



# Prospects

for Queensland's primary industries  
**2011-12**

## Acknowledgments

The Department of Employment, Economic Development and Innovation (DEEDI) acknowledges contributions to the report from:

- Science, Agriculture, Food and Regional Services (SAFRS) researchers and industry experts
- Office of Economic and Statistical Research (OESR)
- Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)
- Australian Bureau of Statistics (ABS)
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- Avocados Australia
- various industry representatives
- various market commentators and industry media.

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## Acronyms

AAG	Australian Agribusiness Group
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
ALFA	Australian Lot Feeders Association
ANZSIC	Australian and New Zealand Standard Industrial Classification
BMP	best management practice
BOM	Bureau of Meteorology
CCS	commercial cane sugar
CIF	cost, insurance and freight
DEEDI	Department of Employment, Economic Development and Innovation
DERM	Department of Environment and Resource Management
DPI	Department of Primary Industries
EMI	Eastern Market Indicator
ENSO	El Niño/La Niña-Southern Oscillation
EYCI	Eastern Young Cattle Indicator
FOB	free on board
FPQ	Forestry Plantations Queensland
FTE	full-time equivalent
GM	genetically modified
GVP	gross value of production
IDP	individually droughted property
IMF	International Monetary Fund
IPS	international polarity scale
MIS	management investment schemes
MLA	Meat and Livestock Australia
OECD	Organisation for Economic Co-operation and Development
OESR	Office of Economic and Statistical Research
PFP	partial factor productivity
QSL	Queensland Sugar Limited
QSP	Queensland seasonal pool (sugar price)
QTPS	Queensland Timber Plantation Strategy
RBA	Reserve Bank of Australia
SAFRS	Science, Agriculture, Food and Regional Services
SIPS	Stock Impoundment Permit Scheme (dams)
SLA	statistical local area
TFP	total factor productivity
USDA	United States Department of Agriculture
WEO	World Economic Outlook





# This edition of *Prospects*

*Prospects for Queensland's primary industries* is now in its eleventh year after its official launch in June 2001. Since then, the *Prospects* publication has become a well-established, comprehensive source of statistics, analyses and forecasts for Queensland's primary industries. Over time, we have introduced changes to the methodology of estimating the value of the state's primary production. The most recent changes are outlined below.

## Total value of Queensland's primary industries

Prior to September 2007, the measure used to value Queensland's primary industry commodities in *Prospects* was gross value of production (GVP). From September 2007 onwards, the **total value of Queensland's primary industry commodities** reported in *Prospects* 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 following list.

## Value of first-stage processing

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

- meat processing
- sugar processing
- milk and cream processing
- fruit and vegetable processing
- flour mill product and feed processing
- seafood processing
- log sawmilling, timber dressing and plywood and veneer manufacturing
- lifestyle horticulture services
- cotton ginning
- kangaroo processing.

In this edition of *Prospects*, estimates of major primary industry processing activity are based on a methodology derived from the 2006–07 Australian Bureau of Statistics (ABS) Manufacturing Survey/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 prior to 2010–11 used the methodology derived from the Queensland 2000–01 Manufacturing Survey. Therefore, the first-stage processing forecasts for 2011–12 should not be compared with the estimates for years prior to 2010–11.

## Lifestyle horticulture

In September 2008, the 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 Employment, Economic Development and Innovation (DEEDI) uses a new benchmark to improve our understanding of the scope and economic contribution of this important industry.

In Table 9, pages 10–12, 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 10–12, the value of Queensland’s forest 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 that includes log sawmilling and 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. The maps show statistical local areas (SLAs) in Queensland where the top 80 per cent of production of each commodity is concentrated.

## Comparisons with previous years

From 2005–06, the ABS used a new methodology for gathering agricultural data. Their final GVP estimates for 2009–10, released in July 2011, are included in Table 9 (pages 10–12). Due to this break in the series, the ABS advises that figures from 2005–06 onwards should not be compared to previous years.

## Special feature articles

This edition of *Prospects* includes two special feature articles: ‘Agricultural productivity’ and ‘Queensland lifestyle horticulture’ (which presents findings from the lifestyle horticulture survey report).

# Key findings

## Total value of Queensland’s primary industries

For 2011–12, the total value of Queensland’s primary industry commodities (combined gross value of production and first-stage processing) is forecast at \$14.69 billion, 5 per cent higher than 2010–11 and 4 per cent higher than the final ABS estimate for 2009–10.

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

For 2011–12, the GVP of Queensland’s primary industry commodities at the ‘farm gate’ is forecast at almost \$11.51 billion, 4 per cent higher than 2010–11 and 4 per cent higher than 2009–10.

### *Livestock industries*

2011–12 GVP forecasts for livestock industries are shown in Tables 1 and 2.

**Table 1 Livestock disposals, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Cattle and calf	3200	0
Live cattle exports	81	–23
Sheep and lamb	67	+16
Pig	220	–1
Poultry	377	+2
Kangaroo	20	0



**Table 2 Livestock products, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Wool	130	+44
Milk	229	-5
Egg	112	0

## Crops

2011–12 GVP forecasts for crops are shown in Tables 3–6.

**Table 3 Fruit and nuts and vegetables, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Fruit and nut	1176	+18
Vegetable	1188	+3

**Table 4 Lifestyle horticulture, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Lifestyle horticulture (production sectors) <sup>1</sup>	1118	-11
Nursery	821	-10
Turf	146	-20
Cut flower and foliage	151	-5

**Table 5 Other crops, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Sugarcane	1218	+30
Cotton	872	+32

**Table 6 Cereal grains, 2011–12**

Industry	Forecast GVP (\$m)	Percentage change since 2010–11
Wheat	313	+4
Barley	45	+36
Grain sorghum	313	-2
Maize	43	-68

## Fisheries

The GVP of Queensland's **fisheries** in 2011–12 is forecast at \$448 million.

