



# Queensland AgTrends 2018–19

Forecasts and trends in Queensland agricultural, fisheries and forestry production



Queensland  
Government

### Acknowledgements

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- the Office of Economic and Statistical Research
- the Australian Bureau of Agricultural and Resource Economics and Sciences
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- Avocados Australia
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- market commentators and industry media including ABC Rural, Queensland Country Life, Farmonline, Rabobank, IBISWorld, The Land and Beef Central.

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## Acronyms

<b>ABARES</b>	Australian Bureau of Agricultural and Resource Economics and Sciences
<b>ABS</b>	Australian Bureau of Statistics
<b>ALFA</b>	Australian Lot Feeders' Association
<b>ANZSIC</b>	Australian and New Zealand Standard Industrial Classification
<b>ASEAN-5</b>	Association of Southeast Asian Nations' five strongest economies (Indonesia, Malaysia, the Philippines, Singapore and Thailand)
<b>DAF</b>	Department of Agriculture and Fisheries
<b>EYCI</b>	Eastern Young Cattle Indicator
<b>FAO</b>	Food and Agriculture Organization
<b>GVP</b>	gross value of production
<b>IA-CEPA</b>	Indonesia–Australia Comprehensive Economic Partnership Agreement
<b>IMF</b>	International Monetary Fund
<b>IPS</b>	international polarity scale
<b>LGA</b>	local government area
<b>MLA</b>	Meat and Livestock Australia
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OPEC</b>	Organization of Petroleum Exporting Countries
<b>SA2</b>	statistical area level 2
<b>USDA</b>	United States Department of Agriculture



# Summary of key findings

## Total value of Queensland's primary industries

For 2018–19, the total value of Queensland's primary industry commodities (combined gross value of production and first-stage processing) is forecast to be \$18.54 billion, 5 per cent less than 2017–18 but about the same as the average for the past 5 years.

## Gross value of production ('farm gate')

For 2018–19, the gross value of production (GVP) of Queensland's primary industry commodities at the 'farm gate' is forecast to be \$14.65 billion, 5 per cent less than 2017–18 but about the same as the average for the past 5 years.

## Livestock industries

The 2017–18 GVP forecasts for livestock industries are shown in Tables 1 and 2.

**Table 1** Livestock disposals GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Cattle and calves	5052	-6
Poultry	605	-5
Pigs	257	11
Sheep and lambs	14	30
Other livestock	40	-5

**Table 2** Livestock products GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Milk (all purpose)	201	-11
Eggs	245	3
Wool	96	28

## Crops

The 2018–19 GVP forecasts for crops are shown in Tables 3–6.

**Table 3** Fruit and nuts and vegetables GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Fruit and nuts	1907	5
Vegetables	1277	2

**Table 4** Lifestyle horticulture GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Nurseries	921	2
Turf	327	0
Cut flowers	161	0

**Table 5** Other crops GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Sugarcane	1036	–8
Cotton	461	–48

**Table 6** Cereal grains GVP, 2018–19

Industry	Forecast GVP (\$m)	Percentage change since 2017–18
Grain sorghum	552	100
Wheat	214	–24
Other cereal grains	187	–1
Chickpeas	156	–62
Maize	89	39
Barley	41	21

## Fisheries

The GVP for Queensland’s fisheries for 2018–19 is forecast to be \$383 million.

In this edition, recreational fishing, which is an important part of Queensland’s fisheries, is included in the forecast for 2018–19 with an estimated value of \$94 million. The values of commercial fishing and aquaculture are forecast to be \$178 million (the same as 2017–18) and \$111 million (6 per cent greater than 2017–18).

## Forestry

The GVP for the forest-growing sector of Queensland’s forest industry for 2018–19 is forecast to be \$279 million, 3 per cent greater than last year. This translates into a value of \$472 million for the first-stage processing sector.

## First-stage processing

For 2018–19, the value of first-stage processing (or value-added production) is forecast to be nearly \$3.9 billion.

**Table 7** Forecast value of first-stage processing, 2018–19

Industry	Forecast (\$m)
Meat processing	2289
Sugar processing	544
Log sawmilling, timber dressing, and plywood and veneer manufacturing	472
Fruit and vegetables processing	268
Milk and cream processing	106
Flour mill and feed processing	96
Seafood processing	58
Cotton ginning	53
<b>Total</b>	<b>3885</b>

## This edition of Queensland AgTrends

In 2012, *Queensland AgTrends* replaced *Prospects for Queensland's primary industries* (launched in 2001) as the authoritative source of statistics, analyses and forecasts for Queensland agricultural, fisheries and forestry production. The most recent changes in methodology used in these publications are outlined below.

### Total value of Queensland's primary industries

Before September 2007, the measure used to value Queensland's primary industry commodities in *Prospects* was GVP. From September 2007 onwards, the **total value of Queensland's primary industry commodities** reported in *Prospects* and then *AgTrends* comprised two components, which are reported separately. These components are a GVP figure for unprocessed primary commodities, and a value of first-stage processing for the commodities in the list below.

### Value of first-stage processing

First-stage processing forecasts for the current year and estimates for previous years are provided for:

- meat processing
- sugar processing
- milk and cream processing
- fruit and vegetables processing
- flour mill and feed processing
- seafood processing
- log sawmilling, timber dressing, and plywood and veneer manufacturing
- cotton ginning.

In this edition of *AgTrends*, estimates of major primary industry processing activity are based on a methodology derived from the 2006–07 Australian Bureau of Statistics (ABS) manufacturing survey and census statistics released in April 2009.

The methodology assumes a constant ratio of farm output to processing output and a constant ratio of processing output to value added by the processing industry. Editions before 2010–11 used the methodology derived from the Queensland 2000–01 manufacturing survey. Therefore, the first-stage processing forecasts for 2017–18 should not be compared with the estimates for years before 2010–11.

### Lifestyle horticulture

In September 2008, the then Department of Primary Industries commissioned Queensland Treasury's Office of Economic and Statistical Research to undertake a comprehensive, statewide telephone survey to determine the economic value of the lifestyle horticulture industry. Lifestyle horticulture had changed significantly since a previous comprehensive survey in 2001. Now, the Department of Agriculture and Fisheries (DAF) uses a new benchmark to improve our understanding of the scope and economic contribution of this important industry.

In Table 9, pages 18–20, the value of the industry is captured under 'lifestyle horticulture production' and includes the GVP for nurseries, cut flowers and turf.

## Forestry

In Table 9, pages 18–20, the value of Queensland’s forestry industry has two components:

- the gross value of the log timber produced from Queensland’s plantations and native forests before it reaches a sawmill or primary timber processing plant
- the value-added component, which includes log sawmilling, timber dressing, and plywood and veneer manufacturing.

## Maps showing main production regions

For livestock, horticulture and crops, maps are included to show indicative production areas for individual commodities. The maps are based on ABS 2010–11 agricultural census data. They show statistical areas level 2 (SA2s) in Queensland where the majority of production of each commodity is concentrated.

## Comparisons with previous years

From 2005–06, the ABS used a new methodology for gathering agricultural data. The ABS’s final GVP estimates for 2015–16, released in July 2017, are included in Table 9 (pages 18–20). Due to this break in the series, the ABS advises that figures from 2005–06 onwards should not be compared with those for previous years.

## About Queensland's primary industries

In 2016–17, Queensland's primary industries directly contributed an estimated \$10.52 billion on a value-added basis to the state economy—this was 3.6 per cent of the gross state product.<sup>1</sup>

Geographically, Queensland is Australia's second largest state, covering more than 173 million hectares. This area is more than twice the size of Texas, four times that of Japan and seven times that of Great Britain. Almost 144 million hectares (or 83 per cent) of the land area is used for agriculture. Queensland has the largest area of agricultural land of any Australian state and the highest proportion of land area in Australia dedicated to agriculture.

In 2016–17, Queensland exported approximately \$12 billion worth of agriculture and food products. This figure includes an estimate for sugar exports. Exports of these primary products comprised 18 per cent of the state's overseas commodity exports in 2016–17.<sup>2</sup>

Queensland is Australia's largest producer and exporter of beef, with just under three-quarters of the state's \$4.8 billion of beef exports going to Asian markets. Beef is the most significant agricultural commodity for Queensland, with cattle and calf sales worth an estimated \$5.7 billion in 2016–17.<sup>3</sup> Queensland also has the largest amount of certified organic agricultural production land in Australia, with almost 2.3 million hectares in total, including large tracts of organic grazing land in the Channel Country. Almost 70 per cent of Australia's expanding organic beef industry is in Queensland.

Queensland is one of the largest producers of pork in Australia. The estimated GVP in 2016–17 was \$293 million.<sup>4</sup>

Queensland is also one of the largest producers of fruit and vegetables in Australia. Its major vegetable crops include tomatoes, capsicums, beans, mushrooms, sweetpotatoes and lettuce.<sup>5</sup>

The state grows over 95 per cent of Australia's bananas and is the nation's biggest producer of tropical fruits such as mangoes, pineapples and avocados.<sup>6</sup>

Queensland produces around 95 per cent of Australia's raw sugar, and a large percentage of this product is sold on the world market.<sup>7</sup>

In 2015–16, the combined employment associated with the whole food supply chain equated to an estimated 305 000 employees. This means that roughly one in seven Queenslanders was either partly or entirely supported by the food sector.<sup>8</sup>

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1 ABS 2017, *Australian national accounts: state accounts, 2016–17*, cat. no. 5220.

2 ABS 2017, *Exports from Queensland and Australia to all countries, by commodity, value, 2015–16*; Office of Economic and Statistical Research 2017, Standard international trade classification 2 digit, food and live animals.

3 ABS 2018, *Value of agricultural commodities produced, Australia, 2016–17*, cat. no. 7503.

4 As above.

5 As above.

6 As above.

7 As above.

8 *AgTrends* update, April 2018.

# About the department

## Our vision

A productive and profitable agriculture, fisheries and forestry sector

## Our purpose

Promote a sustainable and innovative agriculture, fisheries and forestry sector and rural businesses that add value to the economy and communities.

## Our objectives

1. Create the conditions for successful agribusinesses and supply chains that encourage innovation, productivity and new job opportunities.
2. Assist people in agriculture, fisheries, forestry and rural businesses to respond to challenges and protect environmental values.
3. Ensure the sustainable management of natural resources to underpin productivity and protect the environment.

## The way we work to deliver our objectives

### Lead

Provide a clear sense of direction, bringing the sector and the community together, offering evidence and advocacy for a way forward on the opportunities and challenges facing the sector.

### Engage

Work purposefully with others to achieve results, developing consistent approaches that invite stakeholders and the community to participate in the development of policy and services.

### Invest

Deliver better results with what we have, prioritising our effort for the highest impact, using evidence to direct resources to high-value activity.

### Enable

Develop our workforce capability and build our governance and business systems, embedding the public service values and our expected behaviours through good leadership and management. Drive a culture of innovation and collaboration across the organisation and in external relationships.

### Deliver

Improve the customer service experience and enable a collaborative and mobile workforce, making it easier to interact with us. Streamline business processes and integrate services to enable greater self-service and self-reliance.

## Strategic opportunities

**Global demand for food and fibre**—The growing global population and affluence in emerging economies result in increased demand for protein foods, niche primary products and agricultural scientific expertise that can provide expanded and new markets for Queensland producers and new sources of investment for the sector.

**New technologies**—New technologies to detect threats and improved modelling supported by increased processing power and big data can help DAF prevent the spread of biosecurity diseases and pests, improve fisheries management, assist producers to improve decision-making and better predict climatic change leading to increased productivity.

**Strategic partnerships**—Strengthening partnerships with research organisations, industry bodies and other government agencies enables DAF to leverage expertise and share resources aimed at increasing innovation and promoting rural economic development and growing business and public confidence in DAF's strategic direction for the sector.

## Strategic risks

**Climate**—The frequency and duration of extreme weather events impacts on the ability of the sector and the department to direct resources to growth opportunities.

**Biosecurity threats**—Greater global movement of goods and people increases the transmission of exotic pests and diseases, which may significantly affect the economy and the environment, compromising our disease-free reputation and restricting market access.

**Organisational agility**—The diverse and unpredictable nature of conditions affecting the sector challenges DAF's ability to adapt and renew its business model, skills base and services to better meet the changing needs of customers and grow rural economies.

**Competition for resources**—Resources used for agriculture, fisheries and forestry are increasingly subject to demands for competing access from other economic, environmental and social interests that are not always possible to fully resolve.



## About Queensland AgTrends

*Queensland AgTrends* has a circulation of approximately 2000, with copies distributed to members of parliament, industry associations, agribusinesses, banks, law firms, local governments, government departments, educational institutions, primary producers and other businesses along the value chain.

This edition of *AgTrends* contains:

- initial GVP forecasts for 2018–19
- initial first-stage processing forecasts for 2018–19
- GVP estimates for 2017–18
- the percentage difference between each 2018–19 forecast and the average for the past 5 years.

*AgTrends* is available on the DAF website ([daf.qld.gov.au](http://daf.qld.gov.au)).

## About the *AgTrends* update

The forecasts provided in this edition will be updated in April 2019. Updated forecasts will be made available electronically and can be downloaded from [daf.qld.gov.au](http://daf.qld.gov.au). This is in line with our commitment to upgrade the DAF information technology platform to make services integrated, modern and user-friendly.

## Contact

We welcome your feedback. Please send your comments and suggestions to us at:

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Industry Analysis Unit  
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GPO Box 46  
BRISBANE QLD 4001

Visit [daf.qld.gov.au](http://daf.qld.gov.au) to view current and previous editions of *AgTrends* and *AgTrends update*.

## Content and procedure

In *AgTrends*, GVP refers to the output of primary industry operations. Most non-commercial activities, such as home vegetable and flower gardening and hobbyist beekeeping, are not included due to a lack of data. This in no way diminishes the importance of these activities to the economy and society. Recreational fishing is included, but at a conservative valuation.

**Gross values of commodities produced** are calculated by multiplying the output from each primary industry activity by the average wholesale market price paid to producers.

Estimates of major primary industry processing activity used in this edition of *AgTrends* are based on a methodology derived from the 2006–07 ABS manufacturing survey and census statistics released in April 2009. The methodology assumes a constant ratio of farm output to processing output and a constant ratio of processing output to value added by the processing industry.

Editions before 2010–11 used the methodology derived from the Queensland 2000–01 manufacturing survey. Therefore, the first-stage processing forecasts from 2010–11 onwards should not be compared with the estimates for previous years.

**Value added** refers to the additional value created at a particular stage of production. Value adding that occurs beyond the first round is not included in this analysis. Note that for some industries there are a significant number of rounds of processing and value-adding beyond the first round. For instance, timber is processed in numerous downstream industries, including wooden structural component, pulp, paper and paperboard, and paper product processing.

Economists use the value-added method as a way of avoiding double-counting. The sum of the value added in each of the different stages of production equals the value of the final product. Final products include consumer goods and fixed capital equipment. In a microeconomic context, value added is simply measured as the value of the output produced minus the costs of the intermediate inputs.

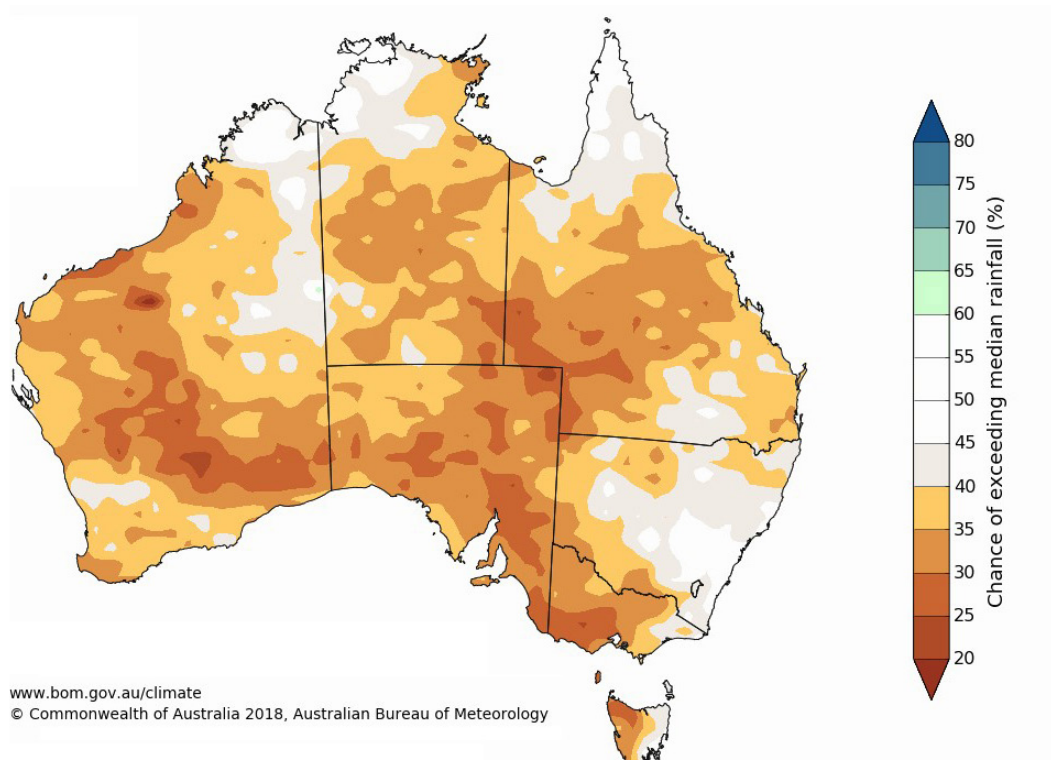
The estimates and forecasts contained in this edition of *AgTrends* were based on information available in August, September and October 2018, and followed consultation with experts from industry and DAF.

The prices of all overseas-traded commodities are responsive to changes in the exchange rate of the Australian dollar relative to the currencies of our trading partners. Prices paid to primary producers, and therefore gross unit values, could change depending on whether exchange rates increase or decrease.

# Climate outlook for November 2018 to March 2019

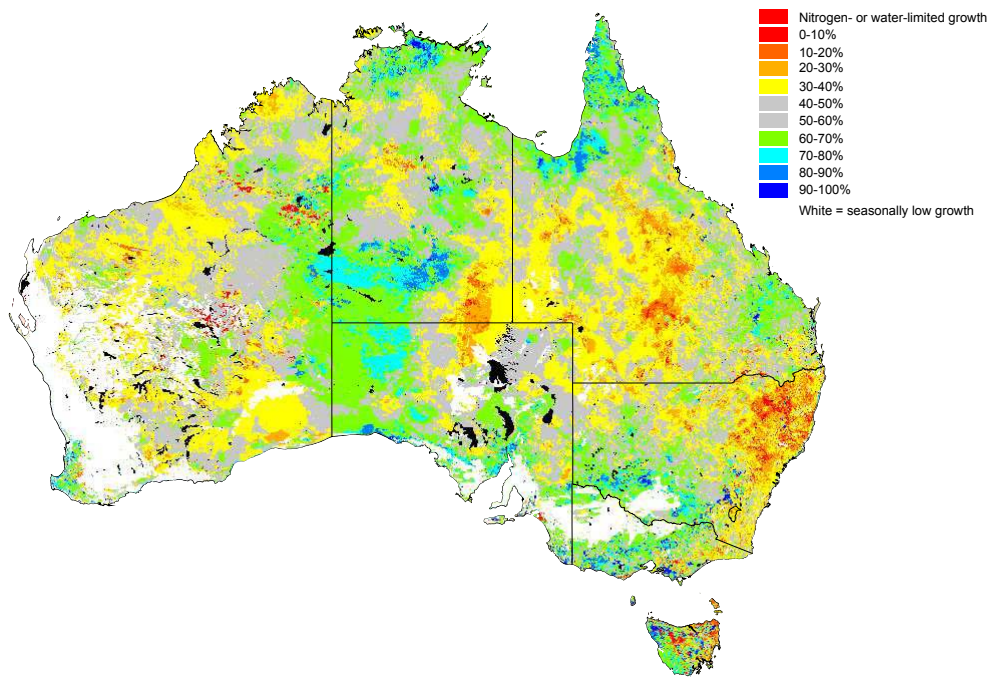
The probability of exceeding median rainfall for November 2018 to January 2019 is currently low for much of Queensland, particularly for the major cropping regions and extensive grazing lands of the state (Figure 1). This is a major influence on the chance of exceeding median growth (Figure 2).

The seasonal outlook is based on analysis of key climate drivers that influence Australia. The Bureau of Meteorology recently upgraded their El Niño – Southern Oscillation outlook from El Niño watch to El Niño alert, with the chance of an El Niño forming in 2018 at around 70%, triple the normal likelihood. The tropical Pacific Ocean has warmed in recent weeks and is now just touching the El Niño threshold. Latest observations and model outlooks suggest further warming is likely, with most models indicating a transition to El Niño in November remaining likely. El Niño conditions generally result in below-average rainfall over much of eastern Australia.



**Figure 1** Chance of exceeding the median rainfall, November 2018 to January 2019

Source: Australian Bureau of Meteorology.



**Figure 2** Chance of exceeding median growth, November 2018 to January 2019

Source: The Long Paddock, <[www.longpaddock.qld.gov.au](http://www.longpaddock.qld.gov.au)>.

# Drought situation

As of 1 November, 58.1% of Queensland was officially drought-declared (Figure 3).

