Queensland AgTrends 2015–16
Forecasts and trends in Queensland agricultural, fisheries and forestry production
Acknowledgements

The Department of Agriculture and Fisheries (DAF) acknowledges contributions to this report from:

• DAF researchers and industry experts
• the Office of Economic and Statistical Research (OESR)
• the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)
• the Australian Bureau of Statistics (ABS)
• Meat and Livestock Australia (MLA)
• Avocados Australia
• various industry representatives
• various market commentators and industry media.

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<td>18</td>
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<td>41</td>
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</tbody>
</table>
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABARES</td>
<td>Australian Bureau of Agricultural and Resource Economics and Sciences</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ALFA</td>
<td>Australian Lot Feeders’ Association</td>
</tr>
<tr>
<td>ANZSIC</td>
<td>Australian and New Zealand Standard Industrial Classification</td>
</tr>
<tr>
<td>APW</td>
<td>Australian Premium White</td>
</tr>
<tr>
<td>AWEX</td>
<td>Australian Wool Exchange</td>
</tr>
<tr>
<td>CCS</td>
<td>commercial cane sugar</td>
</tr>
<tr>
<td>DAF</td>
<td>Department of Agriculture and Fisheries</td>
</tr>
<tr>
<td>DPI</td>
<td>Department of Primary Industries</td>
</tr>
<tr>
<td>DSITI</td>
<td>Department of Science, Information Technology and Innovation</td>
</tr>
<tr>
<td>EMI</td>
<td>Eastern Market Indicator</td>
</tr>
<tr>
<td>ENSO</td>
<td>El Niño – Southern Oscillation</td>
</tr>
<tr>
<td>EYCI</td>
<td>Eastern Young Cattle Indicator</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>FMD</td>
<td>foot-and-mouth disease</td>
</tr>
<tr>
<td>GVP</td>
<td>gross value of production</td>
</tr>
<tr>
<td>HIA</td>
<td>Housing Industry Association</td>
</tr>
<tr>
<td>IDP</td>
<td>individually droughted property</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IPS</td>
<td>international polarity scale</td>
</tr>
<tr>
<td>MLA</td>
<td>Meat and Livestock Australia</td>
</tr>
<tr>
<td>OESR</td>
<td>Office of Economic and Statistical Research</td>
</tr>
<tr>
<td>SLA</td>
<td>statistical local area</td>
</tr>
<tr>
<td>SST</td>
<td>sea surface temperature</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
</tbody>
</table>
## Summary of key findings

### Total value of Queensland’s primary industries

For 2015–16, the total value of Queensland’s primary industry commodities (combined GVP and first-stage processing) is forecast to be $16.88 billion, 12% higher than 2014–15 and 13% higher than the average for the past 5 years.

### Gross value of production (‘farm gate’)

For 2015–16, the GVP of Queensland’s primary industry commodities at the ‘farm gate’ is forecast to be almost $13.33 billion, 12% higher than 2014–15 and 13% higher than the average for the past 5 years.

### Livestock industries

The 2015–16 GVP forecasts for livestock industries are shown in Tables 1 and 2.

**Table 1** Livestock disposals GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle and calves</td>
<td>4312</td>
<td>31</td>
</tr>
<tr>
<td>Poultry</td>
<td>610</td>
<td>4</td>
</tr>
<tr>
<td>Pigs</td>
<td>297</td>
<td>9</td>
</tr>
<tr>
<td>Sheep and lambs</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>Other livestock</td>
<td>31</td>
<td>3</td>
</tr>
</tbody>
</table>

**Table 2** Livestock products GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (all purpose)</td>
<td>222</td>
<td>1</td>
</tr>
<tr>
<td>Eggs</td>
<td>193</td>
<td>34</td>
</tr>
<tr>
<td>Wool</td>
<td>53</td>
<td>-13</td>
</tr>
</tbody>
</table>

### Crops

The 2015–16 GVP forecasts for crops are shown in Tables 3–6.

**Table 3** Fruit and nuts and vegetables GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit and nuts</td>
<td>1626</td>
<td>2</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1220</td>
<td>4</td>
</tr>
</tbody>
</table>

**Table 4** Lifestyle horticulture GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurseries</td>
<td>898</td>
<td>2</td>
</tr>
<tr>
<td>Turf</td>
<td>175</td>
<td>9</td>
</tr>
<tr>
<td>Cut flowers</td>
<td>151</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 5  Other crops GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar cane</td>
<td>988</td>
<td>–14</td>
</tr>
<tr>
<td>Cotton</td>
<td>483</td>
<td>31</td>
</tr>
</tbody>
</table>

Table 6  Cereal grains GVP, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast GVP ($m)</th>
<th>Percentage change since 2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain sorghum</td>
<td>384</td>
<td>–11</td>
</tr>
<tr>
<td>Wheat</td>
<td>308</td>
<td>–5</td>
</tr>
<tr>
<td>Other cereal grains</td>
<td>97</td>
<td>–12</td>
</tr>
<tr>
<td>Maize</td>
<td>60</td>
<td>–49</td>
</tr>
<tr>
<td>Barley</td>
<td>54</td>
<td>20</td>
</tr>
</tbody>
</table>

Fisheries

The GVP for Queensland’s fisheries in 2015–16 is forecast to be $368 million.

In this edition, recreational fishing, which is an important part of Queensland’s fisheries, is included in the forecast for 2015–16 with an estimated value of $94 million. The values of commercial fishing and aquaculture are forecast to be $170 million (2% less than 2014–15) and $104 million (a 1% increase from 2014–15), respectively.

Forestry

The GVP for the forest-growing sector of Queensland’s forest industry in 2015–16 is forecast to be $211 million, 13% greater than last year. This translates into a value of $435 million for the first-stage processing sector.

First-stage processing

For 2015–16, the value of first-stage processing (or value-added production) is forecast to be $3.55 billion.

Table 7  Forecast value of first-stage processing, 2015–16

<table>
<thead>
<tr>
<th>Industry</th>
<th>Forecast ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat processing</td>
<td>2046</td>
</tr>
<tr>
<td>Sugar processing</td>
<td>532</td>
</tr>
<tr>
<td>Log sawmilling, timber dressing and plywood and veneer manufacturing</td>
<td>435</td>
</tr>
<tr>
<td>Fruit and vegetables processing</td>
<td>239</td>
</tr>
<tr>
<td>Milk and cream processing</td>
<td>117</td>
</tr>
<tr>
<td>Flour mill and feed processing</td>
<td>73</td>
</tr>
<tr>
<td>Seafood processing</td>
<td>55</td>
</tr>
<tr>
<td>Cotton ginning</td>
<td>55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3553</strong></td>
</tr>
</tbody>
</table>
This edition of \textit{Queensland AgTrends}

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

\textbf{Total value of Queensland’s primary industries}

Before September 2007, the measure used to value Queensland’s primary industry commodities in \textit{Prospects} was gross value of production (GVP). From September 2007 onwards, the total value of Queensland’s primary industry commodities reported in \textit{Prospects} and then \textit{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.

\textbf{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 \textit{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 2015–16 should not be compared with the estimates for years before 2010–11.

\textbf{Lifestyle horticulture}

In September 2008, the then Department of Primary Industries (DPI) commissioned Queensland Treasury’s Office of Economic and Statistical Research (OESR) 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 15–17, the value of the industry is captured under ‘lifestyle horticulture production’ and includes the GVP of nurseries, cut flowers and turf.
Forestry
In Table 9, pages 15–17, 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 the main production areas for individual commodities. The maps are based on ABS 2005–06 agricultural census data. They show statistical local areas (SLAs) in Queensland where the top 80% 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 2012–13, released in September 2014, are included in Table 9 (pages 15–17). Due to this break in the series, the ABS advises that figures from 2005–06 onwards should not be compared to those for previous years.
About Queensland’s primary industries

In 2013–14, Queensland’s primary industries directly contributed an estimated $6.9 billion to the state economy—this was 2.3% of the gross state product.¹

Geographically, Queensland is Australia’s second largest state, covering more than 173 million hectares. Almost 144 million hectares (or 83%) 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 2013–14, Queensland exported $7.9 billion worth of agriculture and food products. Exports of these primary products comprised 18% of the state’s overseas commodity exports in 2013–14.²

In 2012–13, the combined employment associated with the whole food supply chain equated to an estimated 288 300 employees. This means that one in seven Queenslanders was either partly or entirely supported by the food sector.³

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² ABS, Exports from Queensland and Australia to all countries, by commodity, value, 2013–14, OESR, Standard International Trade Classification 2 digit, Food and Live Animals.
³ ibid.
About the department

Our vision
Productive and prosperous agriculture, fishing and forestry sectors

We strive to be:

- a respected collaborator and connector across government, industry and research bodies
- an outcomes-based regulator
- a high-performing customer-focused organisation.

Our purpose
Facilitate the growth and sustainable development of the agriculture, fishing and forestry sectors and optimise their contribution to economic, environmental and social outcomes for Queensland.

Our values
As individuals and as a department we embed the Queensland Public Service core values in the way we do business:

- Customers first—We know our customers, deliver what matters to Queenslanders and show empathy in decision-making.
- Ideas into action—We challenge the norm, encourage and embrace new ideas, find new solutions and work across boundaries.
- Unleash potential—We expect greatness, lead our colleagues and set clear expectations, and seek, provide and act on feedback.
- Be courageous—We own our actions, both successes and mistakes, take calculated risks and act with transparency.
- Empower people—We lead, empower and trust, playing to everyone’s strengths by developing ourselves and those around us.

Supporting the government’s objectives for the community
The department contributes to government policy and fiscal objectives for the community to achieve the following goals:

- Creating jobs and a diverse economy
  We will stimulate economic growth and innovation through:
  - increased value of primary and value-added production
  - market-orientated producers and agribusinesses
  - a skilled and ready workforce.

- Building safe, caring and connected communities
  We will encourage safer and inclusive communities by providing:
  - safe and ethically produced food and fibre products.
  We will build regions through:
  - new and strengthened regional agricultural precincts
  - competitive supply chains
  - wider recreational opportunities.
• **Protecting the environment**
  We will protect the Great Barrier Reef through:
  · environmentally responsible production and harvesting.
  We will manage natural resources sustainably by providing:
  · effective agriculture, fisheries and forestry resource management
  · effective animal and plant pest and disease management.

• **Delivering quality frontline services**
  We will provide responsive and integrated services through:
  · leadership of Queensland’s biosecurity responses
  · expanded one-stop shop and e-government services for customers and businesses.

**Pursuing opportunities and managing risks**

• Economic, social and environmental change—Source the best available information and data to provide timely responses to emerging opportunities and challenges to help our industries adapt and grow.

• Innovation—Exploit new technologies and empower our people and partners to try new approaches.

• Return to investment—Partner with like-minded organisations and investors to realise opportunities sooner.

• Governance systems—Adopt contemporary practices and monitor performance to ensure systems are effective.

• Major climatic events and biosecurity threats—Prepare for events and respond to the loss of continuity and fatigue that results when these events occur.

• Skills and capability—Ensure we can access the skills and capability to support current and future organisational functions.

