THE UNIVERSITY OF MELBOURNE

The Australian dairy industry – farms and factories

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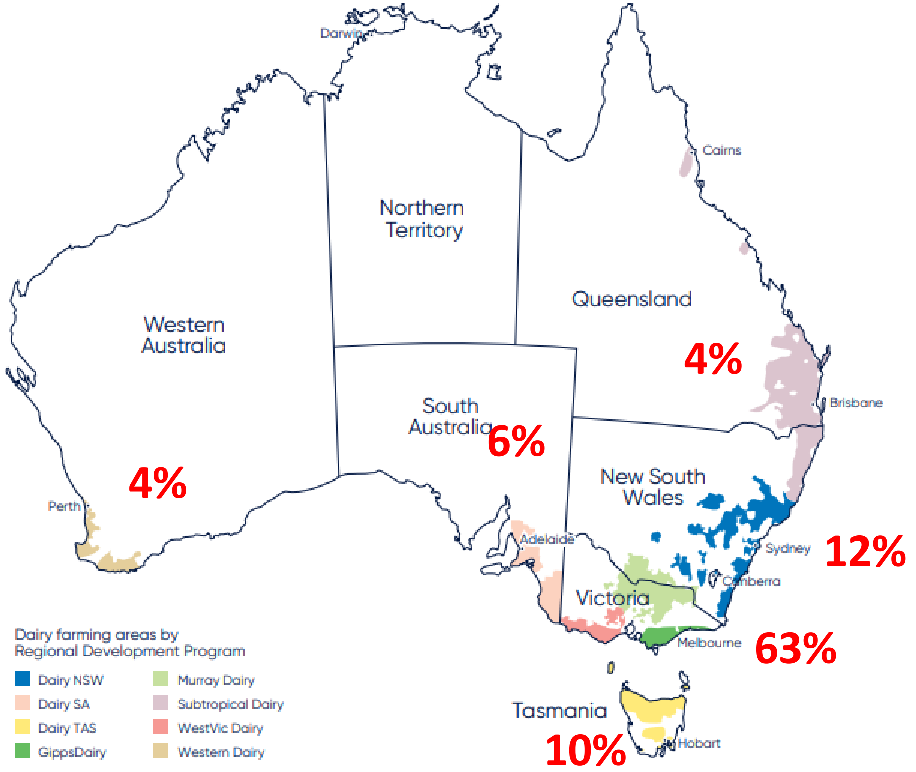
In this section

You will learn about farms and factories in the Australian dairy industry:

- Where farms are located
- How many farms there are and how big they are
- What happens to the milk after it leaves the producer – the factories
- How farmers are paid by the factories
- The dairy industry code that regulates factories and protects farmers



- 4th largest rural industry
- Worlds 4th largest exporter
- $4.8 billion revenue 2019/20
- 1.41 million cows
- 8,776 million L milk produced
- 44,500 people directly employed