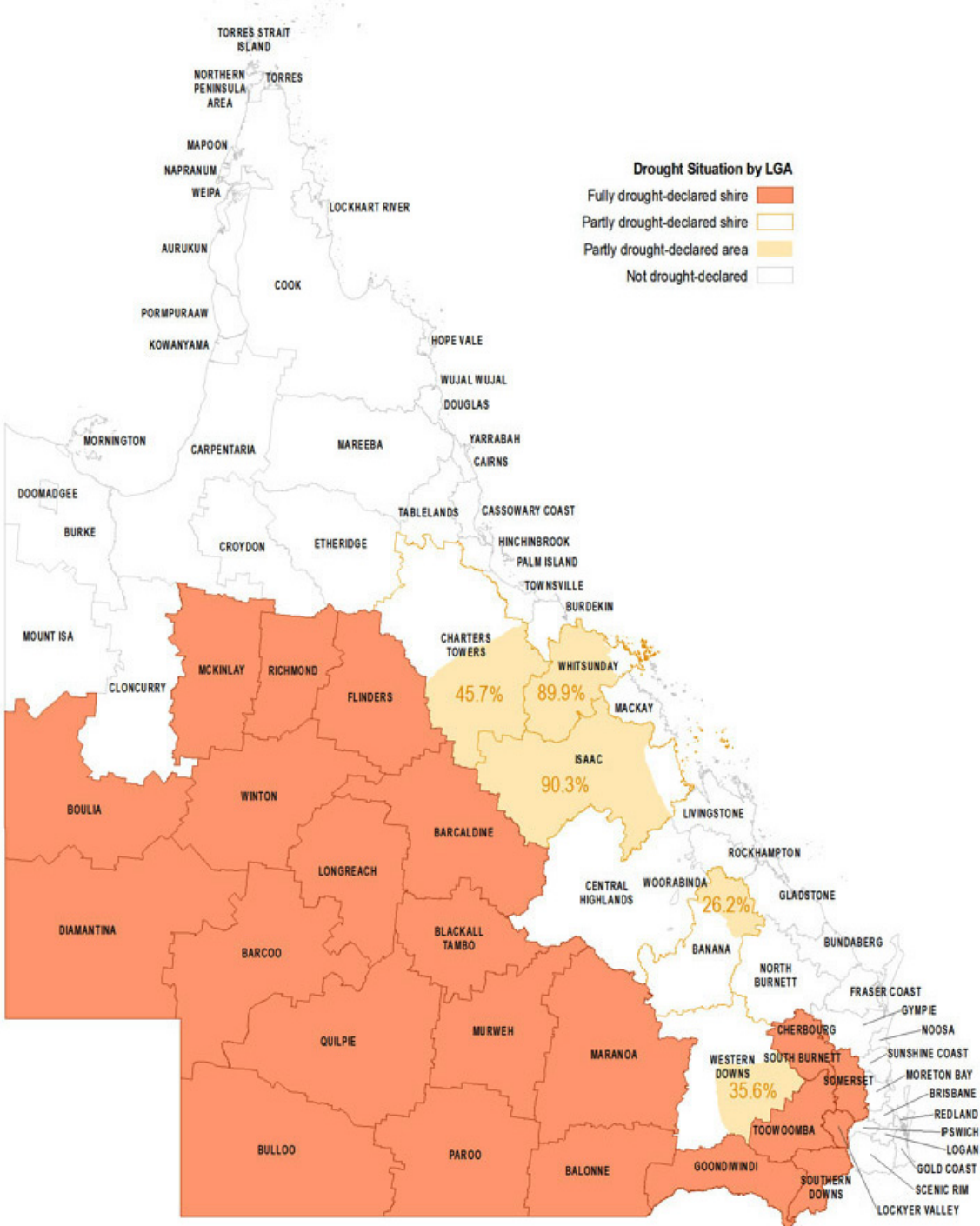


Figure 3 Drought-affected areas in Queensland, November 2018

Source: The Long Paddock, <[www.longpaddock.qld.gov.au](http://www.longpaddock.qld.gov.au)>.

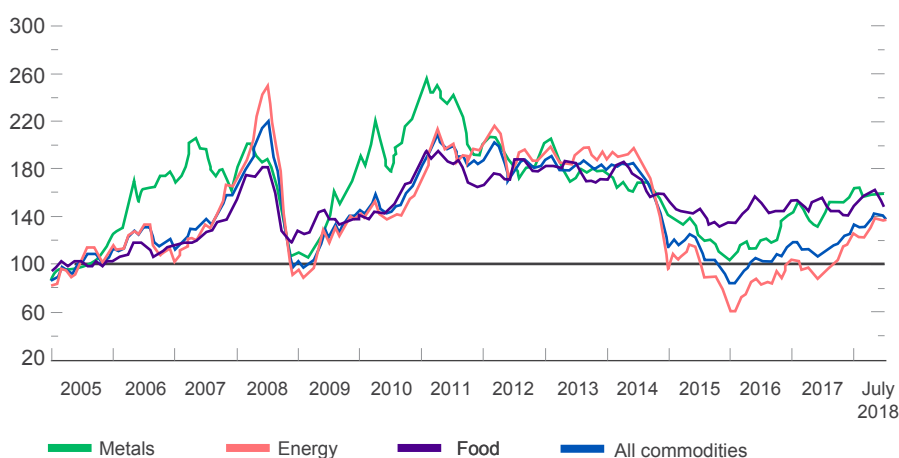
## World and Australian economic environment

The International Monetary Fund (IMF)<sup>9</sup> is sounding the alarm on the potential effects of a prolonged trade war on global growth prospects (see Table 8). It has reduced its 2019 growth forecast of 3.9 per cent to 3.7 per cent, and predicts a possible growth penalty of 0.8 per cent in 2020 if the United States follows through with current trade plans. Growth in developed economies is forecast to be above trend in 2018 at 2.4 per cent, but easing back to 2.1 per cent next year. Emerging and developing economies are forecast to grow at 4.7 per cent in both 2018 and 2019, but these figures represent drops of 0.2 and 0.4 per cent for the respective years from the April 2018 forecast. Emerging Europe is likely to suffer the greatest slowdown, while India is expected to continue bettering China in its pace of growth. Emerging Asia remains a strong performer.

The potential damage of an all-out trade war is greatest in the United States and China, with respective missed growth in gross domestic product of up to 0.9 and 1.6 per cent in 2019. China’s response to the threat is to pump more money into the economy, but this short-term sugar hit hinders necessary long-term structural changes of debt reduction and consumer-driven economic growth, making it more likely that China will fall in the middle-income trap.

The global economy is facing more headwinds than trade. Commodity prices (Figure 4) have been increasing on the back of stronger global demand and increasing constraints on the supply of crude oil (such as the OPEC–Russia agreement, the Venezuelan meltdown and the reimposition of United States sanctions on Iran).

Increasing interest rates in the United States add to the influences that are slowing the growth of the world economy, and potential crises loom in some emerging economies such as Turkey.



**Figure 4** Price indexes for food, metals and energy, 2005 to 2018 (2005 = 100)

Source: IMF.

<sup>9</sup> See <<https://www.imf.org/en/Publications/WEO/Issues/2018/09/24/world-economic-outlook-october-2018>>.

**Table 8** IMF world economic outlook projections

	Year-on-year percentage change			Difference from July 2018 update <sup>a</sup>	
	Actual	Projections		2018	2019
	2017	2018	2019		
<b>World output</b>	3.7	3.7	3.7	-0.2	-0.2
<b>Advanced economies</b>	2.3	2.4	2.1	0.0	-0.1
United States	2.2	2.9	2.5	0.0	-0.2
Euro area	2.4	2.0	1.9	-0.2	0.0
Japan	1.7	1.1	0.9	0.1	0.0
United Kingdom	1.7	1.4	1.5	0.0	0.0
Canada	3.0	2.1	2.0	0.0	0.0
Other advanced economies <sup>b</sup>	2.8	2.8	2.5	0.0	-0.2
Australia	2.2	3.2	2.8		
<b>Emerging market and developing economies</b>	4.7	4.7	4.7	-0.2	-0.4
Commonwealth of Independent States	2.1	2.3	2.4	0.0	0.2
Russia	1.5	1.7	1.8	0.0	0.3
Emerging and developing Asia	6.5	6.5	6.3	0.0	-0.2
China	6.9	6.6	6.2	0.0	-0.2
India <sup>c</sup>	6.7	7.3	7.4	0.0	-0.1
ASEAN-5 <sup>d</sup>	5.3	5.3	5.2	0.0	-0.1
Emerging and developing Europe	6.0	3.8	2.0	-0.5	-1.6
Latin America and the Caribbean	1.3	1.2	2.2	-0.4	-0.4
Brazil	1.0	1.4	2.4	-0.4	-0.1
Middle East, North Africa, Afghanistan and Pakistan	2.2	2.4	2.7	-1.1	-1.2
Sub-Saharan Africa	2.7	3.1	3.8	-0.3	0.0
<b>World trade volume (goods and services)</b>	5.2	4.2	4.0		
<b>Imports</b>					
Advanced economies	4.2	3.7	4.0		
Emerging market and developing economies	7.0	6.0	4.8		
<b>Exports</b>					
Advanced economies	4.4	3.4	3.1		
Emerging market and developing economies	6.9	4.7	4.8		
<b>Commodity prices (US\$)</b>					
Oil	23.3	31.4	-0.9		
Non-fuel (average based on world commodity export weights)	6.8	2.7	-0.7		

a Difference based on rounded figures for the current and July 2018 'World Economic Outlook' forecasts.

b Excludes the G7 (Canada, France, Germany, Italy, Japan, United Kingdom and United States) and euro area countries.

c For India, data and forecasts are presented on a fiscal year basis, and gross domestic product from 2011 onward is based on gross domestic product at market prices with the fiscal year 2011–12 as a base year.

d Indonesia, Malaysia, the Philippines, Thailand and Vietnam.

The IMF and the Reserve Bank disagree about Australia’s growth prospects. The former is predicting 2.8 per cent growth in gross domestic product in 2019, and the latter ‘a bit above 3 per cent’.<sup>10</sup>

After an initial rise in 2018, global food prices have been declining since May (Figure 5).<sup>11</sup> Even with the fluctuations in 2018, in real terms international food prices remain broadly at the 1960s–70s level after the prolonged lows between the 1980s and early 2000s (Figure 6). Among the commodity groups (Figure 7), dairy prices continued the roller-coaster ride of the previous years. Sugar, vegetable oils and meat were declining through 2017–18 in this order of severity, while at September 2018, cereals managed to hold onto most of their gains over the period.

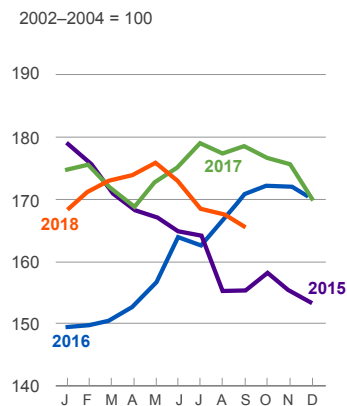
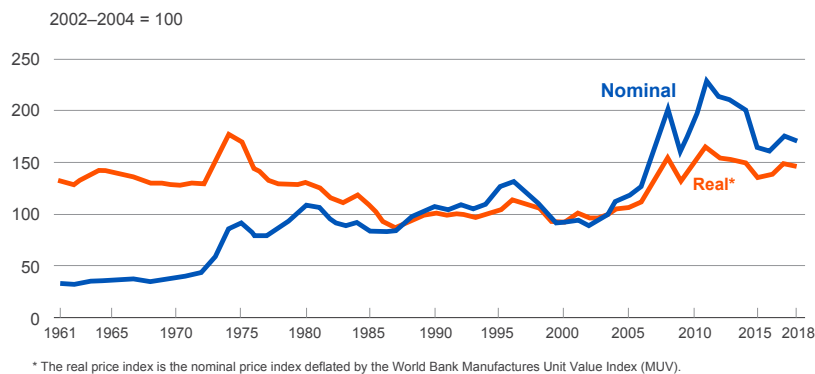


Figure 5 FAO food price index, 2015 to 2018



\* The real price index is the nominal price index deflated by the World Bank Manufactures Unit Value Index (MUV).

Figure 6 FAO food price index, 1961 to 2018

<sup>10</sup> See <<https://rba.gov.au/media-releases/2018/mr-18-24.html>>.

<sup>11</sup> Source for figures is <<http://www.fao.org/worldfoodsituation/foodpricesindex/en>>.



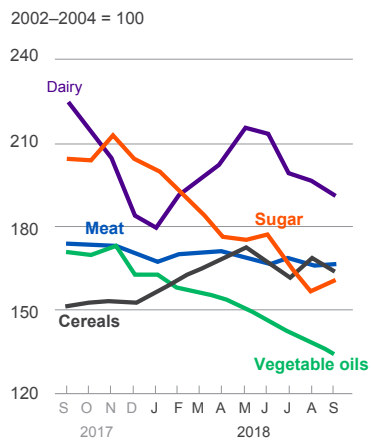


Figure 7 FAO food commodity price indexes, 2017–18

Looking ahead, the *OECD–FAO agricultural outlook*<sup>12</sup> forecasts an easing in the growth of global demand for food in the coming decade. Additional cereal and oilseed demand will come mainly from animal feed use, as human consumption levels are close to saturation, particularly in cereals. The recent re-emergence of the Black Sea region as a large supplier of cereal is going to become permanent. Regional preferences constrain increases in meat demand, but dairy is expected to remain a good growth proposition. Sugar and vegetable oils are also seen as commodities where per-capita demand will continue to increase.

For Australia, cotton is singled out as a notable growth prospect due to the adoption of genetically modified varieties.

<sup>12</sup> Published by the Organisation for Economic Co-operation and Development (OECD) and the United Nations' Food and Agriculture Organization (FAO).

# Primary industries—estimates and forecasts

**Table 9** GVP, first-stage processing and total primary industries estimates and forecasts, 2015–16 to 2018–19, and difference between 2018–19 forecast and average for past 5 years

	2015–16 estimate, April 2016 <sup>b</sup>	2016–17 estimate, April 2017 <sup>c</sup>	2017–18 forecast, April 2018 <sup>d</sup>	2018–19 forecast, October 2018 <sup>d</sup>	Change April to October	Last 5 years average	Change from 5-year average to 2018–19
Commodity GVP <sup>a</sup>	\$m	\$m	\$m	\$m	%	\$m	%
<b>Livestock disposals</b>							
Cattle and calves	5 861	5 731	5 379	5 052	-6	5 187	-3
Poultry	590	650	640	605	-5	592	2
Pigs	320	293	232	257	11	275	-7
Other livestock	43	46	41	40	-2	43	-8
Sheep and lambs	58	9	11	14	30	41	-65
<b>Total livestock disposals</b>	<b>6 872</b>	<b>6 729</b>	<b>6 303</b>	<b>5 968</b>	<b>-5</b>	<b>6 140</b>	<b>-3</b>
<b>Livestock products</b>							
Eggs	210	234	237	245	3	214	14
Milk (all purpose)	237	251	225	201	-11	236	-15
Wool	62	76	75	96	28	71	36
<b>Total livestock products<sup>e</sup></b>	<b>509</b>	<b>561</b>	<b>537</b>	<b>542</b>	<b>1</b>	<b>521</b>	<b>4</b>
<b>Total livestock</b>	<b>7 381</b>	<b>7 290</b>	<b>6 840</b>	<b>6 510</b>	<b>-5</b>	<b>6 661</b>	<b>-2</b>
<b>Horticulture</b>							
<b>Fruit and nuts</b>							
Bananas	580	572	580	574	-1	568	1
Other fruit and nuts	248	264	272	286	5	248	15
Avocados	151	225	226	248	10	183	35
Strawberries	180	144	160	148	-8	171	-14
Mandarins	94	107	107	143	34	94	52
Macadamias	120	140	126	136	8	103	32
Mangoes	75	96	113	113	0	84	35
Apples	82	90	93	105	13	80	31
Table grapes	53	53	65	84	29	55	54
Pineapples	71	70	70	70	0	67	4
<b>Total fruit</b>	<b>1 654</b>	<b>1 761</b>	<b>1 812</b>	<b>1 907</b>	<b>5</b>	<b>1 654</b>	<b>15</b>
<b>Vegetables</b>							
Tomatoes	294	250	298	289	-3	281	3
Other vegetables	217	220	231	243	5	221	10
Capsicums and chillies	142	132	141	140	-1	145	-3
Beans	79	72	77	75	-3	79	-5
Mushrooms	70	70	70	70	0	69	2
Melons (rock and cantaloupe)	55	50	59	66	12	48	36
Sweetpotatoes	62	64	64	64	0	59	9
Lettuce	54	56	56	56	0	55	2
Sweet corn	45	41	44	56	27	41	35

(Continued)

Table 9 continued

	2015–16 estimate, April 2016 <sup>b</sup>	2016–17 estimate, April 2017 <sup>c</sup>	2017–18 forecast, April 2018 <sup>d</sup>	2018–19 forecast, October 2018 <sup>d</sup>	Change April to October	Last 5 years average	Change from 5-year average to 2018–19
Commodity GVP <sup>a</sup>	\$m	\$m	\$m	\$m	%	\$m	%
<b>Vegetables (continued)</b>							
Potatoes	53	52	52	52	0	55	-5
Zucchini and button squash	41	39	41	42	2	43	-2
Melons (watermelon)	33	31	37	38	3	34	12
Pumpkin	36	30	32	33	3	29	13
Carrots	31	27	27	27	0	24	13
Onions	27	26	26	26	0	26	-2
<b>Total vegetables</b>	<b>1 239</b>	<b>1 160</b>	<b>1 255</b>	<b>1 277</b>	<b>2</b>	<b>1 209</b>	<b>6</b>
<b>Total fruit and vegetables</b>	<b>2 893</b>	<b>2 921</b>	<b>3 067</b>	<b>3 184</b>	<b>4</b>	<b>2 863</b>	<b>11</b>
<b>Lifestyle horticulture production</b>							
Nurseries <sup>k</sup>	898	902	907	921	2	891	3
Turf <sup>k</sup>	175	180	327	327	0	196	66
Cut flowers <sup>k</sup>	151	161	161	161	0	155	4
<b>Total lifestyle horticulture production</b>	<b>1 224</b>	<b>1 243</b>	<b>1 395</b>	<b>1 409</b>	<b>1</b>	<b>1 242</b>	<b>13</b>
<b>Total horticulture</b>	<b>4 117</b>	<b>4 164</b>	<b>4 462</b>	<b>4 593</b>	<b>3</b>	<b>4 106</b>	<b>12</b>
<b>Other field crops</b>							
Sugarcane <sup>f</sup>	1 209	1 527	1 125	1 036	-8	1 253	-17
Cotton (raw) <sup>g</sup>	466	622	884	461	-48	611	-25
Other crops <sup>c</sup>	59	81	134	151	13	79	91
<b>Total other crops</b>	<b>1 734</b>	<b>2 230</b>	<b>2 143</b>	<b>1 648</b>	<b>-2</b>	<b>1 942</b>	<b>-15</b>
<b>Cereal grains</b>							
Grain sorghum	312	139	276	552	100	295	87
Wheat	384	361	282	214	-24	339	-37
Other cereal grains	202	247	188	187	-1	189	-2
Chickpeas	291	744	406	156	-62	371	-58
Maize	52	45	64	89	39	54	66
Barley	102	102	34	41	21	73	-44
<b>Total cereal grains</b>	<b>1 343</b>	<b>1 638</b>	<b>1 250</b>	<b>1 239</b>	<b>-1</b>	<b>1 282</b>	<b>-3</b>
<b>Total crops</b>	<b>7 195</b>	<b>8 032</b>	<b>7 855</b>	<b>7 479</b>	<b>-5</b>	<b>7 330</b>	<b>2</b>
<b>Total agriculture</b>	<b>14 576</b>	<b>15 322</b>	<b>14 695</b>	<b>13 898</b>	<b>-5</b>	<b>13 991</b>	<b>0</b>
<b>Fisheries<sup>c,h</sup></b>							
<b>Commercial fishing</b>							
Crustaceans	104	80	107	107	0	106	1
Finfish	65	64	67	67	0	65	4
Molluscs	4	3.6	4	4	0	4	-14
<b>Total commercial fishing</b>	<b>173</b>	<b>148</b>	<b>178</b>	<b>178</b>	<b>0</b>	<b>175</b>	<b>2</b>
Recreational fishing	94	94	94	94	0	90	5
Aquaculture	111	92	105	111	6	102	8
<b>Total fisheries</b>	<b>378</b>	<b>334</b>	<b>377</b>	<b>383</b>	<b>2</b>	<b>367</b>	<b>4</b>
<b>Forestry and logging<sup>c,i</sup></b>	<b>243</b>	<b>260</b>	<b>270</b>	<b>279</b>	<b>3</b>	<b>227</b>	<b>23</b>
<b>Total primary industries (farm gate)</b>	<b>15 197</b>	<b>15 916</b>	<b>15 342</b>	<b>14 651</b>	<b>-5</b>	<b>14 584</b>	<b>0</b>

(Continued)

Table 9 continued

	2015–16 estimate, April 2016 <sup>b</sup>	2016–17 estimate, April 2017 <sup>c</sup>	2017–18 forecast, April 2018 <sup>d</sup>	2018–19 forecast, October 2018 <sup>d</sup>	Change April to October	Last 5 years average	Change from 5-year average to 2018–19
Commodity GVP <sup>a</sup>	\$m	\$m	\$m	\$m	%	\$m	%
<b>First-stage processing value added<sup>i</sup></b>							
Meat processing <sup>c</sup>	2 636	2 581	2 418	2 289	-5	2 355	-3
Sugar processing <sup>c</sup>	533	860	635	544	-14	663	-18
Log sawmilling, timber dressing, and plywood and veneer manufacturing <sup>c</sup>	413	423	435	472	9	404	17
Fruit and vegetables processing <sup>c</sup>	243	246	258	268	4	241	11
Milk and cream processing <sup>c</sup>	125	132	119	106	-11	124	-15
Flour mill and feeding processing <sup>c</sup>	104	127	97	96	-1	99	-3
Seafood processing <sup>c</sup>	57	50	57	58	2	55	4
Cotton ginning <sup>c</sup>	53	71	101	53	-48	70	-25
<b>Total primary industries (first-stage processing)</b>	<b>4 164</b>	<b>4 490</b>	<b>4 118</b>	<b>3 885</b>	<b>-6</b>	<b>4 011</b>	<b>-3</b>
<b>Total primary industries</b>	<b>19 361</b>	<b>20 406</b>	<b>19 460</b>	<b>18 536</b>	<b>-5</b>	<b>18 596</b>	<b>0</b>

- a GVP (gross value of production) is defined as the gross value of commodities produced. It is a measure of economic output. In this publication, GVP relates to the output of primary industry commercial operations only. The GVP is the value of recorded production at wholesale prices realised in the marketplace (e.g. cattle sold at saleyards, sugarcane at the mill door, fruit and vegetables at the wholesale market). It is derived by multiplying the output from each primary industry by the average wholesale price paid to producers.
- b ABS final estimates for 2015–16 unless otherwise indicated.
- c ABS final estimates for 2016–17 unless otherwise indicated.
- d DAF forecasts.
- e Excludes minor commodities such as honey, beeswax and mohair.
- f Gross value of sugarcane at the mill door.
- g Includes value of cottonseed and lint.
- h Includes catches from both Commonwealth-managed fisheries (including Torres Strait, Gulf of Carpentaria and East Coast Tuna fisheries) and state-managed fisheries.
- i Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimates.
- j See page 72 for the definition of value added. The forecasts for the value of first-stage processing in 2009–10 and beyond should not be compared with the previous years due to the change in value-added ratios.
- k The value of the lifestyle horticulture sector has been calculated on a gross-turnover basis rather than a value-added basis and therefore will contain some double counting.