In this edition, recreational fishing, which is an important part of Queensland's fisheries, is included in the forecast for 2011–12 with an estimated value of \$73 million. The values of commercial fishing and aquaculture are forecast at \$284 million (9 per cent increase from 2010–11) and \$91 million (3 per cent decrease from 2010–11), respectively.

## Forestry

The GVP of the **forest-growing** sector of Queensland's forest industry in 2011–12 is forecast at \$189 million, 1 per cent higher than last year. This translates into a value of \$390 million for the first-stage processing sector.

<sup>1</sup> Information about lifestyle horticulture services is included in the special feature article 'Queensland lifestyle horticulture'.



## First-stage processing

For 2011–12, the value of first-stage processing (or value-added production) is forecast at \$3.18 billion. This should not be compared with previous years as new ratios for value added are applied for the 2010–11 forecast (see page 1, Value of first-stage processing, for details).

**Table 7 Forecast value of first-stage processing, 2011–12**

Industry	Forecast (\$m)
Meat	1525
Sugar	712
Milk and cream	121
Fruit and vegetable	204
Flour mill and feed	61
Seafood	67
Log sawmilling, timber dressing and plywood and veneer manufacturing	390
Cotton ginning	99

## About Queensland’s primary industries

In 2009–10, Queensland’s primary industries directly contributed an estimated \$6 billion to the state economy or 2.4 per cent of the Gross State Product.<sup>2</sup>

Geographically, Queensland is Australia’s second largest state, covering more than 173 million hectares. Of this, almost 144 million hectares (or 83 per cent) of the land area is used for agriculture. Queensland has the largest area of agricultural land of any Australian state and the highest proportion of land area in Australia dedicated to agriculture.

In 2009–10 Queensland exported \$6.2 billion worth of agriculture and food products. Exports of these primary products comprised 14 per cent of the state’s overseas commodity exports in 2009–10.<sup>3</sup>

In 2008–09 the combined employment associated with the whole food supply chain equated to an estimated 267 000 employees or one in eight Queenslanders who were either partially or entirely supported by the food sector.<sup>4</sup>

## About the Department

DEEDI has two main objectives: to create the conditions for business success, and to help individuals and businesses respond to the economic challenges they face.

DEEDI provides the opportunity for an integrated and holistic approach to driving competitiveness and productivity across the whole food value chain by bringing together services in industry development, biosecurity, fisheries, science and innovation.

In June 2008 the Minister for Agriculture, Food and Regional Economies, The Honourable Tim Mulherin, MP, launched the Fresh Approach initiative to provide a platform for Queensland’s primary industries to reach their economic potential of \$34 billion by 2020.

<sup>2,4</sup> Source: ABS Exports from Queensland and Australia to all countries, by commodity, value, 2009–10, OESR, Standard International Trade Classification 2 digit, Food and Live Animals.

<sup>3</sup> Source: ABS 5220.0 State Accounts.



DEEDI is embarking on a major revitalisation of its research stations to deliver better science and improved biosecurity, focusing on:

- building skills for the future
- creating a research and development platform that accelerates the growth of primary industries
- establishing networked and modern services.

In the last 12 months, significant progress has been made in the implementation of the \$33 million Beef 2020 Plan and the \$8.5 million Atherton Tableland Initiative, which comprises \$6.5 million for the new Client and Training Service Centre in Mareeba and \$2 million for the upgrade to the Walkamin Research Facility.

Progress includes the design and development of the \$17 million tropical biosecurity laboratory at James Cook University. It also includes the purchase of the Spyglass Beef Research Facility, a fit-for-purpose Dry Tropics rangelands beef research property near Charters Towers.

In April 2010, the minister announced the Reconnecting Agricultural Education plan, a \$20 million revitalisation of the Australian Agricultural College Corporation. This will reposition the corporation to meet the current and emerging skills needs of the agricultural sector in Queensland.

In conjunction with the reforms of the Australian Agricultural College Corporation, DEEDI is also developing an 'extension through training' framework that aims to give primary producers an opportunity to gain recognition of the skills they are acquiring.

Training agreements between the Australian Agricultural College Corporation and DEEDI are being finalised for the cropping sector, sheep and wool industry and horticulture (mangoes). These arrangements will deliver accredited training and extension courses to these industry sectors over the next two years.

New strategic partnerships in research and development with The University of Queensland and James Cook University have been significantly advanced. Planning for the \$6.5 million Tablelands Client and Training Centre at Peters Street, Mareeba, is well advanced and construction is due for completion by September 2011.

The Grains 2020 strategy has been finalised following extensive consultation with industry. It will partner with industry to reposition ageing research and development infrastructure into a network of higher quality, fit-for-purpose regional centres that better reflect the future needs of Queensland's field crop industries.

The Fresh Approach reforms continue with reviews underway for the horticulture and sheep and wool industries.

## About *Prospects*

*Prospects* has a circulation of approximately 1700, with copies distributed to members of parliament, industry associations, agribusinesses, banks, law firms, local councils, government departments, educational institutions, primary producers and other businesses along the value chain.

The annual September edition of *Prospects* contains:

- initial GVP forecasts for 2011–12
- initial forecasts for 2011–12 for first-stage processing
- GVP estimates for 2010–11 and 2009–10.