• Business-critical systems—Address our technology infrastructure and processes to achieve business efficiency, digital service delivery and information sharing with service partners.

• Relationships with stakeholders and the community—Inclusively develop policy and manage expectations and issues with respect.
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 2015–16
- initial forecasts for 2015–16 for first-stage processing
- GVP estimates for 2014–15
- the percentage difference between each 2015–16 forecast and the average for the past 5 years.

AgTrends is available on the DAF website (www.daf.qld.gov.au).

About the AgTrends update

The forecasts provided in this edition will be updated in April 2016. Updated forecasts will be made available electronically and can be downloaded from www.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:

AgTrends
Industry Analysis Unit
Department of Agriculture and Fisheries
GPO Box 46
BRISBANE QLD 4001

Visit www.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 and September 2015, 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 October 2015 to March 2016

The Science Delivery Division of the Department of Science, Information Technology and Innovation (DSITI) considers that, for most of Queensland, there is an increased probability of below-median rainfall for October to December. There is a similar outlook for summer (November 2015 to March 2016).

DSITI’s seasonal outlooks for Queensland are based on the current and projected state of the El Niño – Southern Oscillation (ENSO) phenomenon and on factors that alter the impact of ENSO on Queensland rainfall, such as the more slowly changing extra-tropical sea surface temperature (SST) pattern in the Pacific Ocean.

Figure 1  Probability of exceeding median rainfall for October–December 2015 (based on a consistently negative phase during August–September)
Source: The Science Delivery Division, DSITI, 2015.
Drought situation

Currently, 86.11% of Queensland remains drought-declared under state government processes (see Figure 2). The high probability of the current El Niño event continuing further into spring and, with it, the threat of another dry summer for some regions, poses a risk of current drought conditions becoming more protracted. This risk should be factored into decision-making and allocation of resources.

Figure 2 Drought-affected areas in Queensland, November 2015
World and Australian economic environment

The October 2015 *World Economic Outlook* from the International Monetary Fund (IMF) has again downgraded forecasts from the July report. The projection of the 2015 change in world output is reduced to 3.1%. Although the IMF still expects improved performance in 2016 with worldwide growth of 3.6%, increased downside risks are likely due to the debt overhang worldwide, the return to non-expansionary United States monetary policy and geopolitical factors. The worldwide trend of decelerating growth is due to declining productivity growth and population ageing.

Sharply reduced commodity prices have stimulated growth in importers while reducing it in exporters. Therefore, advanced economies (apart from the Euro area and Japan) show increasing growth over recent years, while the converse applies to developing commodity exporters.

Australia’s ‘neighbourhood’ in the Asia–Pacific region is expected to remain the strongest-growing part of the world economy. The forecast lift in world trade volumes in 2016 is the most favourable part of the projection for Australia, although this will be accompanied by a continuing weakening of commodity prices.
### Table 8  IMF forecasts, October 2015

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<th>Year-on-year percentage change</th>
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* Indonesia, Malaysia, Philippines, Thailand and Vietnam.

Australia’s Reserve Bank is expecting domestic growth to continue in 2015–16, with the economy operating at less than full capacity and inflation within the target range for the next 2 years, even with the lower interest rate. This led to the decision in October to leave the cash rate unchanged.4

Latest data from the United Nations Food and Agriculture Organization (FAO) indicates a continuing easing of food price indexes from the high of 2011.5

During 2014–15, dairy and sugar suffered the largest price drops, but meat appears to have levelled off. However, FAO still expects prices for agricultural commodities to stay higher for the next 10 years than they were in the years before the 2007–08 price peak.6 Although output prices may continue the long-term trend of decline in real terms, lower input prices (primarily driven by those of crude oil) will ease the cost–price squeeze for producers. The economic viability of biofuels will also continue to suffer for the same reason.

The pace of population growth may be slowing in less-developed countries, but increasing incomes and urbanisation will continue to underpin demand, particularly for protein foods. Interestingly, FAO predict a trend of agricultural commodity imports being increasingly spread out among countries, with exports becoming concentrated in a small number of them. While this increases world supply risks, it favours the suppliers, including Australia.

---

## Primary industries—estimates and forecasts

Table 9  GVP, first-stage processing and total primary industries estimates and forecasts, 2012–13 to 2015–16, and difference between 2015–16 forecast and average for past 5 years

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<th>2013–14&lt;sup&gt;c&lt;/sup&gt;</th>
<th>2014–15 forecast, April 2015</th>
<th>2015–16 forecast, October 2015</th>
<th>Change from April forecast for 2016–15 to October forecast for 2015–16</th>
<th>Average for past 5 years</th>
<th>Difference between 2015–16 forecast and average for past 5 years</th>
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<td>73</td>
<td>94</td>
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<td>366</td>
<td>370</td>
<td>368</td>
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<td>364</td>
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<td>Forestry and logging&lt;sup&gt;d,i&lt;/sup&gt;</td>
<td>150</td>
<td>175</td>
<td>187</td>
<td>211</td>
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<td>Total primary industries (farm gate)</td>
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<td>12 453</td>
<td>11 920</td>
<td>13 325</td>
<td>12</td>
<td>11 806</td>
<td>13</td>
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<tr>
<td><strong>First-round processing value added&lt;sup&gt;k&lt;/sup&gt;</strong></td>
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<tr>
<td>Meat processing&lt;sup&gt;e&lt;/sup&gt;</td>
<td>1 617</td>
<td>1 822</td>
<td>1 632</td>
<td>2 046</td>
<td>25</td>
<td>1 651</td>
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<td>Sugar processing&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>609</td>
<td>532</td>
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<td>614</td>
<td>−13</td>
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<td>435</td>
<td>13</td>
<td>366</td>
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<td>Fruit and vegetables processing&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>232</td>
<td>232</td>
<td>239</td>
<td>3</td>
<td>207</td>
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<td>Milk and cream processing&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>122</td>
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<td>Flour mill and feed processing&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>63</td>
<td>83</td>
<td>73</td>
<td>−12</td>
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<td>Seafood processing&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>−1</td>
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<td>Cotton ginning&lt;sup&gt;e&lt;/sup&gt;</td>
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<td>−29</td>
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<tr>
<td><strong>Total primary industries (first-round processing)</strong></td>
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<td>3 156</td>
<td>3 553</td>
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<td>3 174</td>
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<td>16 878</td>
<td>12</td>
<td>14 981</td>
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<sup>a</sup> 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, sugar cane 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.

<sup>b</sup> ABS final estimates for 2012–13 unless otherwise indicated.

<sup>c</sup> ABS final estimates for 2013–14 unless otherwise indicated.

<sup>d</sup> DAF forecasts.

<sup>e</sup> Excludes minor commodities such as honey, beeswax and mohair.

<sup>f</sup> Gross value of sugar cane at mill door.

<sup>g</sup> Includes value of cottonseed and lint.

<sup>h</sup> Includes catches from both Commonwealth-managed fisheries (including Torres Strait, Gulf of Carpentaria and East Coast Tuna fisheries) and state-managed fisheries.

<sup>i</sup> Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimates.

<sup>j</sup> See page 55 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.

<sup>k</sup> 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.

<sup>l</sup> Revised GVP data from DAF’s Fisheries group required amendment of previous estimates.
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 2005–06 to 2015–16 is detailed in Table 10.

The production index for agriculture for 2015–16 is forecast to be 117. This indicates that Queensland’s agricultural production in 2015–16 is forecast to be 17% higher (on average) than in the base year of 1996–97. On average, the volume of agricultural production in 2015–16 is forecast to be 7% higher than in 2014–15.

Table 10  Volume of production index\(^a\) for Queensland’s major agricultural commodities

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<td>Wheat</td>
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<td>39</td>
<td>48</td>
<td>102</td>
<td>68</td>
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<td>95</td>
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<tr>
<td>Grain sorghum</td>
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<td>89</td>
<td>251</td>
<td>176</td>
<td>92</td>
<td>118</td>
<td>141</td>
<td>147</td>
<td>86</td>
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<td>Barley</td>
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<td>Major cereal grains</td>
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<td>73</td>
<td>84</td>
<td>104</td>
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<td>Sugar cane</td>
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<td>67</td>
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<tr>
<td>Cotton lint</td>
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<td>93</td>
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<td>211</td>
<td>187</td>
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<td>Major other field crops</td>
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<td>Major vegetables</td>
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<td>109</td>
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<td>154</td>
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<td>Major fruit and vegetables</td>
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<td>Crops</td>
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<td>110</td>
<td>108</td>
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<td>103</td>
<td>110</td>
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<tr>
<td>Cattle, calves and live exports</td>
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<td>140</td>
<td>131</td>
<td>134</td>
<td>133</td>
<td>132</td>
<td>130</td>
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<td>149</td>
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<td>152</td>
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<td>Poultry</td>
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<td>174</td>
<td>174</td>
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<td>Sheep and lambs</td>
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<td>62</td>
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<td>34</td>
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<td>Major livestock disposals</td>
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<td>137</td>
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<td>64</td>
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<td>61</td>
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<td>Wool</td>
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<td>Eggs</td>
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<td>340</td>
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<td>395</td>
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<td>75</td>
<td>72</td>
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<tr>
<td>Livestock</td>
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<td>116</td>
<td>112</td>
<td>112</td>
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<td>113</td>
<td>118</td>
<td>127</td>
<td>118</td>
<td>127</td>
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</tbody>
</table>

\(^a\) 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.

The indexes of different commodities and groups of commodities were calculated using a simple Laspeyres index with 1996–97 as the base year. The year 1996–97 was chosen as the base year because it is considered to be a year when average production levels were recorded for most of Queensland’s major agricultural commodities.
Livestock disposals

Cattle and calves

Key findings

• A record 4.3 million head of cattle were slaughtered in Queensland in 2014–15.
• There was a rebound in exports to Japan—the first since the global financial crisis in 2008.
• A huge $1.5 billion worth of exports went to the United States.
• There was a $100 million increase in live cattle exports, including a significant increase in the number to Vietnam.
• The impact of the drought was reflected in reduced carcass weights and increased slaughterings.
• A new live cattle export deal with China has the potential to earn billions of dollars in revenue.
• There was a significant rise in lotfeeding due to the drought and increased demand from Japan and South Korea.
• There was growth in traditional markets, as well as encouraging signs for emerging high-value markets such as Saudi Arabia, the United Arab Emirates and Qatar.

Forecast

The 2015–16 GVP for Queensland’s cattle and calf industry (including cattle and calves sold for slaughter plus live exports) is forecast to be $4.3 billion. This is 31% higher than the final estimate for 2014–15 and 25% higher than the average for the past 5 years.

Analysis and discussion

Cattle and calves sold for slaughter

For 2015–16, the GVP for cattle and calves sold for slaughter is forecast to be $4.2 billion, which is 27% greater than last year’s final estimate. In 2014–15, a record 4.3 million head of cattle and calves were slaughtered in Queensland, 4% more than in the previous year.

