manufacturers' Sustainability Council. (see [www.dmsc.com.au](http://www.dmsc.com.au)). On farm we are working with farmers on smarter irrigation practices and developing a simple water budget tool to assist management of water risk.

*Emissions* — We're measuring and monitoring carbon intensity in manufacturing through the Dairy Manufacturers' Sustainability Council. We're also delivering support to farmers to calculate their greenhouse gas emissions and the impacts of different strategies (e.g. [Climate Toolkit](#)).

*Innovation* — We're building capability through the Dairy Manufacturers' Sustainability Council's regular expert forums which share information on the latest technologies for improving practices to reduce energy, water use and waste.





## Food waste — an emerging issue

### Our challenge

Australians waste 20% of the food they purchase, around \$8 billion of food every year. This also represents a waste of energy, water, land and other resources required to produce the food. One-third of food wasted in Australia is fresh food.

For dairy, it is estimated that up to \$129 million of milk is either lost from the supply chain on farm and in manufacturing, or wasted at the consumer end.

### Our position

By reducing food loss and waste where we can we will improve our efficiency and reduce our environmental impact.

*“We are committed to providing good stewardship of our natural resources.”*

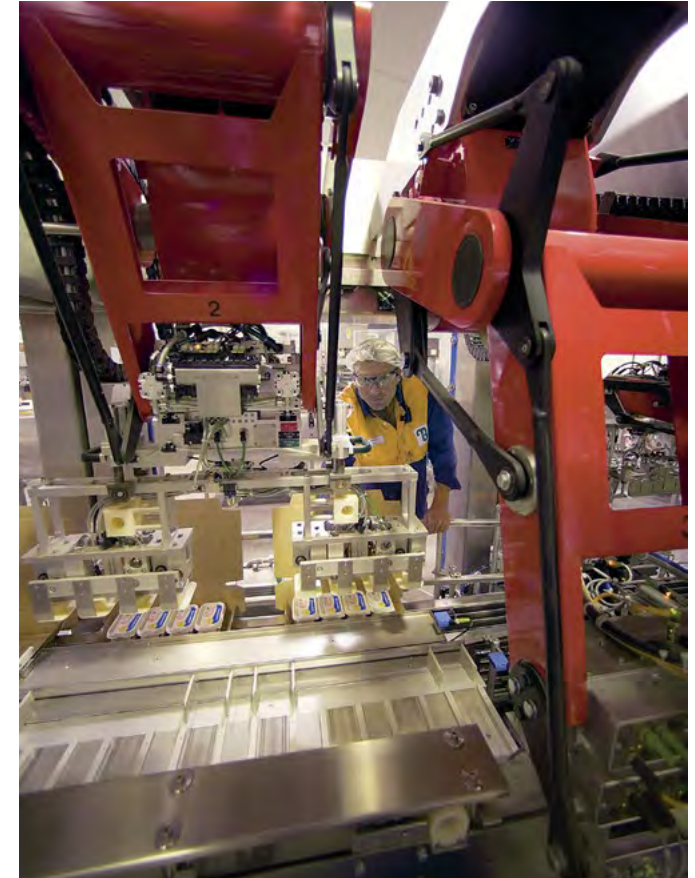
### Our approach

*Innovation* — We're committing to developing products and packaging which reduce the potential for food loss and waste.

*Retaining value* — We're seeking a better understanding of where loss and waste occurs along the dairy value chain. We're monitoring the work of Dairy UK in trialling the WRI Food Loss and Waste Protocol and through the Dairy Manufacturers' Sustainability Council measuring a larger variety of waste streams.

*Resources* — We're striving to increase our resource efficiency by measuring and reporting through capacity building among members of the Dairy Manufacturers Sustainability Council.

*Nutrition* — We're participating in food recovery and donation programs which distribute dairy products to charities in Australia while at the same time reducing food waste (e.g. [Foodbank](#)). We have set a goal which supports the UN Sustainable Development Goal 2 (this goal includes ending hunger and achieving food security).







# Industry snapshot

## INDUSTRY VALUE

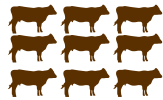
Australian dairy is a \$13.7b farm, manufacturing and export industry

**\$13.7 billion**

## SIZE



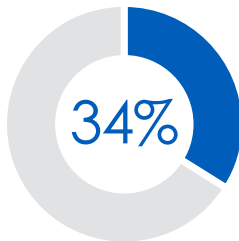
Average herd size



**273 cows**

## EXPORT

34% of Australian milk production is exported



Total exports

**\$3 billion**

Major export markets: Greater China, Japan, Singapore, Indonesia, Malaysia



Greater China



Japan



Singapore



Indonesia



Malaysia

## MILK PRODUCTION

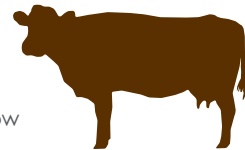


Total 2015/16 milk production

**9,539m litres**

**5,669 litres**

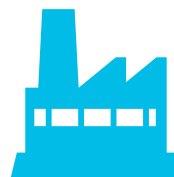
Average production per cow



## INDUSTRY

Dairy industry workforce — direct employment of about 38,000

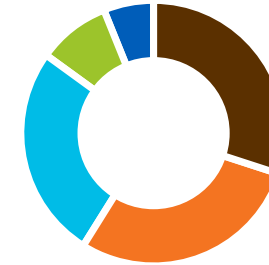
**38,000**



**Dairy**

Australia's third largest rural industry

## MILK UTILISATION



Cheese **30%**

Skim milk powder/butter/  
butter milk powder **29%**

Drinking milk **26%**

Other products **9%**

Whole milk powder **6%**

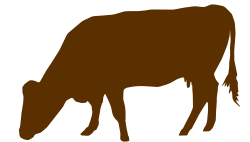
## ENVIRONMENT



On-farm carbon footprint — 1.11kg of CO<sub>2</sub> equivalent per kg FPCM (fat and protein corrected milk)

**60-65%**

Farms predominantly pasture based with 60–65% of feed requirements coming from homegrown feed in a year of 'normal' seasonal conditions



Supplementary feeding is widespread  
**predominantly grains,  
grain mixes or feed  
concentrates**



# Our sustainability story

**Helping us to deliver on our promise to create rewarding livelihoods for our people, nourish consumers with nutritious food, provide best-care for all our animals and leave the environment in better shape for the future, is the Australian Dairy Industry Sustainability Framework.**

The Framework was developed in response to increasing expectations from the community and our customers that we are doing the right thing by people, animals and the planet. And we wanted a cohesive blueprint to guide continuous improvement in priority areas.

Keeping Australian dairy in business for the long term is the fundamental principle which underpins the Framework. It sets measurable goals for economic prosperity, nutrition, animal welfare and natural resource management. The Framework was launched in 2012 following extensive consultation with dairy farmers and manufacturers as well as with our stakeholders including government, retailers, customers, NGOs and interest groups. In 2013, 11 goals and 41 measures were agreed to provide guidance to farmers, manufacturers and industry bodies on our shared priorities and commitments to reach our goals by 2020. It reflects the dairy industry value chain from farm inputs such as feed, through farm production, manufacturing, retail and packaging, export and consumption.

Development was guided by a set of agreed principles to help identify and prioritise issues and guide ongoing action and decision-making including ethical behaviour, transparency and accountability, appreciation of stakeholder interests, competitive neutrality, collective action to deliver mutual benefit and inclusivity (see [Appendix 3, page 43](#)).

## Governance and engagement

The Framework is owned and led by industry through the Australian Dairy Industry Council (ADIC). Our key partners are Australian Dairy Farmers (ADF), Australian Dairy Products Federation (ADPF) and Dairy Australia (DA). Consultation with our stakeholders has been critical in keeping the Framework current and robust. Consultation processes include the Sustainability Framework Steering Committee with strong representation from the farming and manufacturing sectors, and the Dairy Sustainability Consultative Forum. This is a group of over 40 individuals from across our stakeholder landscape which meets twice a year to provide ongoing guidance and input into the Framework. In 2016 engagement focused on identifying material issues to support the review of the Framework. For more details of how we engage with stakeholders, see [Appendix 4, page 45](#).

## Evolution and transition

In 2016 we put significant effort into reviewing our material issues. We will be updating the Framework goals and targets to reflect these issues and to guide our path beyond 2020 and towards 2030 (see [Appendix 1, page 37](#)).

The material issues were identified as industry profitability (including ethical investment), human health and nutrition, animal health and welfare, climate change (including water scarcity) with food waste an emerging issue for dairy.

In refreshing the Framework, we also considered where we can contribute to the UN Sustainable Development Goals (see [The global context, page 12](#)).



Locally, we have focused on measuring our contribution to the communities in which we work and live. In 2017, we will transition to the updated Framework with revised goals, targets and indicators. This will be outlined in the 2017 Sustainability Report, to be released December 2017.

## Progress and performance

Australian dairy is committed to monitoring and reporting our performance in our priority areas of economic prosperity, health and nutrition, animal welfare and natural resource stewardship. This allows us to track progress towards our 2020 goals, and identify areas where improvement is required. We have developed a 'scorecard' which provides a summary of our progress (see [2016 Progress summary, page 14](#)). For full details of progress against each goal, see [pages 17–36](#). We are also moving towards reporting in line with the Global Reporting Initiative (GRI) Sustainability Reporting Standards (see [Appendix 5, page 48](#)).





# The global context

The Australian dairy industry is responsible for 6% of international dairy trade. We recognise that we operate in a global context and seek to align our sustainability approach with the United Nations Sustainable Development Goals (UNSDGs).

The UNSDGs were launched in 2015 and while not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals by 2030. Australian dairy seeks to align its goals with the UN Sustainable Development Goals to support our national efforts towards achieving them.

The Australian Framework is also aligned with the Global Dairy Sustainability Framework and helps contribute to a more sustainable international industry.

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 INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS

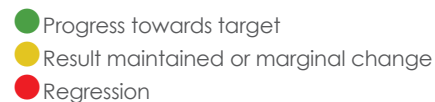
## Australia Dairy Sustainability Framework Goal

## UN Sustainable Development Goals

Enhancing livelihoods	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	Attract, develop and retain a skilled and motivated dairy workforce															✓
Improving wellbeing	5	All dairy products and ingredients sold are safe			✓												
	6	Dairy contributes to improved health outcomes for Australian communities			✓			✓									
	7	Provide best care for all animals			✓												
Reducing environmental impact	8	Improve nutrient, land and water management			✓						✓						✓
	9	Reduce consumptive water intensity of dairy manufacturers by 20%			✓			✓				✓					✓
	10	Reduce greenhouse gas emissions intensity by 30%			✓						✓			✓			
	11	Reduce waste to landfill by 40%			✓			✓				✓					

# 2016 Progress snapshot

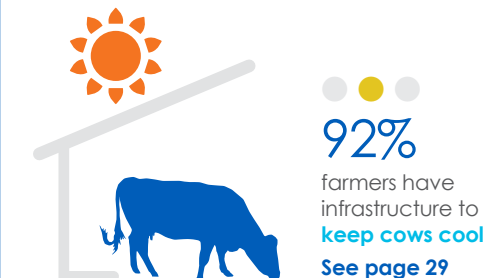
## Enhancing economic viability and livelihoods



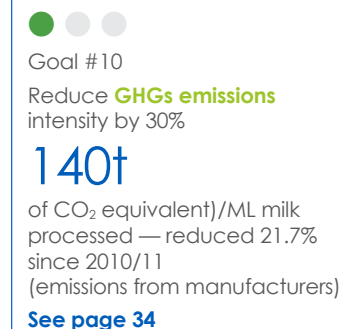
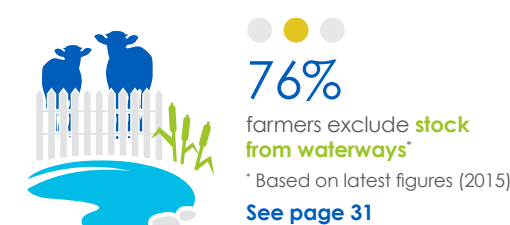
## Improving wellbeing of people



## Providing best care for all our animals



## Reducing environmental impact





Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)*	Baseline not yet established
Under review (target)*	Target not yet established
-	No data collected for target in this year



# 2016 Progress summary

## Enhancing livelihoods

Goals		Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline	
1	Increase the future competitiveness and profitability of the Australian dairy industry	1.1	% Profitable farms (rolling 3-year average)		55%	51%	47%	50%	Under review	●
		1.2	Market preference		Under review	-	-	-	Under review	-
		1.3	Market access		Under review	-	-	-	Under review	-
		1.4	% of farmers planning capital investment		40%	51%	52%	49%	Under review	●
2	Increase the resilience and prosperity of dairy communities	2.1	Economic contribution		Under review	-	-	-	Under review	-
		2.2	Government recognition		Under review	-	-	-	Under review	-
		2.3	Community recognition	Dairy industry is an essential part of the community	71%	70%	68%	67%	78%	●
				People appreciate dairy farmers in our community	76%	76%	79%	78%	87%	●
3	Provide a safe work environment for all dairy workers	3.1	OHS training	Dairy farming	46%	46%	-	-	100%	●
				Dairy manufacturing	100%	100%	100%	100%	100%	●
		3.2	Lost Time Injury Frequency Rate (LTIFR)	Dairy farming	5.8	8.9	6.7	14.3	3.6	●
				Dairy manufacturing	8.2	8.6	13	12.1	6.1	●
		3.3	Fatalities	Dairy farming	2	1	3	6^	0	●
				Dairy manufacturing	0	0	0	0	0	●
4	Attract, develop and retain a skilled and motivated dairy workforce	4.1	Suitable applicants	Dairy farms	20%	-	-	-	30% increase — under review	-
				Dairy manufacturing	Under review	-	-	-	Under review	-
		4.2	Participation in development activities	Extension	20%	39%	-	-	40%	●
				Education	Under review	-	-	-	50% increase — under review	-
		4.3	Retain workforce		75%	75%	-	-	90%	●
		4.4	Farmers have a well developed business transition plan		8%	8%	-	-	50% — under review	-

<sup>^</sup> The Safe Work Australia website shows 0 reportable incidents for 2014/15 (latest figures). Monitoring of media reports for farm related fatalities in 2016 shows 6 fatalities.