*Prospects* is available on the DEEDI website at [www.deedi.qld.gov.au](http://www.deedi.qld.gov.au)

## About the *Prospects* update

The September 2011 edition of *Prospects* contains initial GVP forecasts and first-stage processing forecasts for the current financial year. These forecasts are then updated in March. Updated forecasts will be made available electronically and can be downloaded from the DEEDI website, [www.deedi.qld.gov.au](http://www.deedi.qld.gov.au). This is in line with our commitment to upgrade the DEEDI 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:

*Prospects*

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Contact the SAFRS Business Information Centre on 13 25 23.

or:

Visit [www.deedi.qld.gov.au](http://www.deedi.qld.gov.au) for current and previous editions of *Prospects* and *Prospects update*.

## Content and procedure

In the *Prospects* publication, 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 *Prospects* are based on a methodology derived from the 2006–07 ABS Manufacturing Survey/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.

Previous editions used the methodology derived from the Queensland 2000–01 Manufacturing Survey. Therefore, the first-stage processing forecasts from 2009–10 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 *Prospects* were based on information available in August and September 2011, and followed consultation with industry experts and expert DEEDI staff.

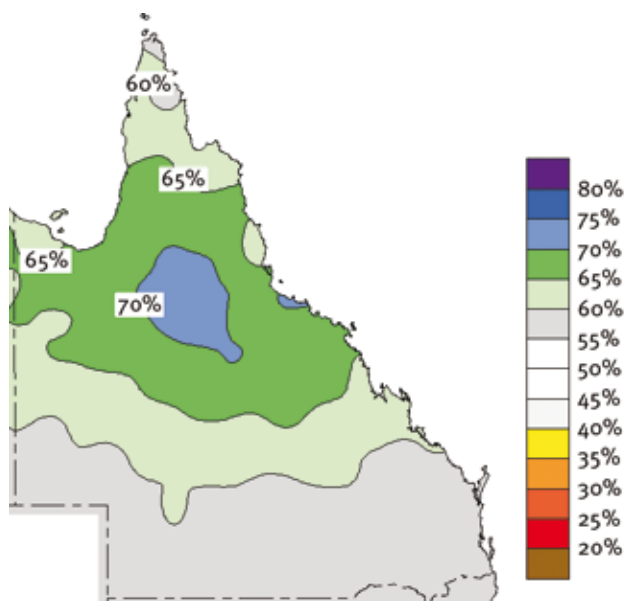
The prices of all overseas-traded commodities are responsive to changes in the exchange rate of the Australian dollar relative to the currencies of our trading partners. Prices paid to primary producers, and therefore gross unit values, could change depending on whether exchange rates increase or decrease.



## Climate outlook for 2011–12

According to the Bureau of Meteorology (BOM), the strong La Niña conditions that were prevalent over the last summer have now broken down. The El Niño/La Niña-Southern Oscillation (ENSO) is likely to remain in a neutral state over the coming months. However, the sea-surface temperatures in the extra-tropical Pacific are currently favourable for summer rainfall, although this pattern may change.

The Queensland Climate Change Centre of Excellence (the Centre) considers that the probability of above-median rainfall for the three-month period from August to October is higher than normal (50 per cent) for most of Queensland. For the coming summer (November–March), the Centre’s long-range experimental SPOTA-1 scheme currently indicates a higher than normal probability of above-median rainfall across Queensland.



**Figure 1 Probability of exceeding median rainfall for October–December 2011**

Source: BOM

## Drought situation

As at 30 June 2011, there are no local government areas or individually droughted properties (IDPs) drought-declared under the state processes.

# Global demand for Australian commodities

Global economic activity continues to weaken, reflecting both anticipated and unanticipated developments, according to the World Economic Outlook (WEO) September 2011, produced by the International Monetary Fund (IMF). Global expansion is threatened by Europe's debt crisis and the slow recovery in the United States. World output is projected to grow by 4.0 per cent in both 2011 and 2012. These growth projections have been revised downward by 0.3 per cent for 2011 and 0.5 per cent for 2012 relative to projections made in June 2011.

**Table 8 IMF forecast, September 2011 (year-over-year percentage change)**

	Projection				Difference from June 2011 WEO projections	
	2009	2010	2011	2012	2011	2012
<b>World output<sup>a</sup></b>	<b>-0.7</b>	<b>5.1</b>	<b>4.0</b>	<b>4.0</b>	<b>-0.3</b>	<b>-0.5</b>
<b>Advanced economies</b>	<b>-3.7</b>	<b>3.1</b>	<b>1.6</b>	<b>1.9</b>	<b>-0.6</b>	<b>-0.7</b>
United States	-3.5	3.0	1.5	1.8	-1.0	-0.9
Euro Area <sup>b</sup>	-4.3	1.8	1.6	1.1	-0.4	-0.6
Germany	-5.1	3.6	2.7	1.3	-0.5	-0.7
France	-2.6	1.4	1.7	1.4	-0.4	-0.5
Italy	-5.2	1.3	0.6	0.3	-0.4	-1.0
Spain	-3.7	-0.1	0.8	1.1	0.0	-0.5
Japan	-6.3	4.0	-0.5	2.3	0.2	-0.6
United Kingdom	-4.9	1.4	1.1	1.6	-0.4	-0.7
Canada	-2.8	3.2	2.1	1.9	-0.8	-0.7
Other advanced economies <sup>c</sup>	-1.1	5.8	3.6	3.7	-0.4	-0.1
Newly industrialised Asian economies	-0.7	8.4	4.7	4.5	-0.4	0.0
<b>Emerging and developing economies<sup>d</sup></b>	<b>2.8</b>	<b>7.3</b>	<b>6.4</b>	<b>6.1</b>	<b>-0.2</b>	<b>-0.3</b>
Central and Eastern Europe	-3.6	4.5	4.3	2.7	-1.0	-0.5
Commonwealth of Independent States	-6.4	4.6	4.6	4.4	-0.5	-0.3
Russia	-7.8	4.0	4.3	4.1	-0.5	-0.4
Excluding Russia	-3.0	6.0	5.3	5.1	-0.3	0.0
Developing Asia	7.2	9.5	8.2	8.0	-0.2	-0.4
China	9.2	10.3	9.5	9.0	-0.1	-0.5
India	6.8	10.1	7.8	7.5	-0.4	-0.3
ASEAN-5 <sup>e</sup>	1.7	6.9	5.3	5.6	-0.1	-0.1
Latin America and the Caribbean	-1.7	6.1	4.5	4.0	-0.1	-0.1
Brazil	-0.6	7.5	3.8	3.6	-0.3	0.0
Mexico	-6.2	5.4	3.8	3.6	-0.9	-0.4
Middle East and North Africa	2.6	4.4	4.0	3.6	-0.2	-0.8
Sub-Saharan Africa	2.8	5.4	5.2	5.8	-0.3	-0.1