Figure 5  Queensland cattle and calf slaughterings, 2000–01 to 2014–15
A spokesperson from Meat and Livestock Australia (MLA) said that Australian beef producers were currently living in ‘extraordinary times’, for a number of reasons:

- There have been three quite severe droughts in just over a decade, making beef production challenging.
- These droughts have led to a rapidly depleting national cattle herd. The last time the herd dropped as steeply and as significantly was in the beef slump of the 1970s.
- There has been record export demand, aided by emerging large markets such as China and Indonesia as well as heavy demand from established markets such as the United States, Japan and South Korea.
- Big breakthroughs in the trade environment—including free trade agreements with Japan and South Korea—have the potential to reduce tariffs, making Australian products more competitive on the international stage.
- The Australian dollar has fallen 30% against the United States dollar in the past 15 months. In contrast, during previous droughts, the dollar tended to strengthen, making exports more costly.

MLA now anticipates total 2015 beef shipments from Australia will reach 1.32 million tonnes (shipped weight), up another 2.3% on last year’s record high of 1.29 million tonnes. Higher export volumes will lead to reduced volumes of beef consumed in the domestic market, especially in the face of higher beef prices. MLA expects that under these circumstances, the strong cattle prices observed during the first half of the year will continue.

Preliminary figures for 2014–15 indicate that Queensland exported $4.9 billion worth of beef, up 32.8% from the previous year, consisting of 758 321 tonnes, up 8.0% from the previous year. Significantly, the value of exports to Japan rose from $0.9 billion to $1.2 billion and exports to the United States were worth $1.5 billion, with prices for manufacturing beef doubling.

MLA has also revised its expectations over adult cattle slaughter for 2015, suggesting it will now almost reach last year’s record turn-off. Total slaughter is now estimated at 9.63 million head, down just 2.9 million on last year’s record. Any slowdown is predicted to be most marked in the final quarter of this financial year.

MLA has warned that another huge slaughter year will result in a much smaller national cattle herd over the coming years. Eastern states cattle slaughter for the first half of 2015 has already surged to 3.8 million head, up 5% on the same period last year and up 20% on the average for the past 5 years.

The flow-on effect from a third consecutive year with more than 9 million head exiting the system will be much tighter supplies, especially in 2017, when adult cattle slaughter is forecast to fall below 7 million head for the first time since 1996.

Australia’s combined cattle turn-off (live exports and cattle slaughter) will again exceed 36% of the starting herd inventory—something that had never happened before last year—and female cattle slaughter has been higher year-on-year for 31 consecutive months. Considering this, MLA says the national beef herd is expected to fall to 26.1 million head in 2016, down 11% (3.2 million head) since the drought began in 2012.

This means the herd will become the lowest it has been since 1995. A slow rebuild is expected, as producers need cash flow after 3 years of severe drought. Also, there will be strong processor and live export demand for this much smaller pool of cattle, possibly leading to higher turn-off than otherwise would have occurred.

MLA says the strong cattle market is set to continue for the remainder of 2015 and, provided the current supply and demand situation holds true, 2016 is likely to again see a historically dear cattle market. MLA says this is especially the case for breeding females, as the core breeding herd continues to dwindle every week, with above-average female cattle kills.

The intense international trading environment (and consequent high beef prices) will lead to tighter beef volumes available for the domestic market. Domestic utilisation for 2015 is forecast to drop 15%, to 608 400 tonnes, resulting in per capita consumption slipping to 25.63 kilograms. MLA believes this trend will continue, and expects lower slaughter and production over 2015–16.

The unprecedented international demand has led to increased domestic prices. The ABS reported a domestic beef retail price of $16.93 per kilogram in the March quarter, up 9% over 12 months and the highest price on record. This is a common trend in many developed countries, for example the United States, New Zealand and in the Europe Union.
The female slaughter percentage has increased since last year and is above the previous high levels of 2013–14 (as shown in Figure 6). The increase suggests more producers have reduced their herd rebuilding in response to the deteriorating seasonal conditions, good prices and increasing demand from meat processors.

![Percentage share of total slaughter for cattle and calves and cows and heifers, Queensland, 2000–01 to 2014–15](source: ABS, 2015)

### Price

Cattle prices gradually increased during the first half of 2015, easily pushing past 500 cents per kilogram (see Figure 7), even though the majority of the eastern states have not yet had significant relief from drought conditions.

The national heavy steer (500–600 kilograms, C4) saleyard indicator averaged a record 443 cents per kilogram for the first half of 2015, an increase of 32% buoyed by strong demand and the progressively tighter availability of heavy finished cattle. Similarly, the trade steer (330–400 kilograms, C3) indicator averaged 32% higher than the previous year, at a record 461 cents per kilogram.

Despite starting from a slightly lower base, medium cows (400–520 kilograms, D3) gained the most ground, averaging 375 cents per kilogram for the first half of 2015, up 47% from the previous year. This reflected the exceptionally strong demand (especially from the United States), a lower Australian dollar and some lift in southern restocker interest.
This doubling in the cow price was heavily influenced by the 90CL import market in the United States. In previous Australian drought episodes, the United States was producing near-record amounts of beef. This time, their beef production is very tight and is expected to remain so in coming years, leading to good prices for Australian producers. Another significant driver for Australian prices is China, now taking more than 100 000 tonnes of Australian beef each year, up from just a few thousand tonnes a few years earlier.

MLA stated:

While Australia’s recent post-drought price recoveries have come about because there has been a decline in cattle supply, this time the demand environment we are currently experiencing is the big driver … it means the price trend that lies ahead will be fuelled not only by this unprecedented international demand, but also by the inevitable contraction that will happen in cattle supply … if we see those sort of price rises this year, once we do see a really significant contraction in cattle supply, it is extremely positive for where cattle prices may yet go.

MLA also noted that in all three previous droughts, the female price consistently outperformed that of males, simply because females are needed to rebuild herds, on the back of herd declines. Coincidentally, across all three previous drought periods, the Australian dollar was appreciating, making exports more challenging.

MLA believes:

There are still very few restockers active in the cattle market … when … [restocking] starts to happen, competing with processors and lotfeeders on some cattle, it paints quite a positive picture for further price rise potential.

Exports

According to MLA, beef exports are now well on their way to exceeding last year’s record, so this will be the fourth consecutive year that beef export volumes have increased. Australia exports about three-quarters of its beef to more than 100 countries around the world. However, the top four destinations—the United States, Japan, South Korea and China—will together make up about 80% of Australia’s beef exports this year.

MLA feels that freer trade into markets like Japan and South Korea, tight beef production in the United States and a low Australian dollar are making the Australian beef industry more and more reliant on international, rather than domestic, beef trade.
As shown in Figure 8, exports now constitute about 75% of total beef production, up from around 65% only a few years ago. MLA believe that the proportion of exports will ‘remain in the 70–75% range for the foreseeable future, and may never return to lower levels, especially if domestic consumption declines further’.

Exports of Australian beef and veal increased by 14% from 1,183,819 tonnes in 2013–14 to 1,347,487 tonnes in 2014–15. Elevated cattle slaughter, a weakening Australian dollar and a shortfall in United States beef production led to near-perfect conditions for Australian beef exporters in 2014–15, with shipments hitting 1.35 million tonnes shipping weight, 14% above last year’s previous all-time high and 35% above the average for the past 5 years.

Dominating market share was the United States, where imported 90CL averaged 527 cents per kilogram for the year, up 22% on the previous year and 32% on the average for the past 5 years. For 2014–15, shipments to the United States totalled 471,242 tonnes shipping weight—the highest on record—and while most of this was frozen grass-fed beef (381,272 tonnes shipping weight), there was a surge in chilled grass-fed product, increasing 72% to 76,282 tonnes shipping weight.

Australian exports to Japan were also greater (9%) than the year before, at 303,519 tonnes shipping weight. These were underpinned by a 24% rise in grain-fed shipments, which accounted for just
under half the total, at 143,686 tonnes shipping weight. This is great for the industry, as it is a higher value product.

There was also some modest growth (1%) in the volume of beef shipped to South Korea, which totalled 156,915 tonnes shipping weight. As for Japan, exports were buoyed by a relatively substantial increase (11%) in grain-fed exports to 37,454 tonnes shipping weight.

Together, these three countries accounted for nearly 70% of Australia’s beef and veal exports. The common factors between these markets have been the lower Australia dollar and high United States cattle and beef prices—together they have led to a lift in demand for imported Australian beef.

While the volume of Australian beef exported to China (124,820 tonnes shipping weight) in 2014–15 was down 22%, it must be viewed in context. Shipments for the year were 129% above the average for the past 5 years and the majority (111,698 tonnes shipping weight) was grass-fed beef.

The Middle East was also a large market for Australian beef in 2014–15, with a volume of 54,653 tonnes shipping weight. Like China, this was a decrease (13%) for the year, but up significantly (43%) on the average for the past 5 years. Saudi Arabia (29,390 tonnes shipping weight), the United Arab Emirates (9,207 tonnes shipping weight) and Jordan (4,744 tonnes shipping weight) were the largest three markets in the region last year.

Exports to Indonesia (43,768 tonnes shipping weight) and Taiwan (31,132 tonnes shipping weight) were down 15% and 18% respectively from the previous year, while those to the Philippines (29,547 tonnes shipping weight) were up 2%.

Australian beef exports to the European Union continued to evolve, with the grain-fed component (16,545 tonnes shipping weight) increasing 13% and accounting for more than half the total (24,037 tonnes shipping weight), which was an increase of 5%.

It is highly unlikely that export volumes in 2015–16 will reach anywhere near those of 2014–15, simply because of the fewer cattle available in the system after an extended turn-off. However, due to unwavering international demand, exports are likely to remain above the average for the past 5 years (997,000 tonnes shipping weight).

**Figure 10** Queensland exports of beef and veal, 2014–15


In 2014–15, Queensland exported 709,946 tonnes of beef and veal, accounting for 53% of Australia’s beef and veal exports. This was an increase of approximately 53,000 tonnes from the previous year. The United States was Queensland’s largest export market, accounting for 33% of exports, and was followed by Japan (27%) and South Korea (13%).
Feedlots

In the June 2015 quarter, Queensland’s feedlots were operating at 87% capacity—5% greater than the June 2014 quarter but 1% less than the previous quarter. According to MLA, the results for the first half of 2015 indicate an increase in cattle numbers on feed in Queensland, reflecting the very dry conditions and resulting poor pasture across the country.

Numbers are expected to remain high for the rest of 2015, despite the anticipation of dearer feeder cattle prices towards the end of the year. Turn-off from feedlots generally accounts for approximately 30% of Queensland’s total slaughter. Changes in the number of cattle on feed therefore have a significant impact on total slaughter numbers and beef production in Queensland.

![Figure 11](image1)

Queensland cattle on feed and feedlot capacity, March 2008 to June 2015
Source: ALFA/MLA, June 2015 national accredited feedlot survey.

Live cattle exports

The GVP for Queensland’s live cattle exports in 2015–16 is forecast to be $200 million. This is about 20% less than the final estimate for 2014–15 but still greater than the average for the last 5 years. The main export countries for live cattle from Queensland in 2014–15 were Vietnam (49%) and Indonesia (49%), with the former significantly increasing its intake over that period. About 30% of cattle exported via Darwin are from Queensland.