**2020 Target** Note: 2016 sustainability performance is measured against the Framework's original targets and performance measures. We are currently reviewing our goals, targets and indicators and will report against these from 2017.

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)*	Baseline not yet established
Under review (target)*	Target not yet established
-	No data collected for target in this year



## Improving wellbeing

Goals	Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
<b>5</b> All dairy products and ingredients sold are safe	<b>5.1</b> Chemical residues non-compliance		0	0	0	0	0	●
	<b>5.2</b> Product recalls		7	8	9	7	0	●
	<b>5.3</b> Consumer sentiment	Dairy products are safe	67%	69%	67%	68%	77%	●
		Dairy makes high-quality products	77%	74%	75%	74%	88%	●
<b>6</b> Dairy contributes to improved health outcomes for Australian communities	<b>6.1a</b> Healthy diet	Dairy is essential for good health	72%	68%	69%	71%	85%	●
		Dairy food increases my weight	32%	30%	31%	32%	20%	●
	<b>6.1b</b> Maintain recognition as five food group foods in ADG		Recognised	Recognised	Recognised	Recognised	Ongoing recognition	●
	<b>6.2</b> Daily intake		Under review	-	-	-	Under review	-
<b>7</b> Provide best care for all our animals	<b>7.1</b> All industry complying with legislated Animal Welfare Standards						100%	
		Awareness of new Animal Welfare Standards	56%	56%	-	47%	100%	●
	<b>7.2</b> All of industry adopting relevant recommended industry practices:	Reduced use of routine calving induction	80%	80%	88%	90%		●
		Don't dock tails	80%	85%	-	91%		●
		Disbud prior to 2 months of age	57%	63%	-	63%		●
		Have a lameness strategy	87%	95%	-	95%		●
		Have cool infrastructure	94%	98%	-	92%		●
		Bobby calves fed within 6 hours prior to transport	97%	97%	-	96%		●
	<b>7.3</b> Public recognition of caring for animals		60%	62%	59%	58%	75%	●

**2020 Target** Note: 2016 sustainability performance is measured against the Framework's original targets and performance measures. We are currently reviewing our goals, targets and indicators and will report against these from 2017.



Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)*	Baseline not yet established
Under review (target)*	Target not yet established
-	No data collected for target in this year



## Reducing environmental impact

Goals	Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline	
8 Improve nutrient, land and water management	8.1	Exclusion of stock from waterways	73%	-	76%	-	90%	<div></div>	
	8.2	Nutrient management plans	30%	-	58%	-	80%	<div></div>	
	8.3	Irrigation automation	47%	-	54%	-	80%	<div></div>	
	8.4	Managing land for conservation and biodiversity	47%	-	45%	-	80%	<div></div>	
	8.5	All dairy farmers actively managing noxious weeds where relevant	Noxious weeds identified as major land issue	37%	-	29%	-	Under review	<div></div>
			Actively managing noxious weeds where a problem	28%	-	28%	-	100%	<div></div>
	8.6	Recycle water on farm	50%	--	75%	-	100%	<div></div>	
9 Reduce the consumptive water intensity of dairy manufacturers by 20%	9.1	Consumptive water intensity of dairy manufacturers (litres per litre of milk processed)	1.75	1.56	1.58	1.62^	1.40	<div></div>	
10 Reduce greenhouse gas emissions intensity by 30%	10.1	Emissions from dairy manufacturers (tonnes of CO <sub>2</sub> equivalent per ML milk processed)	178.7	153.6	152.5	140	125.8	<div></div>	
	10.2	Farm emissions abatement actions	Under review	-	-	-	Under review	-	
11 Reduce waste to landfill by 40%	11.1a	Waste to landfill intensity of dairy manufacturers (tonnes of waste per ML milk processed)	2.69	1.63	1.45	1.39	1.61	<div></div>	
	11.1b	Manufacturers: signatories to Australian Packaging Covenant (APC)	9	9	8	8	All manufacturers	<div></div>	
	11.2	Farm level waste reduction	Under review	-	-	-	Under review	-	

<sup>^</sup> In 2016, the scope of consumptive water was adjusted and has impacted the measure. See page 33 for more details.

**2020 Target** Note: 2016 sustainability performance is measured against the Framework's original targets and performance measures. We are currently reviewing our goals, targets and indicators and will report against these from 2017.

# Progress against the Framework

A competitive and profitable Australian dairy industry makes a vital contribution to the nation with profitable dairy farms at the heart of a sustainable industry. In 2016, dairy contributed \$13.7 billion in economic value to the national economy, including \$3 billion in exports.

In particular, dairy plays a strong role in the resilience and prosperity of the eight regions in which it operates. This year there has been a focus on how to measure the contribution dairy makes to these regional communities.

Around 38,000 people are employed by the industry in both the farm and manufacturing sectors. The industry is committed to developing a skilled and motivated workforce and creating a safe workplace for all dairy people. We also seek to attract and retain a motivated workforce.

For enhancing livelihoods the Australian Dairy Industry Sustainability Framework has set goals for industry competitiveness and profitability; community resilience and prosperity; a safe work environment; and a skilled and motivated workforce.



## Enhancing livelihoods

### Goal 1 Increase the future competitiveness and profitability of the Australian dairy industry

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
1.1	% Profitable farms (rolling 3-year average)	55%	51%	47%	50%	Under review	●
1.2	Market preference	Under review	-	-	-	Under review	-
1.3	Market access	Under review	-	-	-	Under review	-
1.4	% of farmers planning capital investment	40%	51%	52%	49%	Under review	●

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

##### 1.1 X% increase in the number of profitable dairy farms

In the past, and for this report, we have used the Australian Bureau of Agricultural and Resource Economics and Science (ABARES) data to inform our progress against our profitability indicator. ABARES data is based on dairy industry selected physical and financial estimates, by state. As we stated in 2015, a more meaningful measure would utilise multiple inputs to inform progress. Ultimately, profitability should be assessed in terms of cash, profit and wealth<sup>4</sup>.

For this report, we have continued to use the ABARES data until the newly launched DairyBase program is established and sufficient data is available to better reflect profitability on dairy farms. Our 2017 Progress Report will report on a suite of 3–4 indicators and metrics from Dairybase.

**2016 performance:** During 2015/2016, 50% of dairy farms were profitable based on a three-year rolling average. The trend over time shows a marginal decrease from the baseline of 55% set in 2013 based on a three year rolling average to 2012/13 to our 2016 result, as shown in Figure 1. In 2016, the milk price stepdown had a significant effect on farmer profitability.

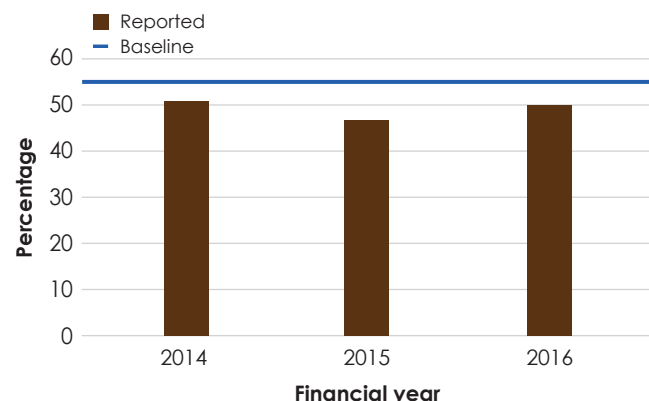
<sup>4</sup> Farm Profitability Report 2015, p. 7. Available at: [www.australiandairyfarmers.com.au/PDF/Farm-profitability-Report-2015-Final.pdf](http://www.australiandairyfarmers.com.au/PDF/Farm-profitability-Report-2015-Final.pdf), [www.dairyaustralia.com.au/Home/Standard-Items/~media/Documents/Farm-Business-management/Sustainable%20farm%20profitability%20report/Farm-profitability-Report-2015-Final.pdf](http://www.dairyaustralia.com.au/Home/Standard-Items/~media/Documents/Farm-Business-management/Sustainable%20farm%20profitability%20report/Farm-profitability-Report-2015-Final.pdf)





## Enhancing livelihoods

### Goal 1 Increase the future competitiveness and profitability of the Australian dairy industry (continued)



**Figure 1.** Percentage of dairy farms that were profitable based on a three-year rolling average

SOURCE: ABARES

- 1.2** X% increase in the market preference for buying Australian dairy products, compared with our top 3 international competitors (NZ, EU and US)

**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure for this indicator. In 2017, this indicator will be updated. In 2014/15 Australia's global share of dairy trade was 6%.

- 1.3** Ensuring sustainability criteria (e.g. carbon, animal welfare, environmental impact) do not impede market access

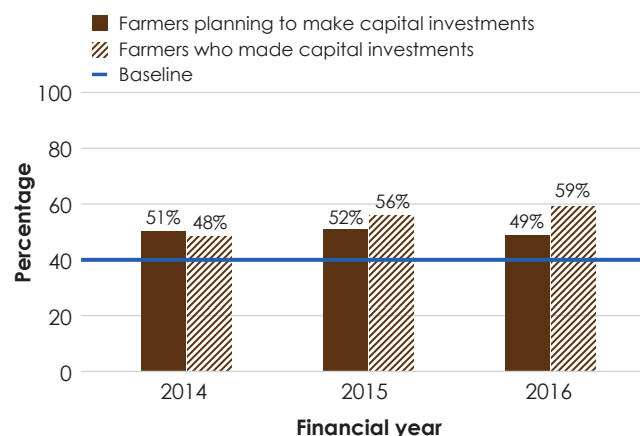
**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure for this indicator. Going forward, this indicator will not be included in our reporting.

- 1.4** Increase adoption of new technologies and innovative management practices within the dairy industry

**2016 performance:** This year 59% of dairy farmers reported making capital investments in 2015, a higher than expected figure than the 52% who previously said they were planning to make capital investments in next 12 months (NDFS 2015).

Approximately 49% said they were planning to make capital investments in next 12 months (NDFS 2016) — down from 52% who said they would do this in 2015 (see Figure 2).

The trend over time shows planned capital investments has remained relatively constant, whereas actual capital investment has increased over time, as shown in Figure 2.



**Figure 2.** Dairy farmers planning to make and those who made capital investments in the next 12 months

SOURCE: National Dairy Farmer Survey (2016)



- 1.5** Provide consumers with greater choice and access to a variety of dairy products and/or ingredients to meet their specific nutritional needs

**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure for this indicator. Going forward, this indicator will not be included in our reporting.

## Enhancing livelihoods

### Goal 1 Increase the future competitiveness and profitability of the Australian dairy industry (continued)

#### TOWARDS GOAL 1 — 2016 HIGHLIGHTS

**DairyBase** — Australian dairy farmers are being encouraged to use a new web-based tool called DairyBase which enables farmers to measure and compare their farm business performance over time. It allows farmers to create annual reports and forecasts, identify opportunities to drive profit and reduce risk, make more informed business decisions and generate comparative analysis according to farm size, region and production system.

Visit: [www.dairybase.com.au](http://www.dairybase.com.au)

**Business Governance and Investment Workshop** — Dairy Australia hosted a number of these workshops in 2016 to help dairy farmers understand what is required to attract investment to help with future development. ([Download the investment guide](#))

**Improved market information** — Dairy Australia is now including market information on its website, with updates in February and June each year which improves transparency around Australia's global position.

Visit: [www.dairyaustralia.com.au/industry/exports-and-trade](http://www.dairyaustralia.com.au/industry/exports-and-trade)

**DairyBio** — Previously Dairy Futures CRC, DairyBio commenced in July 2016 and focuses on developing designer forages (improving the persistence and versatility), animal improvement (better fertility, better feed conversion) and education to improve profitability for farmers.

Visit: [www.dairybio.com.au](http://www.dairybio.com.au)

**Datagene** — Launched in July 2016, DataGene is an independent and industry-owned organisation that is responsible for driving genetic gain and herd improvement in the Australian dairy industry, through research, development and extension activities. Using the most suitable genetics can increase the profitability of a farm business.

Visit: [www.datagene.com.au](http://www.datagene.com.au)

**Forage Value Index** — This is a rating system that helps Australian dairy producers and their advisors to make more informed decisions when selecting perennial ryegrass cultivars. Selection of better performing cultivars will help to increase pasture productivity at key times of the year and ultimately, farm profitability.

Visit: [www.dairyaustralia.com.au/farm/feedbase-and-animal-nutrition/pasture/forage-value-index-2017-pasture-tables](http://www.dairyaustralia.com.au/farm/feedbase-and-animal-nutrition/pasture/forage-value-index-2017-pasture-tables)

**Tactics for Tight Times** — In a challenging year for dairy farmers, the Tactics for Tight Times program was introduced to provide one-on-one help for farmers to manage the issues associated with reduced milk price. Taking Stock is part of this program, delivered through the Regional Development Programs. It involves meaningful informed discussion between farmers and trusted, skilled and trained advisors. The process assists farmers to understand the current financial and physical position of their farm business, and provides an action plan.





## Enhancing livelihoods

### Goal 2 Increase the resilience and prosperity of dairy communities

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
2.1	Economic contribution	Under review	-	-	-	Under review	-
2.2	Government recognition	Under review	-	-	-	Under review	-
2.3	Community recognition	Dairy industry is an essential part of the community	71%	70%	68%	78%	●
		People appreciate dairy farmers in our community	76%	76%	79%	87%	●

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

**2.1 Economic contribution — Intent —** to set a measure around the contribution that the dairy industry makes to the economy of dairy regions

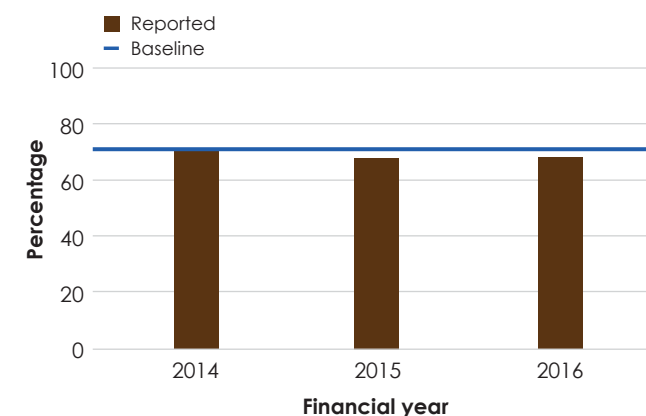
**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure. During 2017, this indicator will be updated to include a suite of indicators and metrics available via the Dairy Australia *Pathways to Profitable Growth* project. Economic modelling will also be combined with the Regional Wellbeing Survey to provide a more meaningful analysis.