a The quarterly estimates and projections account for 90 per cent of the world's purchasing power-parity weights.

b Excludes Estonia.

c Excludes the United States, Euro Area and Japan but includes Estonia.

d The quarterly estimates and projections account for approximately 79 per cent of the emerging and developing economies.

Source: IMF, World Economic Outlook, September 2011, Table 1.1.



IMF chief economist, Olivier Blanchard, has warned that the United States and the Eurozone are at increased risk of a double-dip recession, potentially threatening other international economies:

[Global] economic recovery has become much more uncertain. The world economy suffers from the confluence of two adverse developments. The first is a much slower recovery in advanced economies since the beginning of the year, a development we largely failed to perceive as it was happening. The second is a large increase in fiscal and financial uncertainty, which has been particularly pronounced since August. Each of these developments is worrisome—their combination and their interactions more so. Strong policies are urgently needed to improve the outlook and reduce the risks.

Despite the adverse economic developments, emerging economies have continued to sustain high growth. However, under IMF's risk scenarios, emerging economies may suffer more adverse export conditions, more volatile capital flows and perhaps lower commodity prices. IMF growth projections for developing Asia have been revised downwards from the previous quarter's projections; however, growth in the region remains relatively strong. China is projected to grow by 9.5 per cent in 2011 and by 9.0 per cent in 2012. India is projected to grow 7.8 per cent in 2011 and 7.5 per cent in 2012.

The monetary policy statement of the Reserve Bank of Australia (RBA) for September 2011 reinforces the IMF's view that the global outlook has become more uncertain in recent months, with extreme volatility in international financial markets relaying fears of a slowdown in economic recovery.

As emerging economies continue to grow (although at a slightly slower pace than earlier in the year), the RBA expects continued strong commodity demand from Asia as Australia's terms of trade hit new highs:

The prices of most exchange-traded commodities had fallen over August, though the falls were relatively small compared with those seen in late 2008, and prices remained at high levels. In contrast, spot prices for iron ore and thermal coal had risen slightly over the month, with physical demand from Asia continuing to be strong. Overall, Australia's terms of trade were expected to be at their highest level on record in the September quarter, before gradually declining as global production capacity in iron ore and coal increased.

The RBA described varying rates of growth across Australian industries. Those industries exposed to the resources sector experienced strong growth during 2011 and this, along with further recovery in Queensland coal production, is expected to boost Australian economic growth through to early 2012.

# Primary industries—estimates and forecasts

Table 9 GVP, first-stage processing and total primary industries estimates and forecasts, 2009–10 to 2011–12

Commodity GVP <sup>a</sup>	2009–10 <sup>b</sup> (\$m)	2010–11 <sup>c</sup> (\$m)	2011–12 (September 2011) <sup>d</sup>	Change 2010–11 to 2011–12 (%)
<b>Livestock disposals</b>				
Cattle and calves	3 229	3 310	3 281	-1
Sheep and lambs	45	58	67	16
Pigs	231	222	220	-1
Poultry	359	370	377	2
Kangaroos	15	20	20	0
Other livestock	10	10	10	0
Total livestock disposals	3 889	3 990	3 975	0
<b>Livestock products</b>				
Wool	87	90	130	44
Milk (all purpose)	296	241	229	-5
Eggs	110	112	112	0
Total livestock products <sup>e</sup>	493	443	471	6
Total livestock	4 382	4 433	4 446	0
<b>Horticulture</b>				
<b>Fruit and nuts</b>				
Bananas	448	280	360	29
Pineapples	70	70	68	-3
Mangoes	72	70	70	0
Mandarins	76	70	74	6
Strawberries	145	145	145	0
Avocados	80	95	95	0
Macadamias	29	40	42	5
Apples	34	40	40	0
Table grapes	36	50	50	0
Other fruit and nuts	257	136	232	71
Total fruit	1 247	996	1 176	18
<b>Vegetables</b>				
Potatoes	57	50	54	8
Beans	50	80	78	-3
Carrots	25	24	24	1
Lettuce	65	62	54	-12
Melons (rockmelon and cantaloupe)	30	35	34	-2
Melons (watermelon)	44	37	37	1
Mushrooms	60	64	64	0
Pumpkins	30	21	21	1
Onions	25	25	25	0
Sweet corn	30	36	36	1
Tomatoes	145	271	266	-2

(continued)

**Table 9 GVP, first-stage processing and total primary industries estimates and forecasts, 2009–10 to 2011–12 (continued)**