![Figure 12](image2)

Queensland live cattle exports, 1994–95 to 2014–15
Australian live cattle exports are projected to reach 950,000 head in 2015, down 27% from 2014. Shipments to Indonesia were up 3% after 5 months, at 293,275 head, but this is unlikely to be sustained. With demand and prices remaining high, cattle exports for the remainder of the year are only likely to be constrained by tightening northern cattle availability and permit allocations, which indicate the second half of 2015 will be lower than the same time last year.

Indonesia has recently issued import permits for another 50,000 Australian cattle in response to a sharp spike in the price of beef. This comes after Indonesia previously issued import permits for an initial 50,000 head of Australian cattle for the July to September quarter, down 80% from the previous quarter.

The Honourable Barnaby Joyce MP, Australian Minister for Agriculture and Water Resources, has signed a deal that will see Australia exporting live cattle to Beijing. The deal could lead to Australia exporting up to 1 million head annually, earning up to $2 billion a year from both breeder and live cattle exports to China by the end of the decade.

Foot-and-mouth disease (FMD) is the single greatest threat to Australia’s livestock industries. FMD has not occurred in Australia for more than 140 years, but it is endemic in countries in the Middle East, Asia and South America. Our proximity to Asia and increasing international trade create a high risk of spread from infected countries to Australia.

The social and economic consequences of an FMD outbreak would be severe and prolonged. Economic modelling by ABARES indicates that an outbreak affecting two or more states could result in revenue losses of up to $52 billion over 10 years.

The Queensland Government’s commitment to the FMD Preparedness Program reflects the significance of the livestock industries to our state’s economy and the potentially serious consequences of this highly contagious virus. While there are plans and arrangements already in place, strengthening FMD prevention and preparedness remains a priority for Queensland.

Economic modelling by DAF has demonstrated that the value of benefits from undertaking this program could range from $81.4 million to $208.3 million (in present-value terms). This includes potential savings if there is an outbreak of FMD in Queensland and potential savings arising from systemic improvements to Biosecurity Queensland operations as a result of the program.

For more information (including fact sheets) on FMD, visit www.daf.qld.gov.au or email fmdprepared@daf.qld.gov.au.
Poultry

Forecast

The GVP for poultry in Queensland for 2015–16 is forecast to be $610 million, a 4% increase on DAF’s final (revised) estimate for 2014–15 and 30% higher than the average for the past 5 years.

Analysis and discussion

Queensland poultry meat production is forecast to increase in 2015–16 as lower retail prices (compared to beef, lamb and pork) drive increased chicken meat consumption.

ABARES forecast that Australian poultry meat production will increase 3.6% in 2015–16. Chicken meat production has been rising steadily over the past 5 years, with Queensland’s production rising 26% to 244 000 tonnes in 2014–15. The majority of this increase came from a growth in the quantity of birds produced (see Figure 14). A major free-range chicken producer has expanded and some chickens grown in New South Wales have been redirected to Brisbane for slaughter after the closure of a local processing plant. Queensland is now the second-largest producing state in Australia, after New South Wales.

Production increases are being supported by consumer demand for chicken meat underpinned by the growing retail price disparity (favouring poultry) between poultry meat and other meats. ABARES estimates that over the period 2010–11 to 2014–15, chicken meat in Australian retail was on average 65% cheaper than beef, 59% cheaper than lamb and 50% cheaper than pork per kilogram. Annual consumption of chicken meat is forecast to increase by 2% in 2015–16 to 46.2 kilograms per person.7

Farm-gate poultry prices are expected to increase marginally in 2015–16, due to strong domestic demand. Over the past decade the industry has achieved significant production efficiencies, leading to increased carcass weights and lower production costs. Due in part to these efficiencies, the poultry industry has been able to negate some of the effect of higher input prices.

Figure 14 Queensland poultry meat production slaughterings, 2006–07 to 2015–16

Source: ABS, unpublished slaughter data.

7 ABARES 2015, Agricultural commodities: September quarter 2015, Commonwealth of Australia, Canberra.
Pigs

Forecast

The GVP for Queensland’s pig production for 2015–16 is forecast to be $297 million, 9% higher than DAF’s final estimate (revised) for 2014–15 and 27% greater than the average for the past 5 years.

Analysis and discussion

The GVP for Queensland’s pig production in 2015–16 is expected to increase as both supply and prices received increase.

ABARES forecast a national 5.7% increase in prices received by farmers for pig meat, on the basis of expected higher domestic demand for fresh pork. Queensland pig meat production and prices are forecast to be slightly higher than the national average over the next 5 years, according to Queensland Pork Producers Inc. In 2014–15, Queensland pig meat prices increased to $248 per head, up 7.8% from $230 per head in 2013–14. This follows consecutive price rises since 2010–11 (see Figure 15).

ABARES forecast a 3.2% increase in national pig slaughterings supported by increased domestic demand for pork as beef and lamb retail prices rise due to declines in production. Reductions in the price of feed (a major input) will also support increased pig production as farmers expand, expecting increased returns. Queensland pig slaughterings are forecast to increase for the third consecutive year, reaching approximately 1.14 million head in 2015–16.

Australian pig meat exports are forecast to increase by 3.6% by volume in 2015–16, with exports accounting for approximately 7.5% of production. Queensland’s share of exports is likely to be slightly above the national average, in part due to Queensland’s proximity to major Asian export markets, resulting in lower freight costs.

Figure 15 Queensland pig saleyard prices and slaughterings, 2005–06 to 2015–16
Source: ABS, unpublished slaughter data.

Sheep and lambs

**Forecast**

The GVP for Queensland’s sheep and lamb production in 2015–16 is forecast to be $72 million, the same as DAF’s final estimate (revised) for 2014–15 and 22% greater than the average for the past 5 years.

**Analysis and discussion**

Australian sheep and lamb saleyard prices are forecast to rise throughout 2015–16 in response to lower sheep and lamb slaughter rates and strong export demand. ABARES estimates that sheep prices will increase by 10% in 2015–16 (following a 26% rise the previous year) and lamb prices will increase by approximately 8% for the second consecutive year. Queensland saleyard prices are forecast to follow this national trend (see Figure 16).

On the supply side, turn-off of lambs and sheep in 2015–16 is forecast to decline. ABARES estimates that sheep slaughterings will decrease by about 11% and lamb slaughterings by about 4%. Fewer sheep and lambs are expected to be available for slaughter in 2015–16 following high turn-off in 2013–14. However, seasonal conditions in the main sheep-growing regions of Queensland remain very dry and this, coupled with high prices, is expected to provide incentive for producers to turn off sheep and lambs in 2015–16. An improvement in seasonal conditions in the second half of the year may see Queensland’s turn-off decline and marginal restocking occur.

On the demand side, the outlook is positive. Strong demand for both lamb and mutton in export markets, combined with lower forecast production, is expected to put upward pressure on export and domestic prices. The United States, the Middle East and emerging markets in Asia are driving this demand and drawing lamb supplies away from the domestic market. Lamb exports to China are, however, forecast to decline in 2015–16, as China increases domestic production. ABARES forecasts the volume of exports to decline by 16% and 5% for mutton and lamb respectively, but price rises are expected to offset some of the losses. The value of mutton exports is forecast to fall by 13% and that of lamb exports by 1%.

![Figure 16](image)

**Figure 16** Queensland sheep and lamb saleyard prices and slaughterings, 2006–07 to 2015–16

Source: ABS, unpublished slaughter data.

For a discussion on wool, see page 32.

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10. Ibid.
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 (the GVP in 2001–02 was $5.1 million, representing well below 1% of Queensland’s gross value of primary industry production), 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.

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.

Milk

Forecast

The GVP for milk in Queensland for 2015–16 is forecast to be $222 million, slightly higher than DAF’s final estimate for 2014–15 and 7% lower than the average for the past 5 years.

Milk production in 2015–16 is expected to be down by 5% from 2014–15, dropping from 411 million litres to 390 million litres. A slight increase in average farm-gate prices is expected to counter this lower production.

Packaged milk sales for Queensland for 2015–16 are expected to remain close to the levels reached in 2014–15 (582 million litres) but could increase slightly with population growth to about 590 million litres.

Analysis and discussion

A number of factors could influence the northern dairy industry over the year ahead. These include:

- ongoing drought conditions
- a declining local supply of milk that is not meeting local market demand
- growing domestic market demand
- rising costs of freight, with the current cost of freighting milk from southern regions being higher than the current farm-gate price being paid to the majority of Queensland dairy farmers
- initiation of new milk procurement contracts by both major supermarkets
- major supermarkets wanting their store-brand fresh milk to be supplied from local dairy farmers
- long-term growing world demand for dairy products, particularly in Asia
- growing foreign interest in sourcing milk and dairy products from the region, with the potential for foreign investment as a result of the free trade agreement with China.

Longer term, expected population growth in southern Queensland will increase the demand for fresh milk, providing expansion opportunities for the Queensland dairy industry. Conservative ABS forecasts indicate that Queensland’s population will increase by 1 million over the next decade, creating an additional market demand of around 110 million litres of milk per year (based on current consumption rates).
Eggs

Forecast

For 2015–16, the GVP for eggs in Queensland is forecast to be $193 million, a 34% increase from DAF’s revised estimate for 2014–15.

Analysis and discussion

In this edition of AgTrends, DAF has revised its method for calculating the GVP for the egg industry to align more accurately with ABS and industry data.

ABARES forecasts that national farm-gate egg prices will rise by 2.26% in 2015–16, and Queensland’s farm-gate egg prices are expected to continue to rise in line with the national trend. Contributing to this projected rise are the continued shift towards production of high-value eggs, strong demand, improved efficiencies and possible industry consolidation as the industry moves to a smaller number of larger farms. Queensland egg production is forecast to be 91.7 million dozen in 2015–16, a 0.8% decrease from 2014–15.

The GVP for eggs has been steadily increasing from the mid-2000s in Queensland (see Figure 17). The majority of the increase has been through increased production of higher value eggs rather than increases in the gross unit value. Most of the price gains have come from a shift away from cage eggs to barn-laid, free-range and specialty eggs (which command a price premium).

![Gross value of eggs produced in Queensland, 2006–07 to 2015–16](chart)

**Figure 17**  Gross value of eggs produced in Queensland, 2006–07 to 2015–16  
Sources: ABS, *Value of agricultural commodities produced, Australia*, cat. no. 7503.0, various years; DAF estimates and forecasts.

The egg industry is continuing to move away from cage eggs, with Woolworths phasing out cage eggs from all stores by 2018 and no longer using them as an ingredient in their store-brand products. According to the Australian Egg Corporation Limited’s annual reports, cage eggs accounted for over three-quarters of all eggs sold, in terms of volume, in 2005. By 2013–14, the market share of cage eggs had decreased to 53% of egg volumes (41% of value), with free range accounting for 38% of egg volumes (47% of value). This decline reflects animal welfare concerns and has led the way for increases in the production of higher value eggs.