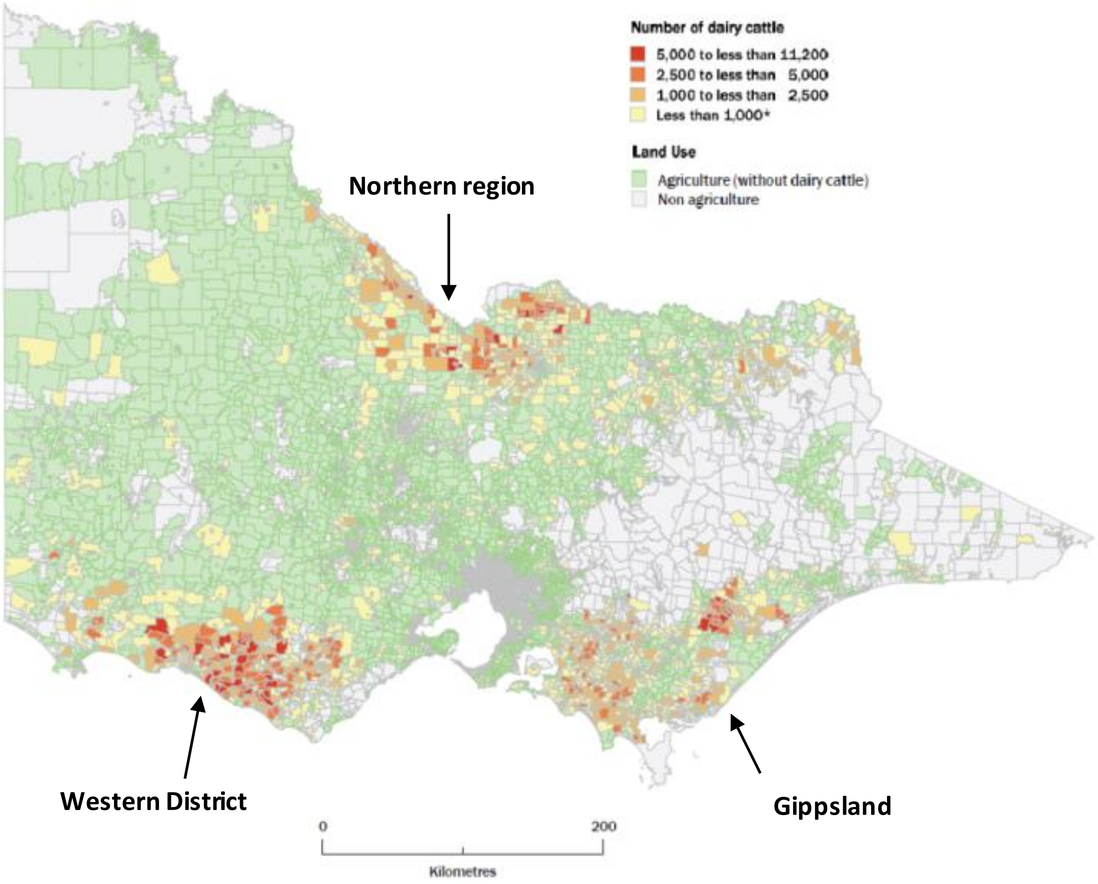
Ave herd size: 279 cows

Ave milk prod: 6,170 L/yr

- Vic: 6,261 L/yr
- Qld: 4,443 L/yr

Victoria

- 895,000 cows
- 3,462 farms
- 259 cows/farm
- 1623 L/herd/yr
- 64% of Australian milk production
- 62% of Australia's dairy exports



Numbers of farms

Table 2 Number of registered dairy farms

	NSW	Vic	Qld	SA	WA	Tas	Aust
2006/07	924	5,346	734	354	222	475	**8,055**
2007/08	886	5,422	664	332	186	463	**7,953**
2008/09	860	5,462	648	320	183	451	**7,924**
2009/10	820	5,159	621	306	165	440	**7,511**
2010/11	807	4,588	595	286	170	437	**6,883**
2011/12	778	4,556	555	275	162	444	**6,770**
2012/13	731	4,284	518	268	160	437	**6,398**
2013/14	710	4,268	475	264	156	435	**6,308**
2014/15	704	4,127	448	252	157	440	**6,128**
2015/16	690	4,141	421	246	151	430	**6,079**
2016/17	661	3,889	406	240	148	427	**5,771**
2017/18	626	3,881	393	228	159	412	**5,699**
2018/19	575	3,516	356	212	150	404	**5,213**
2019/20	534	3,462	327	206	135	391	**5,055**

Source: State Milk Authorities and Dairy Australia

Changing industry (1980 to 2019):

- Farm numbers:
  ↓ 22,000 to 5,055

Number of cows

Table 3 Number of dairy cows ('000 head)

	NSW	Vic	Qld	SA	WA	Tas	Aust
2006/07	210	1,150	121	114	60	140	**1,796**
2007/08	195	1,055	100	103	54	134	**1,641**
2008/09	201	1,061	107	106	52	149	**1,676**
2009/10	203	1,014	98	92	55	134	**1,596**
2010/11	195	1,010	97	90	59	138	**1,589**
2011/12	204	1,115	101	76	57	148	**1,700**
2012/13	210	1,096	96	77	62	148	**1,688**
2013/14	181	1,093	98	73	66	137	**1,647**
2014/15	177	1,147	91	68	59	147	**1,689**
2015/16	182	1,005	89	78	60	149	**1,562**
2016/17	164	975	86	71	64	160	**1,520**
2017/18	166	1,023	85	67	56	149	**1,547**
2018/19* (r)	149	898	78	72	56	175	**1,428**
2019/20 (e)	145	895	65	69	54	182	**1,411**