Commodity GVP <sup>a</sup>	2009–10 <sup>b</sup> (\$m)	2010–11 <sup>c</sup> (\$m)	2011–12 (September 2011) <sup>d</sup>	Change 2010–11 to 2011–12 (%)
Capsicums and chillies <sup>f</sup>	100	129	139	7
Zucchinis and button squash	45	33	43	29
Sweetpotatoes	55	53	56	6
Other vegetables	200	230	257	12
<b>Total vegetables</b>	<b>961</b>	<b>1 150</b>	<b>1 188</b>	<b>3</b>
<b>Total fruit and vegetables</b>	<b>2 208</b>	<b>2 146</b>	<b>2 365</b>	<b>10</b>
<b>Lifestyle horticulture production</b>				
Nurseries <sup>n</sup>	912	912	821	-10
Turf <sup>n</sup>	166	182	146	-20
Cut flowers <sup>n</sup>	151	159	151	-5
<b>Total lifestyle horticulture production</b>	<b>1 229</b>	<b>1 253</b>	<b>1 118</b>	<b>-11</b>
<b>Total horticulture</b>	<b>3 437</b>	<b>3 399</b>	<b>3 483</b>	<b>2</b>
<b>Other field crops</b>				
Sugarcane <sup>g</sup>	1 425	940	1 218	30
Cotton (raw) <sup>h</sup>	355	660	872	32
Other crops <sup>c</sup>	255	79	102	29
<b>Total other field crops</b>	<b>2 035</b>	<b>1 679</b>	<b>2 192</b>	<b>31</b>
<b>Cereal grains</b>				
Wheat	265	302	313	4
Barley	31	33	45	36
Grain sorghum	155	320	313	-2
Maize	37	136	43	-68
Other cereal grains	89	111	37	-67
<b>Total cereal grains</b>	<b>577</b>	<b>902</b>	<b>751</b>	<b>-17</b>
<b>Total crops</b>	<b>6 049</b>	<b>5 979</b>	<b>6 426</b>	<b>7</b>
<b>Total agriculture</b>	<b>10 431</b>	<b>10 413</b>	<b>10 872</b>	<b>4</b>
<b>Fisheries<sup>c, i</sup></b>				
<b>Commercial fishing</b>				
Crustaceans	166	151	161	7
Molluscs	10	9	9	0
Finfish	108	100	114	14
<b>Total commercial fishing</b>	<b>284</b>	<b>260</b>	<b>284</b>	<b>9</b>
<b>Recreational fishing</b>				
Aquaculture	102	94	91	-3
<b>Total fisheries</b>	<b>459</b>	<b>427</b>	<b>448</b>	<b>5</b>
<b>Forestry and logging<sup>c, j</sup></b>	<b>171</b>	<b>187</b>	<b>189</b>	<b>1</b>
<b>Total primary industries (farm gate)</b>	<b>11 061</b>	<b>11 026</b>	<b>11 509</b>	<b>4</b>

(continued)



**Table 9 GVP, first-stage processing and total primary industries estimates and forecasts, 2009–10 to 2011–12 (continued)**

Commodity GVP <sup>a</sup>	2009–10 <sup>b</sup> (\$m)	2010–11 <sup>c</sup> (\$m)	2011–12 (September 2011) <sup>d</sup>	Change 2010–11 to 2011–12 (%)
<b>First-round processing value-added<sup>k</sup></b>				
Meat processing <sup>c</sup>	1 492	1 530	1 525	0
Sugar processing <sup>c</sup>	722	550	712	29
Milk and cream processing <sup>c</sup>	156	127	121	-5
Fruit and vegetables processing <sup>c</sup>	190	185	204	10
Flour mill and feed processing <sup>c</sup>	47	73	61	-17
Seafood processing <sup>c</sup>	69	64	67	5
Log sawmilling and timber dressing and plywood and veneer manufacturing <sup>c</sup>	353	386	390	1
Cotton ginning <sup>c</sup>	40	75	99	32
<b>Total primary industries first-round processing</b>	<b>3 069</b>	<b>2 991</b>	<b>3 179</b>	<b>6</b>
<b>Total primary industries</b>	<b>14 130</b>	<b>14 017</b>	<b>14 688</b>	<b>5</b>

a GVP is defined as the gross value of commodities produced. It is a measure of economic output. In this publication, GVP relates to the output of primary industry commercial operations only. The GVP is the value of recorded production at wholesale prices realised in the marketplace (e.g. cattle sold at saleyards, sugarcane at the mill door, fruit and vegetables at the wholesale market). It is derived by multiplying the output from each primary industry by the average wholesale price paid to producers.

b ABS final estimates for 2009–10 unless otherwise indicated.

c DEEDI estimates.

d DEEDI forecasts.

e Excludes minor commodities such as honey, beeswax and mohair.

f DEEDI estimate does not include chillies.

g Gross value of sugarcane at mill door.

h Includes value of cottonseed and lint.

i Includes catches from both Commonwealth-managed fisheries (including Torres Strait, Gulf of Carpentaria and east coast tuna) and state-managed fisheries.

j Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimates.

k See page 57 for the definition of *value added*. The forecasts for the value of first-stage processing in 2009–10 should not be compared with the previous years due to the change in value-added ratios.

m Includes the value of kangaroo meat processed.

# 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 Queensland's major agricultural commodities from 1996–97 to 2011–12 is detailed in Table 10 below.

For 2011–12, the production index for agriculture is forecast to be 108. This indicates that Queensland's agricultural production in 2011–12 is forecast to be 8 per cent higher (on average) than in the base year of 1996–97. On average, the volume of agricultural production in 2011–12 is forecast to be 2 per cent higher than in 2010–11.