## Volume of production index

A volume of production index describes the movement in production over a period of time relative to a base period. The volume of production index for each of Queensland's major agricultural commodities from 2008–09 to 2018–19 is detailed in Table 10.

The index for agriculture for 2018–19 is forecast to be 104. This indicates that Queensland's agricultural production in 2018–19 is forecast to be 4 per cent higher (on average) than in the base year of 1996–97. On average, the volume of agricultural production in 2018–19 is forecast to be 9 per cent lower than in 2017–18.

**Table 10** Volume of production index for Queensland's major agricultural commodities<sup>a</sup>

Commodity	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18 (forecast)	2018–19 (forecast)
Wheat	102	68	77	95	82	52	50	66	74	57	25
Grain sorghum	176	92	118	141	147	86	161	117	114	142	150
Barley	40	26	34	45	40	42	59	87	76	56	23
Major cereal grains	117	73	84	104	96	62	83	84	88	83	61
Sugarcane	82	81	65	67	72	80	85	89	91	89	87
Cotton lint	93	84	211	187	189	190	98	114	218	195	102
Major other field crops	84	81	100	97	100	106	87	94	122	115	90
Major fruit	161	176	125	166	178	164	215	215	220	219	239
Major vegetables	113	109	111	137	103	75	78	81	91	92	92
Major fruit and vegetables	138	144	118	152	142	121	123	150	157	157	167
Crops	103	92	100	110	108	98	93	103	115	34	99
Beef	134	133	132	130	136	149	134	152	117	127	124
Pigs	114	113	108	109	110	108	109	130	114	110	113
Poultry (chicken meat)	158	168	170	174	174	208	212	221	225	214	223
Sheep and lambs	62	42	34	39	46	49	39	41	45	5	7
Major livestock disposals	132	131	130	129	137	148	136	153	125	130	129
Milk (all purposes)	64	66	61	61	57	54	52	49	51	52	44
Wool	23	19	34	38	34	25	18	12	12	19	16
Eggs	266	290	340	385	395	588	603	413	472	450	495
Major livestock products	61	63	68	72	69	75	72	57	62	63	60
Livestock	112	112	113	113	118	127	118	127	107	112	110
<b>Total agriculture<sup>b</sup></b>	<b>107</b>	<b>101</b>	<b>105</b>	<b>111</b>	<b>112</b>	<b>111</b>	<b>104</b>	<b>113</b>	<b>114</b>	<b>113</b>	<b>104</b>

a Base of each index is 1996–97 = 100.

b Excludes lifestyle horticulture due to insufficient data.

Source: Compiled by DAF using ABS and DAF data.

# Livestock disposals

## Cattle and calves

### Key findings

- Over 3.5 million cattle and calves were processed in Queensland in 2017–18, 4 per cent more than the last financial year.
- The national herd is estimated to have decreased slightly to 27.4 million head due to drought conditions.
- Average carcase weights are expected to decrease slightly because of the current poor rainfall outlook.
- The number of cattle on feed in Australia remains near record levels, primarily due to feed availability and firm export demand.
- Cattle sold at sales eased, as the Eastern Young Cattle Indicator (EYCI) has fallen below 500 cents per kilogram carcase (dressed) weight for the first time in 3 years; however, it is still above the average for the past 5 years.
- Prices for cattle sold directly to processors improved during 2017–18.
- Exports of Australian beef and veal increased by 12 per cent from 958 412 tonnes in 2016–17 to 1 077 397 tonnes in 2017–18. According to ABARES, this should increase again to 1 165 000 tonnes in 2018–19.
- Meat and Livestock Australia (MLA) believes that Australian beef exports have so far successfully managed to remain on a solid footing, with shipments to Japan, South Korea and China recording double-digit growth.
- Australian red meat and live cattle exports are expected to benefit from the Indonesia–Australia Comprehensive Economic Partnership Agreement (IA-CEPA), which was finalised on 31 August 2018 and is due to be signed by the end of the year.



### Forecast

The 2018–19 GVP for Queensland’s cattle and calf industry (including cattle and calves sold for slaughter and live exports) is forecast to be \$5.05 billion. This is 6 per cent lower than the final estimate for 2017–18 and 3 per cent lower than the average for the past 5 years.

## Analysis and discussion

### Cattle and calves sold for slaughter

For 2018–19, the GVP for cattle and calves sold for slaughter is forecast to be \$4.8 billion, which is a 6 per cent reduction on last year's final estimate. In 2017–18, 3.5 million head of cattle and calves were slaughtered in Queensland, 4 per cent more than in the previous year.

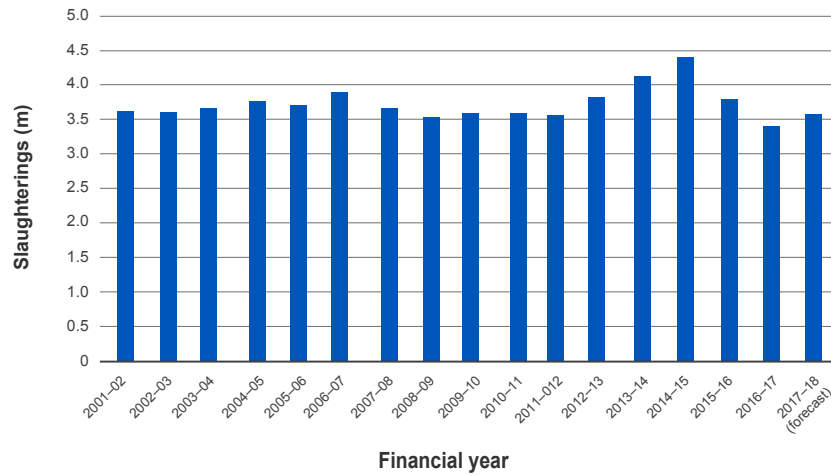


Figure 8 Queensland cattle and calf slaughterings, 2001–02 to 2017–18

MLA believes that seasonal conditions during spring will play a huge role in how the market performs in the second half of the year, with any improvement to pasture conditions likely to see demand for young cattle and females increase. In the meantime, a weak Australian dollar continues to assist exporters of Australian beef, as domestic processors continue to rely on overseas markets to absorb increased supply.

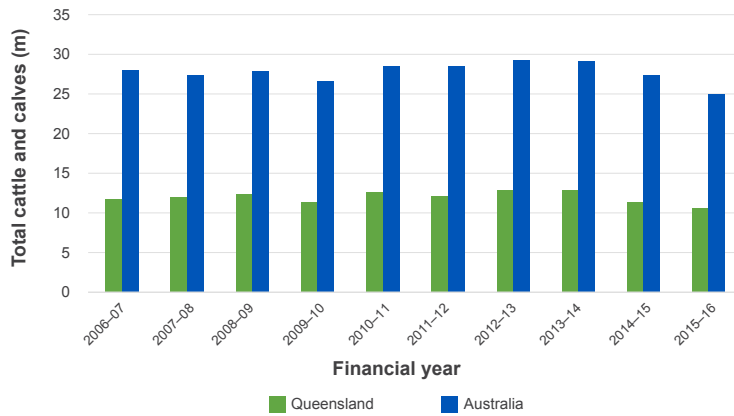
### Slaughter

Over 3.5 million cattle and calves were slaughtered in Queensland in 2017–18, 4 per cent more than in the last financial year. However, if the dry conditions experienced across much of the country over winter continue throughout spring and summer, producers could turn off more stock over the coming months.

### Production

Beef and veal production for the year to June 2018 was just under 1 077 000 tonnes carcass weight, 5 per cent higher than for the previous year. Ongoing dry conditions will likely see more cows and heifers sent to slaughter over the coming months and will lower the quality of grass-fed cattle. MLA expects carcass weights to decline back to long-term trend figures for the remainder of 2018.

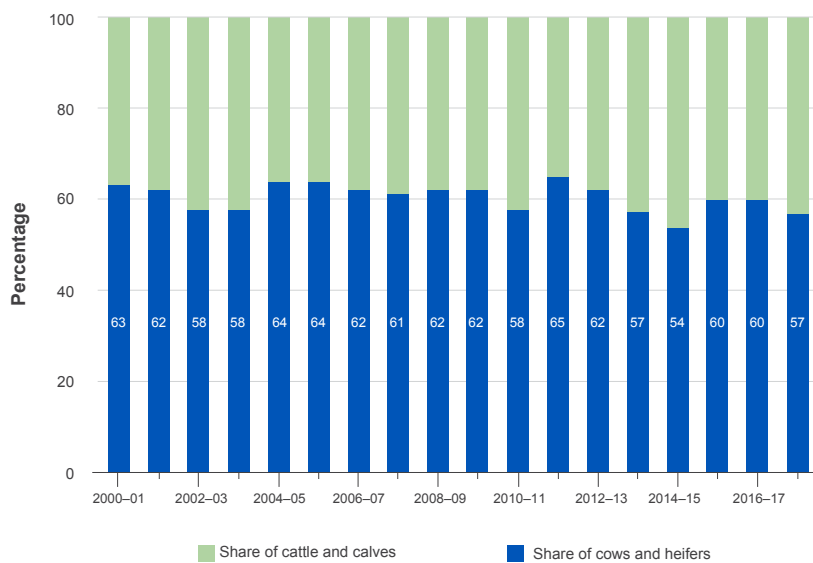
### Cattle numbers



**Figure 9** Total cattle and calf numbers, Queensland and Australia, 2006–07 to 2015–16

Source: ABARES annual statistics, 2017.

Cattle numbers in Queensland have ranged from about 40 to 45 per cent of the total Australian herd over the past decade. However, in 2014–15 the numbers began to fall and have continued on a downward trend due to the continued impact of the drought.



**Figure 10** Percentage share of total slaughter for cattle and calves and cows and heifers, Queensland, 2000–01 to 2017–18

Source: ABS, 2018.



One of the few measures the beef industry has available to forecast the condition of the static herd is the proportion of the state’s slaughter that is female. This level may be used to interpret the impact of seasonal conditions, because pregnant female cattle require a higher plane of nutrition. Also, because these cattle would be the last to be sold during drought conditions, the rise in the number of females slaughtered has an impact on current and future productivity of the state’s herd.

The female slaughter percentage has increased by 3 per cent since last year, making it similar to 2013–14 levels but not as high as the previous peak of 2014–15 (as shown in Figure 10). The increased percentage suggests that producers have reduced their herd rebuilding in response to drought conditions.

### Cattle prices



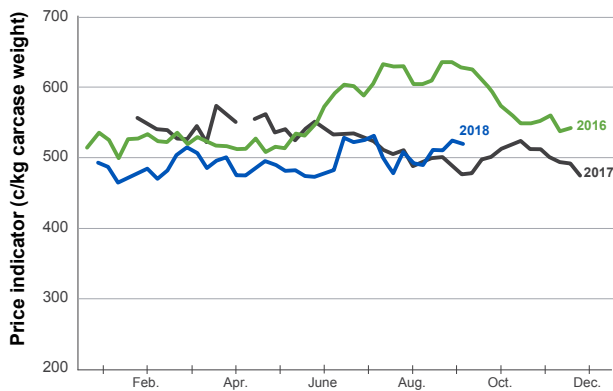
Figure 11 EYCI, 2010 to 2018

Source: MLA, 2018.

A Rabobank spokesperson said that while global markets will have a bearing on Australian cattle prices, the local supply of cattle—dictated largely by seasonal conditions—will drive prices over the next 12 months:

‘There are a number of scenarios that could play out ... For example, if Australian beef producers get a good spring, this would see restocker interest in the market remain high, and prices would hold up accordingly, but come off a bit from their record highs ... Alternatively, if the season remains dry, particularly in central Queensland, this could see cattle rebuilding efforts put on hold, and prices could ease a bit more.’

According to ABARES, in 2018–19 Australian saleyard prices of beef cattle will fall, declining moderately from the historically high prices of recent years.



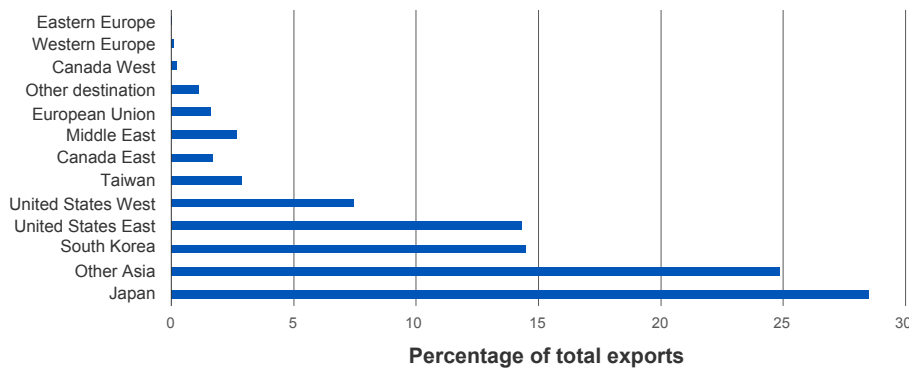
**Figure 12** Over-the-hook price indicators for Queensland-grown steers (as at October 2018), 2016 to 2018

Source: MLA, 2018.

The tightening availability of slaughter-ready cattle assisted the national over-the-hook indicators, which in September 2018 averaged up to 10 per cent higher than the previous year for Queensland-grown steers. However, it was still significantly below the September 2016 figure.

## Exports

According to MLA, the shifting United States trade policy and the series of tariffs and retaliatory measures have dominated headlines in recent months. Australian beef exports have so far managed to remain on a solid footing, with shipments to Japan, South Korea and China recording double-digit growth.



**Figure 13** Australian exports of beef and veal, 2017–18

Source: DAF, 2018.

Exports of Australian beef and veal increased by 12 per cent from 958 412 tonnes in 2016–17 to 1 077 397 tonnes in 2017–18. According to MLA:

‘Australia continues to compete head-to-head with the United States and its “wall of beef” entering Japan and Korea. The United States Department of Agriculture (USDA) have forecast United States beef production to expand 4 per cent in 2018 and 2 per cent in 2019, which would be a record year if it comes to fruition. Fortunately, the imported beef markets in Japan and Korea continue to grow but safeguards restrict both Australia and the United States.’

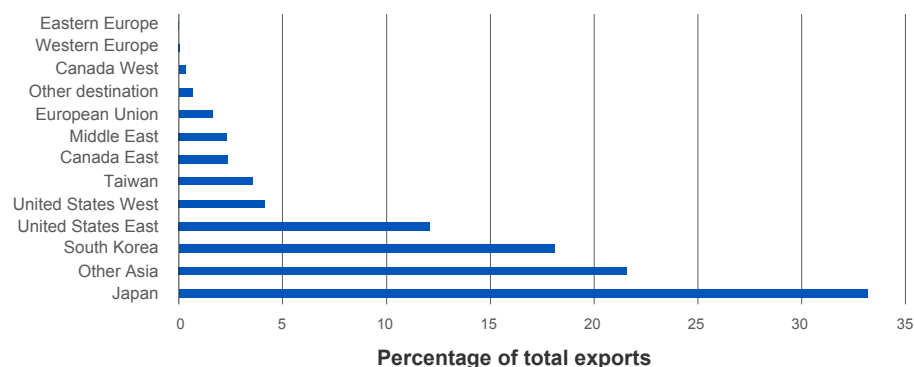
Australia has a free trade agreement with Japan, which places it at a tariff advantage over the United States, who do not. South Korea has recently announced a new agreement with the United States.

In March 2018, the United States entered into a trade war with China, which led to tariff increases from each country. Because the United States had only recently re-entered the Chinese beef market, there was little impact on their beef trade with China. However, the United States has been at its most productive phase and has achieved significant growth in traditional Queensland export markets.

For 2017–18, shipments to the United States totalled nearly 223 000 tonnes shipping weight, which is nearly 13 per cent above the previous year’s high. Exports to the United States are supported by ongoing demand for lean manufacturing trim for burger production and a strengthening economy.

According to MLA, beef exports to China posted strong recovery in the first half of 2018. ABARES believes the ongoing dispute between the United States and China provides Australian beef exporters with an opportunity to expand their presence in the rapidly growing Chinese market. They add that Australian exporters need to compete with countries that have access to China, such as Brazil, Argentina, Uruguay and New Zealand.

Australian exports to Japan increased by 11 per cent from the previous year, to 307 270 tonnes shipping weight. This made Japan Australia’s largest export market by volume. There was, however, a reduction of 3 per cent in the volume of beef shipped to South Korea, to 156 188 tonnes shipping weight. There is increasing competition in both these markets from the United States.



**Figure 14** Queensland exports of beef and veal, 2017–18

Source: DAF, 2018.

In 2017–18, Queensland exported 583 090 tonnes of beef and veal, which was 54 per cent of Australia’s beef and veal exports, and an increase of approximately 50 000 tonnes from the previous year. Japan was Queensland’s largest export market, accounting for 33 per cent of exports, and was followed by ‘other Asian markets’ (22 per cent) and South Korea (18 per cent).

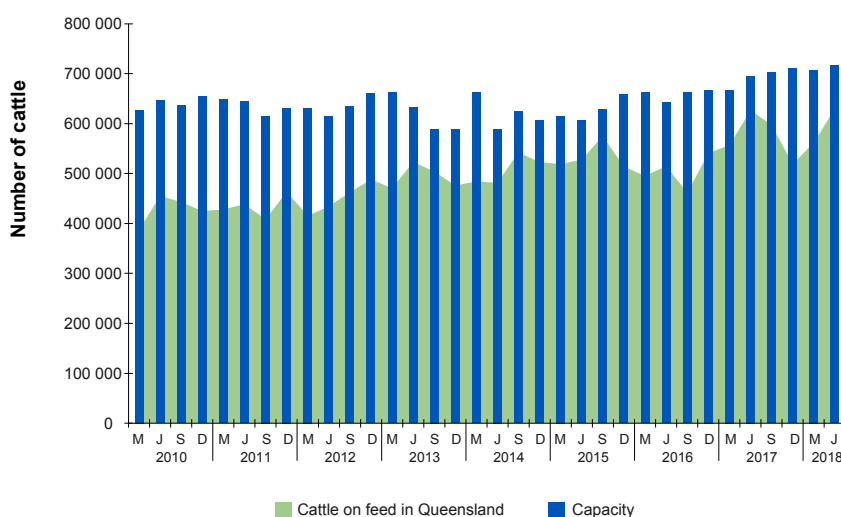
Preliminary figures for 2017–18 indicate that Queensland exported \$5.3 billion worth of beef, up 7 per cent from the previous year. Fresh and chilled beef exports increased by nearly 7 per cent to just over \$2.04 billion, whereas frozen beef exports increased by nearly 10 per cent to just under \$2.86 billion.

## Feedlots

In the June 2018 quarter, Queensland’s feedlots were operating at 88 per cent capacity—slightly lower than for the June 2017 quarter. According to the Australian Lot Feeders’ Association (ALFA), the results for the first half of 2018 indicate an increase in cattle numbers on feed for all states except Western Australia, reflecting deteriorating seasonal conditions over the last couple of months, combined with a poor-to-average rainfall outlook.

Australia-wide, cattle on feed for the June 2018 quarter increased 94 777 head (9 per cent) from the March quarter, reaching the unprecedented level of 1 120 459 head, according to the latest ALFA and MLA survey.

Queensland had the greatest increase at 67 962 head (12 per cent), closely followed by New South Wales and Victoria, which were both up 10 per cent (30 924 and 6643 head respectively). Western Australia saw a decrease of 25 per cent to 35 285 head.