**2.2 Government recognition —** The contribution and importance of dairy is recognised in relevant local and state government strategies (especially growth and investment strategies)

**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure for this. Going forward, this indicator will not be featured in our reporting.

**2.3 Community recognition —** Increase consumers' and dairy communities' recognition of the value of the dairy sector

**2016 performance:** Levels of community recognition as measured in the Dairy Monitor 2016 survey are relatively unchanged from 2015, as shown in Figure 3. When people were asked if the dairy industry is recognised as an essential part of our community 67% agreed, 21% were neutral, 5% disagreed and 7% did not know. This is a marginal change, equating to only 1% decline from 2015.



**Figure 3.** People who recognise the dairy industry is an essential part of the community

SOURCE: Dairy Monitor Survey

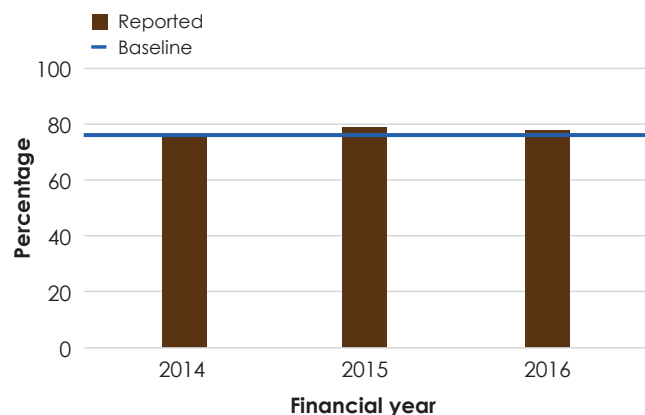




## Enhancing livelihoods

### Goal 2 Increase the resilience and prosperity of dairy communities (continued)

When dairy farmers were asked whether people in their region appreciated the role that dairy farmers play in our community, 78% of farmers agreed, 5% were neutral, 16% disagreed and 1% did not know. This is a marginal change, equating to only 1% decline from 2015 (see Figure 4).



**Figure 4.** Farmers who feel appreciated in their community

SOURCE: National Dairy Farmer Survey

There is a need to develop a meaningful metric for this target that moves beyond a perceived recognition of value to a meaningful measurement of value. During 2016, this target and the supporting indicators were reviewed, and going forward these two measures will be changing to less subjective measures. A dedicated project is underway to develop community resilience indicators (see page 42).

#### TOWARDS GOAL 2 — 2016 HIGHLIGHTS

**Pathways to Profitable Growth** — This project is a framework to assess potential growth in each dairy region, set achievable growth targets and the actions needed to achieve it. Depending on the region, this could include any combination of actions to overcome issues with land availability, feedbase and climate, water, cows, finance, infrastructure and factories, and labour and skills.

**LEGENDAIRY Capitals of Australia** — Dairy Australia is currently calling on people across Australia's eight dairy regions to nominate their town as the next LEGENDAIRY Capital by sharing their stories and highlighting the ways their town embodies the LEGENDAIRY spirit. Launched in 2015, Dairy Australia's LEGENDAIRY Capital program celebrates regional communities around the country by highlighting how dairy farmers contribute to their town, their industry and the Australian economy.

Visit: [www.legendairy.com.au/dairy-talk/capital-2017/media](http://www.legendairy.com.au/dairy-talk/capital-2017/media)





## Enhancing livelihoods

### Goal 3 Provide a safe work environment for all dairy workers

								Progress towards target against baseline
Target			Baseline	2014	2015	2016	2020 Target	
3.1	OHS training	Dairy farming	46%	46%	-	-	100%	●
		Dairy manufacturing	100%	100%	100%	100%	100%	●
3.2	Lost Time Injury Frequency Rate (LTIFR)	Dairy farming	5.8	8.9	6.7	14.3	3.6	●
		Dairy manufacturing	8.2	8.6	13	12.1	6.1	●
3.3	Fatalities	Dairy farming	2	1	3	6	0	●
		Dairy manufacturing	0	0	0	0	0	●

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
●	Under review (baseline)
●	Baseline not yet established
●	Under review (target)
-	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

##### 3.1 100% on-farm and dairy manufacturing workers completed OH&S training

**2016 performance:** No results were collected during 2016 for this indicator for the farm sector, as data for this measure is gathered from the Power of People on Australian dairy farms (POP) survey, most recently conducted in 2014. The next POP survey is scheduled for 2017.

All dairy manufacturers continue to have OH&S programs in place.

##### 3.2 30% reduction in LTIFR

**2016 performance:** The nature of the work safety statistics, collected by Safe Work Australia, means that there is often a lag in data, and subsequent revisions in previously reported data<sup>5</sup>. This adjustment of historical data means that reporting progress against our target is challenging.

We therefore report 2016 performance based on the latest available data from 2014/15. Trends are shown in Figure 5 and Figure 6.

<sup>5</sup> Safe Work Australia advise that claims data is revised annually for up to five years of past data.

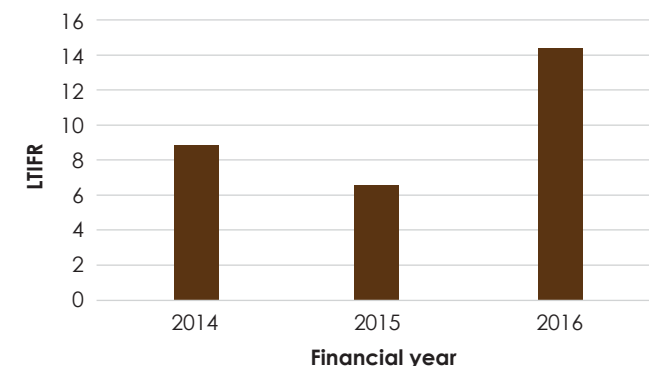


Figure 5. LTIFR in dairy cattle farming

SOURCE: Safe Work Australia

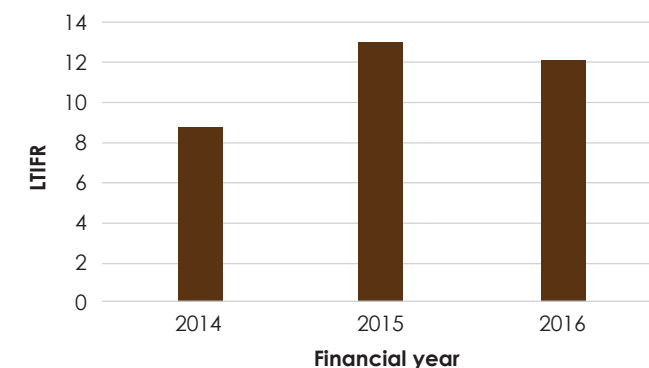


Figure 6. LTIFR in dairy product manufacturing

SOURCE: Safe Work Australia

## Enhancing livelihoods

### Goal 3 Provide a safe work environment for all dairy workers (continued)

The provisional LTIFR for dairy cattle farming for 2016 is 14.3. This is a 147% increase on the 2010/11 baseline LTIFR of 5.8. The dairy cattle farming LTIFR is lower than the LTIFR recorded for sheep, beef cattle and grain farming (19.5), but higher than the LTIFR for the agriculture sector as a whole (12.9) over the same period.

The provisional LTIFR for dairy product manufacturing for 2016 is 12.1. This is an increase of 48% on the 2010/11 baseline LTIFR of 8.2. The LTIFR of beverage manufacturing as a whole was 6.4, with sugar and confectionery manufacturing at 8.3, bakery product manufacturing at 8.5 and grain mill and cereal manufacturing at 17.8.

#### 3.3 Zero Workplace Fatalities

**2016 performance:** Safe Work Australia recorded zero fatalities in dairy cattle farming during 2014/2015. There were zero fatalities in dairy product manufacturing over the same period.

Information from 2014/15 is the latest available from SafeWork Australia. Reportable fatalities can underestimate actual farm-related incidents. However Dairy Australia's own monitoring of farm related deaths through various reports shows six fatalities in 2016. We have used this figure — six fatalities — and will continue to use media monitoring to report farm fatalities.

#### TOWARDS GOAL 3 — 2016 HIGHLIGHTS

**Farm Safety Starter Kit** — A part of the People in Dairy project, the kit has been developed by dairy farmers for dairy farmers and provides practical, easy to use resources to enable farmers to get their farm safety system started or improve the existing system. Having a farm safety plan is the basis of the program.

Visit: [www.thepeopleindairy.com.au/farm-safety/safetystarterkitdocs](http://www.thepeopleindairy.com.au/farm-safety/safetystarterkitdocs)







## Enhancing livelihoods

### Goal 4 Attract, develop and retain a skilled and motivated dairy workforce

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
4.1	Suitable applicants Dairy farms	20%	-	-	-	30% increase — under review	-
	Dairy manufacturing	Under review	-	-	-	Under review	-
4.2	Participation in development activities Extension	20%	39%	-	-	40%	●
	Education	Under review	-	-	-	50% increase — under review	-
4.3	Retain workforce	75%	75%	-	-	90%	●
4.4	Farmers have a well developed business transition plan	8%	8%	-	-	50% — under review	-

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

Performance data to measure our progress against Target 4 is collected via the *Power of People* on Australian dairy farms (POP) survey. The most recent survey was completed in 2014. The next POP survey is scheduled for 2017. No data is available for these indicators from manufacturers.

- 4.1** 30% increase in the number of suitable applicants for dairy industry jobs
- 4.2** Increase participation in development activities — 50% increase in education and 100% increase in extension activities
- 4.3** Retain an experienced and motivated dairy workforce — 20% increase in the number of experienced employees retained
- 4.4** 50% of dairy farmers have a well-developed business transition plan

## Enhancing livelihoods

### Goal 4 Attract, develop and retain a skilled and motivated dairy workforce (continued)

#### TOWARDS GOAL 4 — 2016 HIGHLIGHTS

**Building capability and skills** — The industry continued the roll out of the People in Dairy Program which covers priority topics for building on-farm capability and skills. These include the Employment Starter kit (ESKi), various legal document templates to facilitate share-farming and leasing, basic employment materials (eMe), and farm safety resources. It also includes 'Stepping Stones' — targeted to a broad range including school leavers and farm employees at various stages in their career.

Visit: [www.thepeopleindairy.org.au](http://www.thepeopleindairy.org.au)

**Recruiting effectively** — The People in Dairy program includes a module on how farmers should approach recruitment, selection and induction of the people into their farm business. It describes a series of well-tested steps to help farmers identify the right person, to ensure he or she will fit well with their farm business, and to meet the various legal obligations of an employer.

Visit: [www.thepeopleindairy.org.au/recruitment/introduction.htm](http://www.thepeopleindairy.org.au/recruitment/introduction.htm)

**Managing people — beyond dairy** — The ESKi project has evolved beyond dairy into the People in Agriculture digital platform. This was developed through a Dairy Australia-led collaboration with other Rural Development Corporations — launched by the Minister for Agriculture the Hon. Barnaby Joyce in December. So far more than 4500 people have visited the site.

Visit: [www.peopleinag.com.au](http://www.peopleinag.com.au)

**Encouraging young farmers** — The Young Dairy Network Australia is a Dairy Australia project that works throughout the regions with farmers. The network supports the creation of connections between young dairy farmers to encourage sharing of information.

Visit: [www.dairyaustralia.com.au/People-and-skills/Young-Dairy-Farmers-Network.aspx](http://www.dairyaustralia.com.au/People-and-skills/Young-Dairy-Farmers-Network.aspx)



# Progress against the Framework

The dairy industry's approach to health and nutrition sustainability is informed by the Australian Dietary Guidelines. The dairy food group (milk, cheese and yoghurt) are nutrient rich and readily available in affordable, convenient and appealing forms that are produced locally in Australia. The evidence for consuming milk, yoghurt and cheese has strengthened in recent years, with adequate dairy consumption being linked with reduced risk of many chronic diseases.

As an industry, we will continue to produce and promote the consumption of core dairy foods, including the health benefits associated with dairy foods, as per the Australian Dietary Guidelines recommendations. Through the annual Dairy Monitor survey we track consumer perceptions around dairy products as part of a healthy diet.

Dairy companies continue to produce high quality safe dairy products, working to improve shelf life, packaging requirements and reducing environmental impacts. Our Framework tracks performance on the safety of dairy products and ingredients produced, through the Australian Milk Residue Analysis (AMRA) Survey.

The health and wellbeing of our animals is essential to the success of every dairy farm business. The National Dairy Industry Animal Welfare strategy identifies priority areas, and through the annual Animal Husbandry survey conducted with dairy farmers, we track uptake of recommended practices.

## Improving wellbeing

### Goal 5 All dairy products and ingredients sold are safe

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
5.1	Chemical residues non-compliance	0	0	0	0	0	●
5.2	Product recalls	7	8	9	7	0	●
5.3	Consumer sentiment						
	Dairy products are safe	67%	69%	67%	68%	77%	●
	Dairy makes high-quality products	77%	74%	75%	74%	88%	●

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

##### 5.1 Zero non-compliant chemical residuals found during the Australian Milk Residue Analysis (AMRA) Survey

**2016 performance:** Zero non-compliant chemical residues were found during the 2015/16 AMRA Survey. The AMRA Survey plays an important role in the Australian dairy industry by monitoring the chemical residue status of Australian milk. In doing so it assesses the effectiveness of the control measures that are in place to ensure food safety outcomes, with respect to chemicals used in the Australian dairy industry.

The survey also provides assurances to importing countries that Australian dairy products are produced under a system that meets their requirements and supports the export requirements of the Department of Agriculture and Water Resources (DAWR) under the Export Control (Milk and Milk Products) Orders 2005.