* From 2018/19 SA and Tas data sourced from State milk authorities
Source: ABS, State milk authorities, and Dairy Australia

Changing industry (1980 to 2019):

- Cow numbers:

slight ↓ (1.88 to 1.41 million)

- Av. herd size:

↑↑ 4 fold, 80 to 279 cows

- Av. milk production:

↑↑ 2 fold, 2,900 to 6,170L/cow/year

Fewer farms with more and higher producing cows

And increasing numbers of large herds >1000 cows

Milk processing

Fonterra (NZ)
Brownes (WA)
Lactalis (France)
Lion (Japan)
Saputo (Canada)

Farmers → Supply fresh milk → **Processors** → Processed, packaged → **Suppliers (supermarkets/export)**

'Home brand'
Devondale (Saputo)
Riverina fresh (F)
Pura (Lion)
Pauls (Parmalat/Lactalis)

30-60% exported

Dairy Brands in Australia

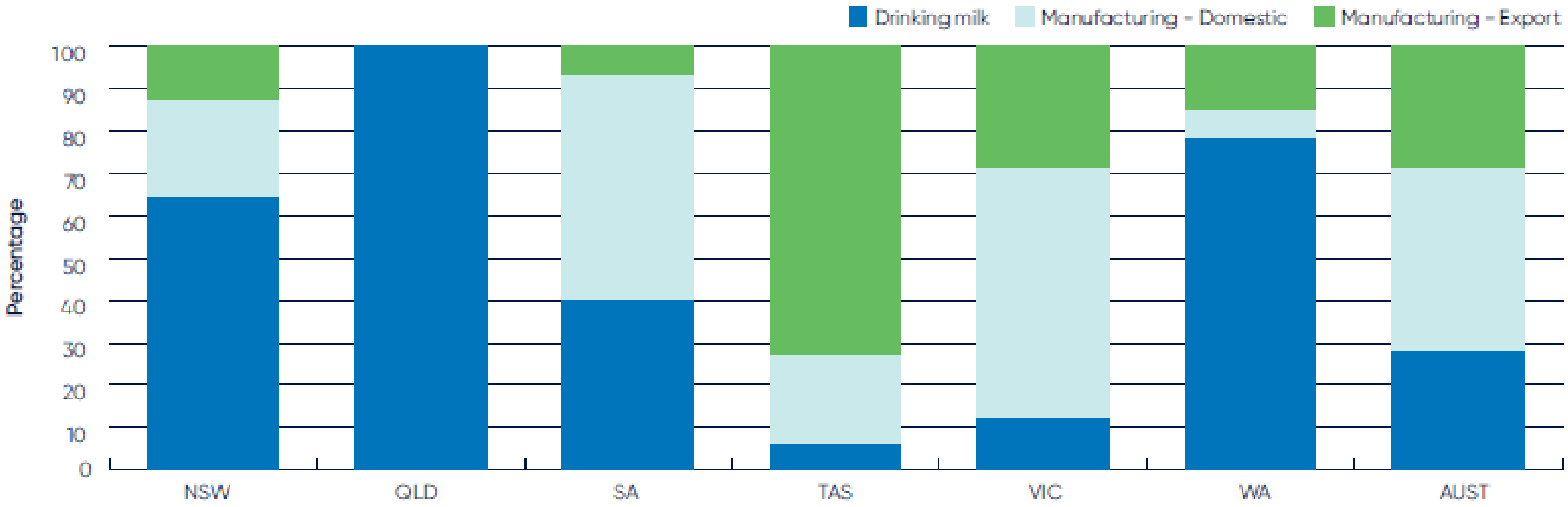
capitalisticman.com

Dairy products?