**Figure 15** Queensland cattle on feed and feedlot capacity, March 2010 to June 2018

Source: ALFA and MLA, June 2018 national accredited feedlot survey.

## Live cattle exports

The GVP for Queensland’s live cattle exports in 2018–19 is forecast to be \$220 million. This is the same as the final estimate for 2017–18 but still greater than the average for the past 5 years. The main export destinations for live cattle from Queensland in 2018–19 are Vietnam (43 per cent) and Indonesia (53 per cent), with the latter significantly decreasing its intake over that period.

A trial shipment was sent to China from Townsville following agreement of a protocol dealing with the bluetongue virus that exists in northern Australia.

Australian red meat and live cattle exports are expected to benefit from IA-CEPA, which was finalised on 31 August 2018 and is scheduled to be signed by the end of the year.

IA-CEPA will provide tariff elimination for those red meat and livestock lines not addressed under the agreement establishing the ASEAN – Australia – New Zealand Free Trade Area. Non-tariff barriers including import permit restrictions, quotas and other trade hurdles (especially for live cattle exports) are also tipped to improve with IA-CEPA in place.

For example, it is anticipated that IA-CEPA will deliver a quota (with a 0 per cent in-quota tariff) for 575 000 head of live (male) cattle, which will grow by 4 per cent per year over 5 years to 700 000 head. Import permits will be issued automatically on an annual basis and without seasonal restrictions—a welcome improvement on previous administrative procedures. A review of this trade will be conducted after 5 years to consider future increases in the quota (i.e. above 700 000 head).

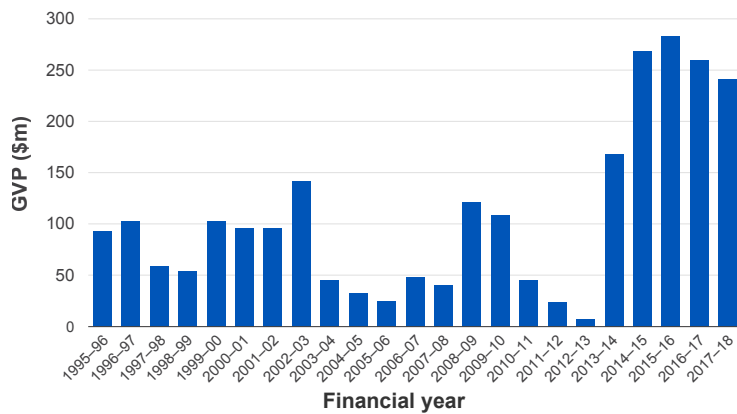


Figure 16 Queensland live cattle exports, 1995-96 to 2017-18

Source: MLA 2018, Australian livestock exports.

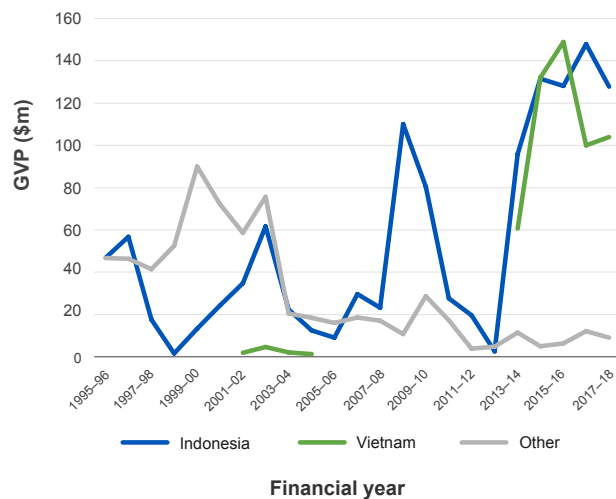


Figure 17 Queensland live cattle exports by country of destination, 1995-96 to 2017-18

Source: MLA 2018, Australian livestock exports.

# Poultry

## Forecast

The GVP for Queensland poultry in 2018–19 is forecast to be \$605 million, 8 per cent higher than the ABS estimate for 2017–18<sup>13</sup> and 2 per cent higher than the average for the past 5 years.

## Analysis and discussion

The increase in GVP from 2017–18 to 2018–19 is a result of a modest increase in production (Figure 18).

The key issues are around the current availability and cost of feed and fodder for all intensive production animals in Queensland.<sup>14</sup> However, input prices for poultry are relatively stable compared with other types of meat. In addition, because most poultry birds are housed in sheds, their production is less susceptible to weather than that of grass-fed livestock such as beef cattle and lambs. Poultry processing is also dominated by two large companies with significant production scale, which helps to stabilise prices. Stable prices make poultry consumption less volatile than that of other meats.<sup>15</sup>

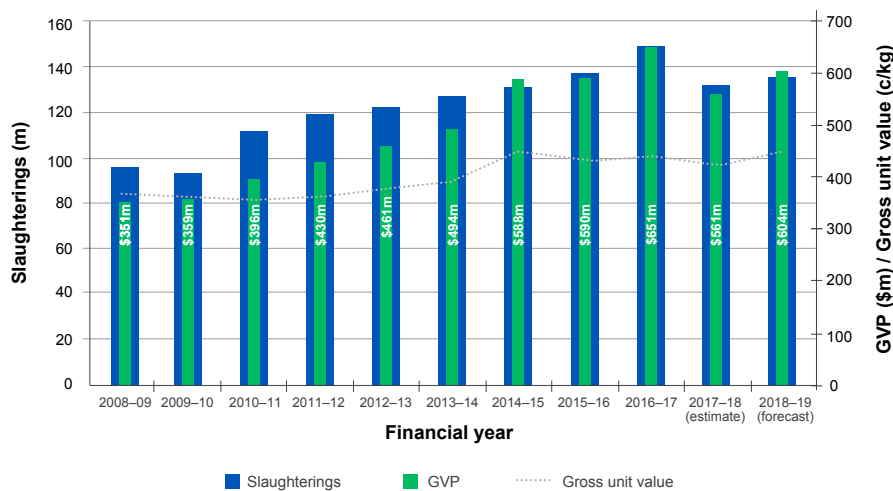
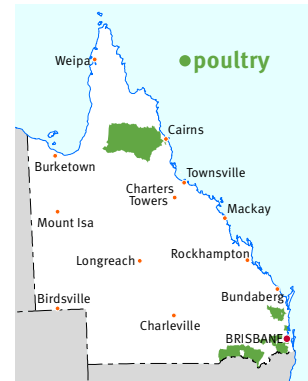


Figure 18 Queensland poultry production, 2008–09 to 2018–19

Note: Gross unit value refers to average gross unit value across all grades in principal markets and includes the cost of containers, commission and other expenses incurred in getting the commodities to their principal markets, which are significant.

Sources: For production: ABS, 7215—Livestock products, Australia, livestock slaughtered—chickens, original; for GVP: ABS, 7215—Livestock products, Australia, gross value of livestock slaughtered.

<sup>13</sup> ABS, 7215—Livestock products, Australia, gross value of livestock slaughtered, released 14 August 2018.

<sup>14</sup> Personal communication with John Darlington, Director of RED Animal Industries, DAF, on 4 September 2018.

<sup>15</sup> IBISWorld, Poultry meat farming in Australia, industry risk ratings report, August 2018.

At the national level, ABARES forecasts that Australian poultry meat production will increase by 2 per cent from the previous financial year, reaching 1.25 million tonnes (carcase weight) and exceeding 660 million birds. In terms of GVP, a 5 per cent increase will take the total to \$3039 million.<sup>16</sup>

In general, Australian demand for chicken meat is expected to remain strong over the short and medium terms, supported by income growth and an established preference for low-cost, versatile foods. Continued increases in health consciousness are expected to boost demand for healthier protein options like chicken. Rising domestic production, driven by productivity growth and supported by relatively low feed costs, is expected to meet the increase in domestic demand for chicken meat.<sup>17</sup>

Rising demand for free-range and organic chicken, which command higher prices, will likely drive increases in domestic poultry prices, despite rising price pressures for operators that farm chickens conventionally.

Although the poultry meat farming industry grows various types of birds, chickens (mainly conventionally farmed) still dominate the industry, accounting for over 90 per cent of industry revenue in 2017–18. Other poultry varieties include duck, goose, turkey and game birds.<sup>18</sup>

Queensland remains the second largest poultry producing state in Australia (accounting for 21 per cent of total Australian slaughterings in 2017–18), with New South Wales being the largest producing state (32 per cent) and Victoria contributing 20 per cent.<sup>19</sup>

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<sup>16</sup> ABARES, *Agricultural commodities*, June quarter 2018.

<sup>17</sup> ABARES, *Agricultural commodities*, March quarter 2018.

<sup>18</sup> IBISWorld, *Poultry meat farming in Australia*, industry report A0171, January 2018.

<sup>19</sup> ABS, *7215—Livestock products, Australia*, livestock slaughtered—chickens, original, released 14 August 2018.

# Pigs

## Forecast

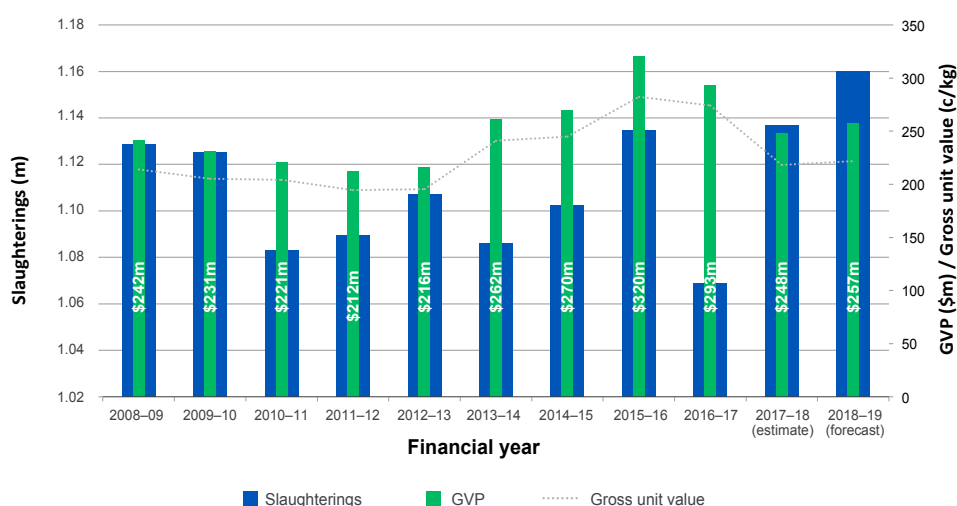
The GVP for Queensland pig production for 2018–19 is forecast to be \$257 million, 4 per cent higher than the ABS estimate for 2017–18<sup>20</sup> and 7 per cent lower than the average for the past 5 years.

## Analysis and discussion

The slight increase in the GVP from 2017–18 to 2018–19 is a result of a modest increase in production (Figure 19).

Although the number of slaughterings has been significantly increasing over the past 3 years, the GVP has not shown the same increase because of high grain prices in Queensland. The key issues are around the current availability and cost of feed and fodder, with potential for a decrease in pig production in the long term.<sup>21</sup> There is also growing competition from poultry, given the relatively lower price and versatility of chicken meat.

While pigs are not directly affected by the ongoing drought, the effects of the drought might have dramatic consequences for the industry, through input and feed costs.<sup>22</sup>



**Figure 19** Queensland pig production, 2008–09 to 2018–19

Note: Gross unit value refers to average value, which is calculated by dividing the total value by the number of pigs slaughtered.

Sources: For production: ABS, 7215—Livestock products, Australia, livestock slaughtered—excluding chickens, original; for GVP: ABS, 7215—Livestock products, Australia, gross value of livestock slaughtered.

Locally produced pig meat accounts for approximately 70 per cent of pig meat consumed in Australia. Given that locally produced pig meat is typically more expensive than imported pig meat, due to higher operating costs in Australia, this should keep the overall price of pig meat in the domestic market high over the next 5 years. Furthermore, steadily increasing pig meat consumption is likely to place upward pressure on pig meat prices.<sup>23</sup>

<sup>20</sup> ABS, 7215—Livestock products, Australia, gross value of livestock slaughtered, released 14 August 2018.

<sup>21</sup> Personal communication with John Darlington, Director of RED Animal Industries, DAF, on 4 September 2018.

<sup>22</sup> Marguerite Cuddihy, 'Drought takes its toll on our pork industry', *South Burnett Times*, 7 August 2018.



Reflecting the increase in slaughter, Australian pig meat production is projected to rise, although without increases in slaughter weights because domestic processors are expected to continue to focus on producing the lean and fresh pork products preferred by Australian consumers.<sup>24</sup>

Queensland and Victoria share the second place in terms of pig production in Australia (each accounting for 21 per cent of total Australian slaughterings in 2017–18); South Australia is the largest producer, at 25 per cent.<sup>25</sup>

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<sup>23</sup> IBISWorld, *Pig farming in Australia*, industry risk rating report, August 2018.

<sup>24</sup> ABARES, *Agricultural commodities*, March quarter 2018.

<sup>25</sup> ABS, *7215—Livestock products, Australia*, livestock slaughtered—excluding chickens, released 14 August 2018.

## Sheep and lambs

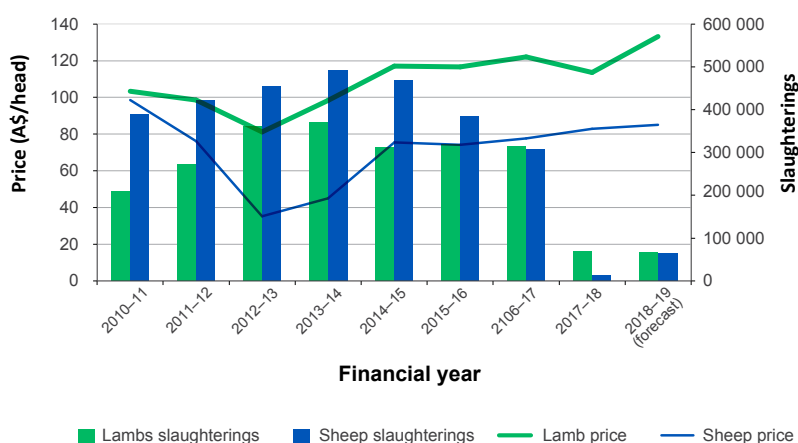
### Forecast

The GVP for Queensland sheep and lamb production in 2018–19 is forecast to be \$14.3 million, which is 30 per cent above DAF’s final estimate for 2017–18 but 65 per cent below the average for the past 5 years.

### Analysis and discussion

As prevailing drought conditions worsen in eastern Australia, MLA expects poor feed availability to force the sale of a large number of stock, many underweight, then a diminishing supply as only breeders are retained. Such sustained adversity is likely to keep Queensland sheep-meat production barely above last year’s historically low levels.

ABARES expects Australian sheep and lamb saleyard prices to rise in 2018–19 by around 4 and 17 per cent, respectively, in response to strong export demand, even with increasing turn-off (because of poor seasonal conditions) adding to supply.<sup>26</sup> Queensland saleyard prices are forecast to follow this national trend (see Figure 20). In 2017–18, Queensland supplied, respectively, 0.65 and 0.28 per cent of the national slaughterings in sheep and lambs. This forecast assumes the same proportions to continue in the current year. ABARES forecasts national slaughterings of sheep and lambs to be 9.8 million and 23.9 million, respectively, in 2018–19. Using last year’s proportions, the Queensland forecast is 54 500 sheep and 65 200 lambs slaughtered.



**Figure 20** Queensland sheep and lamb saleyard prices and slaughterings, 2010–11 to 2018–19

Sources: ABS, ABARES,

Australian sheep-meat exports are expected to be around 492 000 tonnes for 2018–19, which is 8 per cent higher than last year’s estimated total and represents 63 per cent of the national production. China and the United States remain major markets, but competition from New Zealand is expected to build following the rebalancing of dairy and sheep industries across the Tasman in favour of the latter. Demand in these countries could be affected by the impact on consumer confidence of a protracted trade war between the United States and China. High sheep-meat prices are expected to push demand in the Middle East towards substitutes such as chicken and beef.

<sup>26</sup> ABARES 2018, *Agricultural commodities*, September quarter.

Conversely, possible restrictions of international pork supply from disease outbreaks in Europe and Asia could underpin sheep-meat prices. Successful completion of free trade agreements with the European Union and Indonesia would improve access for Australian sheep meat to those markets.

Prospects for live sheep exports remain unclear, given the extent of negative publicity and public expectations for the industry to at least radically change practices, if not cease these exports altogether.

For a discussion on wool, see page 39.

## Livestock products

Although *AgTrends* generally discusses only the larger primary industry sectors, special mention should be made of the beekeeping industry.

While the direct commodity production of the industry is relatively small (GVP in 2013–14 was estimated to be \$17 million), beekeeping is important to cropping industries. In particular, bees provide significant pollination services as a by-product of honey/pollen collection. The value of pollination is reflected in the gross values of the cropping industries that honey bees service, but these services are difficult to value, primarily because of a lack of data about the extent of reliance on feral honey bees.<sup>27</sup>

Australia is the last country that is free of the bee parasite varroa mite. If this mite were to become established in Australia, the importance of pollination by managed hives would increase significantly as feral bee numbers dropped. Discovery of varroa-infested Asian honey bees in Townsville in July last year triggered a strong response from Biosecurity Queensland, along with the standard national process for dealing with potentially high-impact biosecurity threats.

## Milk

### **Forecast**

The GVP for milk for 2018–19 is forecast to be \$201 million, 11 per cent lower than DAF's final estimate for 2017–18 and 15 per cent lower than the average for the past 5 years.

### **Analysis and discussion**

Production is forecast to fall by 10 per cent in 2018–19 to around 353 million litres. The dry conditions have continued and turned into a major drought, especially in the Darling Downs area, which is the biggest dairy area in Queensland. Even the few lucky farmers who are not experiencing drought have struggled as grain prices soared to almost triple normal prices. This is having a crippling effect on the industry, and without major milk price increases and significant widespread rainfall in the very near future, production and farm numbers could easily fall by 20–30 per cent or more this year.

Factors that will influence the Queensland dairy industry over the year ahead are:

- the impact of extreme drought on feed production, especially in the Darling Downs
- the record high grain and hay prices and a shortage of these due to widespread drought across Australia
- the impact of lower farmgate milk prices on production and farm numbers.

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<sup>27</sup> The latest Australian figure of \$4–6 billion quoted by the New South Wales Department of Primary Industries is unattributed. However, peer-reviewed work puts the value of ecosystem services by bees in New Zealand to nearly NZ\$2 billion (<https://peerj.com/articles/2099.pdf>). The figure of \$17 million was found by taking the proportion of bee hives in Australia that Queensland has and multiplying it by the Australian GVP estimate.

# Eggs

## Forecast

The GVP for eggs for 2018–19 is forecast to be \$245 million, 3 per cent higher than DAF’s final forecast for 2017–18 and 14 per cent higher than the average for the past 5 years.

## Analysis and discussion

Egg production is forecast to be 110 million dozen for 2018–19, slightly lower than the estimate by Australian Eggs Limited (143 million dozen). The latter is based on hatchery data, and there is limited information on the scale of the non-commercial sector, so it could overestimate commercial production.

A moderate 2 per cent increase of production quantities from 2017–18 to 2018–19 reflects a challenging year for egg farmers in Queensland and nationally with strong supply having an impact on prices and margins (Figure 21).

Supply fluctuations have been driven by a combination of the ongoing trend towards alternative production, uncertainty regarding moves to phase out cage eggs by major retailers, and regulatory uncertainty arising from the ongoing review of the Australian welfare standards and guidelines for poultry, which could impact cage egg production.

Drought conditions have further impacted this dynamic, with feed grain prices increasing significantly in response to the failure of the winter crop. On a positive note, however, egg consumption has increased significantly and there have been no significant incidents relating to biosecurity, food safety or animal welfare that could have an adverse impact on consumption.<sup>28</sup>

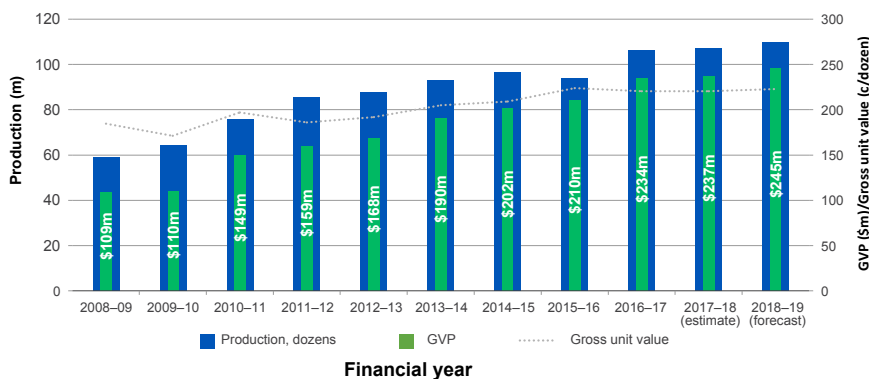


Figure 21 Queensland egg production, 2008–09 to 2018–19

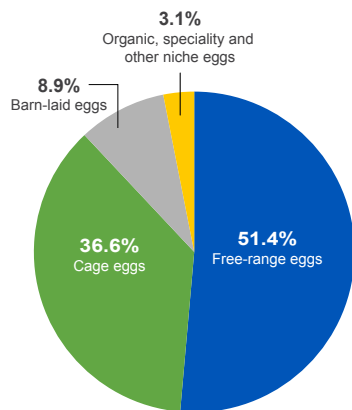
Note: Gross unit value refers to average value, which is calculated by dividing the total value by the number of dozens produced.