## Improving wellbeing

### Goal 5 All dairy products and ingredients sold are safe (continued)

#### 5.2 Zero product recalls due to food contamination (as reported by Product Safety Recalls Australia)

**2016 performance:** There were seven recalls due to food contamination and/or allergens in 2016.

#### 5.3 15% increase in the number of consumers who agree Australia produces high quality and safe dairy products by 2020

**2016 performance:** Performance against this indicator is relatively unchanged from 2015. The Dairy Monitor 2016 survey asked consumers if they agreed that Australia produces safe dairy products. Results were that 68% agreed (1% higher than 2015), 21% were neutral, 3% disagreed and 8% did not know. For high quality, dairy products, 74% agreed (1% lower than 2015), 19% were neutral, 3% disagreed, 5% did not know.

#### TOWARDS GOAL 5 — 2016 HIGHLIGHTS



**Rewarding milk quality** — Safe and quality dairy products and ingredients start with safe quality milk. The accredited Cups On Cups Off (COCO) mastitis management short course, delivered through the National Centre for Dairy Education, helped achieve the best Bulk Milk Cell Count (BMCC) results since the Australian Milk Quality Awards were instigated in 2000. An estimated 99.4% of farms supplied milk with an annual BMCC below 400,000 cells per mL and 78.5% with BMCC less than 250,000.

Visit: [www.dairyaustralia.com.au/farm/animal-management/mastitis/milk-quality-awards](http://www.dairyaustralia.com.au/farm/animal-management/mastitis/milk-quality-awards)

**Managing product recalls** — The dairy industry is working to help dairy companies enhance their food safety culture and practise food recalls which occur as a result of contamination. FSANZ is also developing tools and resources to help businesses and regulators work together to improve food safety culture through a three-step process.

Visit: [www.foodstandards.gov.au/foodsafety/culture/Pages/default.aspx](http://www.foodstandards.gov.au/foodsafety/culture/Pages/default.aspx)

**Cost of food recalls** — A report on the cost of food recalls for dairy companies has been completed under the Federal Government funded project *Package Assisting Small Exporters (PASE)* — and a web-based tool is under development. This will enable dairy companies, especially small and medium sized companies, to determine the likely costs associated with a food recall for their product.



## Improving wellbeing

### Goal 6 Dairy contributes to improved health outcomes for Australian communities

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline	
6.1a	Healthy diet	Dairy is essential for good health	72%	68%	69%	71%	85%	<div></div>
		Dairy food increases my weight	32%	30%	31%	32%	20%	<div></div>
6.1b	Maintain recognition as five food group foods in ADG	Recognised	Recognised	Recognised	Recognised	Ongoing recognition	<div></div>	
6.2	Daily intake	Under review	-	-	-	Under review	-	

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year

#### HOW WE'RE TRACKING

- 6.1** Improve recognition that dairy (milk, cheese and yoghurt) is a key element of a healthy diet
- a) *Improve consumers' perception of the health and nutrition benefits of dairy foods*

**2016 performance:** Performance against this indicator is relatively unchanged from 2015. The Dairy Monitor 2016 survey asked consumers if they agreed that dairy foods are essential for good health and wellbeing.

**Results were** that 71% agreed (2% higher than 2015), 21% were neutral, 6% disagreed and 2% did not know. The survey also asked whether individuals were concerned consuming dairy foods will increase their weight. 32% agreed (the same results as previous years), 32% neutral, 33% disagree, and 3% did not know.

b) *The National Health and Medical Research Council (NHMRC) Australian Dietary Guidelines continue to recommend milk, cheese and yoghurt as part of a healthy diet*

**2016 performance:** Milk, cheese and yoghurt continue to maintain their recognition as a five food groups food in the Australian Dietary Guidelines.

- 6.2** X% increase in the proportion of Australians meeting their recommended daily intake of the milk, yoghurt, cheese and/or alternatives food group as outlined in the 2013 Australian Dietary Guidelines.

(Under review)



#### TOWARDS GOAL 6 — 2016 HIGHLIGHTS

**Human health and nutrition research** — The dairy industry's approach to health and nutrition sustainability is informed by the Australian Dietary Guidelines. The dairy food group (milk, cheese and yoghurt) are nutrient rich and readily available in affordable, convenient and appealing forms that are produced locally in Australia. The evidence for consuming milk, yoghurt and cheese has strengthened in recent years, with adequate dairy consumption being linked with reduced risk of many chronic diseases. In particular, the industry continues to pursue new areas of research collaboration into dairy's positive effects on diabetes and chronic disease.



## Improving wellbeing

### Goal 7 Provide best care for all our animals

Target	Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
7.1 All of industry complying with legislated Animal Welfare Standards					100%	
Awareness of new Animal Welfare Standards	56%	56%	-	47%	100%	●
7.2 All of industry adopting relevant recommended industry practices:					100%	
Reduced use of routine calving induction	80%	80%	88%	90%		●
Don't dock tails	80%	85%	-	91%		●
Disbud prior to 2 months of age	57%	63%	-	63%		●
Have a lameness strategy	87%	95%	-	95%		●
Have cool infrastructure	94%	98%	-	92%		●
Bobby calves fed within 6 hours prior to transport	97%	97%	-	96%		●
7.3 Public recognition of caring for animals	60%	62%	59%	58%	75%	●



#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year

#### HOW WE'RE TRACKING

##### 7.1 All of industry complying with legislated Animal Welfare Standards

**2016 performance:** In late 2015, all dairy farmers received a copy of the new Animal Welfare Standards and Guidelines through their processors. In the 2016 Animal Husbandry Survey, dairy farmers were asked whether they had a copy of the document which provides

detail of the new proposed legal requirements and includes recommended industry animal welfare practices. Of those interviewed, 47% said yes, 36% said no and 18% said they don't know. This represents a decline in recognition from last year, when 56% said they were aware of the new *Animal Welfare Standards and Guidelines*. This is being further investigated.

##### 7.2 All of industry adopting relevant recommended industry practices such as those relating to reduced use of routine calving induction; don't dock tails; disbud prior to 2 months of age; have a lameness strategy; have cool infrastructure; bobby calves fed within 6 hours prior to transport

**2016 performance:** During 2016, there was an improvement across several of the indicators that demonstrate industry's adoption of relevant recommended practices for animal care. Farmers that don't use routine calving induction for farm management improved by 2% since 2015 to 90%, with a 10% improvement since 2014. Farmers who don't dock tails improved by 6% from 2014 to 91%. Farmers who disbud calves prior to two months was maintained at 63%. Farms with a lameness strategy in place remained at 95%. Farms with cool infrastructure decreased by 6% since last year to 92%. Farmers who feed transported calves between one and six hours prior to transport decreased by 1% since last year to 96%.

Many animal welfare issues are integrated into the industry's extension and training programs, including:

**Cool Cows** — An extension project to help dairy farmers manage the risk of heat stress in their herds.





## Improving wellbeing

### Goal 7 Provide best care for all our animals (continued)

**CowTime** — Provides ways to make milking easier and reduce stress in the dairy by ensuring a calm, quiet environment in the dairy. Farmers are encouraged to allow the herd to retain its natural social order resulting in smoother cow flow in and out of the dairy. This results in a lowered potential for lameness and reduces time spent in the milking shed.

**FutureDairy** — Assesses animal behaviour in voluntary (automatic) milking systems.

**InCalf** — Helps farmers improve the fertility of their dairy herds, reducing the need for intervention such as calving induction.

**Countdown 2020** — Helps dairy farmers manage mastitis in their herds, thereby improving herd health and milk quality.

**DataGene** — Allows dairy farmers to make genetic selection decisions based on traits associated with welfare such as calving ease, improved fertility, mastitis resistance and survivability.

**On-farm QA programs** — Ensure farmers have processes in place to manage herd health and welfare risks.

**Regional Development Programs** — Provide access to local networks and service providers such as vets to deliver lameness workshops and calf rearing days for farmers.

**The People in Dairy** — Project that addresses the capability and skills of dairy workers through improved training on farms, recruitment, induction and supervision of staff.

Visit: [www.dairyaustralia.com.au/farm/animal-management/animal-welfare/industry-extension-and-training-programs](http://www.dairyaustralia.com.au/farm/animal-management/animal-welfare/industry-extension-and-training-programs)

**Caring for dry cows** — Dairy Australia has developed a new online resource to improve dry cow management. The tool gives dairy veterinarians and field service officers a structured way of working with farmers to provide a written action plan for the dry-off process, tailored to their farm risks and management goals. Using the online tool takes 10 to 15 minutes and walks through a series of questions about the farm system, management goals, past practices for drying off cows and current mastitis risks. A one hour webinar about using the tool is available to watch here.

Visit: <http://drycowconsult.com.au>

#### 7.3 25% increase in the number of consumers who believe dairy farmers do a good job caring for animals

**2016 performance:** During 2016, consumers participating in the Dairy Monitor 2016 Wave 11 survey were asked whether they believe dairy farmers are doing a good job of caring for their animals. Of those interviewed, 58% agreed, 22% were neutral, 6% disagreed and 15% said they don't know. This is a slight decline of only 1% from last year, when 59% said they believe dairy farmers are doing a good job of caring for their animals.

### TOWARDS GOAL 7 — 2016 HIGHLIGHTS

#### New Animal Welfare Standards and Guidelines

The Australian Animal Welfare Standards and Guidelines for Cattle were released in January 2016 but still need to be adopted into state legislation. The dairy industry contributed to their development and they reflect the industry's animal welfare strategy and recommended practices. The Standards are essential legal requirements that must be met by all dairy farmers, covering the full range of on-farm management practices for cows, and their welfare considerations. Most dairy farmers are already exceeding the Standards.

Visit: [www.dairyaustralia.com.au/farm/animal-management/animal-welfare/welfare-regulations](http://www.dairyaustralia.com.au/farm/animal-management/animal-welfare/welfare-regulations)

**Improving reproductive performance** — InCalf is a Dairy Australia project which seeks to improve herd reproductive performance. Increasing fertility rates will ensure reduction in routine use of calving induction and increase farm profitability. InCalf also provides tools and resources to support farmers in managing their calves.

Visit: [www.dairyaustralia.com.au/farm/animal-management/fertility/incalf-program](http://www.dairyaustralia.com.au/farm/animal-management/fertility/incalf-program)

**Farm biosecurity plans** — A Dairy Australia project is assisting dairy farmers to document their own farm biosecurity plan with a checklist of good farm practice to manage biosecurity. A web based tool is being developed.

Visit: [www.dairyaustralia.com.au/farm/animal-management/animal-health/dairy-biosecurity](http://www.dairyaustralia.com.au/farm/animal-management/animal-health/dairy-biosecurity)

# Progress against the Framework

Australian dairy farmers are committed to managing land and water responsibly. They undertake various practices to reduce their environmental footprint including fencing off waterways to improve water quality, nutrient management to reduce nutrient runoff, managing land for conservation and biodiversity, and managing weeds. Efficient irrigation practices and recycling water used in dairy operations also contribute to better outcomes for the environment. These practices are monitored through the periodic Natural Resource Management survey undertaken with dairy farmers.

Dairy manufacturers regularly report on their GHG emissions intensity, consumptive water use and waste sent to landfill — and are committed to reducing all of these measures to support the industry's targets as well as contributing to the United Nations Sustainable Development Goals. We measure and monitor the aggregate environmental performance of the manufacturing sector through data collected by the Dairy Manufacturers' Sustainability Council (DMSC). The DMSC brings together the largest Australian dairy manufacturers to improve sustainability practices and spearhead collaborative action across the industry. The eight member companies are responsible for processing over 85% of the national milk supply.

## Reducing environmental impact

### Goal 8 Improve nutrient, land and water management



Progress towards target against baseline								
Target	Baseline	2014	2015	2016	2020 Target			
8.1	Exclusion of stock from waterways	73%	-	76%	-	90%	<div></div>	
8.2	Nutrient management plans	30%	-	58%	-	80%	<div></div>	
8.3	Irrigation automation	47%	-	54%	-	80%	<div></div>	
8.4	Managing land for conservation and biodiversity	47%	-	45%	-	80%	<div></div>	
8.5	All dairy farmers actively managing noxious weeds where relevant	Noxious weeds identified as major land issue	37%	-	29%	-	Under review	<div></div>
		Actively managing noxious weeds where a problem	28%	-	28%	-	100%	<div></div>
8.6	Recycle water on farm	50%	-	75%	-	100%	<div></div>	

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year

#### HOW WE'RE TRACKING

No results were collected during 2016 for these indicators. The latest information available to demonstrate progress towards our target was gathered in the 2015 Natural Resource Management survey to investigate what dairy farmers are doing to reduce environmental impact. The next survey is due to be conducted in 2018.

- 8.1** 90% of stock excluded from waterways by 2020
- 8.2** 80% of farmers implement nutrient management plans by 2020

- 8.3** 80% of dairy farms with irrigation having implemented some level of irrigation automation by 2020
- 8.4** 80% of dairy farms managing some land for conservation and biodiversity by 2020
- 8.5** Where relevant, all dairy farmers actively managing noxious weeds by 2020
- 8.6** 100% of farmers have practices to recycle water on farm by 2020



## Reducing environmental impact

### Goal 8 Improve nutrient, land and water management (continued)

#### TOWARDS GOAL 8 — 2016 HIGHLIGHTS

**Adapting to climate change** — Dairy Australia and its partners have been very active in supporting research and development into adaptation options and strategies that assist the dairy industry adapt to climate challenges. In order to minimise the potential impacts of climate variability dairy farmers will need to continue to improve their management skills and continue to adapt their farm systems to manage future climate risks. A toolkit has been developed to assist farmers to adapt their own farm to climate change, covering topics such as heat stress in cows, changes in pasture, management strategies and regional considerations.

Visit: [www.dairyclimate toolkit.com.au](http://www.dairyclimate toolkit.com.au)

**Recognition for Climate Leadership** — As an industry, we strive to demonstrate leadership in sustainability. ADIC was recognised during 2016 by the United Nations Association of Australia with a World Environment Day award for organisational leadership.

**Managing water risk** — Developing a simple water budget tool a farmer can use to estimate their water requirements and a water risk assessment tool that matches potential water availability against estimated water requirements with a set of climate risk scenarios.

**Smarter irrigation** — A partnership between the Australian Government and major irrigation industries including dairy, the Smarter Irrigation for Profit project identified a number of low cost practical strategies to improve irrigation efficiency.

Dairy focused research and extension activities that form part of the project include irrigation scheduling technologies, smart automated irrigation, improving flow on irrigation bays and optimised dairy irrigation farms.