Manufacturing milk (70-75%)

Drinking/fresh milk (25-30%)

Figure 3 Use of Australian milk by state in 2019/20



Source: Dairy Australia

Manufacturing milk

Figure A2 Product yield from 10,000 litres of milk 2019/20

10,000 litres milk
415 kg fat
345 kg protein
903 kg SNF

Butter/SMP	**Butter/casein**	**WMP**	**Cheddar**
903 kg SMP	312 kg casein	1,288 kg WMP	1,101 kg cheddar
501 kg butter	501 kg butter	100 kg butter	15 kg butter
50 kg BMP	50 kg BMP	10 kg BMP	1 kg BMP
			623 kg whey powder

Source: Dairy Farm Monitor report, 2020

How are farmers paid?

Typical factory paid prices

		2014-15	2015-16	2016-17	2017-18	2018-19 (p)
NSW	cents/litre	52.8	51.0	49.0	50.5	54.7
	$/kg milk solids	7.31	7.06	6.81	6.99	7.67
VIC	cents/litre	47.1	42.8	38.0	44.2	48.2
	$/kg milk solids	6.24	5.68	5.04	5.87	6.40
QLD	cents/litre	57.4	58.5	60.0	57.7	61.0
	$/kg milk solids	7.84	7.99	8.22	7.84	8.31
SA	cents/litre	49.1	42.5	37.1	42.9	47.2
	$/kg milk solids	6.53	6.03	5.19	6.06	6.62
WA	cents/litre	49.0	52.3	50.6	49.9	50.2
	$/kg milk solids	7.17	7.32	7.06	7.97	7.05
TAS	cents/litre	49.6	43.7	39.0	47.0	50.3
	$/kg milk solids	6.33	5.61	4.97	6.01	6.37
AUST	**cents/litre**	**48.5**	**44.9**	**40.9**	**46.0**	**49.7**
	$/kg milk solids	**6.49**	**6.01**	**5.46**	**6.14**	**6.64**

Source: Dairy Manufacturers

Cost to you?

2L Milk?

1L Yogurt?

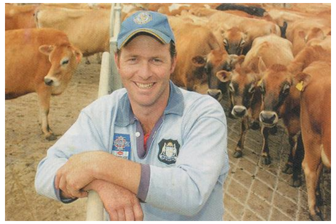
250g Cheese?

1L Ice cream?

1kg Protein power?

Baby powder?

What drives the price of milk?



Farmers → Supply fresh milk → **Processors** → Package, process, supply → **Suppliers (supermarkets/export)**

Processors:
Fonterra (NZ)
Brownes (WA)
Parmalat (France)
Lion (Japan)
Saputo (Canada)

Suppliers (supermarkets/export):
'Home brand'
Pura
Devondale (Saputo)
Riverina fresh (F)
Pura (Lion)
Pauls (Parm)

Farm gate milk price
$/kg milk solids = fat/protein content
(c/L)

Quality (BCC)

Quantity

DISCOUNTED
High BMCC
Quality issues
AB residues

Aussie dollar

Consumer demand

Global Competition

Milk payment – base payment and incentives

Base payment: announced at start of year: $/kg MS

- Butterfat + Protein = Milk Solids

Flat milk incentive

- Produce >43% of milk in 'off season'

Growth incentive

- Produced more than av. of last 2yr

Efficiency incentive

- Volume and collection fees
  - 1st collection: $7.50
  - Each after: $40
- Incentive for larger vats

Month	Butterfat kg MS	Protein kg MS
July	$4.15	$9.14
August	$3.78	$8.33
September	$3.66	$8.06
October	$3.66	$8.06
November	$3.66	$8.06
December	$3.66	$8.06
January	$3.86	$8.49
February	$3.96	$8.73
March	$4.00	$8.81
April	$4.15	$9.14
May	$4.23	$9.30
June	$4.30	$9.47

Milk payment - Penalties

Table 5: Discounts for Milk Quality bands

Milk Quality	Grade Discounts
Premium	0%
Quality	-2%
Penalty	-12%
Unacceptable	-32%