Sources: For production: ABS, 7121–Agricultural commodities, Australia; for GVP: ABS, 7503–Value of agricultural commodities produced, Australia.

<sup>28</sup> Personal communication with Rowan McMonnies, Managing Director of Australian Eggs Limited, 6 September 2018.

Population growth will be a key driver of demand for eggs, and per-capita egg consumption is expected to remain relatively stable over the next few years, with consumers increasingly purchasing more expensive eggs.<sup>29</sup>

In fact, many Australian consumers have transitioned from cage eggs to free-range eggs in response to concerns regarding animal welfare. Consequently, free-range eggs have grown as a proportion of production and industry revenue over the past 5 years (Figure 22).<sup>30</sup>



**Figure 22** Australian egg production types, in terms of industry revenue, 2017–18

Source: IBISWorld, *Egg farming in Australia*, industry report A0172, May 2018.

Queensland is now the largest egg-producing state in Australia, providing 31 per cent of the total number of hen eggs produced for human consumption in 2016–17. New South Wales is second, with 30 per cent, and Victoria is third, with 22 per cent.<sup>31</sup>

<sup>29</sup> IBISWorld, *Egg farming in Australia*, industry risk rating report, August 2018.

<sup>30</sup> IBISWorld, *Egg farming in Australia*, industry report A0172, May 2018.

<sup>31</sup> ABS, 7121—*Agricultural commodities, Australia, 2016–17*, released 21 May 2018.

# Wool

## Forecast

The GVP for wool for 2018–19 is forecast to be \$96 million, 28 per cent higher than DAF’s final forecast for 2017–18 and 36 per cent higher than the average for the past 5 years.

## Analysis and discussion

The Australian Wool Production Forecast Committee expects a total greasy wool production in Queensland in 2018–19 of 7.2 million kilograms, which is a 15 per cent fall from the final estimate of 2017–18. The majority of Queensland has remained dry, and some producers are destocking sheep partly or completely as a result. Given the high value of sheep meat, stock numbers will further decrease if the dry weather continues.

ABARES forecasts an average Eastern Market Indicator price for 2018–19 of 1990 cents per kilogram<sup>32</sup>, which is 22 per cent above the 2017–18 price. This rise is the result of sustained global demand for fine and superfine wool, and declines in Australian shorn wool production. A key factor to sustained global demand is the rising incomes of consumers in the major textile-consuming markets (the United States, China and the European Union). Consumer demand continues to increase despite the availability of cheaper substitutes for wool and the exponential increase in the price of wool from 2017 to 2018 (see Figure 23).

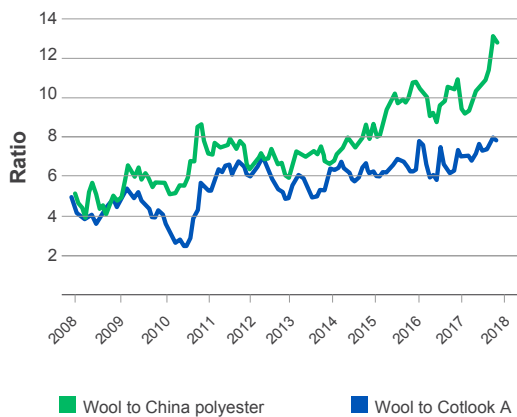


Figure 23 Price ratio of 21 micron wool to alternative fibres, July 2008 to July 2018

<sup>32</sup> ABARES 2018, *Agricultural commodities*, September quarter.

# Crops

## Horticulture crops

### Fruit and nuts

#### Forecast

The total GVP for fruit and nuts in Queensland for 2018–19 is forecast to be \$1.91 billion. This is 5 per cent higher than DAF’s final estimate for 2017–18 and 15 per cent greater than the average for the past 5 years.

#### Analysis and discussion

The GVP for **bananas** for 2018–19 is forecast to be \$574 million, 1 per cent lower than DAF’s final estimate for 2017–18 but 1 per cent greater than the average for the past 5 years.

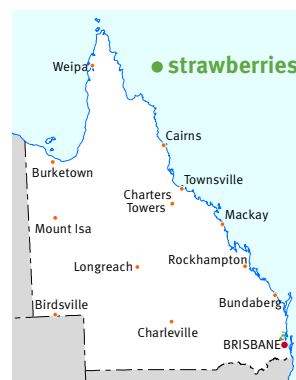
Volumes are down this year because of the flooding that occurred between Cairns and Cardwell in March. Also, unfavourable weather this year has had some impact on production. The reduction in supply has resulted in higher wholesale prices; however, prices should come back down later in the season. On average, prices this financial year are expected to be marginally higher than for the last couple of years.

Most of the state’s banana production occurs in the SA2 geographical areas of Tully, Johnstone, Babinda, Atherton, Mareeba, Innisfail and Gordonvale–Trinity in northern Queensland.



The GVP for **strawberries** for 2018–19 is forecast to be \$148 million, 8 per cent lower than DAF’s final estimate for 2017–18 and 14 per cent lower than the average for the past 5 years.

The sabotaging of strawberries that occurred from mid-September 2018 reduced strawberry demand considerably, with supermarkets withdrawing strawberries from shelves. This had an immediate and significant impact on consumption and prices. Retailers began restocking strawberries in late September and production and prices are expected to revert to normal levels in October and in the new season, around May next year. In addition, the rebound in demand is being supported by high solidarity from consumers, measures to improve standards and training throughout the supply chain, and the installation of metal detectors in packing sheds. Despite the impact of the tampering, the growing season has been very good. Little rain and lower crop losses have resulted in record yields, although the higher volumes led to lower prices. New varieties such as Red Rhapsody are growing well and in the future and we should see growers planting more of these new varieties.



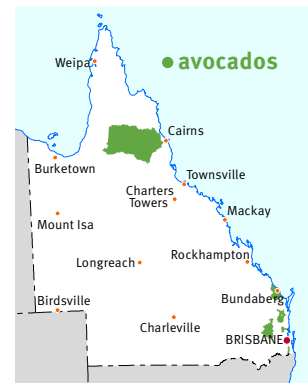
Most of Queensland’s strawberry production occurs in the SA2 geographical areas of Dayboro, Beerwah, Wamuran, Elimbah and Caboolture.



The GVP for **avocados** for 2018–19 is forecast to be \$248 million, 10 per cent greater than DAF’s final estimate for 2017–18 and 35 per cent greater than the average for the past 5 years.

Queensland avocado production is forecast to increase in 2018–19 due to the greater number of trees planted. Consumer demand for avocados is growing, and despite the greater supply, prices are likely to be buoyant and on average similar to last year’s. Fewer imports last year led to greater variability in wholesale prices, but this year prices should be more stable. Queensland produces about 60 per cent of Australia’s avocados.

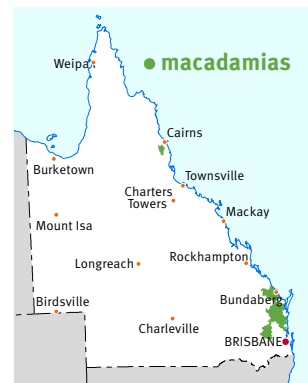
Most of the state’s avocado production occurs in the SA2 geographical areas of Bundaberg Region—North, Bundaberg Region—South, Tablelands, Atherton, Mareeba, Crows Nest – Rosalie, Gympie Region and Nanango.



The GVP for **macadamias** for 2018–19 is forecast to be \$136 million, 8 per cent greater than DAF’s final estimate for 2017–18 and 32 per cent greater than the average for the past 5 years.

Queensland macadamia production is expected to be marginally greater than the 2017–18 crop, which was impacted by Cyclone Debbie. Climate conditions have been favourable this season and the kernel quality has been good. Also, global demand remains strong and prices are likely to be similar to last year’s.

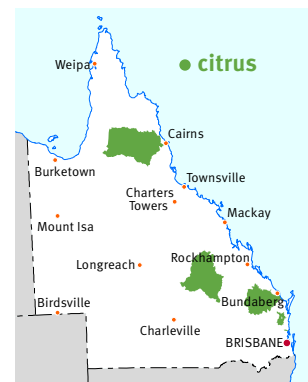
Most of the state’s macadamia nut production occurs in the SA2 geographical areas of Bundaberg North—Gooburrum, Bundaberg Region—North, Bundaberg Region—South, Gympie Region and Glass House Mountains.



The GVP for **mandarins** for 2018–19 is forecast to be \$143 million, 34 per cent greater than DAF’s final estimate for 2017–18 and 52 per cent greater than the average for the past 5 years.

The mandarin GVP has been revised significantly upwards because production figures reported last financial year were higher than the forecast. Seasonal conditions, including a warm spring, have been favourable this year, resulting in high brix levels and good fruit size. However, the quantities of Murcotts and Imperials harvested this year are lower due to a reduction in the number of trees planted.

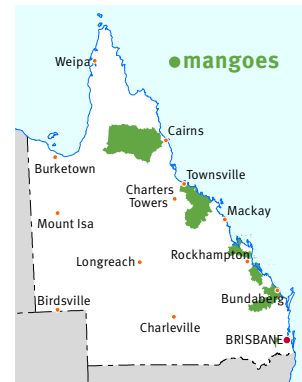
Most of the state’s citrus production occurs in the SA2 geographical areas of Gayndah–Mundubbera and Central Highlands—West.



The GVP for **mangoes** for 2018–19 is forecast to be \$113 million, the same as DAF’s final estimate for 2017–18 and 35 per cent greater than the average for the past 5 years.

The 2017–18 season was strong with record volumes reported. Good volumes are expected again this season due to an increase in the number of trees planted. The Queensland seasonal harvest commences in the Dry Tropics regions (Townsville, Burdekin and Bowen) in mid-November, in Mareeba and Dimbulah in early December, in Central Queensland in late December, and in South East Queensland in January.

Most of the state’s mango production occurs in the SA2 geographical areas of Tablelands, Burdekin, Mareeba, Collinsville, Bundaberg Region—North and Bowen.



The GVP for **apples** for 2018–19 is forecast to be \$105 million, 13 per cent greater than DAF’s final estimate for 2017–18 and 31 per cent greater than the average for the past 5 years.

The crop volume harvested from February to May 2018 was down about 20 per cent from the previous year. However, the crop due to be harvested in February to May 2019 should increase to usual volumes, as lighter crops are generally followed by heavier crops. Also, supply should be good despite lower rainfall, as growers use irrigation to supplement crops, and apples can be held in storage for some time. The fall in supply from the previous season is helping to maintain reasonable prices for the fruit marketed from July 2018 onwards, when shortages started having some impact on prices. Good prices are expected from October 2018 to February 2019.

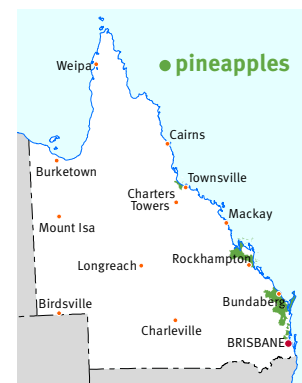
All of the state’s apple production occurs in the Stanthorpe Region.



The GVP for **pineapples** for 2018–19 is forecast to be \$70 million, the same as DAF’s final estimate for 2017–18 and 4 per cent greater than the average over the past 5 years.

Fresh fruit production and fresh fruit prices are both likely to be marginally lower than last year. The planned intake of cannery fruit (both bulk grade and juice grade) is greater this year, and bulk grade pricing is expected to be higher.

Most of the state’s pineapple production occurs in the SA2 geographical areas of Wamuran, Yeppoon, Bundaberg Region—North, Elimbah, Glass House Mountains and Beerwah.



## Vegetables

### Forecast

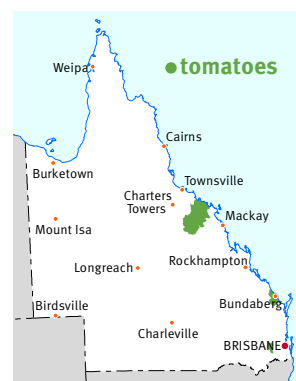
For 2018–19, Queensland’s GVP for vegetables is forecast to be \$1.277 billion, 2 per cent higher than for 2017–18 and 6 per cent higher than the average for the past 5 years.

### Analysis and discussion

The GVP for **tomatoes** for 2018–19 is forecast to be \$289 million, 3 per cent less than DAF’s final forecast for 2017–18 but 3 per cent higher than the average for the past 5 years.

The area under tomato production has increased marginally in the Bowen region but has reduced in the Bundaberg region, where growers have shifted to capsicums and macadamias. However, prices have remained about the same as for last year.

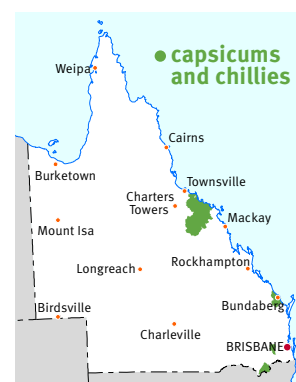
Most of the state’s tomato production occurs in the SA2 geographical areas of Bundaberg Region—South, Collinsville and Bowen.



The GVP for **capsicums and chillies** is forecast to be \$140 million for 2018–19, 1 per cent less than DAF’s final forecast for 2017–18 and 3 per cent less than the average for the past 5 years.

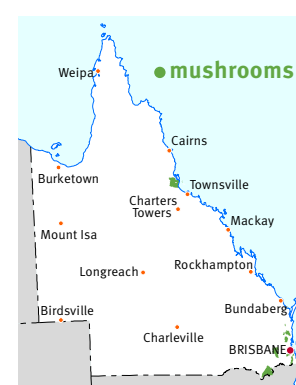
The area under capsicum production has fallen slightly in the Bowen region; however, some tomatoes growers have switched to growing capsicums in the Bundaberg region.

Most of the state’s capsicum and chilli production occurs in the SA2 geographical areas of Collinsville, Bundaberg Region—South and Bowen.



The GVP for **mushrooms** for 2018–19 is forecast to be \$70 million, the same as DAF’s final estimate for 2017–18 and 2 per cent higher than the average for the past 5 years.

Most of the state’s mushroom production occurs in the SA2 geographical areas of Greenbank, Stanthorpe Region and Palmwoods.



The GVP for **sweetpotatoes** is forecast to be \$64 million for 2018–19, the same as DAF’s final forecast for 2017–18 and 9 per cent above the average for the past 5 years. Queensland produces a large percentage of Australia’s sweetpotatoes, and Bundaberg is the main growing area.

## Other vegetables

The GVP for **lettuce** for 2018–19 is forecast to be \$56 million, the same as DAF’s final forecast for 2017–18 and 2 per cent below the average over the past 5 years.

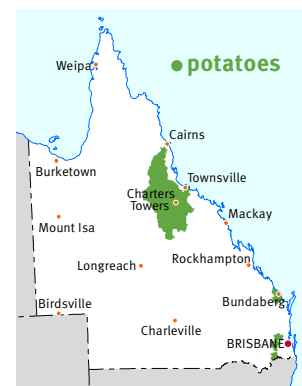
The lettuce crop is expected to be about the same in terms of volume and price over the next year due to good available supplies of water.

Most of the state’s lettuce production occurs in the SA2 geographical areas of Lockyer Valley—East, Lockyer Valley—West, Stanthorpe Region, Cambooya–Wyreema, Southern Downs—West and Gatton.



The GVP for **potatoes** is forecast to be \$52 million, the same as DAF’s final forecast for 2017–18 but 5 per cent less than the average for the past 5 years.

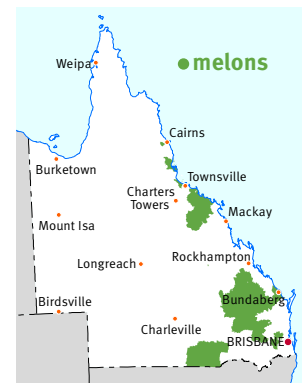
Most of the state’s potato production occurs in the SA2 geographical areas of Atherton, Lockyer Valley—East, Lockyer Valley—West, Dalrymple, Malanda–Yungaburra and Herberton.



The GVP for **watermelons** for 2018–19 is forecast to be \$38 million, 3 per cent greater than DAF’s final forecast for 2017–18 and 12 per cent greater than the average for the past 5 years.

The volume of watermelons produced is expected to increase in the Bowen shire but decrease slightly in the Burdekin shire. Prices are expected to fall marginally as a result.

Most of the state’s watermelon production occurs in the SA2 geographical areas of Burdekin, Collinsville, Chinchilla, Bargara – Burnett Heads, Jondaryan and Lockyer Valley—West.



## Lifestyle horticulture

### Production nurseries

#### Forecast

The GVP for production nurseries for 2018–19 is forecast to be \$921 million, 2 per cent greater than last year’s estimate and 3 per cent above the average for the past 5 years.

#### Analysis and discussion

Demand for nursery stock remains strong in spite of the statewide dry conditions. Significant investments made by the industry in water efficiency, as well as market diversification, have contributed to the industry’s resilience. The impact of drought is yet to be felt across the supply chain. Implementation of metropolitan water restrictions, although not forecast, could affect the performance of the retail sector. The demand for nursery products is being driven not only by the Queensland retail sector, but also by strong interstate trade. This is forecast to continue into 2018–19.

Nursery stock prices have remained stable despite demand outstripping supply. This has limited the profitability of production enterprises in the industry. This increase in market interest in nursery stock is expected to remain stable throughout 2018–19, across all sectors. Although strong seasonal demand is not new to this industry, the production enterprises are now unable to supply enough product to meet this demand. Additional shortages of product are forecast for 2018–19, with producers likely to explore production rotations as a means of increasing supply.

Queensland production remains strong, with new entrants continuing to emerge in the industry. High input costs and access to capital continue to be limiting factors to production. The throughput of a nursery production enterprise is limited to its supporting infrastructure, water supply and staffing. Opportunities for growth in the industry are being explored in peri-urban locations.



**Table 11** Production nurseries GVP by sector, 2018–19

Products	GVP (\$m)	Percentage of total production nurseries GVP
Retail stock	405.2	44.0
Landscape stock	230.3	25.0
Fruit and vegetable stock	188.8	20.5
Forestry stock	82.9	9.0
Revegetation/rehabilitation stock	13.8	1.5
<b>Total</b>	<b>921.0</b>	<b>100.0</b>

## Turf

### Forecast

The GVP for turf for 2018–19 is forecast to be \$327 million, the same as the final estimate for 2017–18 but 66 per cent higher than the original forecast for that year.

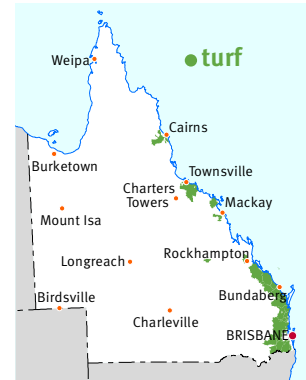
### Analysis and discussion

The marked increase in GVP since the 2017–18 forecast is a result of an in-depth assessment in 2018 that enabled a significant upward revision of value of the industry. The assessment included interviews with and collection of data from more than 50 per cent of producers who are estimated to be responsible for up to 90 per cent of the state’s production. Despite the upward revision of the GVP, growth of the industry is estimated to have remained static over the past 2 years.

The strength of the commercial sector in South East Queensland has sustained the industry during a period of statewide drought. Water-efficiency measures implemented on-farm have enabled turf producers to maintain production during this time. Seasonal fluctuation in the supply of some turf species has been reflected in a spike of price, but remains consistent with previous years.

The Queensland turf market is segmented into two regions—north and south. This segmentation is based on climatic variability and distinct growing regions. Production enterprises service the domestic marketplace with varieties tailored to consumer demand. Continued investment in business advances on-farm, and the adoption of smart technologies for production, have enhanced operations and created efficiencies. This has ensured the profitability and sustainability of turf production enterprises for the long term.

There are about 100 turf producers in Queensland, and they vary in size and production capability. The industry is a steady employer of approximately 700 people statewide.



## Cut flowers

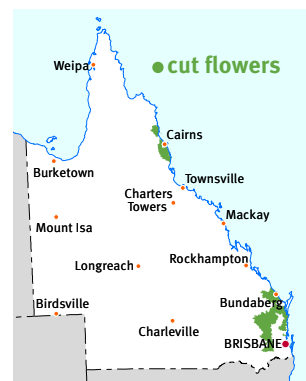
### Forecast

The GVP for cut flowers and foliage for 2018–19 is forecast to be \$161 million. This is the same as the final estimate for 2017–18 but 4 per cent above the average for the past 5 years.

### Analysis and discussion

The lack of growth in cut flowers and foliage production is a result of a variety of factors. A number of older owners of growing enterprises have closed their businesses on retirement. Many operations in peri-urban areas are increasingly subject to urban encroachment, and some owners have sold their land to property developers. The cost of land near urban areas remains a significant barrier to new industry entrants.

The volume of imported cut flowers and foliage from countries such as Colombia, Ecuador and Kenya has increased significantly over the past decade. This has impacted growers of products such as roses and chrysanthemums and has resulted in some growers shifting production from more traditional products to alternatives, such as gerberas and dahlias, where issues with logistics and phytosanitary restrictions have limited imports.



Recently there has been increasing insect infestation of imported flowers, especially those sourced from Kenya. The resulting higher levels of surveillance and treatment have decreased the quality of these products and the economic viability of importing them. This could benefit domestic production.

Exports of Australian native and wildflowers are increasingly driven by improvements in the economies of Queensland’s main export markets—Japan, the United States and the European Union. This, in conjunction with increased domestic demand, has at times resulted in a shortage of native and wildflower products. While this represents an opportunity, exports are yet to reach levels where they balance the significant downturn experienced during the global financial crisis.