Visit: [www.dairyingfortomorrow.com.au/tackling-specificissues/water/smarter-irrigation-for-profit](http://www.dairyingfortomorrow.com.au/tackling-specificissues/water/smarter-irrigation-for-profit)



**Nutrient management plans** — Nutrient management has a big impact on farm profits. Dairy Australia works with a range of industry and natural resource management partners to help farmers manage fertiliser application, soil health and effluent. Many farmers are now finding that when they get soil and fertiliser management 'right', they can produce more feed at no extra cost, and with careful planning fertiliser becomes a strategic tool to boost feed when it's most needed. Fert\$mart provides farmers and advisors with a planning approach and the know-how to achieve this. For information about Fert\$mart.

Visit: <http://ferts mart.dairyingfortomorrow.com.au>





## Reducing environmental impact

### Goal 9 Reduce consumptive water intensity of dairy manufacturers by 20%

The dairy industry relies heavily on the availability of water. In manufacturing, cleaning is the single largest water-consuming process, driven by product safety requirements. Dairy manufacturers are continually looking at options to reduce, reuse and recycle water. Consumptive water is defined as 'water in' which may include mains, ground and surface water.

Target	Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
9.1 Consumptive water intensity of dairy manufacturers (litres per litre of milk processed)	1.75	1.56	1.58	1.62	1.40	●

#### Understanding 2016 performance tracked against baseline

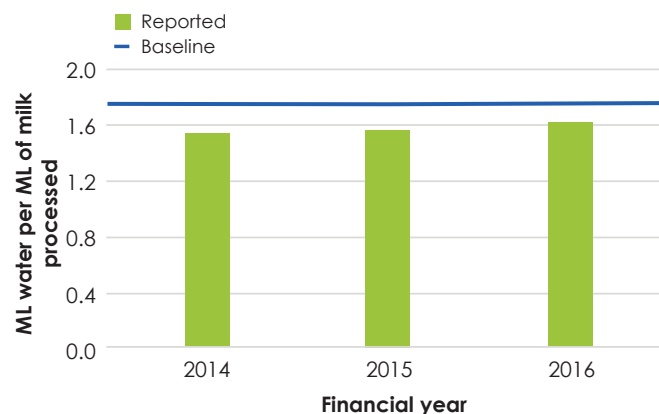
Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year



#### HOW WE'RE TRACKING

##### 9.1 20% reduction in consumptive water intensity of dairy manufacturers (on 2010/11 levels) by 2020

**2016 performance:** Consumptive water intensity of dairy manufacturers increased during the reporting period. During 2015 manufacturers used only 1.58 litres of water per litre of milk processed, whereas in 2016 this increased to 1.62 litres used (see Figure 7).



**Figure 7.** Dairy manufacturers water intensity (ML water per ML of milk processed)

SOURCE: Dairy Manufacturers' Sustainability Council (DMSC)

In 2016, the scope of consumptive water measured was adjusted to exclude re-used and recycled water and water used for other purposes such as dilution for waste water treatment purposes with a view to capturing this data separately. This change is likely to have influenced the 2016 result, increasing the intensity of the water consumed. Data was collected directly from dairy manufacturers, who collectively process approximately 89% of Australia's milk.

#### TOWARDS GOAL 9 — 2016 HIGHLIGHTS

**Water saving at Bega** — At the Bega Cheese factory in southern New South Wales there are numerous improvements planned or underway to improve water use. One of these is the recovery of water from the whey concentrating process for reuse in cooling towers at the Bega sites.

Approximately 125–150 kilolitres of water is recovered each day from cheese processing and used in five cooling towers at the factory. Permeate from the nano-filtration process goes through a reverse-osmosis membrane and is then pumped to the five cooling towers. This reduces use of bore water. In addition, steam condensate from the whey evaporating process is returned to the boiler-feed watertank, saving approximately another 70 kilolitres of bore water per day.

This project reduces both water consumption and wastewater generation.

Bega also makes wastewater available to farmers around its sites for irrigation. Farmers welcome the water and buy less fertilizer thanks to the beneficial nutrients and minerals it contains. In 2015/16, approximately 656ML of wastewater was used in this way, representing around 29% of the water consumed by the Bega group overall.

## Reducing environmental impact

### Goal 10 Reduce greenhouse gas emissions intensity by 30%

The Australian dairy industry recognises it has an important role to play in increasing energy efficiency and reducing greenhouse gas (GHG) emissions. The dairy sector overall accounts for 12% of Australia agriculture's emissions with dairy manufacturing responsible for around 5% of the sector's emissions. The amount of energy used and resulting greenhouse gas emissions in a dairy manufacturing plant depends on the mix of product produced. The production of milk powder, for example, requires more energy (to evaporate water) compared with liquid milk production. Product mix nationally and among manufacturers can have a profound impact on resource efficiency initiatives and the monitoring and reporting on performance.

Target		Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
10.1	Emissions from dairy manufacturers (tonnes of CO <sub>2</sub> equivalent per ML milk processed)	178.7	153.6	152.5	140	125.8	●
10.2	Farm emissions abatement actions	Under review	-	-	-	Under review	-

#### Understanding 2016 performance tracked against baseline

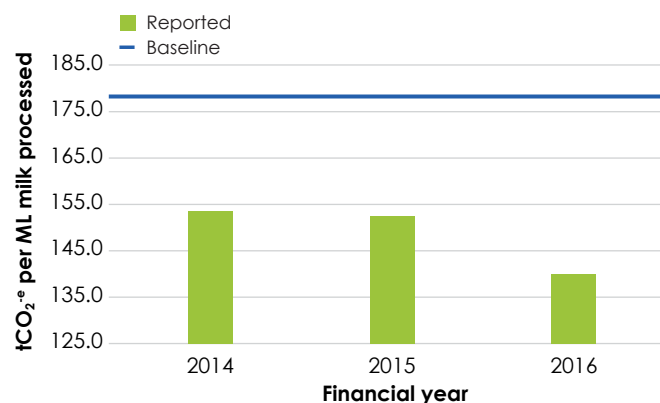
Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year

### HOW WE'RE TRACKING

#### 10.1 30% reduction in greenhouse gas emissions intensity measured through:

##### a. direct measurement of manufacturers' emissions

**2016 performance:** The intensity of GHG emissions generated by dairy manufacturers in 2015/16 was approximately 140 tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e) per million litres of milk processed (see Figure 8). Data was collected from dairy manufacturers who collectively process approximately 85% of Australia's milk.



**Figure 8.** GHG emissions intensity: DMSC members

SOURCE: Dairy Manufacturers' Sustainability Council

Emissions include combusted stationary fuels (Scope 1), transport fuels (Scope 1) and emissions associated with grid electricity (Scope 2). The result is an 8.2% decrease in emissions intensity since 2014/15 and a 21.7% reduction since 2010/11.



##### b. output measures from farm abatement actions are still to be determined



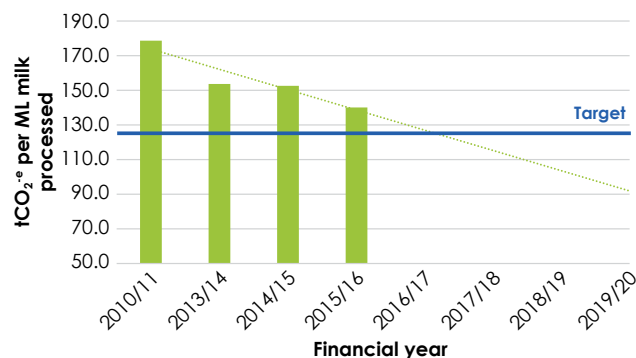
## Reducing environmental impact

### Goal 10 Reduce greenhouse gas emissions intensity by 30% (continued)

#### TOWARDS GOAL 10 — 2016 HIGHLIGHTS

**Refrigeration innovation at Parmalat** — Parmalat identified a refrigeration issue at their Lidcombe plant and developed a cost-effective solution which reduced the site CO<sub>2</sub>-e production by 727 tonnes annually.

**A positive (negative) GHG emissions trend** — Members of the Dairy Manufacturers' Sustainability Council (DMSC) which represent more than 85% of milk processed nationally have been collecting emissions data since 2010/11. For GHG emissions intensity, we have set an industry target of a 30% reduction by manufacturers by 2020 from a 2010/11 baseline. We are now on track to readily exceed that target (see Figure 9). Current estimates project a reduction of between 35% and 49% by 2020. We are still developing a target for dairy farm emissions.



**Figure 9.** Projected greenhouse gas intensity to 2020

SOURCE: Dairy Manufacturers' Sustainability Council

**Storing energy on farm** — The United Dairy Farmers of Victoria (UDV) is conducting a feasibility study that will consider the relative costs and benefits of energy storage on dairy farms — funded through the Victorian Government's New Energy Jobs Fund. The key finding was that a dairy's ability to expand is constrained by its milk storage capacity and this capacity cannot be increased beyond the energy constraints imposed by Single-wire earth return (SWER) lines without intervention. This information is being used to support advocacy for policy change in Victorian infrastructure planning.

Visit: [www.vff.org.au/vff/Industry\\_Groups/Dairy\\_UDV/Policy%20Work.aspx?WebsiteKey=62c24c8c-d2bd-4a9d-b3fc-8986271a8595&hkey=8b7b5e26-6c04-4b61-8746-4605535b1372](http://www.vff.org.au/vff/Industry_Groups/Dairy_UDV/Policy%20Work.aspx?WebsiteKey=62c24c8c-d2bd-4a9d-b3fc-8986271a8595&hkey=8b7b5e26-6c04-4b61-8746-4605535b1372)

**Smarter energy use** — Dairy Australia has been working with dairy farmers for several years to reduce on farm energy use through offering access to personalised on-farm energy assessments, workshops and information resources, funded by a grant from the Department of Industry and Science. By June 2015, 1399 dairy farmers had undertaken an energy assessment through this project. In 2016, Dairy Australia continued to promote results of the project via case studies and fact sheets to encourage further uptake of energy saving practices.

Visit: <http://frds.dairyaustralia.com.au/events/smarter-energy-use/>

**Reducing emissions from dairy farms** — Through the dairy climate toolkit, Dairy Australia is assisting farmers to adapt to climate change. The initiative includes many ways to reduce greenhouse gas emissions coming from dairy farms.

Visit: [www.dairyclimatetoolkit.com.au/videos](http://www.dairyclimatetoolkit.com.au/videos)







## Reducing environmental impact

### Goal 11 Reduce waste to landfill by 40%

Target	Baseline	2014	2015	2016	2020 Target	Progress towards target against baseline
<b>11.1a</b> Waste to landfill intensity of dairy manufacturers (tonnes of waste per ML milk processed)	2.69	1.63	1.45	1.39	1.61	●
<b>11.1b</b> Manufacturers: signatories to Australian Packaging Covenant (APC)	9	9	8	8	All manufacturers	●
<b>11.2</b> Farm level waste reduction	Under review	-	-	-	Under review	-

#### Understanding 2016 performance tracked against baseline

Key	Description
●	Progress towards target
●	Result maintained or marginal change
●	Regression
Under review (baseline)	Baseline not yet established
Under review (target)	Target not yet established
-	No data collected for target in this year

#### HOW WE'RE TRACKING

##### 11.1 40% reduction in manufacturer waste to landfill by 2020 on 2010/11 levels

###### a. direct quantitative target

**2016 performance:** Dairy manufacturers generate a variety of wastes, ranging from cardboard and plastic packaging to wooden pallets and wastewater treatment sludges. During 2015/16, dairy manufacturers produced approximately 1.39 tonnes of waste to landfill per million litres or megalitre (ML) of milk processed (see Figure 10). Data was collected from dairy manufacturers who collectively process approximately 62% of Australia's milk. This exceeds the industry target of a 40% reduction by 2020. While some of this reduction is due to increased efforts to reduce and divert waste, some improvement is also likely due to improved measurement of waste.

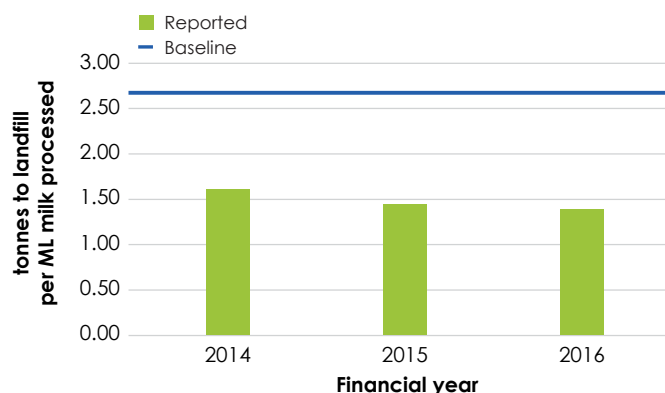


Figure 10. Waste intensity: DMSC members

SOURCE: Dairy Manufacturers' Sustainability Council



Since data collection started, more companies are having contractors weigh waste more accurately, rather than estimating by volume, and this has helped to improve accuracy.

b. All manufacturers being signatories of the Australian Packaging Covenant (APC)

**2016 performance:** 8 dairy manufacturers were signatories to the APC in 2016.

##### 11.2 40% reduction in waste to landfill — baseline for farm level waste reduction to be established

**2016 performance:** At the time of compiling our 2016 report there was no appropriate measure for this indicator.

#### TOWARDS GOAL 11 — 2016 HIGHLIGHTS

**Collective action on waste** — Dairy Manufacturers' Sustainability Council (DMSC) members, who represent more than 85% of milk processed nationally, have been collecting and aggregating waste data since 2010/11. DMSC members have collectively reduced waste per megalitre of milk processed from 2.69 tonnes in 2010/11 to 1.18 tonnes in 2015/16. This represents a reduction of 56.2% in waste intensity over five years.

**Sharing excess product** — Several dairy companies participate in food recovery and donation programs. Fonterra Australia, Lion, Parmalat Australia and Murray-Goulburn contributed 2.65 million litres of fresh and UHT milk to Foodbank during 2014/15. Visit: [www.foodbank.org.au/want-to-help/donate-food/milk-program](http://www.foodbank.org.au/want-to-help/donate-food/milk-program)



# Appendix 1: Framework scope

## Influence along the value chain

The Framework seeks to consider all issues along the value chain that have the potential to affect the sustainability of the dairy industry. Inputs through the value chain include water, hay, grain and fertiliser on farm, and logistics, ingredients, packaging, energy and water in the manufacturing sector.