Quality Bands	Premium	Quality	Penalty	Unacceptable
Quality Assessment				
Bactoscan	≤71,000	71,001 - 100,000	100,001 - 264,000	>264,000
BMCC	≤250,000	250,001 – 400,000	400,001 - 600,000	>600,000
Thermoduric	≤2,000	2,001 - 5000	5,001 - 10,000	>10,000
Inhibitory Substances / Residues	Negative	Negative	Negative	Positive

Bactoscan: bacteria

Temp: at collection <5°C

Thermoduric: heat resistant organisms

BMCC: inflammatory cells

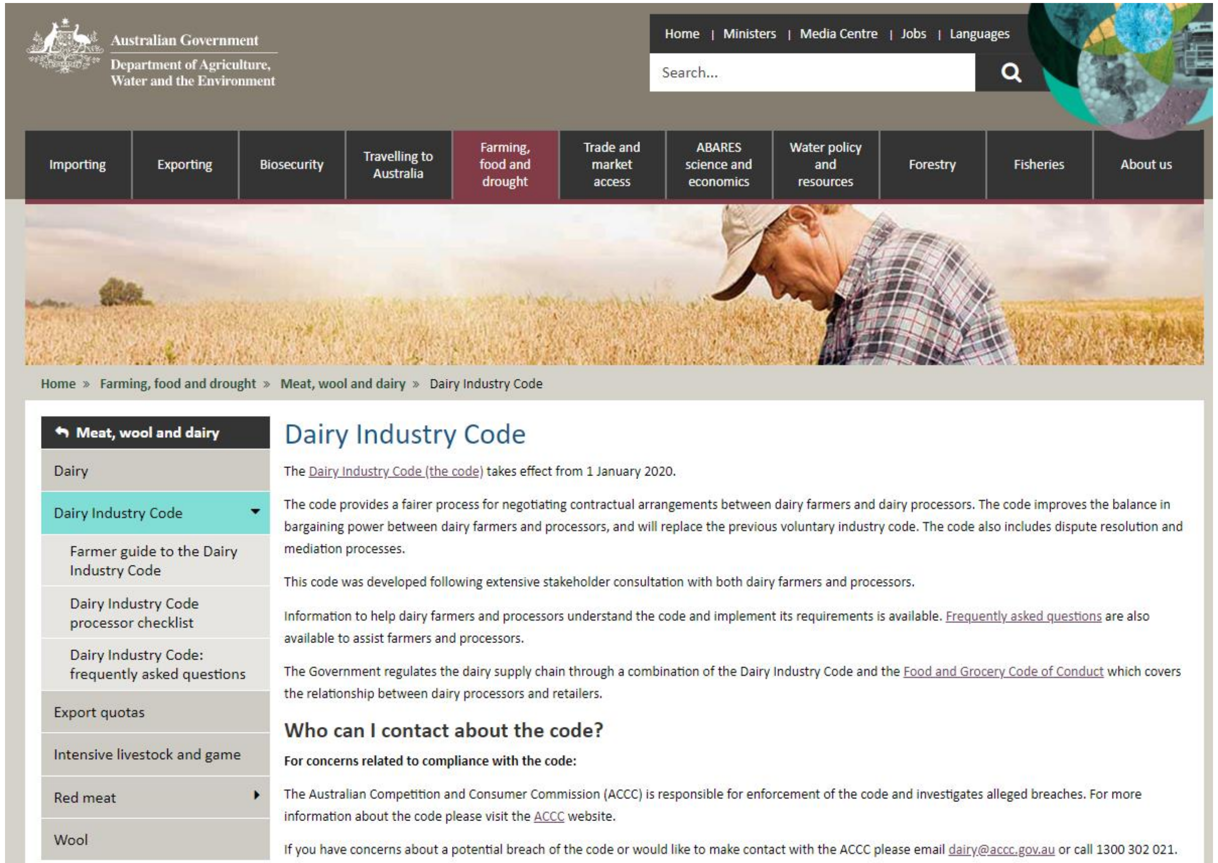
Inhibitory substances: e.g. antibiotics, chemicals