Wool

**Forecast**

The GVP for wool (including the value of skins) is forecast to be $53 million in 2015–16, 13% lower than DAF’s final forecast for 2014–15 and 45% lower than the average for the past 5 years.

**Analysis and discussion**

The GVP for Queensland wool is forecast to decline for the third consecutive year due to ongoing adverse seasonal conditions across the main Queensland sheep-growing regions. There has been significant destocking, which has resulted in fewer sheep available for shearing and a forecast reduction in clip weights in 2015–16.

The Australian Wool Production Forecasting Committee estimates a 38% decrease in the total greasy wool production in Queensland from 2014–15 to 2015–16. This follows a 16% decrease in 2014–15 from the final estimate of 10.8 kilotonnes for the previous year.

ABARES forecasts an average Eastern Market Indicator (EMI) price for 2015–16 of 1230 cents per kilogram. This is an increase of 11.3% on the 2014–15 price. Substantial gains have been seen in the EMI since January 2015. It started the calendar year at 1059 cents per kilogram, reached a high of 1373 cents per kilogram the week ending 5 June, then declined to 1258 cents per kilogram the week ending 4 September (see Figure 18).

The higher prices reflect stronger export demand for raw wool coupled with a weaker Australian dollar. Wool buying by garment manufacturers strengthened over the first half of 2015 as they built wool inventories on the back of firmer consumer demand for woollen apparel in the United States and some parts of the European Union. From January to April 2015, export volumes increased to many processing destinations; Australian wool exports to China increased by 7%, to the Czech Republic increased by 16% and to Malaysia and South Korea increased by 40%.

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**Figure 18**  EMI and United States dollar movements, September 2013 to September 2015


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Crops

Horticulture crops

Fruit and nuts

Forecast

The total GVP for fruit and nuts in Queensland for 2015–16 is forecast to be $1.63 billion. This is 2% lower than DAF’s final estimate for 2014–15 but 23% greater than the average for the past 5 years.

Analysis and discussion

The GVP for bananas for 2015–16 is forecast to be $584 million, 9% greater than DAF’s final estimate for 2014–15 and 27% greater than the average for the past 5 years.

Good production numbers were reported last financial year and are expected again this year, so GVP has been revised upwards. Consumer demand is relatively strong and prices per carton are forecast to stay at the current levels.

Most of the state’s banana production occurs in the Cardwell and Johnstone areas in northern Queensland.

The GVP for strawberries for 2015–16 is forecast to be $180 million, 11% less than DAF’s final estimate for 2014–15 but 25% greater than the average for the past 5 years.

Strawberry production has been a bit slower this year due to warm conditions early in the season. This has resulted in the valuable early crop being lower than last year.

Most of Queensland’s strawberry production occurs in the Caboolture area, just north of Brisbane, and along the Caloundra rail corridor.

The GVP for avocados for 2015–16 is forecast to be $151 million, 2% greater than DAF’s final estimate for 2014–15 but 2% less than the average for the past 5 years.

Production was lower because of the delayed recovery of orchards affected by the floods during 2010–12. Some orchards have been totally removed while others are still recovering, and a shortage of planting material has hampered replanting. Also, lower yields and smaller fruit size have contributed to the lower-than-expected volumes. The GVP is marginally higher due to higher farm-gate prices, which have been upheld by solid consumer demand.

The Isis and Burnett areas produce 37% of Queensland’s avocados, with 29% of production occurring in the Atherton and Mareeba areas in Far North Queensland. Just over 10% of avocados are grown in the Crow’s Nest area on the Darling Downs.
The GVP for **macadamias** for 2015–16 is forecast to be $104 million, 2% less than DAF’s final estimate for 2014–15 and 73% greater than the average for the past 5 years.

GVP is marginally lower, although it remains at a high level compared to the 5-year average. The stronger growth in macadamia production is a result of good seasonal crops and high farm-gate prices. The firm prices are underpinned by the strong demand from Asia.

A major production area is in the Burnett area north of Bundaberg, where 40% of macadamias are grown. Significant amounts are also grown around Gympie and just north of Gympie in the Tiaro region.

The GVP for **mandarins** for 2015–16 is forecast to be $94 million, 21% greater than DAF’s final forecast for 2014–15 and 24% greater than the average for the past 5 years.

Queensland’s mandarin production has increased due to new plantings and favourable growing conditions. Production is estimated to be 72,500 tonnes at an average wholesale price of $1.30 per kilogram.

Half of Queensland’s mandarin production occurs in the Gayndah area. A further third of production occurs in Mundubbera (not shown on the map).

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**New variety of custard apple**

The custard apple has got a lot going for it— it’s a very sweet and aromatic fruit with high levels of vitamin C, thiamine, potassium, magnesium and dietary fibre. But despite its high sugar content, the custard apple actually has a low glycaemic index.

DAF’s custard apple breeding program, based at the Maroochy Research Facility, is working on developing new varieties, including a highly desirable red custard apple.

Over the last 5 years, efforts have been concentrated on developing a novel fruit with a bright red skin. The goal is a variety that captures the consumer’s eye with its attractive red skin, but retains the same taste as a traditional custard apple. The team currently has one promising red variety that is being tested in various growing regions in Queensland.

It’s expected that the red custard apple will raise the profile of the industry and attract new growers and consumers, including a potential Asian export market.

The team are trying to accelerate the breeding process by using genetic marker technology, which will determine whether the tree will bear red or green fruit even before the seedling is planted. Custard apple trees usually take 3 years to fruit, so it can be a long process to develop new varieties.

To find out more, visit [www.daf.qld.gov.au](http://www.daf.qld.gov.au).
The GVP for **mangoes** for 2015–16 is forecast to be $75 million, 10% less than DAF’s final estimate for 2014–15 but 12% higher than the average for the past 5 years.

Mango production is forecast to be down 10% on the last estimate due to patchy flowerings this season, with an early flower then a late flower hampering production.

More than 40% of Queensland’s mango production is in the Mareeba area in Far North Queensland. A further 39% of production occurs in the neighbouring Burdekin, Bowen and Townsville areas.

The GVP for **pineapples** for 2015–16 is forecast to be $71 million, 1% less than DAF’s final estimate for 2014–15 but 3% greater than the average for the past 5 years.

Fresh fruit production increased due to better growing conditions and better-than-expected fruit size for harvest in spring. However, processing was reduced as a result of hot weather in South East Queensland in November 2014, which led to russetting on the harvested fruit. Also contributing to lower processing were failures in crop-induction sprays and the cannery’s suspension of the acceptance of juice-grade fruit for several months.

More than a third of pineapple production occurs in the Caboolture area, just north of Brisbane, with a further 20% of production in the Caloundra area and 10% north of Yeppoon in the Livingstone area on the Central Queensland coast.

The GVP for **apples** for 2015–16 is forecast to be $70 million, 3% less than DAF’s final estimate for 2014–15 and 6% less than the average for the past 5 years.

October and November were dry, but most varieties recovered after heavy rainfall in December. Crop sets have been smaller this year, resulting in a slightly smaller crop, decreasing crop production. Farm-gate prices are also slightly lower.

More than 95% of Queensland’s apples are grown in Stanthorpe.
Vegetables

Forecast

For 2015–16, Queensland’s GVP for vegetables is forecast to be $1.22 billion, 4% higher than 2014–15 and 5% higher than the average for the past 5 years.

Analysis and discussion

The GVP for tomatoes for 2014–15 is forecast to be $293 million, 7% higher than DAF’s final estimate for 2014–15 and 12% higher than the average for the past 5 years.

Prices have started to show signs of recovery recently, and this could help to alleviate some of the falls in production.

Half of Queensland’s tomato production occurs in the Bowen area, and there is some production in the Isis area around Childers.

The GVP for capsicums and chillies for 2015–16 is forecast to be $154 million, 1% more than DAF’s final estimate for 2014–15 and 15% greater than the average for the past 5 years.

As with tomatoes, the main areas for capsicum production are the Bowen and Isis areas. The main chilli production region is Bowen, and some are grown in the Stanthorpe region.

Queensland’s GVP for mushrooms for 2015–16 is forecast to be $70 million, the same as DAF’s final estimate for 2014–15 and 27% higher than the average for the past 5 years.

The two main production areas for mushrooms are the Beaudesert and Stanthorpe districts, south-west of Brisbane, where almost 60% of production occurs. The neighbouring districts of Isis (around Childers) and Burnett (north of Bundaberg) account for 12% of production, while 9% of production occurs in the Maroochy area.
The GVP for **sweet potatoes** for 2015–16 is forecast to be $62 million, 19% higher than DAF’s final estimate for 2014–15 and 17% higher than the average for the past 5 years.

Queensland produces 85% of Australia’s sweet potatoes, with Bundaberg being the main growing area. Some sweet potatoes are also grown in Cudgen in northern New South Wales. All production is sold domestically.

### Other vegetables

The GVP for **lettuce** in Queensland for 2015–16 is forecast to be $54 million, the same as DAF’s final estimate for 2014–15 and 9% lower than the average for 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 supplies of water.

The Gatton, Esk and Cambooya areas are Queensland’s main areas of lettuce production.

Queensland’s GVP for **potatoes** is forecast to be $53 million, the same as DAF’s final estimate for 2014–15 but 3% less than the average for the past 5 years.

The main potato-growing areas are the Atherton and Herberton areas in Far North Queensland, the Burnett area (north of Bundaberg) and the Gatton area (west of Brisbane).

The GVP for **watermelons** in Queensland for 2015–16 is forecast to be $34 million, 3% higher than DAF’s final estimate for 2014–15 and 1% higher than the average for the past 5 years.

The volume of watermelons is expected to be about the same as last year and prices are likely to remain around the same levels as well.

A third of Queensland’s watermelon production occurs in the Bowen and Burdekin areas of Central Queensland. Smaller pockets of production are in the Chinchilla and Rosalie areas on the Darling Downs, as well as the Banana and Gatton districts.
Lifestyle horticulture

Forecast

The GVP for the production segment of the lifestyle horticulture industry in 2015–16 is forecast to be $1.224 billion. This is a 3% increase on DAF’s estimate for 2014–15 and 4% above the average for the past 5 years.

Analysis and discussion

The GVP for nursery production is forecast to increase by 2% to $898 million for 2015–16. This is also 2% greater than the average for the past 5 years.

Nursery production contributes significantly to Queensland horticulture—approximately one-fifth of the total GVP. The sector includes wholesale nurseries (which supply the fruit, vegetable and forestry industries), as well as the landscape supply production and service sector.

Nursery production is expected to experience steady growth over 2015–16 due to a buoyant market and an increase in production confidence. Previous extreme weather and unstable economic conditions hindered industry confidence. These conditions have stabilised over 2014–15, due to timely access to water and ideal conditions for production. Previous editions of AgTrends reflect a conservative approach to business as a result of these uncertain conditions. As confidence builds and market strength (both local and interstate) improves, as anticipated into 2015–16, investment and production will continue to grow. The industry is currently able to meet this additional demand for product, and prices remain strong. This increase in confidence is evident in investments in new commercial varieties and high-end products such as orchids.