While many issues go beyond the immediate control of the dairy industry, we nonetheless seek to factor them into our planning and use our influence where we can to improve sustainability practices.



- 1** Increase the future 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** Attract, develop and retain a skilled and motivated dairy workforce

- 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

- 8** Improve nutrient, land and water management
- 9** Reduce the consumptive water intensity of dairy manufacturers by 20%
- 10** Reduce greenhouse gas emissions intensity by 30%
- 11** Reduce waste to landfill by 40%

Figure 11. Sustainability Framework targets plotted against Australian dairy industry value chain



# Appendix 2: Framework review

A comprehensive review of the Framework was undertaken in 2016 by the Dairy Sustainability Steering Committee to take stock of where the dairy industry was, where it needs to be, and ensure there is a clear pathway to get there.

The review process included:

**1. Technical review:**

- Analysis of key drivers and challenges (e.g. investor transparency, supply chain, farmgate prices, international trends) by STR Consulting
- Material issues review by STR Consulting
- Social licence and consumer insights from survey work by Futureye

**2. Industry workshop to align with key dairy programs**

**3. Expert review and contribution from the Steering Committee and third-party experts**

**4. Update of the Framework to include appropriate recommendations**

**5. Feedback from the Dairy Sustainability Consultative Forum**

**6. Further stakeholder consultation and revision by the Steering Committee**

**7. Final report to be submitted to the ADIC for review and approval in 2017**



**Figure 12.** Australian Dairy Industry Sustainability Framework review process

During the review, the Steering Committee considered:

- What has changed since 2012?
- Does the Framework cover the issues of greatest importance to the industry?
- Is the Framework generally still “fit for purpose”?
- Are the targets and indicators both robust and meaningful? Should they be changed?
- Is performance against the targets adequate? Are we doing enough? Should targets be extended or expressed differently?
- How does the content of the Framework connect to existing programs?
- What are the next steps? What level of ambition should we adopt?







## Technical review:

A technical review by STR Consulting examined the current targets and indicators in the Framework for a number of practical features. This included using a series of questions to assess the Framework's targets and indicators for their technical integrity and utility. Specific questions included:

- Has progress against the target been reported in the past 3 years? Is there a baseline?
- Can the indicator be quantified? Can it be quantified in consistently and demonstrate a trend? Is it comparable with other sectors? Can it be externally assured?
- Does the indicator reflect the intention of the target? Can it be used by audiences for decision-making? Does it imply a course of action for performance improvement?

This assessment was then presented alongside information arising from the materiality assessment outlined below. This included a consideration of the changes which have occurred since the Framework was first adopted in 2012. Specifically to the sustainability context of the industry within Australia and globally and benchmarking with peers who have since identified issues, adopted targets and initiated programs.

## Material issues review:

Defining and prioritising the sustainability issues material to the dairy industry is critical to the ongoing strategic development of the Framework. Material issues are defined as those which reflect our significant economic, environmental and social impacts and substantively influence the assessments and decisions of our stakeholders. A review of material issues was first undertaken in 2011 to inform the initial development of the Framework. In preparing the 2014 progress report, a limited review of material issues was repeated to test their currency and relevance. A more comprehensive refresh of the material issues was undertaken in 2016 to support the evolution of the Framework and to inform the content of the 2016 Progress Report. The materiality review aimed to check on the issues which formed the basis of the Framework, determine emerging issues not yet covered in the Framework, and prioritise issues for action. Since 2012, there has been a world-wide reduction in dairy commodity prices. At the same time, issues such as fair work, traceability, animal welfare, labelling and trust have become more significant in the supply chain.

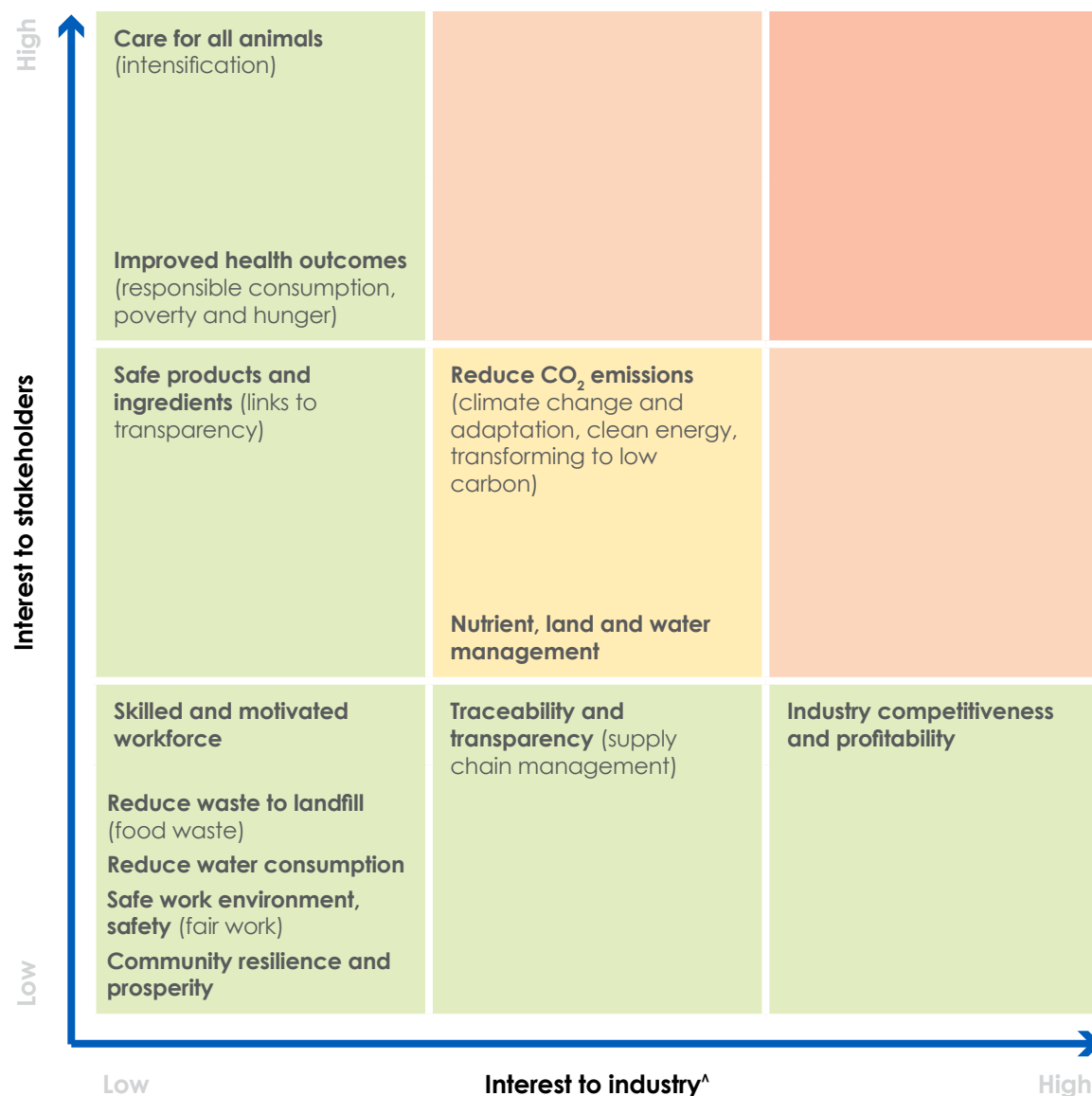
The review consisted of a number of tests including:

- An examination of peers including Dairy UK, Bord Bia (Irish Food Board), Innovation Center for US Dairy, Nestle and Friesland Campina.
- A review of Dairy Australia's issues register for the sector and internal risk register.
- Analysis of key drivers in the changing context of sustainability such as the UN Sustainable Development Goals, incorporation of sustainability reporting requirements in the ASX Corporate Governance Guidelines for companies and increasing interest in sustainability from investors and large global customers.

As part of this review, participants in the Dairy Sustainability Consultative Forum meeting in May 2016 were asked to then prioritise issues based on: the dairy sector's key impacts and interest to stakeholders. The most important issues were found to be:

- Care for all animals (highest interest to stakeholders)
- Industry competitiveness and profitability (highest impact on the industry)
- Climate change ie. GHG emissions, adaptation, drought and water (moderate for both stakeholders and impact on the industry)
- Human health and nutrition — improved health outcomes and responsible consumption (high interest to stakeholders)

See Figure 13 on page 40 for the results of the review.



**Figure 13.** Material issues review

<sup>^</sup> Dairy farmers care for their animals. This is implicit and considered a normal part of business, so it was not identified as a key issue for dairy farmers.

## Social licence and consumer insights

Consulting company Future Eye also undertook a consumer survey to identify emerging trends that the industry needs to consider with regards to its social licence. The social licence issues identified reflect practice change priorities for the dairy industry. They include:

- 1. The importance of dairy in the diet:** A significant proportion of people are uncertain about whether dairy products are an essential part of the diet or if they are even healthy.
- 2. Fat and sugar in dairy:** There is a perception that dairy products are fattening and consumers are confused about added sugar, lactose and levels of fat.
- 3. Surplus bobby calves:** There is little knowledge about bobby calves and their processing.
- 4. The mother cow-calf separation:** There is a low level of knowledge about how/when the cow-calf are separated.
- 5. The naturalness of dairy products:** There is uncertainty about whether Australian dairy products are natural.
- 6. The risk of perceived genetic modification:** There is a low level of acceptance of Australian dairy cows eating GM rye grass.
- 7. Antibiotics:** There is a high degree of uncertainty about whether dairy products contain antibiotics.
- 8. Naturalness of cows' lives:** There is a correlation between milk consumption and the perception that the cow's lives are less natural.
- 9. Environmental impacts:** Dairy farming's environmental footprint is not driving consumer concerns, but there's a hazard-based risk.
- 10. Lactose intolerance:** There is a perception of lactose intolerance that is driving consumers to reduce and reject dairy.



## What we propose to change and why

In the Framework review process, several improvements were identified and discussed in depth.

The proposed overarching changes are detailed in Table 1.

**Table 1.** Framework proposed changes

Overarching changes	
<b>UN Sustainable Development Goals</b>	<ul style="list-style-type: none"> <li>Where appropriate, align the Framework with the UN Sustainable Development Goals (SDGs).</li> <li>Change the term 'Target' to 'Goal' and 'Indicator' to 'Target'.</li> <li>Move some targets to 2030 yet ensure interim targets are maintained where needed and any change is transparent.</li> </ul>
<b>Structure</b>	<ul style="list-style-type: none"> <li>Maintain the existing structure with minor changes, such as merging targets 3 and 4.</li> <li>Make the language more contemporary by restructuring the narrative rather than the entire Framework.</li> <li>Raise the animal welfare theme within the Framework.</li> </ul>
<b>Priority areas</b>	<ul style="list-style-type: none"> <li>The Priority Area is redundant, e.g. 'Minimising our environmental footprint' and so incorporate the Priority Area words into the Goals where it makes sense. This was done to enable clearer communication.</li> </ul>
<b>Position statements</b>	<ul style="list-style-type: none"> <li>Establish position statements for key themes (health and nutrition, animal health and welfare, climate change and water, and profitability, as well as food waste which is an emerging issue).</li> </ul>

We will also revise the goals, targets, indicators and baseline data and are considering the proposed structure outlined in Table 2. Full details will be reported in the 2017 Australian Dairy Sustainability Report.

We will be consulting widely on the proposed changes before finalising the goals, targets and indicators for 2030.

**Table 2.** Australia Dairy Sustainability Framework Goals — current and possible

Current (2013–2016)			Possible goals for further consideration in 2017		
Enhancing livelihoods	1	Increase the future competitiveness and profitability of the Australian dairy industry	Enhancing economic viability and livelihoods	1	Increase the number of profitable dairy farmers and Australia's share of global trade
	2	Increase the resilience and prosperity of dairy communities		2	Increase the resilience and prosperity of dairy communities.
	3	Provide a safe work environment for all dairy workers		3	Provide a safe and rewarding work environment which enables dairy to attract and retain the people it needs
	4	Attract, develop and retain a skilled and motivated dairy workforce			
Improving wellbeing	5	All dairy products and ingredients sold are safe	Improving wellbeing of people	4	All dairy products and ingredients sold are safe
	6	Dairy contributes to improved health outcomes for Australian communities		5	Dairy contributes to improved health outcomes for all Australians
	7	Provide best care for all our animals	Providing best care for all our animals	6	Provide best care for all our animals for whole of life
Reducing environmental impact	8	Improve nutrient, land and water management	Reducing environmental impact	7	Improve land management (including no net deforestation)
	9	Reduce consumptive water intensity of dairy manufacturers by 20%		8	Water use efficiency
	10	Reduce greenhouse gas emissions intensity by 30%		9	Reduce greenhouse gas emissions intensity
	11	Reduce waste to landfill by 40%		10	Reduce waste (including food waste)



## Focus on community resilience

Goal 2 of the Australian Dairy Industry Sustainability Framework is 'increase the resilience and prosperity of dairy communities' — with suggested indicators being:

- i. The current contribution that the dairy industry makes to the economy of dairy regions;
- ii. The contribution and importance of dairy is recognised in relevant local and state government strategies; and
- iii. Increase consumers' and dairy communities' recognition of the value of the dairy industry.

Since the original indicator was established no reliable data could be identified to measure progress. In line with the Framework's continuous improvement philosophy, Dairy Australia is piloting two projects to create data that could be used to meaningfully measure progress against Goal 2.

The first of these is the *Pathways to Profitable Growth* (PTPG) project, a regional constraints analysis and economic multipliers study that is modelling the contribution of the industry to the economy of dairy regions. The results of this study, which is being conducted in partnership with Victoria's Department of Economic Development (EcoDev), will be released during 2017.

A second project seeks to develop indicators for assessing community resilience, taking into consideration the industry's contribution to the socio-ecological system in a dairy region. A set of indicators for natural environment, social connections, individual capacity, community infrastructure, regional economy and governance will be tested with regional communities during 2017.