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

Commodity	2000 -01	2001 -02	2002 -03	2003 -04	2004 -05	2005 -06	2006 -07	2007 -08	2008 -09	2009 -10	2010 -2011 <sup>c</sup>	2011 -2012 <sup>d</sup>
Wheat	58	46	30	56	59	62	39	48	102	68	50	59
Grain sorghum	115	124	93	129	116	103	89	251	176	92	134	139
Barley	27	40	35	61	42	39	18	33	40	26	44	32
Major cereal grains	72	69	50	80	74	77	51	102	117	73	74	79
Sugarcane	71	78	94	93	97	95	91	86	82	81	77	77
Cotton lint	129	120	50	88	151	130	42	26	93	84	116	123
Other major field crops	86	88	83	92	110	103	78	71	84	81	86	88
Major fruit	159	151	139	137	149	131	167	148	161	176	195	196
Major vegetables	104	108	98	122	104	112	122	110	113	109	130	137
Major fruit and vegetables	132	130	119	130	134	127	145	129	138	144	164	167
Crops	92	92	82	97	105	99	85	90	103	92	99	102
Cattle calves and live exports	140	133	136	131	135	132	140	131	134	133	132	131
Pigs	108	113	123	132	128	135	127	128	115	112	109	109
Poultry	111	116	123	127	138	143	147	156	0	168	170	174
Sheep and lambs	143	111	84	66	68	64	75	69	61	36	40	37
Major livestock disposals	134	129	132	129	132	131	137	131	116	131	131	130
Milk (all purposes)	95	93	90	85	78	73	67	61	64	66	61	59
Wool	95	67	55	50	60	54	54	46	23	19	34	38
Eggs	173	151	135	187	191	260	260	445	266	290	495	504
Major livestock products	100	87	80	78	78	77	77	78	61	63	77	77
Livestock	125	118	119	116	120	116	119	116	100	112	115	115
<b>Total agriculture<sup>b</sup></b>	<b>107</b>	<b>111</b>	<b>98</b>	<b>105</b>	<b>109</b>	<b>86</b>	<b>100</b>	<b>102</b>	<b>102</b>	<b>101</b>	<b>106</b>	<b>108</b>

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

b Excludes lifestyle horticulture due to insufficient data.

c ABS Estimates (*Agricultural commodities, Australia, 2009–10*, cat. no. 7121.0). Production data for maize, peanuts, pineapples, capsicums, beans, lettuce and rockmelon are not contained in *Agricultural commodities, Australia, 2009–10*. For this reason, final DEEDI production estimates for these commodities in 2009–10 have been used.

d Forecast.

Source: Compiled by DEEDI staff using ABS and DEEDI data.

The indices 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

### Forecast

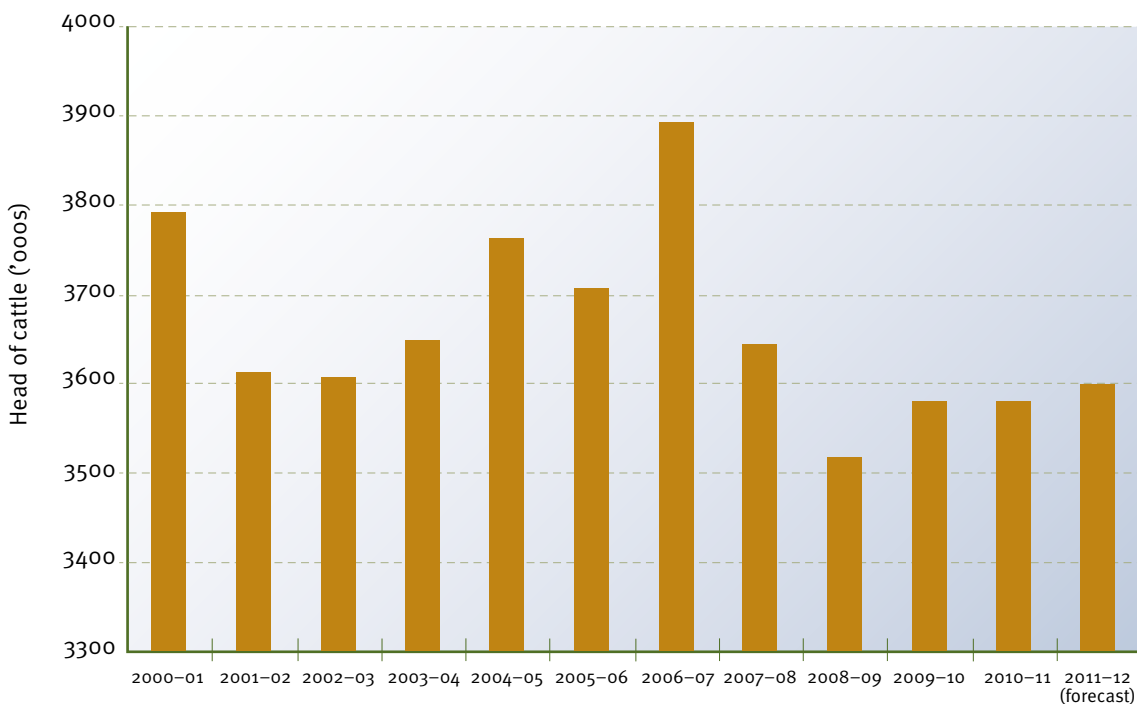
For 2011–12, the GVP of Queensland’s cattle and calf industry (including cattle and calves sold for slaughter plus live exports) is forecast at \$3.28 billion. This is 1 per cent lower than the final estimate for 2010–11 but 2 per cent higher than the 2009–10 final ABS estimate.

### Analysis

#### *Cattle and calves sold for slaughter*

For 2011–12, the gross value of cattle and calves sold for slaughter is forecast at \$3.2 billion, which is the same as last year’s final estimate but 3 per cent more than the 2009–10 final ABS estimate. The expected slight increase is expected to be tempered by a forecast fall in saleyard prices over the next financial year. However, the outlook for saleyard prices is very uncertain due to recent fluctuations in global financial markets affecting export demand and the fluctuating direction of the Australian dollar.