The landscape sector is also responding favourably to the strong conditions, due to the strength of the housing market. With increased community awareness and media focus on healthy and sustainable living, green life is also gaining in popularity. This trend has been driven by the prevalence of renovation programs on television, and the development of green space within the community. With the high cost of living, green life is now broadly accepted as a means of creating energy efficiencies and reducing costs. There is potential for further growth in this area, with the increased construction of high-rise living in South East Queensland and the need for green-life solutions such as vertical gardens. The opening of additional retail outlets such as Bunnings and Masters has also provided additional opportunities for nursery production during 2015–16.

The GVP for turf is forecast to be $175 million for 2015–16. This is a 9% increase from 2014–15 and 20% above the average for the past 5 years. Turf production in Queensland is steady due to favourable weather conditions and a strong demand for product. Consolidation of the industry has strengthened businesses and production is strong. The demand for turf products continues to grow, with the industry supplying big-end businesses such as golf clubs, schools and local governments. The housing market continues to hold strong, although there is increased competition from synthetic products. The price of turf continues to recover, and this is reflected in the 2014–15 estimate and 2015–16 forecast.

The GVP for cut flowers is forecast to be $151 million for 2015–16. This is unchanged from 2014–15 and is 1% less than the average for the past 5 years. Cut flower production in Queensland is forecast to see an improvement during 2015–16. This growth is attributed to higher demand driving increased plantings (in some cases by up to a third of production). Native flowers are being sought after in Japan, South Korea and China. Traditional flowers produced in Queensland are still experiencing competition from imports, but are maintaining market share due to flower quality.

This renewed interest from buyers in both native and traditional flowers is not reflected in the GVP forecasts for this period. Although there is renewed investment in the industry, this growth will not be reflected in production for at least 2 years following planting due to the production cycle. Queensland businesses have consolidated, with the larger companies expanding and the smaller ones dropping out of the market. This consolidation has not affected production.
Other crops

Sugar cane

Forecast

The GVP for Queensland’s sugar cane in 2015–16 is forecast to be $988 million, a 14% decrease from 2014–15 and approximately 9% lower than the average for the past 5 years.

Total revenue from the 2015 Queensland crop, in raw-sugar equivalent, is expected to be $1.52 billion.

Analysis and discussion

Queensland’s 2015–16 sugar cane crop is forecast to reach 31.5 million tonnes, up by 1 million tonnes from the 2014 season. This increase reflects the combined effect of a 3% rise in Australian area planted to cane and an assumed increase in the average sugar yield.

The average CCS is forecast to be around 13.75 units, a slight decrease on the 14.1 units forecast 12 months ago and achieved in April 2015.

The average return to Queensland cane growers is forecast to decrease 18% from the 2014–15 average of $35 per tonne to $31.4 per tonne. Cane prices at these levels, especially in view of increasing input costs such as electricity and water, will put pressure on Queensland cane farmers for the 2015 season.

As at 4 September 2015, Queensland Sugar Limited estimated its harvest pool return to be $351 per tonne IPS, a 15% decrease from the 2014–15 estimate of $415. However, the final harvest pool return will depend on future movements in world sugar prices and the Australian exchange rate. If realised, the forecast return will be the lowest in 7 years, but still above the 10-year average to 2008–09 of $220 per tonne IPS (in 2014–15 dollars).

Industry situation

According to ABARES, world sugar prices are forecast to decline in 2015–16, reflecting record world carry-over stocks due to higher-than-expected production in Brazil and India. These excess stocks are expected to put downward pressure on world sugar prices, even though world consumption is forecast to exceed production.

ABARES notes that the world indicator price for raw sugar is expected to decline by 7% in 2015–16 to average 13 cents per pound (in United States cents). If realised, this price will be the lowest since 2007–08 but just above the 10-year average of approximately 12 cents per pound.

Despite the attempts of many governments around the world to protect the incomes of producers, lower sugar prices have affected mill profits and farmer revenues internationally.

World sugar production is forecast to decline slightly in 2015–16 to 183 million tonnes; this reflects the expected reduction in production in China, the United States, India and Europe. Higher production is expected in Australia, Brazil and Thailand. This production total is still above the 10-year average of approximately 164 million tonnes.

World sugar consumption is forecast to be around 185 million tonnes in 2015–16, about 2 million tonnes more than in 2014–15. Demand for sugar is expected to remain strong due to the expanding food-processing sectors in China and India and population growth in developing countries.

World sugar exports are predicted to peak at around 60 million tonnes in 2015–16; this is 1 million tonnes higher than in the previous year. The ABARES forecast is being driven by increased supplies in the major exporting countries—Brazil, Thailand, India and Australia. The stronger United States dollar during 2015 continues to be beneficial for the major exporting nations, despite poor world sugar prices.

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14 CCS or commercial cane sugar is a measure of sugar content.
15 International polarity scale.
Cotton

Forecast

The GVP for cotton for 2015–16 is forecast to be $483 million, 31% higher than DAF’s final estimate for 2014–15 but 29% lower than the average for the past 5 years. The 2015–16 season still has very strong prospects but will depend on reliable water supplies.

Analysis and discussion

For 2015–16, the total area sown to cotton in Queensland is forecast to increase by 22,700 hectares. An increase in average yields is expected due to increased irrigated cotton plantings, cotton lint production and cottonseed production. The cotton price is expected to remain the same at $450 per bale, and the cottonseed price is expected to remain constant at $335 per tonne. The irrigated cotton cropping area is expected to increase by 12% to 77,500 hectares across the state. This includes 30,000 hectares on the Darling Downs, 14,500 hectares in the St George–Dirranbandi region, 14,000 hectares in the Border Rivers region and 19,000 hectares in Central Queensland.

Water storages

There have been increases in irrigated water supplies into the Beardmore and Coolmunda dams since last year, but the Leslie dam levels have declined significantly. Fairbairn dam levels have remained fairly constant at just under half full.

Domestic production

A forecast increase in area sown by 31% to 95,500 hectares in 2015–16 is estimated to increase cotton lint production to 856,000 bales or 194,300 tonnes, up 31% from the 2014–15 level. Cottonseed production is forecast to nearly double in 2015–16 to 441,000 tonnes, up from the 2014–15 level of 223,000 tonnes.

World production

As detailed in Table 11, China was the world’s largest cotton producer in 2014–15, yielding just over 6.5 million tonnes and accounting for 25% of world production. The next largest cotton producers are India, the United States and Pakistan, contributing 25%, 14% and 9% respectively to world production. India is forecast to overtake China in production terms in 2015–16, but both countries
are expecting to produce less than the previous year. China is forecast to import 1.25 million tonnes
of cotton in 2015–16. The United States, although producing less than 55% of Chinese production in
2014–15, is the world’s largest cotton exporter, and is forecast to export 2.18 million tonnes of cotton
in 2015–16, accounting for around 29% of world cotton exports.

Table 11 World production of cotton, 2014–15 and 2015–16

<table>
<thead>
<tr>
<th>Producer</th>
<th>2014–15 production ('000s of tonnes)</th>
<th>Share of world production (%)</th>
<th>2015–16 forecast production ('000s of tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>6 423</td>
<td>25</td>
<td>6 314</td>
</tr>
<tr>
<td>China</td>
<td>6 532</td>
<td>25</td>
<td>5 661</td>
</tr>
<tr>
<td>United States</td>
<td>3 553</td>
<td>14</td>
<td>2 848</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2 308</td>
<td>9</td>
<td>2 221</td>
</tr>
<tr>
<td>Brazil</td>
<td>1 524</td>
<td>6</td>
<td>1 524</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>849</td>
<td>3</td>
<td>806</td>
</tr>
<tr>
<td><strong>Total world production</strong></td>
<td><strong>25 906</strong></td>
<td><strong>100</strong></td>
<td><strong>23 731</strong></td>
</tr>
</tbody>
</table>

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

International supply and demand

The latest information from the United States Department of Agriculture (USDA) indicates that the
world supply is expected to fall slightly due to decreases in India, China and the United States.

For the major world importers, USDA forecasts the following changes for 2015–16:

- Bangladesh up 1.05 million bales to 4.5 million due to revised consumption data
- Pakistan down 350 000 bales to 1.15 million on higher production and lower mill use.

Changes to rates of cotton exports by most major exporters are also forecast for 2015–16:

- India up 500 000 bales to 5.2 million due to lower competition
- Australia up 600 000 bales to 2.6 million on larger exportable supplies
- United States down 800 000 bales to 10 million on a much smaller crop.

As at August 2015, world cotton imports for 2015–16 are forecast to be 7.5 million tonnes and world
closing stocks are expected to be 22.9 million tonnes. Total world production is projected to be
23.73 million tonnes, slightly less than the consumption of 24.96 million tonnes.

For 2015–16, world production and ending stocks are expected to be lower than in 2014–15.
Consumption and trade will be raised slightly, mostly due to a historical revision for Bangladesh. The
United States forecast is for significantly lower production, exports, consumption, and beginning and
ending stocks. The forecast United States season-average farm price is raised 3 cents to 65 cents per
pound.
Other major field crops

Chickpeas

**Forecast**

The GVP for chickpeas for 2015–16 (2015 winter crop) is forecast to more than treble on the previous year to a record $441 million, up from $117 million in the April estimate for 2014–15. This is due to a more than doubling in area sown, increased yields and higher prices.

**Analysis and discussion**

In Central Queensland, growers initially expected to plant 100 000 hectares of chickpeas, but due to little rain received and poor soil moisture, 53 000 hectares were planted, much closer to the 38 000 hectares planted in 2014.

However, on the Darling Downs, 165 000 hectares were planted, a major increase from the 6000 hectares planted in the previous season. This increase was largely at the expense of wheat plantings. Some areas of the Darling Downs suffered poor soil moisture for much of winter. Paddocks that were double-cropped with sorghum from the 2014–15 summer were particularly dry. However, paddocks that had been summer fallowed contained more reasonable soil moisture. Average to below-average yields are forecast for this region, and some late rains in August have boosted crop yield chances.

By contrast, the Western Downs have received overall good winter rainfall, particularly in the Maranoa area, generating average to above-average yield chances. Here, 127 000 hectares of chickpeas were planted, up significantly from the 63 000 hectares planted in 2014.

Overall in Queensland, area sown is estimated to have increased by over 100% from 165 000 hectares to 338 000 hectares. Despite dry conditions, yields are projected to increase by around a quarter from the previous season. This is partly a reflection of the drought-affected crop of 2014. The increased area sown, coupled with increased yields, is expected to increase production by over 150% to a record 519 000 tonnes.

The large increase in Queensland chickpea plantings has been spurred by the pronounced increase in chickpea price at port, up 50% from $580 per tonne (April 2015) to around $850 per tonne. This has been generated by particularly strong demand from our major export market, India, which produced much less of its own chickpea crop than expected in 2015. Current prices may not be sustainable for the medium term, although the previous $580 per tonne received still reflects a relatively high price, and a resumption of that level eventually will still represent a good return to Queensland growers. A proportion of the increased domestic chickpea price has also been affected by a lower Australian dollar, since each tonne sold to export and denominated in either United States dollars or Indian rupees will translate to more Australian dollars being received per tonne. At the farm gate, chickpea growers are currently receiving between $750 and $800 per tonne.
Peanuts

Forecast

Peanut GVP is forecast to increase by over 10% from the April 2015 estimate of $28.5 million to $32 million for 2015–16, due to a slightly larger area sown and higher yields.