## Other crops

### Sugarcane

#### Forecast

The GVP for sugarcane for 2018–19 is forecast to be \$1.036 billion. This is approximately 8 per cent lower than the GVP for the 2017–18 crop. Total revenue from the 2018–19 Queensland crop, in raw-sugar equivalent, is expected to be \$1.58 billion.

#### Analysis and discussion

Queensland’s 2018–19 sugarcane crop is forecast to be 31.4 million tonnes, which is 900 000 tonnes lower than that achieved in 2017–18.

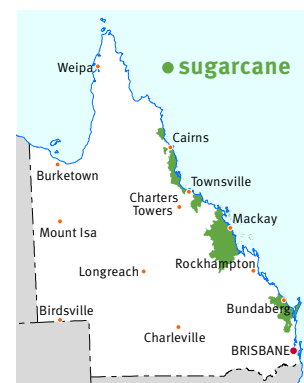
Cooler, drier conditions are expected to suppress sugarcane growth and help to elevate the commercial cane sugar to 14.0 in 2018–19. This is 0.4 units higher than last season and would partly mitigate impacts of lower raw sugar prices.

In recent years, *AgTrends* has used Queensland Sugar Limited’s harvest pool return as an indicator of the expected price for raw sugar. However, with changes made to Queensland’s sugar marketing arrangements in December 2015, and the variety of options available to growers to forward price their crops, the harvest pool is now considered to be less representative of the financial returns to the industry. On 29 August 2018, the Australian Sugar Milling Council advised that a return of \$360 per tonne IPS (international polarity scale) would be an appropriate return for use in the current forecast.

This would be a return to Queensland cane growers of \$33 per tonne of sugarcane for the 2018–19 season. While care should be taken when comparing pricings based on different methodologies, the current forecast suggests that returns to growers could be at least 9.8 per cent lower than those realised in 2017–18. This aligns well with the ABARES estimate of a 9.0 per cent drop in returns to growers for the same period.

#### Industry situation

Increased sugar production from India, and to a lesser extent Pakistan, is expected to be an important influence on world sugar prices in 2018–19. ABARES forecasts that, following a good 2017 monsoon, there will be a 6 per cent increase in sugarcane production in India. This should lead to a record harvest of 420 million tonnes of sugarcane and the production of a record 34 million tonnes of sugar in 2018–19.



India's sugar production will then exceed its domestic requirements by between 10 million and 12 million tonnes. Although normally a net sugar importer, India is expected to make up to 7 million tonnes of sugar available for export. Pakistan is expected to contribute an additional 2 million tonnes to the international market. These quantities are significant in the context of an annual international trade in sugar of approximately 40 million tonnes and are likely to depress prices further.

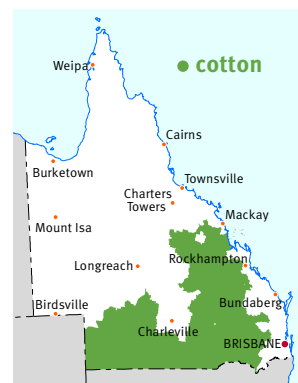
## Cotton

### Forecast

The GVP for cotton for 2018–19 is forecast to be \$461 million, 48 per cent less than DAF's final estimate for 2017–18 and 25 per cent below the average for the past 5 years.

### Analysis and discussion

Cotton production is forecast to decrease by nearly a half to 168 000 tonnes of cotton lint and 252 000 tonnes of cottonseed in 2018–19. The total area planted is forecast to fall by just over half to 75 250 hectares, down from 155 250 hectares. The average yield is forecast to fall because of an expected 52 per cent decrease in the area planted to irrigated cotton to 58 000 hectares. The area planted to dryland cotton is expected to decrease by 63 per cent to 17 250 hectares. The main dryland and irrigated cotton-growing areas in Queensland include Darling Downs (22 000 hectares), Macintyre Valley (28 000 hectares), Central Highlands (10 000 hectares), St George (10 000 hectares), Dawson Valley (4750 hectares) and Dirranbandi (500 hectares).



### Water storages

Irrigated water supplies have fallen in all the main cotton-growing areas across Queensland over the last financial year.

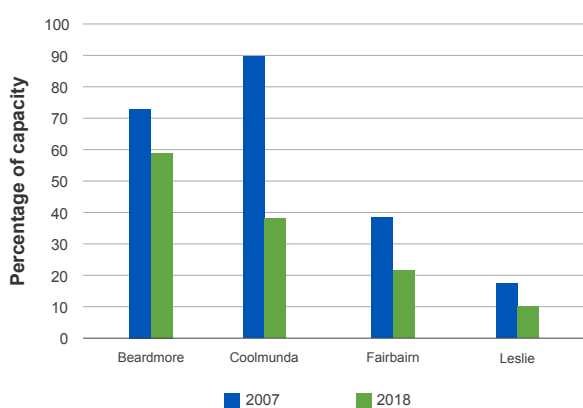


Figure 24 Stored volumes in major Queensland irrigation dams, September 2017 and 2018

Source: SunWater.



## World production

As detailed in Table 12, India was the world's largest cotton producer in 2017–18, yielding 6.3 million tonnes and accounting for 23 per cent of world production. The next largest cotton producers are China, the United States and Brazil, contributing 22 per cent, 17 per cent and 7 per cent respectively to world production. For 2018–19, India, China and the United States are forecast to produce less than the previous year, whereas Brazil will produce more. The United States is the world's largest cotton exporter, accounting for just over a third of world cotton exports.

**Table 12** World production of cotton, 2017–18 and 2018–19

Producer	2017–18 production ('000 tonnes)	Share of world production (%)	2018–19 forecast production ('000 tonnes)
India	6 314	23	6 239
China	5 987	22	5 770
United States	4 555	17	4 188
Brazil	2 003	7	2 068
Pakistan	1 785	7	1 851
Turkey	871	3	980
Australia	1 023	4	773
<b>Total world production</b>	<b>26 891</b>	<b>100</b>	<b>26 242</b>

Note: Not all cotton producers are represented in the table.

Source: Foreign Agriculture Service, USDA 2018, *Cotton: world markets and trade monthly circular*, August 2018.

## International supply and demand

For the major world importers, USDA forecasts the following changes for 2018–19:

- Pakistan will be up by 200 000 bales to 2.5 million due to higher forecast mill use.
- Indonesia will be up by 250 000 bales due to higher forecast mill use.
- Bangladesh will be up by 100 000 bales due to expected stock building.

Changes to rates of cotton exports by most major exporters are also forecast for 2018–19:

- United States exports will increase by 500 000 bales due to higher carry-in and production.
- Australian exports will drop by 100 000 bales due to lower available supplies.

As at August 2018, world cotton imports for 2018–19 are forecast to be 9.1 million tonnes and world closing stocks are expected to be 16.78 million tonnes. Total world production is projected to be 26.24 million tonnes, slightly less than the consumption of 27.79 million tonnes.

## Other major field crops

### Peanuts

#### Forecast

The GVP for peanuts is forecast to be \$40 million. This is 13 per cent above the forecast of March 2018 (\$35 million).

#### Analysis and discussion

The increase in forecast GVP is due to a slightly larger expected area sown and a higher price for 2018–19. The current forecast is 120 per cent above the 2016–17 estimate of \$18 million, for which area sown and yield were lower.



Plantings of peanuts are planned from early October up to December to capitalise on summer rainfall. Assuming average temperature and rainfall, around 10 500 hectares of peanuts are forecast to be planted in 2018–19, 5 per cent more than the estimate for 2017–18 of 10 000 hectares. However, peanuts will be competing with higher priced summer grains (such as sorghum and maize) for area sown. For paddocks that need to be summer fallowed for winter crops, peanuts may also be competing with crops such as barley and wheat, which have also seen significant price increases since the March quarter of 2017–18. Yields are expected to exceed the long-term average of around 2.8 tonnes per hectare<sup>33</sup>, to achieve around 3.4 tonnes per hectare. The current yield outlook is 2 per cent below the above-average yields achieved in the previous season of 3.5 tonnes per hectare.

Around 40 per cent of the total peanut area is irrigated; the other 60 per cent is dryland grown. Irrigated yields average around 5 tonnes per hectare, while dryland yields average 2.5 tonnes per hectare. There are some risks to the yield outlook:

- If the spring of 2018 is dry and hot, the dryland yield could fall to 1.5 tonnes per hectare, with peanut kernels shrivelling.
- The central Queensland irrigation storages could fall if drought conditions continue. However, the water storage levels for the major peanut-growing regions in the Atherton Tableland and Kingaroy are currently mixed. These vary from 85 per cent capacity for Tinaroo Falls Dam (372 819 million litres current volume—Atherton region) to 21 per cent capacity for Fairbairn Dam (275 839 million litres current volume—Emerald region).<sup>34</sup> If ample rain is not received up until the end of the planting window (December), the allocation of grower irrigation entitlements could fall below 100 per cent and current very low allocations will not increase. In this case, the area sown and/or yields may not reach their potential. However, the industry is hoping for average moisture and temperature conditions, in which case a yield average of 3.4 tonnes per hectare would be achieved.

A small increase in the area sown from last season is forecast to take production 3 per cent higher to 36 000 tonnes, up from 35 000 tonnes. The price is forecast to increase to an average of \$1100 per tonne, up 10 per cent from the \$1000 per tonne estimated for the March 2017–18 quarter. Greater production coupled with a higher price is forecast to take peanut GVP higher than last season.

<sup>33</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@nsf/DetailsPage/7121.02016-17>>.

## Soybeans

### Forecast

The GVP for soybeans is forecast to be \$11.3 million, around 6 per cent lower than the estimate for 2017–18 of \$12 million.

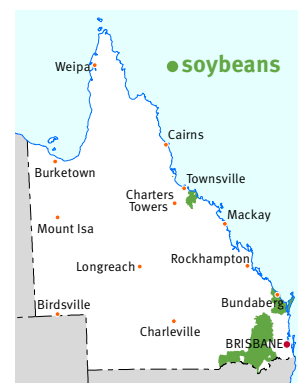
### Analysis and discussion

The lower forecast GVP is due to expected lower yields despite an increase in area sown for the coming season. However, the forecast exceeds the soybean GVP estimate for 2016–17 of \$11 million, primarily due to a slight increase in price.

The area sown to soybeans is forecast to be 12 800 hectares, 8 per cent greater than the 11 800 hectares planted in the previous season. The current forecast for area sown exceeds the 10-year average of 11 551 hectares<sup>35</sup> by 8 per cent. To allow for the possibility of drier conditions, the yield forecast has been adjusted 14 per cent lower from the 1.68 tonnes per hectare estimated for 2017–18 to around 1.45 tonnes per hectare. This is 22 per cent below the 10-year average yield of 1.87 tonnes per hectare. The forecast lower yields are expected to more than offset the increased area sown, taking production down 7 per cent from 19 850 tonnes to 18 550 tonnes. This is 14 per cent lower than the 10-year average of 21 561 tonnes.

Soybeans need good soil moisture and rainfall for adequate pod fill. To achieve close to average yields, they need good rainfall and optimum temperatures during the crop growth phase over summer, and then also leading up to the April/May harvest. Up to 90 per cent of Queensland's soybeans could be used as high-quality edible soybeans. However, excessive rain, dry weather or hot weather could increase the proportion of lower quality beans (for crushing) to as high as 25 per cent of the crop. Taking an average of both possible outcomes, we can expect 86 per cent of the crop to be used as edible whole beans while 14 per cent will go to crushing for soybean oil. Crushing beans sell for \$500 per tonne, but edible beans attract a premium price between \$600 and \$650 per tonne (averaging \$625 per tonne).

Significant competition with Queensland's soybeans continues from Canada and the United States in major soybean export markets such as Taiwan. Overall, the soybean price is expected to average around \$610 per tonne, approximately the same as for the March 2017–18 quarter. The forecast lower production is expected to take the soybean GVP commensurately lower.



<sup>34</sup> SunWater 2018, 'Water storage levels', viewed 29 August 2018, <[http://www.sunwater.com.au/\\_data/win/reports/win\\_storages.htm](http://www.sunwater.com.au/_data/win/reports/win_storages.htm)>.

<sup>35</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.

## Sunflowers

### Forecast

The GVP for sunflowers is forecast to be \$19.5 million, 75 per cent above the estimate for 2017–18 of \$11 million.

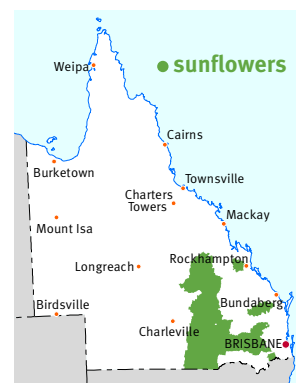
### Analysis and discussion

The very dry winter and spring conditions of 2017–18 led to a smaller area sown and lower yields. The current GVP forecast is 40 per cent below the above-average GVP estimated for 2016–17 of \$33 million, when there was a larger area sown in response to a higher crop price for birdseed, and higher than expected yields despite dry conditions.

The area sown to sunflowers is forecast to be 15 000 hectares, approximately in line with the 10-year average<sup>36</sup>, assuming there are average temperatures and rainfall over spring and summer in central and southern Queensland. This exceeds the forecast for the previous season (9300 hectares) by around 60 per cent; however, in that season the area sown was unusually low due to very dry planting conditions. Yields are also forecast to be close to the 10-year average of 1.3 tonnes per hectare, 9 per cent above the 1.2 tonnes per hectare estimated for the previous season. A larger area sown and higher yields are expected to take production to 19 500 tonnes, 75 per cent above the below-average production of 11 130 tonnes in 2017–18.

Queensland grain growers have an opportunity to make consistent profits from planting sunflowers, weather permitting. Regular and organic sunflower seeds can be crushed for monounsaturated oil, while sunflower kernels can be used in confectionary production (via the dehulling process), and whole seeds can be used for bird and horse feed. Sunflowers are usually grown in rotation with other crops such as sorghum and mung beans. The health benefits of sunflower seeds appeal to the increasingly health conscious domestic consumer market.

It is expected that around 65 per cent of seed produced will be for crushing (both polyunsaturated and monounsaturated), and the remainder will be the grey sunflower variety for birdseed. Sunflower for birdseed is expected to command prices of between \$1300 and \$1400 per tonne, considerably higher than the \$800 per tonne expected for seed to crushing. The overall average price is forecast to be \$1000 per tonne, the same as in the March 2017–18 quarter. The higher forecast production is expected to take sunflower GVP commensurately higher for 2018–19.



<sup>36</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.

## Summer cereal grains

### Grain sorghum

#### Forecast

The GVP for sorghum for the 2018–19 summer season is forecast to be \$552 million, double the \$276 million forecast in the March quarter for 2017–18. This is 87 per cent greater than the average for the past 5 years.

#### Analysis and discussion

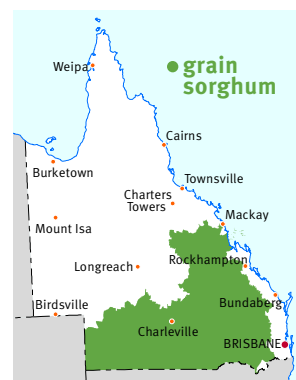
The markedly low GVP for 2017–18 was due to a significantly smaller area sown following very poor rainfall in winter and spring, coupled with a lower price. The current GVP forecast is nearly three times the GVP of \$139 million estimated for the poor crop of 2016–17.<sup>37</sup> This was also due to very dry spring and summer conditions, which contracted both area sown and yields. Additionally, price was significantly lower at that time.

If rainfall and temperature are closer to average across the southern and central Queensland grain-growing regions over the spring and summer of 2018–19, the area sown to grain sorghum is likely to be around 578 000 hectares. This exceeds the forecast of 368 000 hectares made for the previous season by 57 per cent and exceeds the 10-year average of 434 900 hectares<sup>38</sup> by 33 per cent. The yield is forecast to average around 2.6 tonnes per hectare, only marginally (3 per cent) below the yield estimate of 2.7 tonnes per hectare for 2017–18.

The current yield forecast lies 16 per cent below the 10-year average of 3.1 tonnes per hectare, allowing for the possibility of dry conditions. An anticipated larger area sown is expected to take production 60 per cent higher, from 954 000 tonnes to 1.5 million tonnes. The current production forecast exceeds the 10-year average production of 1.35 million tonnes by 12 per cent.

Taking into account the current tightened global white and coarse grain supplies, in addition to the contracted local grain supplies, the grain sorghum price is forecast to increase 26 per cent from the \$289 per tonne estimated for the March quarter of 2017–18 to \$364 per tonne. This forecast significantly exceeds the relatively low sorghum price of \$258 per tonne estimated in the March quarter of 2016–17. The anticipated higher production and price is expected to take the sorghum GVP significantly higher. This forecast does, however, rely on ample rainfall being received in grain-growing regions over spring to boost depleted subsoil moisture profiles, and again in the growing phase over the summer months.

There is continued interest from China in Queensland grain sorghum, but not as much as there was 2–3 years ago, because China is now sourcing sorghum from the United States for around \$40 less per tonne. However, if Queensland produces a bigger than average crop in 2018–19, local producers will likely drop their price to gain access to the Chinese market. Alternatively, if production is closer to average, the bulk of grain will likely be sold to feedlots in southern and central Queensland. Overall, local and export demand for sorghum is expected to be high.



<sup>37</sup> ABS 2018, *Value of agricultural commodities produced, Australia, 2007–08 to 2016–17*, cat. no. 7503, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7503.02016-17>>.

<sup>38</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>>.

## Maize

### Forecast

The GVP for maize is forecast to be \$89 million. This is 39 per cent above the 2017–18 forecast made in the March quarter of \$64 million and 66 per cent above the average over the past 5 years.

### Analysis and discussion

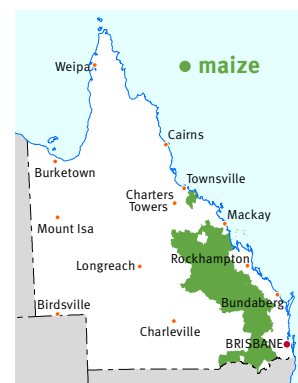
The area sown to maize is forecast to reflect the 10-year average of 33 370 hectares<sup>39</sup>, with average yields of around 5.5 tonnes per hectare, giving an average production level of around 186 000 tonnes. The current forecast for area sown is 3 per cent below the estimate of 34 440 hectares made in the March quarter for 2016–17. The yield forecast is 11 per cent greater than the drought-impacted yield of 5 tonnes estimated for the previous season, and the production forecast is 6 per cent above the 176 000 tonnes estimated for 2016–17.

The forecast for average yield relies on the following expectations:

- Dryland maize in South Burnett will yield 3.2 to 6.1 tonnes per hectare.
- Fully irrigated maize in the Lockyer Valley will yield 12 tonnes per hectare, and supplementary irrigated maize in this region will yield 8.6 tonnes per hectare.
- Fully irrigated maize in Burdekin will yield 10.8 tonnes per hectare, and maximum yields in this region will be 13.4 tonnes per hectare.
- Irrigated maize on the Darling Downs will yield 10 tonnes per hectare, and dryland maize in this region will yield 5.5 tonnes per hectare.
- Maize in northern Queensland will yield an average of 7 tonnes per hectare.

Maize will be price competitive (estimated at \$476 per tonne) with sorghum (at \$364 per tonne) over spring and summer, and this will influence maize plantings. However, maize is a significantly thirstier crop than the relatively drought-tolerant sorghum, so maize plantings for 2018–19 will also depend on adequate rainfall being received for both irrigated and dryland maize. Approximately 50 per cent of the Queensland maize crop is irrigated. Cotton may also compete for irrigation water storages, and is currently priced at a favourable \$510 per bale. Maize is planted in the Central Highlands and Burdekin River Irrigation Area through to the Darling Downs. It is an effective rotational crop with legumes and cotton.<sup>40</sup>

About 70 per cent of the Queensland crop is grown in southern Queensland; 23 per cent is grown in central Queensland, and the balance in northern Queensland. However, in the Atherton Tableland (in northern Queensland), the area traditionally sown to maize has in recent seasons come under increasing competition from peanuts and bananas. The GVP forecast assumes that approximately 60 per cent of the Queensland maize crop will be planted as high-quality grits-maize for human consumption, and 40 per cent as feed-maize and silage. Grits-maize on average fetches around \$50 per tonne more than feed-maize.



<sup>39</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.

<sup>40</sup> Queensland Country Life 2017, 'GRDC releases profit focused Maize GrowNotes', *Queensland Country Life*, Toowoomba, viewed 31 August 2018, <<https://www.queenslandcountrylife.com.au/story/5097359/maize-grownotes-point-to-profits>>.

The current price estimate of \$476 per tonne exceeds the estimate for 2016–17 of \$363 per tonne by around 30 per cent. This is in response to generally tight global and local white and coarse grain supplies. The slightly higher forecast production coupled with a significantly higher price is expected to take the maize GVP markedly higher than for the season previous. However, this forecast relies on adequate rainfall being received in growing areas, and on the current price being maintained.

## Winter cereal grains

### Wheat

#### Forecast

The GVP for wheat is forecast to be just \$214 million for 2018–19 (2018 winter crop). This is 24 per cent below the GVP estimate made for 2017–18 of \$282 million and 37 per cent below the average over the past 5 years.

#### Analysis and discussion

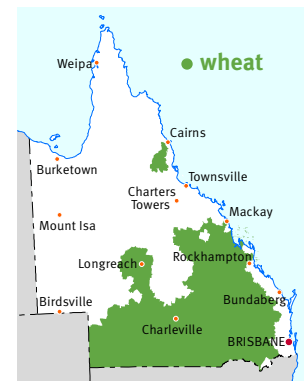
The decrease in GVP is due to significantly lower yields estimated for 2018, despite a larger area sown and a markedly higher price per tonne.