In 2010–11, around 3.58 million head of cattle and calves were slaughtered in Queensland, which was slightly more than 2009–10.

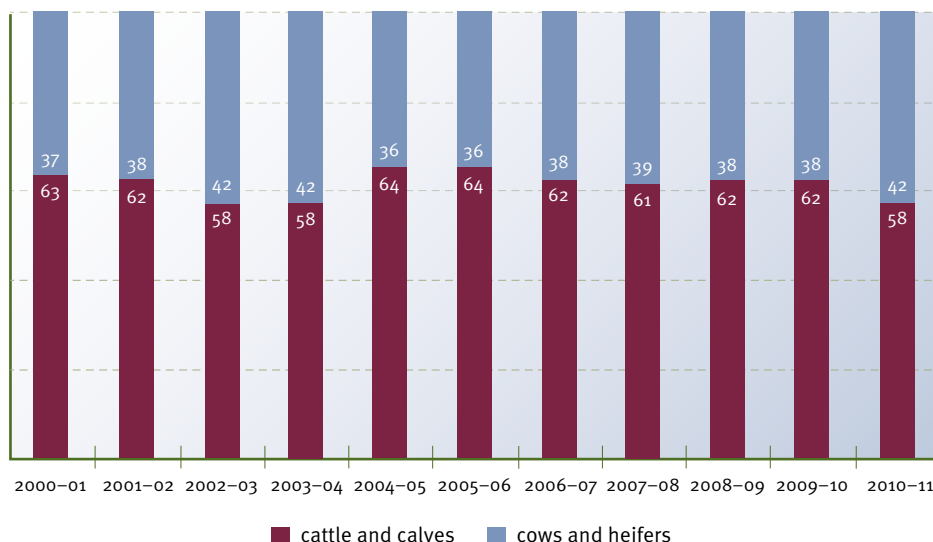


**Figure 2 Queensland cattle and calf slaughtering, 2000–01 to 2011–12 (forecast)**

Source: ABS

The anticipated increase in slaughter numbers is partly attributable to more cattle being available due to better growing seasons, and more cattle being diverted domestically following the suspension of the live cattle trade into Indonesia.

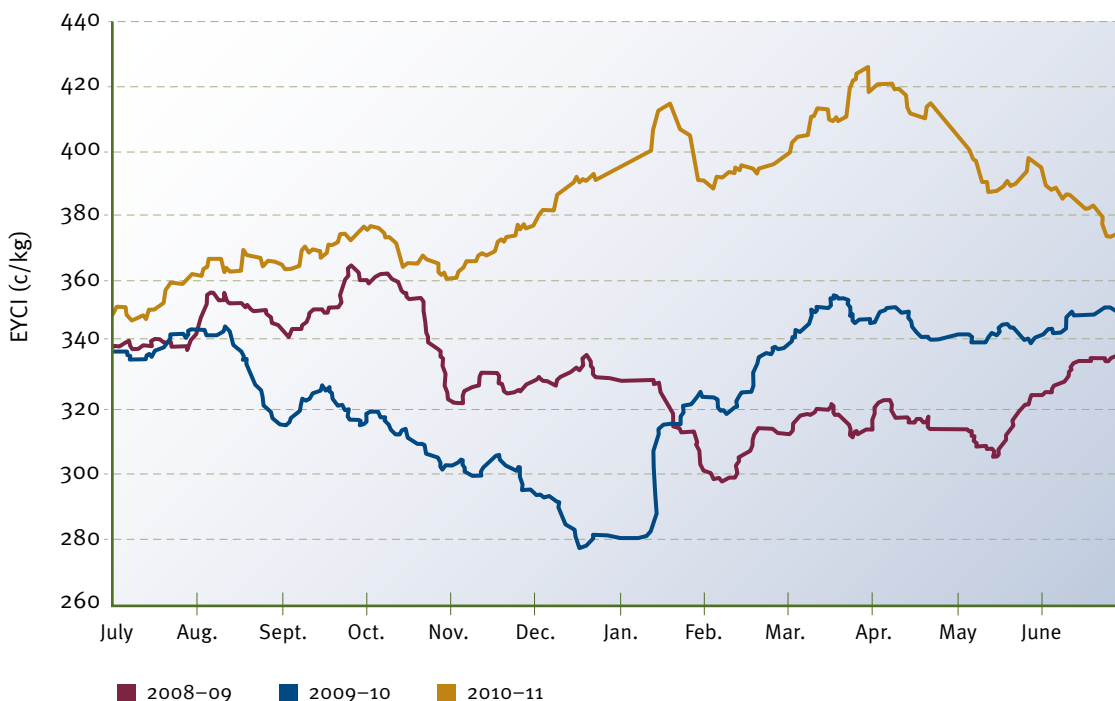
The percentage of the female slaughter has increased compared to previous years, returning to near 2002–03 levels (as shown in Figure 3). The increase of cow and heifer slaughter shares in 2010–11 from the previous year suggests more producers have reduced their herd, rebuilding in response to increased financial pressures.



**Figure 3 Percentage share of total slaughter for cattle and calves and cows and heifers, Queensland, 2000-01 to 2010-11**

Source: ABS

As shown in Figure 4, prices were higher in 2010-11 than in the previous two financial years but were trending downwards by the end of the year. The Australian weighted average saleyard price for beef is forecast to fall by between 5 per cent and 8 per cent in 2011-12 due to an assumed appreciation of the Australian exchange rate plus other short-term factors.