Analysis and discussion

The area sown to peanuts is forecast to increase by around 5% from about 9000 hectares to 9500 hectares. Yields are also forecast to increase by 5%, taking production more than 10% higher to 33250 tonnes, up from 30000 tonnes in 2014–15.

Prices received by peanut growers vary quite widely, from $400 per tonne for low-grade peanuts that are suited to crushing for oil, up to $1100 per tonne for high-grade peanuts to be used as snack food and in confectionery. However, the expected average price for peanuts is estimated to be about the same for last year, at $950 per tonne.

Soybeans

Forecast

The GVP for soybeans in 2015–16 is forecast to be $10.4 million, 42% above the estimate for 2014–15, due to higher expected production and price.

Analysis and discussion

Total area sown is forecast to increase 31% to 11700 hectares, up from 8900 hectares in April 2015. In North Queensland, 4000 hectares are expected to be sown; however, it is anticipated that only 250 hectares of this area will be harvested for grain, with over 3500 hectares harvested for highly productive green manure. Estimates of area sown for some districts are the same as for the previous season—Central Queensland 1000 hectares, Wide Bay 1000 hectares and Burnett 700 hectares. However, for the Lockyer, Fassifern and Brisbane valleys just 1000 hectares is forecast to be sown (compared to 3000 in 2014–15), and the forecast for Darling Downs is 4000 hectares (compared to 2000 in 2014–15).

Overall, yields are expected to be around 2.4 tonnes per hectare, 28% higher than the 1.9 tonnes per hectare estimated for 2014–15. (This does not include areas grown for green manure in North Queensland.) Increased area sown coupled with higher anticipated yields will take forecast production to nearly 20000 tonnes, up 18% from the 16800 tonnes produced in 2014–15.

Price has increased 20% from $433 per tonne in the March quarter to $521 per tonne in the September quarter. This is reportedly mostly due to a low Australian dollar returning more Australian dollars per tonne of soybeans for stock denominated in United States dollars and other major trading currencies, a windfall for Australian exporters. Higher production coupled with increased price is estimated to increase GVP as stated. On average, 95% of Queensland soybeans are exported annually, with the remainder sold domestically. Queensland’s major export markets are Taiwan, Papua New Guinea and Malaysia.
Sunflowers

*Forecast*

The GVP for sunflowers for 2015–16 is forecast to be $16 million, around a third lower than the forecast made in April 2015 of $24 million, reflecting a smaller area sown. The current GVP projection is over double the estimate made in April 2014 of just $7 million.

*Analysis and discussion*

Due to an expected protracted El Niño (dry weather) summer for 2015–16, and competitive sorghum and maize prices, area sown to sunflowers is expected to fall around 33% from an estimated 30 000 hectares to 20 000 hectares. Yields are anticipated to be just average at around 1 tonne per hectare, reflecting continuing dry conditions, and remain unchanged from the 2014–15 summer average. Smaller area sown is estimated to take production 33% lower to 20 000 tonnes. Price is estimated to remain relatively unchanged at an average of $800 per tonne for sunflower seed (compared to $805 per tonne estimated for April 2015). This is based on anticipated continued strong demand for seed, and averaged from 10% of production to be sold for birdseed at $1200 per tonne and around 90% of production to be sold as highly valued mono-unsaturated sunflower seed crushed for oil at $760 per tonne. All Queensland sunflower seed is sold domestically with demand remaining strong.

Summer cereal grains

Grain sorghum

*Forecast*

The GVP for sorghum for 2015–16 is forecast to be $384 million, 11% less than the forecast for 2014–15 made in April 2015. This is due to a fall in price, despite higher-than-expected production. The current GVP forecast is 37% above the $280 million estimated for 2013–14, a drought-plagued year in which only 65% of the intended sorghum crop in Central Queensland and around 30% of the intended crop for South Queensland were planted.

*Analysis and discussion*

Area sown to sorghum is forecast to fall by 17% in 2015–16 from nearly 600 000 hectares to around 494 000 hectares. The forecast area sown still exceeds the 10-year average of 464 000 hectares. Yields are expected to be close to average at 2.84 tonnes per hectare, around 30% above yields for the previous season. Higher yields than in 2014–15 are estimated to more than offset the smaller area sown, taking production up around 8% from 1 301 000 tonnes to 1 409 000 tonnes. The current production forecast exceeds the 10-year average production of 1 325 000 tonnes.

The sorghum price increased in the April 2015 quarter to $340 per tonne, prompted by strong support for local wheat and barley, high export demand from China and dwindling local stocks from the previous summer. From July to late August 2015, sorghum prices edged back to around $270 per tonne at port, 5% off the April 2015 level. The United States is expected to harvest 13–14 million tonnes of sorghum in September, prompted by a recent sorghum price premium of $100 per tonne. Some of this crop will reportedly be exported to China, possibly placing pressure on prices received by domestic sorghum growers, including those in Queensland.

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16 Based on a revised estimate for the 2014–15 season; data provided by Andries Potgieter, Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Brisbane.
Despite the recent drop in sorghum prices, they are still too high to attract purchases from local feedlots. Reportedly, feedlots have been substituting substantial portions of white grains such as feed-wheat for sorghum in livestock rations due to price competition between white and coarse grains. As well as following world coarse grain prices (particularly that of United States corn), the domestic sorghum price is positively correlated with and time lags behind the prices of white grains, predominantly wheat, reflecting some degree of substitutability between sorghum and wheat in feed rations in the beef, poultry and pig industries.

China’s big demand for our sorghum

‘The opportunities for growth for sorghum in Australia are enormous.’

(PentAG Nidera 2015)

China’s demand for sorghum as a feed ration is increasing at the expense of maize (Heard 2015). This is coupled with increasing demand for sorghum as input to the manufacture of the alcoholic drink baijiu (PentAG Nidera 2015).

China has emerged as the major export destination for Queensland’s sorghum over the past 3 years, and 2015 has seen a new market emerge in China—the livestock sector. This is due to several factors:

- A burgeoning Chinese middle class is demanding more meat products.
- A reported glut in China’s maize supplies is prompting the government to restrict maize imports.
- Sorghum is a relatively high protein and digestible feedgrain, substitutable to a degree for other grains in pig, poultry and beef rations (subject to processing via hammer milling and steam flaking).

Exports of Australian sorghum are projected to reach around 1.5 million tonnes in 2015–16, the highest in 30 years, and a substantial proportion of this is expected to go to China. PentAG forecasts the sorghum crop to be valued at over $600 million at the farm gate, on the back of increased export demand and assuming port prices of between $260 and $330 per tonne. PentAG accounts for 40% of Australia sorghum exports, and 90% of this is destined for China.

Domestically in 2015–16, increased areas of sorghum are expected to be sown at the expense of wheat and barley that would normally be planted in 2016.

Export markets in China have been secured through the hard work of commodity traders (including PentAG representatives) in China promoting Australian sorghum as a quality product. However, Australian sorghum exporters are bound by current weed seed restrictions in grain to China. These are more lenient for grain-to-alcohol manufacture, since weed seeds are killed during processing. However, there is zero tolerance for weed seed, particularly of Johnson grass, in sorghum destined for feedstock. Domestic sorghum growers and exporters are urged to familiarise themselves with export permit requirements for China before relying on access to this market, to ensure they can fulfil the quality requirements and so capitalise on this opportunity.

Although a price premium is offered by China for Australia sorghum, weed seed issues have contributed to some downward pressure on prices domestic producers could receive.

Sources


Maize

Forecast

The GVP of maize is forecast to be $60 million, 49% below the April 2015 estimate and 25% less than the average for the past 5 years. This is due to closer-to-average area sown, along with slightly lower yields and price.

Analysis and discussion

The area sown to maize is forecast to be 40,500 hectares, down 42% from the larger-than-average 70,000 hectares in 2014–15, which was prompted by lacklustre cotton prices and good summer rainfall, allowing a late maize planting in December 2014. Assuming closer-to-average seasonal conditions for the 2015–16 summer, yields are expected to be just 5% lower than the strong 5 tonnes per hectare achieved in the previous season. Smaller area sown coupled with slightly lower yields is estimated to take production to 193,000 tonnes, 45% lower than the high of 350,000 tonnes estimated for 2014–15.

The current average price for maize is around $318 per tonne, which is around 6% below the $337 per tonne paid in April 2015. While this price could encourage greater maize plantings at the expense of sorghum, this margin between these crops could narrow over the planting windows through spring and summer.

Brazil is forecast to produce 81 million tonnes of corn (maize) from the 2015–16 summer and winter growing seasons, which have been boosted by heavy rains (FAO 2015). This has added to the all-time high world supplies expected following another large United States corn crop. Big crops achieved in the past two seasons have caused a 24% fall in world corn prices. In Brazil, corn is usually planted after the soybean harvest, capitalising on late Southern Hemisphere summer rain. This second planting is ironically known as ‘safrinha’ or ‘little crop’, and is forecast to be 53 million tonnes in 2015. This large Brazil corn crop is expected to further dampen world corn and coarse grain prices and will likely flow on to Queensland maize prices. For domestic sorghum, this bearish price pressure will be offset, to a degree, by China’s strong demand for Australian sorghum.

Source
Winter cereal grains

Wheat

Forecast

The GVP of wheat is forecast to be $308 million, around 5% below the April 2015 estimate for the 2014 winter crop. This is due to slightly lower production coupled with a marginally lower price. The current GVP forecast is 18% lower than the average for the past 5 years.

Analysis and discussion

Partly due to dry autumn conditions, area sown in 2015 is estimated to fall around 9% from the 690 000 hectares estimated in April 2015 to 625 000 hectares. A substantial proportion of the decline in wheat area sown can be attributed to increased chickpea plantings in response to a burgeoning chickpea price. Current estimates for area sown lie below the 10-year average at around 830 000 hectares.

Yield outlook is mixed across the state, but overall yields are expected to be close to the long-term averages (see Yields below), and are forecast to be around 8% above yields for 2014, which were affected by lack of winter rain and relatively dry soil profiles. The smaller area sown in 2015 is estimated to outweigh the higher yields, taking forecast production for this season (1 048 000 tonnes) marginally (around 2%) below the production estimate for 2014 of 1 073 000 tonnes. These lie below the 10-year average of 1 354 000 tonnes. The price for Australian Premium White (APW) wheat at port has fallen 2.5% from $301 per tonne in April 2015 to $294, due to overall large Northern Hemisphere wheat supplies.

Yields

Rainfall over June was mostly average across the wheat-growing regions of Queensland. Slightly above-average rainfall in most of southern Queensland from April to June prompted some plantings, but the Central Highlands received average to below-average rainfall. Overall soil water recharge improved from May to June in most parts of the southern and central regions. In Central Queensland (Maranoa, Central Burnett and Dawson–Callide), soil recharge was greater than 80%, and in central Darling Downs and northern Central Queensland it was about two-thirds.