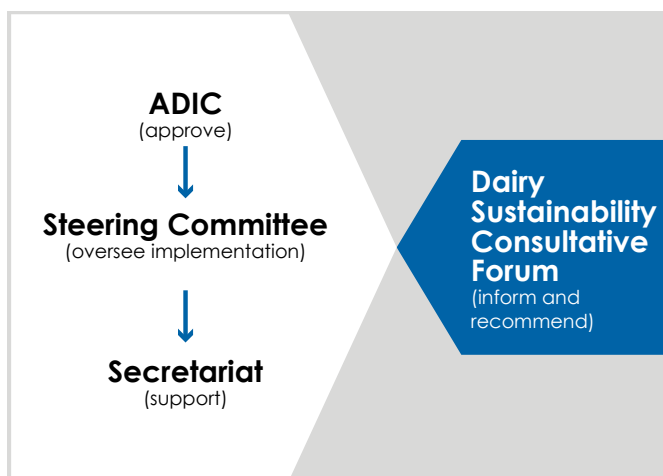
It is envisaged that these projects will create sources of data that enable the industry to measure and assess the dairy industry's progress towards Goal 2 for the first time since the Framework was established. As a result, the current indicators for this goal (which were chosen initially as proxies) will be reviewed and may change in the future. It is hoped the new data will enable targets to be set for Goal 2.



# Appendix 3: Governance

The ADIC, the dairy industry's peak policy body, has overall responsibility for the Framework — setting and reporting progress against the Framework targets and performance measures (see Figure 14). 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 monthly and includes representatives from farmer organisations as well as manufacturing companies.

The Steering Committee seeks endorsement from the ADIC on any major recommendations. Representation and members of the Steering Committee are listed in this Appendix.



**Figure 14.** The governance model of the Australian Dairy Industry Sustainability Framework

The Dairy Sustainability Consultative Forum was established in 2013. Consisting chiefly of non-industry stakeholders, the Forum provides feedback on our progress and facilitates two-way discussion on emerging issues both nationally and internationally. The Consultative Forum has two face to face meetings per year. In 2016 they met in May and October.

Our intention is to continue to evolve and develop the Framework as issues emerge and progress is made. This will include improving data collection and measurement techniques and actively demonstrating performance improvements as the Framework overall moves toward more strategic industry-wide solutions. Our comprehensive review of the Framework in 2016, with changes to be implemented in 2017, is evidence of our commitment to continuous improvement.

## Principles and guidance

The development of the Framework was informed by international guidelines and standards, including the United Nations Global Compact and the Global Reporting Initiative (GRI) G4.

It was also guided by a set of agreed principles to help identify and prioritise issues and guide ongoing action and decision-making (see Figure 15). 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.

Our approach has also been influenced by the United Nations Sustainable Development Goals (UNSDGs). The UNSDGs outline 169 targets across areas including poverty reduction, food security and energy and will directly influence national policy settings. (see [www.un.org/sustainabledevelopment/development-agenda](http://www.un.org/sustainabledevelopment/development-agenda))

Principles	Informed by
Ethical behaviour	AA1000 Accountability Principles Standard 2008
Transparency and accountability	AA1000 Stakeholder Engagement Standard 2011
Appreciation of stakeholder interest	
Competitive neutrality 'not providing competitive advantage'	
Collective action that delivers mutual benefit	
Inclusivity	

**Figure 15.** A set of agreed principles helped identify and prioritise issues and guide ongoing action and decision-making

The international dairy industry has developed the global Dairy Sustainability Framework (DSF)<sup>6</sup>. Dairy Australia is a full member of the DSF and the Australian Dairy Industry Sustainability Framework aligns with this global framework.

<sup>6</sup> [www.dairysustainabilityframework.org](http://www.dairysustainabilityframework.org)



## Dairy Sustainability Steering Committee members

Jeremy Bayard	ACE Farming Company
Adele Beasley	Australian Dairy Farmers
Patten Bridge	Bridge Logic Consulting
Melissa Cameron	Dairy Australia
Sarah Carter	Parmalat
Warren Climo	Bega/Tatura
Helen Dornom	Dairy Australia
Kelly Ward	Dairy Australia
Chris Griffin	Australian Dairy Industry Council (Chair)
Maria McCarthy	Devondale Murray Goulburn
Maurice King	WCB/Saputo
Jack Holden	Fonterra Australia
Mark Linton	Parmalat
Bernadette Marr	Australian Dairy Farmers
Ian Olmstead	Dairy Australia
Catherine Phelps	Dairy Australia
Rose Philipzen	Moxey Farms
Peter Stahle	Australian Dairy Products Federation
Rob Randall	Norco
Robyn Riley	Lion
Dedee Woodside	Australian Dairy Farmers

### Support

Felicity Kelly	Currie Communications
Robyn Leeson	STR Consulting
Mark Paterson	Currie Communications
Gabrielle Sheehan	Currie Communications





# Appendix 4: Stakeholder engagement

Engagement with our stakeholders within and beyond the dairy industry has been a cornerstone of the development and implementation of the Framework, and is critical to ensure it remains robust and relevant.

The stakeholders engaged in the Framework include the dairy industry (farmers and manufacturers), customers, suppliers, government, primary industries, non-government groups, special interest groups and others. This takes place through the formal mechanisms of the Steering Committee and the Consultative Forum, as well as consultation with industry representative bodies and other stakeholders on specific issues facing the industry.

In 2016, two Consultative Forum meetings were held. The engagement focused on identifying material issues to support the review of the Framework. During the meetings, we encouraged open and constructive discussion. Industry and individual members provided information about key sustainability issues.

Figure 16 shows the key groups engaged and the issues identified during the consultative forums.

Throughout the year we continue to engage with our stakeholders via our monthly eNews which features updates on our sustainability progress, links to relevant articles and events.

## Industry



Producers, dairy manufacturers, dairy industry organisations

## Customers



Major Australian retailers/multinational companies

## Suppliers



Financial institutions

## Government



Federal departments, state departments

## NGOs and special interest groups



Community development groups, environmental NGOs Animal welfare groups

## Other primary industry



Beef

## Other



Sustainability practitioners, researchers

## Stakeholder interests

- The profitability of dairy farmers
- Consumer and community perceptions
- Animal health and welfare
- Managing people
- Provenance
- Modernisation
- Health and nutrition
- Climate change and water
- Food waste
- Ethical investment/responsible sourcing

Figure 16. Our stakeholders and their interests





## Dairy Industry Sustainability Consultative Forum Members 2016

Briannon Avery	Ridley
Pip Band	Meat & Livestock Australia
Meredith Banks	Metcash
Jeremy Bayard	ACE Farms
Adele Beasley	Australian Dairy Farmers
James Bentley	NAB
Prue Bondfield	Chair, RMAC Sustainability Steering Group
Patten Bridge	Bridge Logic
Sue Brumby	Western District Health Service
Lindsay Bull	Department of Agriculture and Water Resources
Lyndall Bull	Lynea Advisory
Allan Cameron	GippsDairy
Sarah Carter	Parmalat
Warren Climo	Bega/Tatura
Robert Cummin	Coles
Carlene Dowie	Fairfax Media
Louise Edwards	Ridley
Guy Fitzhardinge	Beef producer/WWF Board member
Aaron Gosling	Gardiner Foundation
Chris Griffin	Australian Dairy Industry Council (Chair)
Tess Herbert	Australian Lot Feeders Association
Jack Holden	Fonterra
Julia Hunter	Aussie Farmers Direct
Jenny Jago	DairyNZ
Maurice King	WCB/Saputo
Alison Lansley	Specialty Cheese Association

Amanda Lee	Queensland University of Technology
Mark Linton	Parmalat
David Marland	EcoDev
Hamish McAlpin	Rabobank
Maria McCarthy	Devondale Murray Goulburn
Ian McConnel	WWF
Bernadette Marr	Australian Dairy Farmers
Lisa Menhenett	MurrayDairy
Ingrid Messner	Authenticate Values
Heather Neil	RSPCA
Marc Oostdijk	Rabobank
Angela O'Sullivan	Department of Agriculture and Water Resources
Harriet Pile	Coles
Rose Philipzen	Moxey Farms
Andrew Rouse	WWF
Kylie Ruth	Australian Food and Grocery Council
Mario Solomon	Unilever
Peter Stahle	Australian Dairy Products Federation
Melina Tensen	RSPCA
Justin Toohey	Cattle Council of Australia
John Versteden	Chair, People and Human Capacity PAG
Nancy Wei	Visy
Katrina Woolfe	Sustainability Victoria
Philip Wright	The Ethics Centre
Wolfie Wagner	AgCap
Dedee Woodside	CSI-consulting/ADF
Monique White	DairySA

James Whittaker	Coles
Melissa Cameron	Dairy Australia
Robin Condon	Dairy Australia
Helen Dornom	Dairy Australia
Felicity Gallagher	Dairy Australia
Shane Hellwege	Dairy Australia
Julie Iommi	Dairy Australia
Murray Jenkins	Dairy Australia
Isobel MacNeil	Dairy Australia
Charles McElhone	Dairy Australia
Sam Oakden	Dairy Australia
Erika Oakes	Dairy Australia
Ian Olmstead	Dairy Australia
Catherine Phelps	Dairy Australia
Kim Walker	Dairy Australia
Kelly Ward	Dairy Australia

### Support

Felicity Kelly	Currie Communications
Robyn Leeson	STR Consulting
Mark Paterson	Currie Communications
Gabrielle Sheehan	Currie Communications



## Community Resilience Workshop Group

Elliot Anderson	NAB
Jack Archer	Regional Australia Institute
Pip Band	Meat and Livestock Australia
Adele Beasley	Australian Dairy Farmers
Patten Bridge	Bridge Logic
Allan Cameron	Gippsland RDP
Lisa Cowan	Department of Economic Development, Jobs, Transport and Resources
Michael Cuthill	University of Southern Newcastle
Natalie Egleton	Foundation for Rural & Regional Renewal
Felicity Gallagher	Dairy Australia
Aaron Gosling	Gardiner Foundation
Chris Griffin	Dairy Sustainability Framework
Pip Job	Department Primary Industries
Brian Lindsay	SAI Platform
Ian McConnel	WWF
Nadine Marshall	CSIRO
Wendy Mason	Western Research Institute
Ingrid Messner	Authentic Values
Sonia Muir	Department of Primary Industries
Marc Oostdijk	Rabobank Australia & New Zealand
Peter Parbery	Ecodev
Meg Perceval	University of Newcastle
Jack Pollock	NAB
David Ross	Phoenix Strategic Management
Helen Ross	The University of Queensland
Andrew Rouse	WWF

Michael Santhanam-Martin	The University of Melbourne
Jacki Schirmer	University of Canberra
Pamela Watson	Down To Earth Research
Melissa Weinberg	Deakin University
Monique White	DairySA
Dedee Woodside	Australian Dairy Farmers
Philip Wright	The Ethics Centre
Melissa Cameron	Dairy Australia
Helen Dornom	Dairy Australia
Julie Iommi	Dairy Australia
Suzi O'Dell	Dairy Australia
Norman Repacholi	Dairy Australia

### Support

Felicity Kelly	Currie Communications
Robyn Leeson	STR Consulting
Mark Paterson	Currie Communications





# Appendix 5: GRI content index

The Global Reporting Initiative (GRI) is an international independent organisation that helps businesses, governments and other organisations understand and communicate the impact of business on critical sustainability issues. The Dairy Industry Sustainability Framework Progress Report 2016 references Disclosures from GRI 101: Foundation 2016, GRI 102 General Disclosures and GRI 103: Management Approach 2016.

GRI Standard	Disclosure <sup>a</sup>	Location	Omissions
<b>GRI 101: Foundation 2016</b>			
<b>General Disclosures</b>			
GRI 102: General Disclosures 2016	102-1 Name of the organization.	Our Sustainability Story	
	102-2 A description of the organization's activities.	<a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-industry">www.dairyaustralia.com.au/about-dairy-australia/about-the-industry</a>	
	102-3 Location of the organization's headquarters.	Dairy Australia Level 5, IBM Centre, 60 City Road Southbank, Victoria, 3006	
	102-4 Number of countries where the organization operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report.	Australia	
	102-5 Nature of ownership and legal form.	Our Sustainability Story <a href="http://www.dairyaustralia.com.au/about-dairy-australia">www.dairyaustralia.com.au/about-dairy-australia</a>	
	102-6 Markets served, including: geographic locations where products and services are offered; sectors served; types of customers and beneficiaries.	Dairy Australia Annual Report 2015-2016 <a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance">www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance</a>	
	102-7 Scale of the organization, including: total number of employees; total number of operations; net sales; total capitalization broken down in terms of debt and equity; quantity of products or services provided.	Dairy Australia Annual Report 2015-2016 <a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance">www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance</a>	Not applicable to a sector-wide report.
	102-8 Total number of employees by employment contract (permanent and temporary), by gender.	38,000 direct employees	Information by broken down by gender, region and also tenure is not available sector-wide.
	102-9 A description of the organization's supply chain, including its main elements as they relate to the organization's activities, primary brands, products, and services.	Appendix 1: Framework scope — influence along the value chain.	Information by broken down by brands is not available sector-wide but remains with individual companies.
	102-10 Significant changes to the organization's size, structure, ownership, or supply chain.	Message from the Chairs	Not applicable to a sector-wide report.
	102-11 Whether and how the organization applies the Precautionary Principle or approach.	Refer to Dairy Australia's Audit and Risk Committee Charter <a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance">www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance</a>	

<sup>a</sup> Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards [www.globalreporting.org/standards](http://www.globalreporting.org/standards)



GRI Standard	Disclosure <sup>a</sup>	Location	Omissions
GRI 102: General Disclosures 2016	102-12 A list of externally-developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes, or which it endorses.	Appendix 3: Governance	
	102-13 A list of the main memberships of industry or other associations, and national or international advocacy organizations.	Dairy Australia Annual Report 2015-2016 pages 18-20 <a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance">www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance</a>	
	102-14 A statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and its strategy for addressing sustainability.	Message from the Chairs  Dairy Australia Annual Report 2015-2016 pages 6-9 <a href="http://www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance">www.dairyaustralia.com.au/about-dairy-australia/about-the-organisation/who-we-are/corporate-governance</a>	
	102-15 A description of key impacts, risks, and opportunities.	Appendix 1: Framework scope	
	102-16 A description of the organization's values, principles, standards, and norms of behaviour.	Our dairy promise Appendix 3: Governance	
	102-18 Governance structure of the organization.	Appendix 3: Governance	
	102-40 A list of stakeholder groups engaged by the organization.	Appendix 4: Stakeholder engagement	
	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.		Information unavailable. To be developed in next reporting cycle.
	102-43 The organization'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.	Appendix 4: Stakeholder engagement	
	102-44 Key topics and concerns that have been raised through stakeholder engagement.	Appendix 4: Stakeholder engagement	
	102-45 A list of all entities included in the organization'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 organization has implemented the Reporting Principles for defining report content.	Appendix 1: Framework scope	
	102-47 A list of the material topics identified in the process for defining report content.	Appendix 1: Framework scope — Material issues review	

<sup>a</sup> Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards [www.globalreporting.org/standards](http://www.globalreporting.org/standards)



GRI Standard	Disclosure <sup>a</sup>	Location	Omissions
GRI 102: General Disclosures 2016	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.	Appendix 1: Framework scope — What we changed and why. Other changes to topic boundaries are noted in the text.	
	102-50 Reporting period for the information provided.	Unless otherwise stated, the reporting period is 1 July 2015 to 30 June 2016.	
	102-51 If applicable, the date of the most recent previous report.	Previous reporting period was 1 July 2014 to 30 June 2015.	
	102-52 Reporting cycle.	Annual	
	102-53 The contact point for questions regarding the report or its contents.	Back page	
	102-54 The claim made by the organization, if it has prepared a report in accordance with the GRI Standards.	Content Index	
	102-55 The GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report.	Content Index	
	102-56 A description of the organization's policy and current practice with regard to seeking external assurance for the report.	This report has not been externally assured. Some contributing data may have been assured by other agencies for other purposes.	A position on external assurance will be developed for the next reporting cycle.