Although above-average rainfall was received in February 2018 over many of Queensland’s growing regions, autumn rainfall (from March to May) was very much below average, depleting subsoil moisture levels. This reduced both planting opportunities and yield chances, particularly on the Darling Downs.

Rainfall was well above average in northern and interior Queensland, but was below average in central and southern Queensland, including the south-eastern coast. May of 2018 was the ninth driest on record. Pockets of rainfall well below average were randomly scattered across the state in April. Despite poor rainfall, Queensland recorded its twelfth warmest autumn, with mean maximum and minimum temperatures around 1 degree Celsius above average, particularly over much of the southern, western, south-eastern and far northern regions.

The current average yield outlook for Queensland as a whole lies in the bottom 30 per cent of all years since 1901. This has been exacerbated by average to below-average rainfall over July, the last month of the planting window for southern Queensland. While central Queensland received some winter rains and late crops were planted, lack of follow-up rain has reduced yield expectation there also. With a rapidly rising Southern Oscillation Index as at the end of July, there is a slightly increased chance of above-average rainfall to the end of October. However, there is a chance of dry weather with El Niño over this period also.<sup>41</sup>

The area sown to wheat is forecast to be 638 000 hectares, 7 per cent larger than the 598 000 hectares estimated for the previous season. Growers were intending to plant more wheat than they did, but because of deeper set soil moisture, some growers opted for chickpeas instead of wheat (which needs to be sown at shallower depth). Due to this poor soil moisture in autumn and through the winter growing phase of the crop, the yield is forecast to fall to 0.8 tonnes per hectare, down nearly 50 per cent from the 1.5 tonnes per hectare estimated for the 2017 winter. The smaller area sown coupled with lower yields is forecast to take production down to 496 000 tonnes, 46 per cent lower than the 922 000 tonnes estimated for the previous season.



<sup>41</sup> Australian Bureau of Meteorology 2018, 'Queensland in autumn 2018: a wet autumn for northern and interior Queensland', BOM, Canberra, viewed 31 August 2018, <<http://www.bom.gov.au/climate/current/season/qld/summary.shtml>>.

The current estimate for area sown is notably (20 per cent) smaller than the 10-year average of around 800 000 hectares.<sup>42</sup> The current yield forecast lies 56 per cent below the 10-year average of 1.77 tonnes per hectare, and the production forecast is 65 per cent below the average of around 1.4 million tonnes.

Northern hemisphere wheat supplies are currently tight due to drought across the region, extreme temperatures in Europe and reduced production in the Black Sea region. This, coupled with reports that Russia may limit their imports for the coming season, has placed upward pressure on global white grain prices. To an extent, this impacts coarse grain prices such as sorghum, since sorghum is partly substitutable for wheat as a livestock feed. On average, coarse grain prices tend to follow white grain prices.

Conversely, there have been further reports that Russia is intending to increase exports in the coming season. Also, the United States spring wheat crop is exceeding the 5-year average in harvest terms, as are the United States corn and soybean crops. This means that globally there is some downside risk to grain prices into the March quarter of 2019.

Locally, livestock feed demand is strong, prompting transport of grain from the Australian west to east coasts, supporting domestic grain prices. Overall, due to current tighter global (northern hemisphere) white grain production and stocks, and anticipated tight local winter grain supplies, the price is expected to increase to an average of \$430 per tonne, up 41 per cent from the \$305 per tonne in the March 2017–18 quarter, and up 80 per cent from the \$241 (ABS) estimate for the June 2016–17 quarter. Due to local drought, Queensland is currently importing wheat from Western Australia and South Australia. This may ease feed costs into spring for southern and central Queensland livestock feedlots.

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<sup>42</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.



## Barley

### Forecast

The GVP for barley for 2018–19 is forecast to be \$41 million, 21 per cent above the forecast in the March quarter for 2017–18 of \$37 million but 44 per cent lower than the average for the past 5 years.

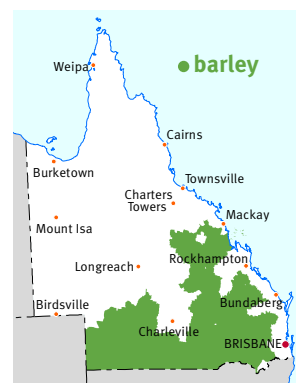
### Analysis and discussion

The increase in GVP is due to a forecast increase in price despite lower estimated production than for the 2018 winter.

The area sown is forecast to be around 82 700 hectares, 4 per cent below the 86 000 hectares estimated for the 2017 winter and 22 per cent below the 10-year average of 105 500 hectares.<sup>43</sup> Much of the intended crop was not planted because of very dry autumn and winter conditions, particularly west of Goondiwindi. Dry conditions also reduced yields, which are forecast to fall to an average of 1.20 tonnes per hectare, 14 per cent below the 1.4 tonnes per hectare estimated for the previous season and around 40 per cent below the 10-year average of 2 tonnes per hectare.

The smaller area sown and lower yields are forecast to take barley production to 98 600 tonnes, 17 per cent lower than the 119 000 tonnes estimated for 2017 and around 55 per cent below the 10-year average of 217 000 tonnes.

Currently, old crop prices are higher than new crop prices. Low New South Wales barley supplies and tightened global coarse grain supplies have significantly increased prices since the March 2018 quarter. New crop supplies plus imports of wheat from Western Australia in December and January could place some downward pressure on not only wheat prices but barley prices also in mid-2018–19. The barley price is expected to be \$420 per tonne, 35 per cent up from the \$310 per tonne estimated for the March quarter of 2017–18, and around double the estimate of \$208 per tonne estimated for the March quarter of 2016–17. Overall, lower barley production is forecast to be more than offset by increased price, increasing GVP.



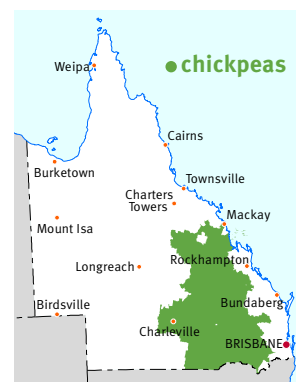
## Chickpeas

### Forecast

The GVP for chickpeas is forecast to be just \$156 million, 62 per cent below the forecast in the March quarter for 2017–18 of \$406 million and 58 per cent below the average for the past 5 years.

### Analysis and discussion

The decrease in GVP is predominantly due to a smaller area sown. The area sown to chickpeas is estimated to have been just 190 000 hectares, due to very dry autumn and early winter conditions, with poor soil moisture profiles in general on the Darling Downs and in central Queensland. The area sown is 62 per cent smaller than the estimate for 2017–18 of around 500 000 hectares. This is due in part to the imposition of a significant 30 per cent tariff in India, Queensland's major export market, in January 2018, which lowered price expectations for chickpeas.<sup>44</sup> Subsequently, this tariff was raised to 40 per cent, and then to 60 per cent (on 1 March). This has prompted some Queensland grain growers to switch to other profitable crops such as maize. However, in 2018,



<sup>43</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.

chickpea plantings were still above those anticipated, because growers were favouring deep-sown chickpeas (to tap into deeper soil moisture profiles) over wheat (which needs to be sown at a shallower depth; see also 'Wheat', page 55). Also, the current area sown lies 2 per cent above the 10-year average of 185 810 hectares.<sup>45</sup>

Due to the dry planting conditions, the yield is expected to lie 23 per cent below the 10-year average of 1.45 tonnes per hectare, at just 1.12 tonnes per hectare. This is marginally higher than that for the previous season of 1.11 tonnes per hectare, which was also affected by drier than average planting conditions. Overall, due to a significant contraction in area sown and marginally lower yields, production is forecast to fall to 213 650 tonnes, down 62 per cent from the 556 833 tonnes estimated for 2017–18.

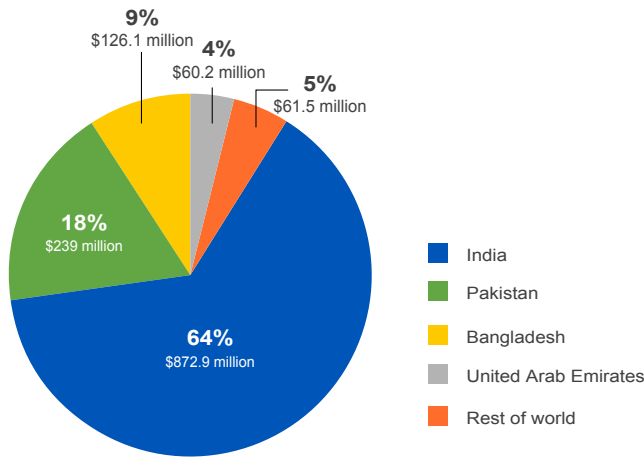
Despite the imposition of an Indian pulse tariff, the price is forecast to remain largely unchanged to average \$731 per tonne, slightly above the \$730 per tonne estimated for the March quarter of 2017–18. India is approaching elections (due in March–April 2019) with a program to protect their local pulse growers. This, combined with an Indian domestic pulse inventory surplus, means that the import tariff is likely to remain in place. Despite this, as at September 2018, the Queensland chickpea price seems not to have been further impacted by the Indian tariff. However, the pre-tariff chickpea price reached around \$900 per tonne (June 2016–17) and the current price forecast lies 19 per cent below this.

Approximately 98 per cent of the Queensland chickpea crop is exported. The highest valued grain export commodity for Queensland in 2016–17 was chickpeas, worth almost \$1.36 billion and equivalent to 1.41 million tonnes (see Figure 25). The biggest export market for chickpeas that year was India, worth \$872 million and accounting for 64 per cent of the chickpea export value. This was followed by Pakistan, worth \$239 million (18 per cent of export value) and Bangladesh, worth \$126 million (9 per cent). Smaller export markets included the United Arab Emirates. The Indian import tariff will likely have negative demand and price impacts on Queensland chickpea exports in the short to medium term; however, this will be limited by continued strong global demand for pulses, including chickpeas, as high-protein grains. If Queensland exports can in part be reallocated to other strong export markets such as Pakistan and Bangladesh, any further price declines to Queensland chickpea growers might be mitigated.

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44 Butterworth, K 2018, 'Jordan Anderson, Avonmore, Theodore, plants corns for first time after chickpea tariff announcement', *Queensland Country Life*, Toowoomba, viewed 28 August, 2018, <<https://www.queenslandcountrylife.com.au/story/5263681/indian-chickpea-tariff-rises-to-60-per-cent>>.

45 ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.



**Figure 25** Queensland exports of dried or shelled chickpeas, 2016–17 (total \$1.359 billion, 1.412 million tonnes)

Source: Queensland Government Statistician's Office 2018, 'Trade data—overseas exports by commodity (5-digit SITC revision 3) and country of destination, Queensland and other states and territories, 1996–97 to 2016–17', Queensland Treasury, Brisbane, viewed 15 May 2018, <<http://www.qgso.qld.gov.au/subjects/economy/trade/tables/trade-data-overseas-exports-commodity-sitc/index.php>>.

## Mung beans

### Forecast

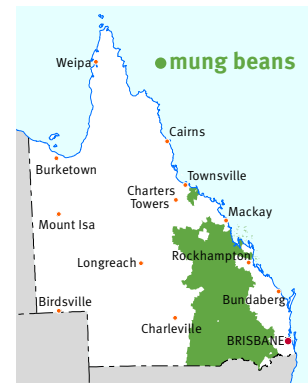
The GVP for mung beans is forecast to be \$80 million, 5 per cent above the estimate in the March quarter for 2017–18 of \$76 million.<sup>46</sup>

### Analysis and discussion

The increase in GVP from 2017–18 is due to a slight increase in price. However, the current GVP forecast is four times the GVP estimate for 2016–17 of around \$19 million—very hot and dry spring conditions that year led to a much smaller than expected area sown, and relatively poor yields.

The area sown to mung beans is forecast to remain the same as the previous season, at 80 000 hectares, with yield also expected to be on par with average yields for 2017–18, at approximately 1 tonne per hectare. The current forecast for area sown exceeds the 10-year average of 48 000 hectares<sup>47</sup> by 65 per cent. The forecast yield is approximately in line with the average. These forecasts assume average rainfall and temperature. Hotter or drier conditions than expected over the coming spring and summer would likely reduce opportunities for crop sowing and lessen yield chances.

Assuming area sown and yield remain unchanged from last season, production too is expected to remain unchanged for 2018–19, at 80 000 tonnes. This exceeds the average of 46 800 tonnes by about 70 per cent, and partly reflects an upward trend in recent prices from a 10-year average of \$400 per tonne. Additionally, mung beans are increasingly used as a valuable leguminous rotational crop with mainstream crops such as sorghum and maize.



<sup>46</sup> Forecast and analysis provided by Tod Jorgensen, CEO, Associated Grain, Dalby, Queensland.

<sup>47</sup> ABS 2018, *Agricultural commodities, Australia*, cat. no. 7121, ABS, Canberra, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/7121.02016-17>> and *AgTrends*, 2007–08 to 2016–17.

About 60 per cent of the state's mung bean crop will be produced in southern Queensland, and the other 40 per cent in central Queensland. Around 2 per cent of the total crop will be sold domestically, and 98 per cent will be exported. India, previously the major export market, recently placed a complete ban on mung bean imports, making China now Queensland's biggest export market. Smaller amounts are exported to Europe and the United States. Mung beans are forecast to fetch \$1000 per tonne, 5 per cent above the \$950 per tonne estimated in the March quarter for 2017–18. This small price increase is expected to take the mung bean GVP commensurately higher.

# Fisheries

## **Forecast**

The GVP for fisheries for 2018–19 is forecast to be \$383 million, 2 per cent greater than the estimate for 2017–18 and 4 per cent greater than the average for the past 5 years. The commercial fishing sector provides nearly half of the forecast GVP at \$178 million, while the aquaculture sector with \$111 million and the recreational sector with \$94 million<sup>48</sup> provide 29 per cent and 25 per cent respectively.

The forecast GVP for Queensland's aquaculture industry of \$111 million is 6 per cent higher than DAF's final estimate for 2017–18 and 8 per cent greater than the average for the past 5 years.

## **Analysis and discussion**

### **Commercial fisheries**

The Queensland commercial fishing sector operates across a number of fisheries managed by agencies governed by both state and federal legislation. Fisheries Queensland aggregates commercial catch data for the fisheries it manages based on three main sectors—crustaceans, finfish and molluscs. The crustacean sector is comprised of the total catch of prawns, bugs, crabs and tropical rock lobster, while the finfish sector is made up of inshore and offshore finfish. The mollusc sector is made up of the total catch of scallops and squid.

According to the most recent data available, the GVP of commercial fisheries contributed \$189 million to Queensland's economy in 2016–17. This is a significant increase from 2015–16 (7 per cent), but represents a return to more usual revenue levels for Queensland. In terms of GVP, the 2016–17 financial year showed increasing or steady GVP results for crustaceans and finfish, while mollusc GVP continued a declining trend.

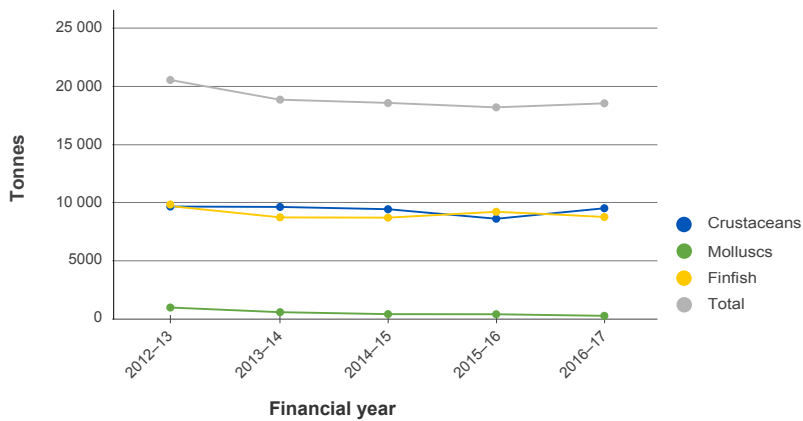
The 2017–18 estimate for GVP of Queensland's commercial fisheries, based upon the previous 5 years of GVP data, is \$178 million. GVP had steadily declined from 2012–13 to 2015–16, but increased in 2016–17 as discussed above.

More recent GVP data for 2017–18 will be available in the April 2019 update.

Figures 26 and 27 indicate the output for fisheries managed by Fisheries Queensland for the major categories over the five financial years up to 2016–17.

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<sup>48</sup> Valued conservatively at the wholesale price of the retained catch. For more discussion of the valuation of recreational fishing, see page 53 of *Queensland AgTrends 2014–15*, <[https://publications.qld.gov.au/storage/f/2014-1127T00\\_percent3A59percent3A40.326Z/queensland-agtrends-2014-15.pdf](https://publications.qld.gov.au/storage/f/2014-1127T00_percent3A59percent3A40.326Z/queensland-agtrends-2014-15.pdf)>.

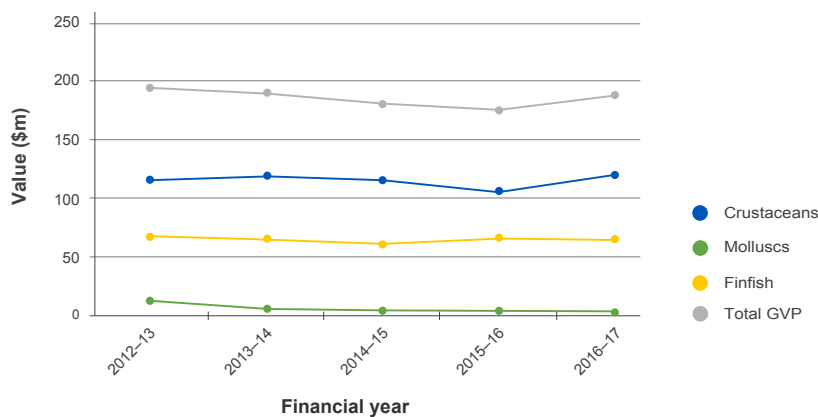


**Figure 26** Queensland fisheries total catch by major categories, 2012-13 to 2016-17

Across the three major categories of commercial catch, only the crustacean catch increased in 2016-17 (by 9 per cent) from the previous financial year. Finfish and mollusc catches declined by 4 per cent and 10 per cent respectively.

The actual catch of the major fisheries had declined to some extent over the previous four financial years by volume (Figure 26). However, 2016-17 showed an increase in total catch for the first time in 5 years, by 2.2 per cent.

Crustaceans are the greatest contributor to Queensland fisheries GVP with \$120 million, followed by finfish at \$65 million. Although the total catch of prawns (by weight) in any year, across subcategories, does not represent the largest contributor to the total catch (33 per cent, compared with inshore finfish at 36 per cent), it is generally the largest contributor to the GVP of fisheries in Queensland. Prawns contributed \$76 million to the total GVP of \$189 million, followed by offshore finfish at \$36 million and inshore finfish at \$29 million.



**Figure 27** Queensland fisheries current GVP by major categories, 2012-13 to 2016-17

There were increases in catch for prawns, rock lobsters and squid for the 2016-17 financial year. Catches in the remaining subcategories all declined. The total catch and value of the output, or GVP, for all subcategories are shown in Figures 28 and 29.

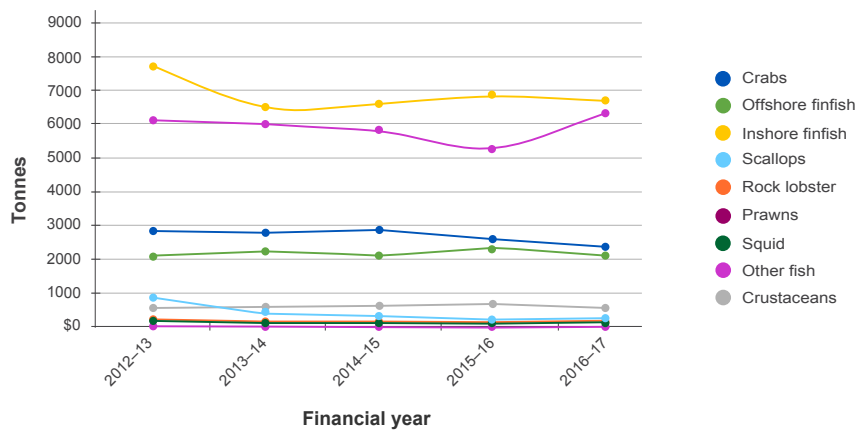


Figure 28 Queensland fisheries catch by subcategories, 2012–13 to 2016–17

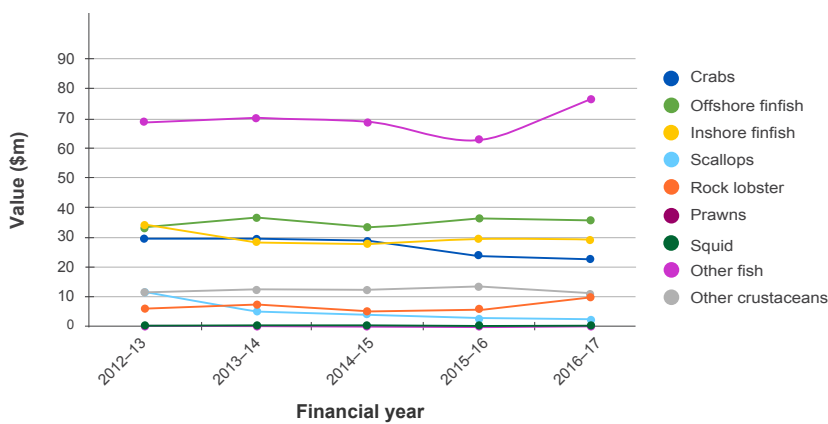


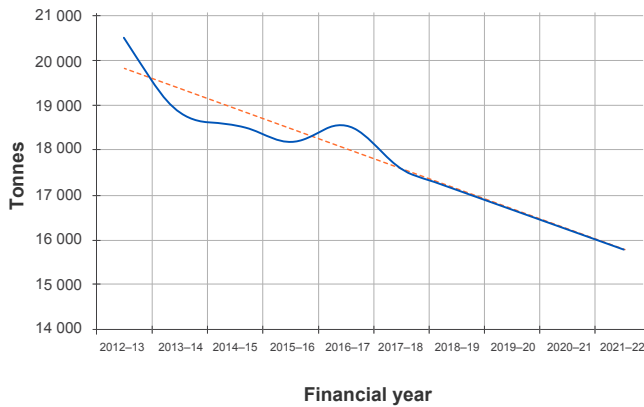
Figure 29 Queensland fisheries current GVP by subcategories, 2012–13 to 2016–17

Inshore finfish (6696 tonnes) and prawns (6300 tonnes) are the significant contributors to the overall catch in Queensland, followed by crabs (2351 tonnes) and offshore finfish (2077 tonnes).