Penalties

A: Parameter	B: Test Frequency	C: In Standard Specification	D: Warning Specification	E: Unsatisfactory	F: Quality Deduction	G: Quality Deduction Basis	H: Details of requirements and Rejection conditions
BMCC Level 1	Each Consignment	≤ 250,000 c/mL	≥ 250,000 – < 400,000 c/mL	≥ 400,000 c/mL for 13 consecutive weeks	2 cents/Ltr	Weekly	- Weekly weighted average is converted into a 13 week geometric mean for calculation of Quality Deductions. - BMCC Geometric Mean ≥ 400,000 c/mL for 13 consecutive weeks indicates Poor Quality Milk and Milk will not be collected until a satisfactory result is recorded. Resupply Procedure will apply.
BMCC Level 2	Each Consignment	≤ 250,000 c/mL	≥ 400,000 – < 500,000 c/mL	N/A	5 cents/Ltr		
BMCC Level 3	Each Consignment	≤ 250,000 c/mL	N/A	≥ 500,000 c/mL	No payment for relevant Milk		
BMCC EU Geometric Mean	13 Week Geometric Mean	≤ 400,000 c/mL	N/A	≥ 400,000 c/mL	N/A		- BMCC Geometric Mean ≥ 400,000 c/mL for 13 consecutive weeks indicates Poor Quality Milk and Milk will not be collected until a satisfactory result is recorded. Resupply Procedure will apply.
Total Plate Count/ Bactoscan (TPC)	Once per 7 days	< 20,000 cfu/mL	≥ 20,000 cfu/mL – < 100,000 cfu/mL	≥ 100,000 cfu/mL	3 cents/Ltr for daily fifth test and any subsequent	Per Consignment	- ≥ 20,000 cfu/mL triggers daily tests commencing at the next available consignment's sample and with testing

Bega Cheese, 2020

Dairy Industry Code - 2020



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Dairy Industry Code

The Dairy Industry Code (the code) takes effect from 1 January 2020.

The code provides a fairer process for negotiating contractual arrangements between dairy farmers and dairy processors. The code improves the balance in bargaining power between dairy farmers and processors, and will replace the previous voluntary industry code. The code also includes dispute resolution and mediation processes.

This code was developed following extensive stakeholder consultation with both dairy farmers and processors.

Information to help dairy farmers and processors understand the code and implement its requirements is available. Frequently asked questions are also available to assist farmers and processors.

The Government regulates the dairy supply chain through a combination of the Dairy Industry Code and the Food and Grocery Code of Conduct which covers the relationship between dairy processors and retailers.

Who can I contact about the code?

For concerns related to compliance with the code:

The Australian Competition and Consumer Commission (ACCC) is responsible for enforcement of the code and investigates alleged breaches. For more information about the code please visit the ACCC website.

If you have concerns about a potential breach of the code or would like to make contact with the ACCC please email dairy@accc.gov.au or call 1300 302 021.

Source: DAWE

What will the Dairy Industry Code do?

The code will help protect farmers against egregious conduct from processors, improve transparency in the industry and set enforceable minimum standards of conduct for business practices between farmers and processors.

The code is being implemented in response to the findings and recommendations from the Australian Competition and Consumer Commission's (ACCC) Dairy Inquiry and the 2017 Senate Economics References Committee Australian Dairy Industry Inquiry.

How will the code improve transparency in the dairy industry?

Under the code, processors will be required to publicly release standard forms of agreement with a single minimum price that applies throughout the agreement, a schedule of yearly minimum prices or a schedule of monthly minimum prices.

Additionally, processors must give farmers a 14 day cooling-off period and meet recordkeeping requirements that better allow the ACCC to audit and prosecute breaches of the code.

How will the code prevent step-downs?

Under the code, retrospective step-downs are prohibited in all circumstances.

Prospective step-downs will be prohibited except in limited exceptional circumstances. These circumstances are to address temporary emergencies involving extraordinary events caused by factors that occur outside of Australia, have a highly significant effect on supply, demand or costs in the dairy industry and are not caused by decisions made by processors, for example:

- a foreign country unexpectedly restricts the importation of Australian dairy products
- trade shocks involving one of Australia's major trading partners.

Source: DAWE

AEPS – DAIRY WEEK 2