Despite these soil recharge levels, the yield outlook for the state remains mixed. While the eastern cropping region of Dawson–Callide shows prospects for average to slightly above-average median long-term wheat yields, most parts of South West Queensland and Central Queensland show less than a 50% chance of exceeding long-term wheat yields.

Overall, the chance of achieving average rainfall in wheat-growing regions to the end of winter and into the first half of spring up to harvest is low. This may reduce the chance of achieving long-term median yields, possibly reducing the plumpness of wheat kernels at harvest. However, a dry harvest finish—although increasing the risk of shrivelled kernels falling to small testing sieves and risking crop condition—might increase grain protein content and so improve grain quality.

World prices

As at the end of June 2015, excessive rain in the United States had reduced grain quality in the Midwest and Great Plains, while Canada and France had suffered excessively dry, hot weather, jeopardising yields. This resulted in bullish wheat price conditions with a 15% jump in wheat futures in Chicago. These extreme weather conditions have been blamed on a strengthening El Niño, which has increased world commodity price volatility. This event, according to the National Australia Bank, has cut Australia’s total 2015 wheat crop to the smallest in 8 years.

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Reportedly, the USDA has increased its estimates of grain production in Russia, the Ukraine and Kazakhstan, raising export prospects from the Black Sea countries. For Russia, the largest Black Sea producer, a 60 million tonne crop is forecast with exports of around 23 million tonnes for 2015–16. Correspondingly, and in response to improving United States wheat prospects, world wheat closing stocks have been revised up 1.7 million tonnes to total 221 million tonnes. World prices will also respond to the anticipated Australian wheat harvest. Currently, bearish market forces are more than offsetting bullish forces looking into the first half of 2015–16.

**Barley**

**Forecast**

The GVP for barley for winter 2015 (2015–16 crop) is forecast to be $54 million, around 20% higher than the April 2015 estimate of $45 million. This is due to higher-than-expected yields despite a smaller area sown and lower price. The current forecast is 26% above the average for the past 5 years.

**Analysis and discussion**

The area sown to barley in autumn planting months is estimated to have contracted around 10% from nearly 100 000 hectares in 2014 to 90 000 hectares in 2015. Conversely, yields are forecast to increase around 50% from last year, taking production to 200 000 tonnes, up 36% from the last year’s 147 000 tonnes.

Price has fallen to $270 per tonne at port, down 8% from $294 per tonne in the April 2015 quarter. However, the production increase is expected to more than offset the price decline. Barley is a sought-after grain in Queensland, with approximately 40% of the annual crop going to malt production, a significant proportion of which is used for domestic beer manufacture. Specific barley varieties are grown for malt, and these command a significant price premium over feed-grade barley. Demand for Australian barley is high despite it being more expensive than wheat, due to strong Asian demand, providing some support for local barley prices.
Fisheries

The GVP for Queensland’s fisheries for 2015–16 is forecast to be $368 million, 1% less than the estimate for 2014–15 but 1% greater than the average for the past 5 years. The commercial fishing sector continues to provide more than 46% of the forecast GVP at $170 million, while the aquaculture sector with $104 million and the recreational sector with $94 million provide about 54%. (These forecasts are made conservatively and are based on the wholesale price of the retained catch.)

Commercial fisheries

According to the most recent data available, the GVP of commercial fisheries was $173 million in 2014–15. This is a significant decline from the previous 4 years, which were above $190 million, and is likely associated with a drop in total catch, as prices are relatively stable. 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 in three main categories:

- crustaceans (including prawns, crabs and rock lobster)
- finfish (including inshore and offshore finfish)
- molluscs (including scallops and squid).

Figures 20 and 21 indicate the output for fisheries managed by Fisheries Queensland for major categories and subcategories for the last 5 years. The actual catch of the major fisheries has declined over recent years.

![Figure 20](image-url)

**Figure 20** Queensland fisheries total catch by major categories, 2010–11 to 2014–15
Figure 21 Queensland fisheries total catch by subcategories, 2010–11 to 2014–15

The GVP for the same fisheries is shown in Figure 22 (by major categories) and in Figure 23 (by subcategories). The values have not been adjusted for inflation.

Figure 22 Queensland fisheries GVP by major categories, 2010–11 to 2014–15
Although the total catch of prawns (by weight) in any year is not significantly greater than the catch of the other subcategories, the GVP of prawns is generally about double that of any other subcategory.

The overall downward trend is expected to continue, although not as steeply as in previous years. However, an exception may be a forecast 8% reduction in the inshore finfish catch as a result of the introduction of net-free zones.

**Aquaculture**

**Forecast**

The GVP for Queensland’s aquaculture industry for 2015–16 is forecast to be $104 million. This is about 1% greater than DAF’s final estimate for 2014–15, but 6% greater than the average for the past 5 years.

**Analysis and discussion**

Prawn farming remains the largest sector of the Queensland aquaculture industry. This sector is expecting a slight increase in production from the previous season, and the farm-gate value of prawns is predicted to reach $73 million, a 1.3% increase on DAF’s estimate of $72 million for 2014–15.

Barramundi farming, the second largest sector, is expected to increase production from the previous season. The sector is predicted to achieve a value of about $26.0 million, a 13% increase on DAF’s estimate of $23 million for 2014–15.

The freshwater fish sector (primarily silver perch, Murray cod and jade perch) is expected to be valued at $2.4 million, an 11% decrease on DAF’s estimate of $2.7 million for 2014–15.

Redclaw production is expected to decrease while the oyster and hatchery sectors are expected to increase slightly on production levels achieved in 2014–15.
**Forestry**

**Forecast**

The GVP for the forest-growing sector of the Queensland forest industry for 2015–16 is forecast to be $211 million, 13% greater than DAF’s final estimate for 2014–15 and about 19% greater than the average of final estimates for the previous 5 years.

DAF forecasts that the first-round processing sector of the Queensland forest industry will contribute $435 million to the Queensland economy in 2015–16. Together, the forest-growing and first-round processing sectors are forecast to contribute $646 million to the Queensland economy in 2015–16.

**Analysis and discussion**

The higher forecast GVP for the forest-growing sector for 2015–16 largely reflects the outlook for the broader softwood plantation sector and the peak in the salvage of log timber damaged by Cyclone Marcia at Byfield in early 2015. This peak began in April 2015 and is expected to continue until April 2016.

Total native forest log timber production in 2015–16 is forecast to remain relatively consistent with that for 2014–15. However, demand for hardwood logs is anticipated to swing away from state forests and back to private growers. The supply of state-sourced hardwood log timber peaked in 2014–15 as the 5-year allocation period in one of the key supply zones came to an end, and entitlement holders maximised the harvest of available volume remaining on their allocations. Actual sales of state-owned native forest cypress and hardwood log timber as reported by DAF were approximately 278,000 cubic metres for 2014–15, a 10% increase from the 252,000 cubic metres sold in 2013–14.

Although no reliable data is available on private native forest production, anecdotal evidence suggests that there was a significant reduction in the demand for private hardwood logs in 2014–15, so the overall supply of hardwood log timber to industry remained relatively unchanged from previous years. This year another 5-year allocation cycle will begin in one supply zone, which should return to “normal” supply arrangements (i.e. with the majority of hardwood log timber supplied from private land).

The prospects for the forest and timber industry rely on activity in the housing and construction sector. Industry analyst BIS Shrapnel suggests that about 70% of Queensland’s sawn timber is used by the residential construction sector, the same proportion as the national level.

After 4 years of growth, home building starts are expected to ease in 2016, according to the Housing Industry Association (HIA). There is a forecast slowing in multi-unit dwelling construction for 2016 in Queensland with a decrease of 3% from 2015. This slowing in construction should not affect detached homes, which have a higher proportion of timber use. The demand for detached homes is expected to increase into 2017. HIA expect the levels of residential building activity in Queensland to remain strong for the next year or two as there will be a high level of work that will need to be completed. This trend agrees with the findings from the BIS Shrapnel report *Building in Australia 2015–2030*.

Sawn timber production in Queensland is also affected by the balance of imports and exports of sawn timber into and out of the state, including interstate trade. Although only dated information is available, data on overseas imports shows a provisional increase of 22% in the value of rough-sawn, sawn and dressed timber products over 2014–15. For the same period there is a provisional decrease of 25% in the value of overseas exports for the same products. These trade data are consistent with the building boom in 2014–15, which with an appreciating Australian dollar and a decline in exports, drove an increase in demand for sawn timber.
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 industry 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: The value chain for Queensland chicken meat

The supply chain for Queensland chicken meat is a diverse and complex system. It comprises a series of linked activities that take stock from great-grandparent, grandparent, and parent breeding farms to produce chicken meat and deliver this to Queensland consumers and a range of export destinations as either primary products or value-added products.

To better support the Queensland chicken meat (and egg) sector, DAF has completed the report *Queensland supply chains: chicken meat and eggs*. The report identified and quantified major activities along the supply chain in volume and value terms. Of particular relevance to industry and DAF business is the value chain information derived from the analysis. The report details approximate value chains for:

- chicken meat grown in Queensland and transported to Brisbane for slaughter, first-round processing and sale as whole or cut-up dressed chicken meat
- eggs grown in Queensland and transported to Brisbane for sale as whole shell eggs.

The value chain for chicken meat is provided below.

### Approximate value chain for chicken meat

#### Primary production parameters
- Animal raised on grow-out farm starting as day-old broiler chicken
- Animal *grown to 2.5 kilograms* over approximately 42 days
- Feed conversion 1.89 kilograms of feed to produce 1 kilogram of chicken
- Road transport distance from farm to processing plant 50–100 kilometres
- Grow-out contractor paid grow-out fee of $0.51 per bird
- Variable costs of grow-out approximately $0.09 per bird (not including feed)
- Farm-gate price of broiler chicken $3.58 per bird or $1.43 per kilogram

#### Processing parameters
- Approximately **28% wastage** from live-weight to whole or cut-up dressed chicken meat
- Broiler chicken assumed to achieve **dressed weight of 1.8 kilograms**
- Labour costs 20% of total processing costs
- Cost of birds and feed 60% of total processing costs
- Gross margin to processing companies 20% of total processing costs
- Transportation costs approximately $7.53 per tonne
- Total processing costs $2.64 per kilogram

#### Retail parameters
- Cost of storage and pre-preparation of meat 20% of total retail costs
- Cost of transportation to stores 5–10% of total retail costs
- Cost of in-store preparation and packaging of cuts 40% of total retail costs
- Cost of refrigeration and display 30% of total retail costs
- Total retail costs $0.32 per kilogram
- Value added in supermarket chain 58% of total retail price
- Retail price of end product (whole or cut dressed chicken) $6.06 per kilogram

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18 Based on 2010–11 data, as this was the latest available data across the entire supply chain.
19 Feed costs, veterinary services and technical advice are provided to grow-out farmers by processing companies who maintain ownership of the birds throughout the growing stage.
20 This is an average price for whole or cut-up chicken and includes all parts sold including feet and necks.
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 sugar cane 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

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.