There were declines in catches across the crab (9 per cent), inshore finfish (2 per cent), offshore finfish (10 per cent) and scallop (19 per cent) sectors for the 2016–17 financial year. Mud crab catches were low, most likely due to a series of dry years in the Gulf of Carpentaria with poor river flow. White spot disease may have also had an impact due to movement restrictions within Moreton Bay preventing export of live crabs outside of the zone. In an attempt to protect scallop stocks, a series of area closures, beginning in January 2017, were expected to reduce scallop catches by up to 40 per cent.

The most significant shift was in the prawn subcategory. In 2015–16, catches dropped to 5200 tonnes for prawns, while the previous 3 years had remained steady at around 6000 tonnes. The 2016–17 catch was estimated to be 6300 tonnes for prawns, a 17 per cent increase from 2015–16.

The largest gains in GVP for 2016–17 were realised for prawns, which increased by 22 per cent (\$14 million) from the previous year, and rock lobsters, which increased by 75 per cent (\$4.4 million) for the same period.



**Figure 30** Queensland fisheries total catch trend analysis, 2012–13 to 2020–21

Further trend analysis on the major categories indicates that all categories will demonstrate some level of decline. For the 2017–18 financial year, the forecast is for crustaceans to decline by 5 per cent, finfish to decline by 2 per cent and molluscs to decline by 15 per cent. The mollusc catch forecast is significantly impacted by the decline of scallop catches from 830 tonnes in 2012–13 to 176 tonnes in 2016–17. However, scallop catches are likely to stabilise in coming years following the introduction of new management arrangements (i.e. area closures).

### Aquaculture

The gross value of the Queensland aquaculture industry is forecast to be \$111.3 million in 2018–19. This figure is unchanged from the previous year and is approximately 7 per cent less than DAF’s final estimate for 2016–17 of \$119.7 million. It is 2.9 per cent less than the average over the past 5 years.

Prawn farming remains the largest sector of the Queensland aquaculture industry. This sector is expecting a decrease in production from previous seasons, but a significantly smaller decrease than originally expected due to the rapid recovery of the industry following the white spot virus. The farmgate value of prawns is predicted to approach \$70 million.

Barramundi, the second largest sector, is expected to increase production from the previous season to achieve an estimated value of \$30 million.

The freshwater fish sector (primarily silver perch, Murray cod and jade perch) is estimated to be valued at \$3.5 million, which is a quite stable annual figure. The oyster and hatchery sectors are expecting to increase production slightly from the levels achieved in 2017–18.



# Forestry

## **Forecast**

The GVP for the forest-growing sector of the Queensland forest industry for 2018–19 is forecast to be \$279 million. This is 3 per cent higher than DAF's final estimate of \$270 million for 2017–18, and 8 per cent higher than the average of \$258 million for the period 2015–16 to 2017–18.

DAF forecasts that the first-stage processing sector of the industry will contribute \$472 million to the Queensland economy in 2018–19; this is 9 per cent higher than the 2017–18 final estimate of \$435 million.

Together, the forest-growing and first-stage processing sectors of the Queensland forest and timber industry are forecast to make a total contribution of \$751 million to the Queensland economy in 2018–19.

## **Analysis and discussion**

The increase in the forecast GVP for the forest-growing sector for 2018–19 is generated by a modest increase in the value of sales of softwoods into domestic markets. Exports of plantation softwood in 2018–19 are expected to be less than in 2017–18, when they accounted for around one-quarter of the total volume of plantation softwood sold. The salvage of recoverable log timber from plantations at Byfield damaged by Cyclone Marcia is continuing.

Sales of state-owned native forest timber in 2018–19 are forecast to be 1 per cent lower than the previous financial year, reflecting a modest decrease in the quantity removed. In 2017–18, sales of native cypress and hardwood log timber were 252 000 cubic metres, which is a 0.5 per cent decrease from the 253 000 cubic metres sold in 2016–17.

Although no reliable data is available for privately owned native forest production, anecdotal evidence suggests that approximately 50 per cent of locally sourced hardwood timber is from privately owned native forests. It is expected that demand for hardwood log timber from privately owned land in both domestic and export markets will remain strong for the foreseeable future, with a similar or slightly greater harvest expected in 2018–19.

The prospects for the forest and timber industry are largely driven by the activity in the housing and construction sector, which accounts for most of the demand for domestically produced timber in Queensland. The record dwelling commencements in Queensland of around 49 000 recorded in 2015–16 declined by about 11 per cent through 2016–17. Initial statistics for 2018 indicate that dwelling commencements have continued to ease at a similar rate to the previous year. BIS Oxford Economics forecasts that Queensland will continue to experience a downturn in dwelling commencements until the early 2020s.

Sawn timber production in Queensland is also impacted by the balance of forest and timber industry imports and exports. Although only provisional 2017–18 information is available, overseas trade data shows a significant increase in the value of imports of forest and timber products over the last year. There has been an increase in the value of imports of log material of 60 per cent from \$20 million in 2016–17 to \$32 million in 2017–18, and moderate increases of 13 per cent for both manufactured wood products (to \$453 million) and pulp and paper (to \$365 million). For the same period, exports of manufactured wood products and pulp and paper from Queensland were stable. There was, however, a very strong increase in the value of overseas exports of log material (to \$166 million) in 2017–18, up 66 per cent from \$100 million in 2016–17. Anecdotal evidence suggests that native logs exports have also increased during this period.

## A note about forest industry data sources

Before September 2007, *Prospects* (now published as *AgTrends*) used the reported turnover of Australian and New Zealand Standard Industrial Classification (ANZSIC) Group 231 (*Log sawmilling and timber dressing*), as defined and measured by the ABS in their survey of manufacturing, as an indicator of the gross value of forest activity in Queensland. However, while this survey does separately report the forest-growing sector, it excludes some elements of the first-stage processing sector and also contains some double-counting.

*AgTrends* now uses data produced by ABARES in its twice-yearly publication *Australian forest and wood products statistics*. This publication gives the value of log production (gross value of logs delivered to the sawmill door or wharf gate) as an estimate of the gross value of the forest-growing sector in Queensland. This, together with estimates of the value added to intermediate inputs from ANZSIC Group 231 and ANZSIC Code 2321 (*Plywood and veneer manufacturing*), provides an overall estimate of Queensland forest industry activity.

## Special feature: Possible implications for Queensland beef exports from the United States – China trade war<sup>49</sup>

In June 2017, China reopened its import market to United States beef, with two requirements—the beef must be free from hormonal growth promotants and must have whole-of-life traceability. Although only a small part of the United States herd could meet these requirements, producers had high hopes for this fast-growing market. However, their prospects were dashed when China retaliated against recent United States import tariffs that target Chinese goods.

The market share for United States beef in China has been quite small (approximately 800 tonnes per month out of the total Chinese imports of 60 000 tonnes per month), so these actions should lead to only minimal disruption to the international trade of beef. However, Australia (including Queensland) is a major exporter to China, and beef exports from the United States to China generally compete with Queensland exports in the premium grain-fed beef categories. Australia (and particularly Queensland) dominates current chilled grain-fed beef trade into China, but the United States was making quick inroads into the trade in 2018 before the announcement of tariffs; this is now likely to reverse.

Chinese beef importers were not concerned about losing United States beef imports, as there are plenty of global suppliers of beef. In contrast, the United States is a large exporter of pork to China, and this product would be heavily impacted. However, the recent discovery of swine flu in China may change global meat markets considerably.

It is this pork trade that may indirectly threaten Queensland beef. The United States will need to adjust to lesser exports of pork and so cheap pork may displace beef on their domestic markets. As the United States is Queensland's largest importer of manufacturing beef (used for the fast-food industry), this could lower demand for Queensland manufacturing beef.

Another factor potentially affecting Queensland beef is the Chinese government's rumoured intention to improve market regulation or clamp down on the illegal movement of beef through Hong Kong and Vietnam into China. This could see a preference for direct beef imports, such as from Queensland.

### Queensland chilled beef exports to China

In 2017, Queensland found a growing market in China, particularly for its grain-fed chilled beef, which was attracting a unit price some 21 per cent higher in China than in other global markets, on top of a 9 per cent increase in 2016. The reason for increased chilled beef imports into China was that Chinese authorities have been closing down local 'wet markets' in capital cities to advance food safety, control animal disease and promote an increase in large-scale meat production at centralised processing facilities, bringing efficiency in the beef supply chain. Chilled meat is estimated to constitute about 20 per cent of the Chinese beef market.

China is Queensland's fourth largest market for fresh/chilled beef behind Japan, South Korea and the United States. The chilled beef is premium grain-fed produce used in high-end restaurants and retail outlets.

Chilled beef to China constitutes 10 per cent of the volume of Queensland beef exports; however, by value the figure is 15.6 per cent, indicating the higher prices for premium produce.

Although Queensland has seen a very rapid increase in the volume and value of beef exported to China, industry still considers the market volatile. Recent reductions in passenger flights from Brisbane to Beijing may hinder this trade through lesser freight opportunities.

<sup>49</sup> Adapted from 'United States and China trade tariffs 2018: implications for the Queensland beef industry', August 2018, DAF, Chapter 7.

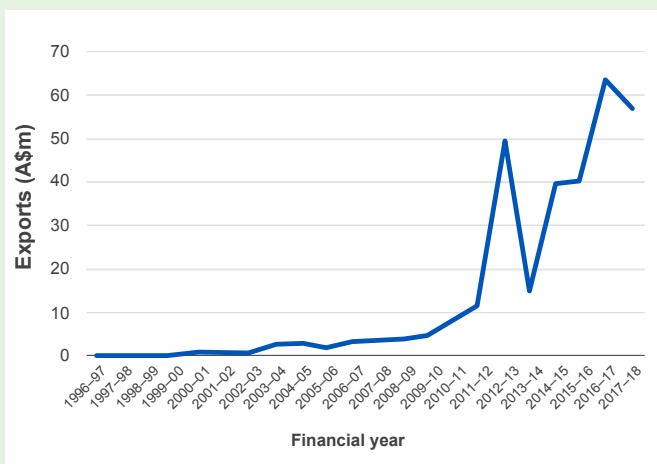


Figure 31 Queensland fresh/chilled beef exports to China, 1996–97 to 2017–18

### Queensland beef exports to China since the United States – China tariff war

Frozen beef is Queensland’s staple export to China; fresh/chilled beef follows, with increased success.

Figure 32 shows the values of sales of primal beef cuts (such as rumps and strip loins) and is representative of the higher priced frozen beef exports. Since the announcement of tariff changes in April 2018, frozen beef exports have increased dramatically—81 per cent and 45 per cent higher in May and June than for the same months in 2016–17.

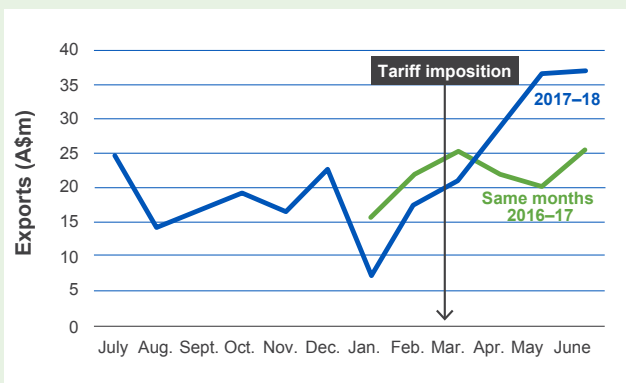
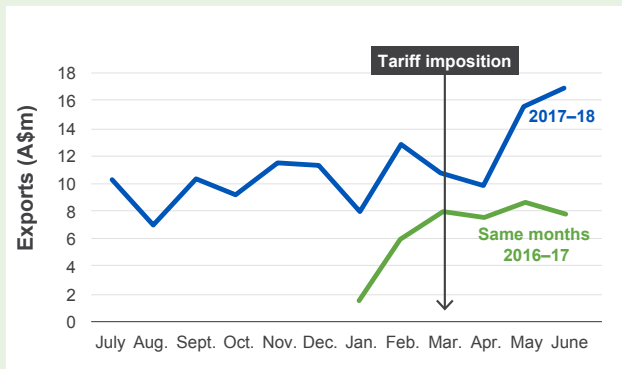


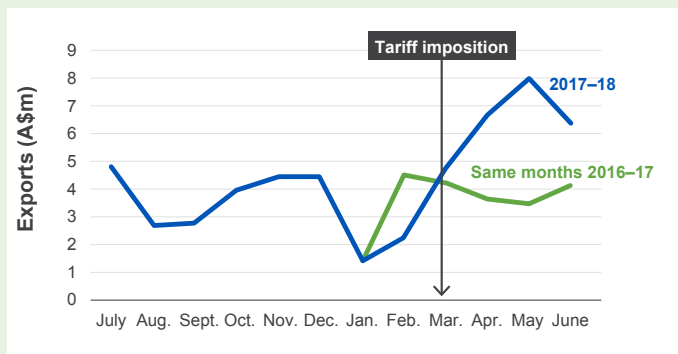
Figure 32 Queensland frozen beef primals exports to China, 2017–18

Values for Queensland manufacturing beef (frozen boneless beef) are shown in Figure 33. Exports for May and June were 81 per cent and 117 per cent higher than for the same months in 2016–17.



**Figure 33** Queensland frozen boneless beef exports to China, 2017-18

Fresh/chilled beef exports to China are showing much promise for Queensland, with exports 131 per cent and 81 per cent higher in May and June than for the same months in 2016-17.



**Figure 34** Queensland fresh/chilled primal cut exports to China, 2017-18

### The importance of the Hong Kong beef market

Hong Kong's frozen beef imports in 2016 totalled 350 998 tonnes shipping weight. Brazil supplied more than half of these (56 per cent), and was followed by the United States (27 per cent); Australia supplied a small quantity (1219 tonnes shipping weight). Despite having only a small share, imports from the European Union are growing, intensifying competition.

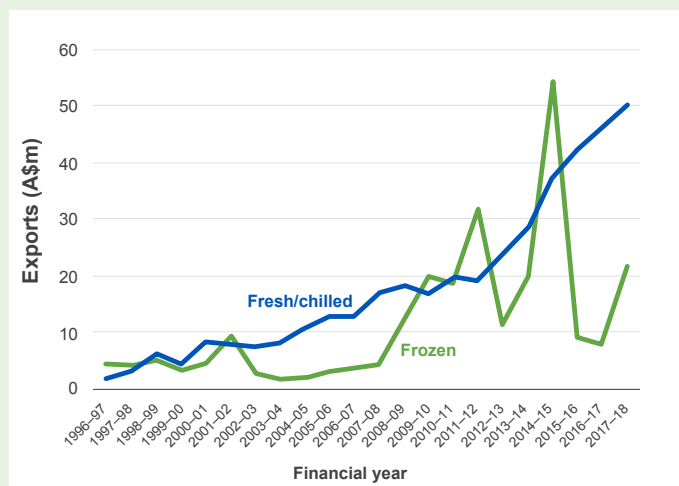
In contrast, and highlighting the importance of the chilled beef market to Australia, almost half of Hong Kong's total chilled beef imports in 2016-17 came from Australia (47 per cent volume share). The next largest supplier was the United States (29 per cent), followed by Brazil (8 per cent). The 2016-17 average unit price of Hong Kong's chilled beef imports was A\$23.78 per kilogram; the price for frozen beef was A\$6.33 per kilogram.

In 2016, Hong Kong imported a total of 7949 tonnes of chilled beef valued at more than A\$182 million. Australia was the largest supplier (46 per cent volume share), followed by the United States (29 per cent) and Brazil (10 per cent).

The United States is a major source of beef into Hong Kong (some of which transits into China), with exports totalling 152 280 tonnes in 2017. Queensland exports of 3701 tonnes fresh and frozen beef to Hong Kong in 2016-17 were valued at A\$53.5 million.

In 2017–18, Queensland exported A\$71.6 million worth of beef to Hong Kong. Of this, fresh/chilled beef achieved a record A\$50.1 million.

The importance of beef imports into Hong Kong both for the United States and Queensland cannot be underestimated. Hong Kong is viewed as a proxy destination for exports to China and is the fourth largest market for United States agricultural products.



**Figure 35** Queensland beef exports to Hong Kong, 1996–97 to 2017–18

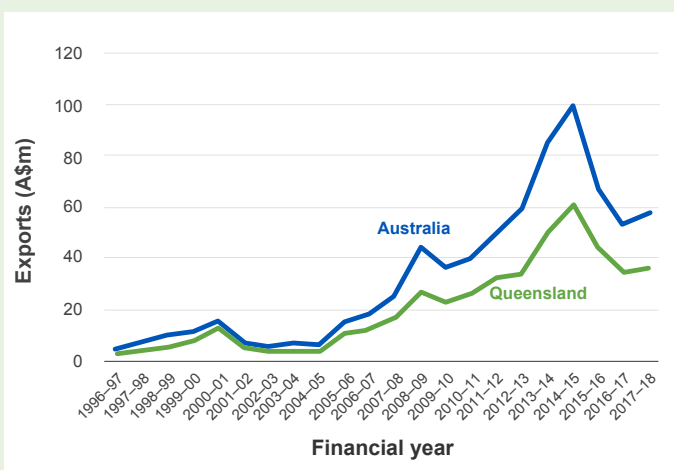
Hong Kong is a major re-export centre to China and other nations. In 2016, Hong Kong imported US\$28.389 billion in agricultural goods and re-exported US\$10.134 billion worth of this. The ‘grey trade’ (illegal exports that are difficult to regulate and enforce) from both Vietnam and Hong Kong into China has been the subject of speculation for quite some time. Recent rumours of a crackdown by Chinese authorities on this trade in conjunction with the tariff regime may spell a significant decline in beef to Hong Kong, with a preference from Chinese authorities for goods to be shipped directly into China. Consequently, the new Chinese tariff regime on United States beef may be in Queensland’s favour.

### The importance of the Hong Kong offal market

Hong Kong is the world’s biggest market for offal products. Beef offal imports into Hong Kong are estimated to be more than A\$1.1 billion. Most of this is frozen and in particular tripe. Brazil provides about 50 per cent of this market, followed by Argentina, then the United States and Australia. Queensland exported A\$35.8 million of Australia’s A\$57.1 million of offal to Hong Kong in 2016–17, but exports had been as high as A\$60.9 million (2014–15).

In 2016, Australia’s chilled beef offal exports to Hong Kong (130 tonnes shipping weight) were mostly cheek meat, skirt and tail.

The World Trade Organization estimates that in 2017 Hong Kong imported US\$2.029 billion in edible beef offal and exported US\$1.471 billion in the same year, principally to China.



**Figure 36** Exports of offal to Hong Kong, 1996–97 to 2017–18

With China’s beef market opening up to more international suppliers and possible policy reforms to be implemented in coming years, Hong Kong’s role in meat re-exporting may change. This change may be hastened by the recent trade tariff changes with the United States.

## Notes

- Gross value of commodities produced is a measure of economic output.
- Estimates of the gross values of Queensland agricultural production are calculated and published at the state level by the ABS. Presently, the ABS publishes estimates for most agricultural commodities twice a year.
- A preliminary estimate for a particular financial year is published approximately 4 months after the end of that year. The second (final) estimate is published approximately 12 months after the preliminary estimate.
- Estimates of the gross value of Queensland's fisheries production are available from DAF.
- All estimates provided in this publication are in nominal dollar values unless otherwise stated.

## Definitions

### **crops**

field and horticulture crops

### **fisheries**

trawl and non-trawl fishing, and aquaculture

### **forestry**

log sawmilling and timber dressing

### **gross value of commodities produced**

the value of recorded production at wholesale prices realised in the marketplace (e.g. cattle sold for slaughter and sugarcane at the mill)

### **livestock disposals**

cattle, sheep, pigs, poultry, kangaroos and other live animals sold for slaughter, plus live exports minus live imports

### **livestock products**

eggs, milk, wool and honey

### **marketplace**

generally, the metropolitan market in each state and territory (where commodities are consumed locally, or where they become raw material for a secondary industry); for exports, marketplace prices are generally free-on-board prices

### **value added**

the value of the output produced minus the costs of the intermediate goods



## Queensland AgTrends 2018–19

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