## Material Topics

### GRI 200 Economic Standard Series

#### Economic Performance

GRI 103: Management Approach 2016	103-1 Explanation of why the topic is material and the Boundary for the material topic.	Addressing the key issues: Industry Profitability Progress against the framework: Goal 1 — Increase the future competitiveness and profitability of the Australian dairy industry	
	103-2 Explanation of how the organization manages the topic.	Addressing the key issues: Industry Profitability Progress against the framework: Goal 1 — Increase the future competitiveness and profitability of the Australian dairy industry	
	103-3 Explanation of how the organization evaluates the management approach.		A more detailed position paper on key material issues will be developed for the next reporting cycle.

<sup>a</sup> Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards [www.globalreporting.org/standards](http://www.globalreporting.org/standards)





GRI Standard	Disclosure <sup>A</sup>	Location	Omissions
Material Topics			
GRI 400 Social Standard Series			
Customer Health and Safety			
GRI 103: Management Approach 2016	103-1 Explanation of why the topic is material and the Boundary for the material topic.	Addressing the key issues: Human health & nutrition. Progress against the framework: Goal 6 — Dairy contributes to improved health outcomes for Australian communities	A more detailed position paper on key material issues will be developed for the next reporting cycle.
	103-2 Explanation of how the organization manages the topic.	Addressing the key issues: Human health & nutrition. Progress against the framework: Goal 6 — Dairy contributes to improved health outcomes for Australian communities	
	103-3 Explanation of how the organization evaluates the management approach.		
Additional DMA Guidance from Food Processing Sector Supplement			
Animal health & welfare			
GRI 103: Management Approach 2016	103-1 Explanation of why the topic is material and the Boundary for the material topic.	Addressing the key issues: Animal health & welfare. Progress against the framework: Goal 7 Provide best care for all animals	A more detailed position paper on key material issues will be developed for the next reporting cycle.
	103-2 Explanation of how the organization manages the topic.	Addressing the key issues: Animal health & welfare. Progress against the framework: Goal 7 Provide best care for all animals	
	103-3 Explanation of how the organization evaluates the management approach.		
GRI 300 Environment Series			
Climate change and water			
GRI 103: Management Approach 2016	103-1 Explanation of why the topic is material and the Boundary for the material topic.	Addressing the key issues: Climate change and water. Progress against the framework: Goal 8 Improve nutrient, land and water management, Goal 9 Reduce consumptive water intensity of dairy manufacturers by 20%, Goal 10 Reduce greenhouse gas emissions intensity by 30%	A more detailed position paper on key material issues will be developed for the next reporting cycle.
	103-2 Explanation of how the organization manages the topic.	Addressing the key issues: Climate change and water. Progress against the framework: Goal 8 Improve nutrient, land and water management, Goal 9 Reduce consumptive water intensity of dairy manufacturers by 20%, Goal 10 Reduce greenhouse gas emissions intensity by 30%	
	103-3 Explanation of how the organization evaluates the management approach.		

<sup>^</sup> Disclosure descriptions have been summarised. For detailed descriptions refer to the GRI Standards [www.globalreporting.org/standards](http://www.globalreporting.org/standards)



# References and abbreviations

## Internal references and surveys

### Animal Husbandry Survey (AHS)

Conducted every two years with Australian dairy farmers to foster and encourage responsible animal husbandry, and 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, the most recent survey was conducted in October 2014 and surveyed over 400 dairy farmers nationally.

Visit: [www.dairyaustralia.com.au/farm/animal-management](http://www.dairyaustralia.com.au/farm/animal-management)

### Dairy Monitor Survey — (DM)

Annual tracking survey conducted amongst 1 600 metro and regional respondents to gauge community perceptions of dairy foods and the dairy industry and their dairy consumption behaviour. It covers a range of industry perceptions from animal welfare through to economic, environmental and social impacts of the industry from non-dairy members of the community. It is conducted in March/April each year. The survey is funded by Dairy Australia, but conducted by an independent organisation.

Survey participants are asked to rate their responses from 1 (Strongly Disagree) to 5 (Strongly Agree). Ratings of 4 and 5 are deemed to be agree, ratings of 3 are deemed to be neutral and ratings of 1 and 2 are deemed to disagree.

### Dairying for Tomorrow (Dft) Survey

A survey currently conducted every six years amongst 800 dairy farmers nationally to determine key issues facing farmers in relation to accessing and managing natural resources. It covers aspects such as irrigation water access, fertiliser and effluent management, waterways and native vegetation. As such it provides indicators of on farm practice change over time. The survey is funded by Dairy Australia, but conducted by an independent organisation. It was last conducted in 2012.

Visit: [www.dairyingfortomorrow.com.au/wp-content/uploads/Dft-2012-report-FINAL.pdf](http://www.dairyingfortomorrow.com.au/wp-content/uploads/Dft-2012-report-FINAL.pdf)

### DairySAT

The Dairy Self-Assessment Tool (DairySAT) is an environmental self-assessment and action planning tool for Australian dairy farmers.

Visit: [www.dairysat.com.au](http://www.dairysat.com.au)

### National Dairy Farmer Survey (NDFS)

A bi-annual survey conducted amongst 1 400 dairy farmers nationally (n=1000 for main survey and n=400 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.

Visit: [www.dairyaustralia.com.au/industry/dairy-situation-and-outlook/national-dairy-farmer-survey-2015](http://www.dairyaustralia.com.au/industry/dairy-situation-and-outlook/national-dairy-farmer-survey-2015)

### Sustainability Framework NRM Survey 2015

The Sustainability Framework NRM Survey was commissioned by Dairy Australia in 2015. It provides data on practices being undertaken on dairy farms to minimise impacts on land, soil and water due to farming practices.

Data included in the report is based on responses from 601 dairy farmers who participated in a Computer Assisted Telephone Interview (CATI) between August and September 2015. Survey respondents were chosen randomly from the Dairy Australia levy payer database. Quotas were set by NRM sub region and data was weighted at computer stage to ensure the national result is not disproportionately affected by regions with smaller numbers of dairy farmers.

Visit: [www.dairyingfortomorrow.com.au](http://www.dairyingfortomorrow.com.au)

### The Power of People on Australian Dairy Farms Survey (POP)

This independent telephone survey of 400 dairy farmers was conducted for the first time in 2014 and complemented with an online forum. It was not conducted in 2015, but will be conducted in 2016.



## External references and surveys

### Australian Animal Welfare Standards and Guidelines for Cattle

The development of the Australian Animal Welfare Standards and Guidelines for Cattle are an important project under the Australian Animal Welfare Strategy (AAWS) — a previous Australian Government initiative that guides the development of new, nationally consistent policies to enhance animal welfare arrangements in all Australian states and territories. The development process began in 2009 and has been supported and funded by all governments, Australian Dairy Farmers, Australian Lot Feeders Association and Cattle Council of Australia.

In late 2015 the Animal Welfare Task Group (AWTG) presented the final standards and guidelines to The Agriculture Senior Officials Committee (AgSOC) and the Agriculture Ministers (AGMIN) for endorsement. In mid-January 2016, all State and Territory governments have agreed to the Standards and Guidelines and they will now be progressively implemented by each State and Territory.

Visit: [www.animalwelfarestandards.net.au/cattle](http://www.animalwelfarestandards.net.au/cattle)

### Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

ABARES is the science and economics research bureau within the Australian Government Department of Agriculture and Water Resources. ABARES research products take a variety of forms, including publications, data, data tools, workshops, briefings and presentations and much of the research is made publically available. The Progress Report draws on ABARES data to determine and track performance measures for farm profitability.

### Australian Dietary Guidelines

The Australian Dietary Guidelines are developed by the National Health and Medical Research Council's (NHMRC). 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
- reduce the risk of chronic disease.

The Guidelines are for use by health professionals, policy makers, educators, food manufacturers, food retailers and researchers.

Visit: [www.eatforhealth.gov.au/guidelines](http://www.eatforhealth.gov.au/guidelines)

### Australian Health Survey 2011–13

The 2011–13 Australian Health Survey (AHS) is the largest and most comprehensive health survey ever held in Australia. The survey, conducted throughout Australia, collected a range of information about health related issues, including health status, risk factors, health service usage and medications. The 2011–13 AHS incorporated the National Nutrition and Physical Activity Survey (NNPAS).

Visit: [www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.008~2011-12~Main%20Features~Key%20findings~100](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.008~2011-12~Main%20Features~Key%20findings~100)

### Australian Milk Residue Analysis (AMRA) survey

This survey is an independent, national, government-coordinated monitoring program for potential agricultural and veterinary chemical residues, and environmental contaminants in the Australian milk supply.

The survey provides evidence that the Australian dairy industry's food safety system and quality assurance programs effectively manage the food safety and trade related risks associated with the use of agvet chemicals. The Survey also meets the export requirements of the Department of Agriculture under the Export Control (Milk and Milk Products) Orders 2005 and provides assurance to importing countries that Australian dairy commodities comply with importing country requirements with respect to managing the risks from the use of agvet chemicals.

Visit: [www.dairyaustralia.com.au/industry/food-safety-and-regulation/regulatory-framework/australian-milk-residue-analysis-survey](http://www.dairyaustralia.com.au/industry/food-safety-and-regulation/regulatory-framework/australian-milk-residue-analysis-survey)

### Australia's National Greenhouse Gas Inventory Report (2013)

Australia's National Greenhouse Accounts are made up of a series of comprehensive reports and databases that estimate, and account for, Australia's greenhouse gas emissions. These publications fulfil Australia's international and domestic reporting requirements. The June 2015 Quarterly Update is the most recent available.

Visit: [www.environment.gov.au/system/files/resources/48f221e4-6613-4eb2-b279-18ad7061484a/files/economic-sector-2013.pdf](http://www.environment.gov.au/system/files/resources/48f221e4-6613-4eb2-b279-18ad7061484a/files/economic-sector-2013.pdf)

### Dairy Sustainability Framework

The global Dairy Sustainability Framework (DSF) provides a holistic approach to global dairy sustainability activity, generating a common sustainability commitment

Visit: [www.dairysustainabilityframework.org](http://www.dairysustainabilityframework.org)





## CDP

CDP works to transform the way the world does business to prevent dangerous climate change and protect our natural resources. By leveraging market forces including shareholders, customers and governments, CDP has incentivised thousands of companies and cities across the world's largest economies to measure and disclose their environmental information.

Visit: [www.cdp.net/en-US/Pages/About-Us.aspx](http://www.cdp.net/en-US/Pages/About-Us.aspx)

## International Labour Organisation Declaration on Fundamental Principles and Rights at Work

Adopted in 1998, the Declaration commits Member States to respect and promote principles and rights in four categories, whether or not they have ratified the relevant Conventions. These categories are: freedom of association and the effective recognition of the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour and the elimination of discrimination in respect of employment and occupation.

Visit: [www.ilo.org/declaration/lang-en/index.htm](http://www.ilo.org/declaration/lang-en/index.htm)

## Product Safety Recalls Australia

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

Visit: [www.productsafety.gov.au/recalls](http://www.productsafety.gov.au/recalls)

## Regional Wellbeing Survey (CU RWS)

The Canberra University Regional Wellbeing Survey 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 CU RWS enable the provision of insights that support the development of strategies to build wellbeing, resilience and adaptive capacity in rural and regional Australia. The 2015 CU RWS report has been used in the 2016 Australian Dairy Sustainability Report.

Visit: [www.canberra.edu.au/research/faculty-research-centres/ceraph/regional-wellbeing/survey-results/2014-survey-results](http://www.canberra.edu.au/research/faculty-research-centres/ceraph/regional-wellbeing/survey-results/2014-survey-results)

## Safe Work Australia

Safe Work Australia is an independent statutory agency responsible to improve occupational health and safety and workers' compensation arrangements across Australia.

Visit: [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)

## Sustainable Development Goals

In September 2015, United Nations Member States adopted the Sustainable Development Goals as part a new sustainable development agenda. The 17 Sustainable Development Goals (SDGs) and 169 targets demonstrate the scale and ambition of this new universal Agenda. The SDGs and targets will stimulate action over the next 15 years in areas of critical importance for humanity and the planet.

Visit: [www.un.org/sustainabledevelopment/development-agenda](http://www.un.org/sustainabledevelopment/development-agenda)

## United Nations Guiding Principles on Business and Human Rights

The "Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework", were developed by the Special Representative of the United Nations Secretary-General on the issue of human rights and transnational corporations and other business enterprises.

The Human Rights Council endorsed the Guiding Principles in its resolution 17/4 of 16 June 2011.

Visit: [www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_EN.pdf](http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf)

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