**Figure 4 Eastern Young Cattle Indicator (EYCI)**

Source: MLA



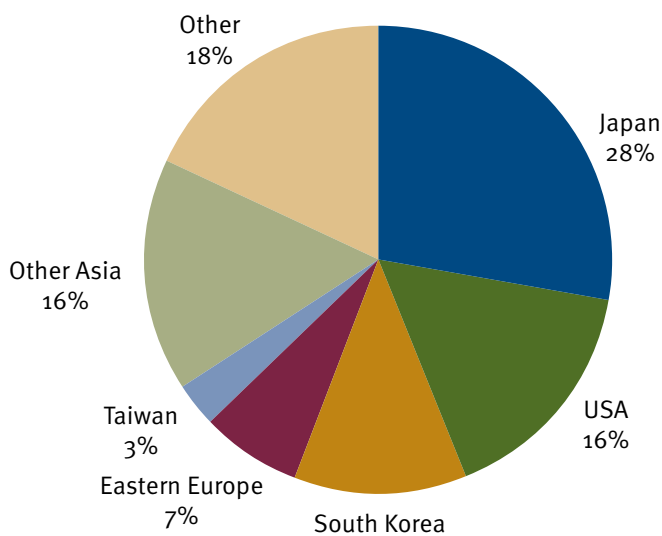
## Australia

The total number of cattle and calves slaughtered in Australia in 2010–11 was estimated at 8.53 million head, 3 per cent lower than 2009–10.

According to Meat and Livestock Australia (MLA), there is very solid evidence, both statistically and anecdotally, that the Australian cattle industry has entered a rebuilding phase, underpinned by better seasonal conditions since the start of 2010. MLA believes improved seasonal conditions will continue to underpin herd growth for the next two years, with further growth into 2015 dependent on increased beef farm incomes.

According to MLA and the quarterly survey of the Australian Lot Feeders Association (ALFA), just over 792 000 cattle were on feed at the end of the June quarter 2011. This is up 2 per cent on the previous quarter and 0.2 per cent on the corresponding period in 2010.

## Exports

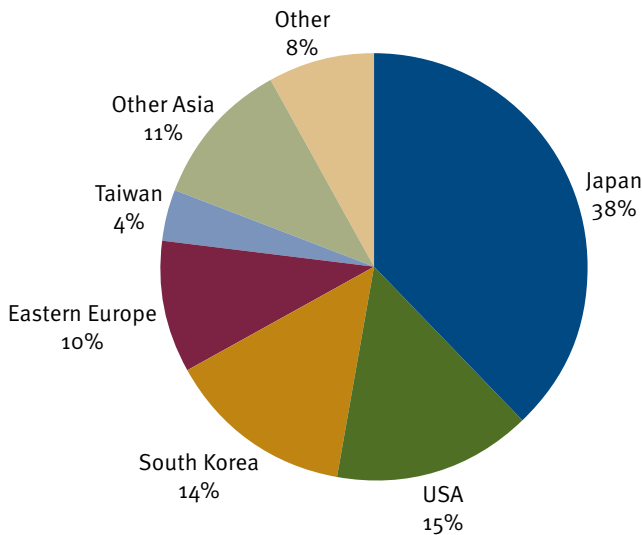


**Figure 5 Australian exports of beef and veal, 2010–11**

Source: Department of Agriculture, Fisheries and Forestry

In 2010–11, exports of Australian beef and veal increased significantly (by 54 per cent) to 1 383 530 tonnes; 898 959 tonnes were exported in 2009–10.

Japan was Australia's largest export market, with shipments of 389 784 tonnes in 2010–11, nearly 40 000 tonnes more than in 2009–10. Japan accounted for 28 per cent of Australia's beef and veal exports. This was followed by the United States (16 per cent of Australia's exports) and South Korea (12 per cent of Australia's exports). Together, these three countries accounted for over half of Australia's beef and veal exports.



**Figure 6 Queensland exports of beef and veal, 2010–11**

Source: Department of Agriculture, Fisheries and Forestry

In 2010–11, Queensland exported 641 708 tonnes of beef and veal, accounting for 46 per cent of Australia’s beef and veal exports. This was an increase of approximately 124 000 tonnes from the previous year.

### **Japan**

Japan was Queensland’s largest export market, accounting for 38 per cent of Queensland’s beef and veal exports in 2010–11. This was followed by the United States (15 per cent) and South Korea (14 per cent).

According to MLA, after showing some glimpses of potential in early 2011, the Japanese beef market has been impacted by a series of unprecedented events, including the earthquake followed by the tsunami and resulting nuclear crisis, which will see consumers entering a period of respectful restraint in subsequent months. Additionally, increased competition from United States beef, assisted by their weak currency, has accentuated the weaker market for Australian exporters.

### **South Korea**

MLA forecast that Australia will continue to face increased competition from both United States and domestic Hanwoo beef production in the Korean market over the medium term, which they believe will limit the potential to share in the expected growth in Korean beef demand. However, MLA believes that Australia’s market share will fall 14 per cent to 120 000 tonnes as the United States continues to recapture imported market share with a weak United States dollar and despite the continued cattle age restriction on imported United States beef.

### **United States**

MLA believes that limited manufacturing beef supplies, a high Australian dollar and stronger competition for Australian beef from other markets has hamstrung Australian shipments to the United States market. They therefore predict that beef exports will be revised back to 215 000 tonnes, buoyed by lower United States beef production and historically high prices.

MLA believes that in the medium term, the economic situation in the United States will be a key determinant of demand for Australian beef. The lower cattle number brought about by the current drought in the United States will give Australian beef exporters an opportunity to provide for the shortfall. The financial viability of this will be largely set by what happens to the Australian dollar and how much United States importers and consumers are willing to pay relative to consumers in the alternative and growing markets of Asia, Russia and the Middle East.

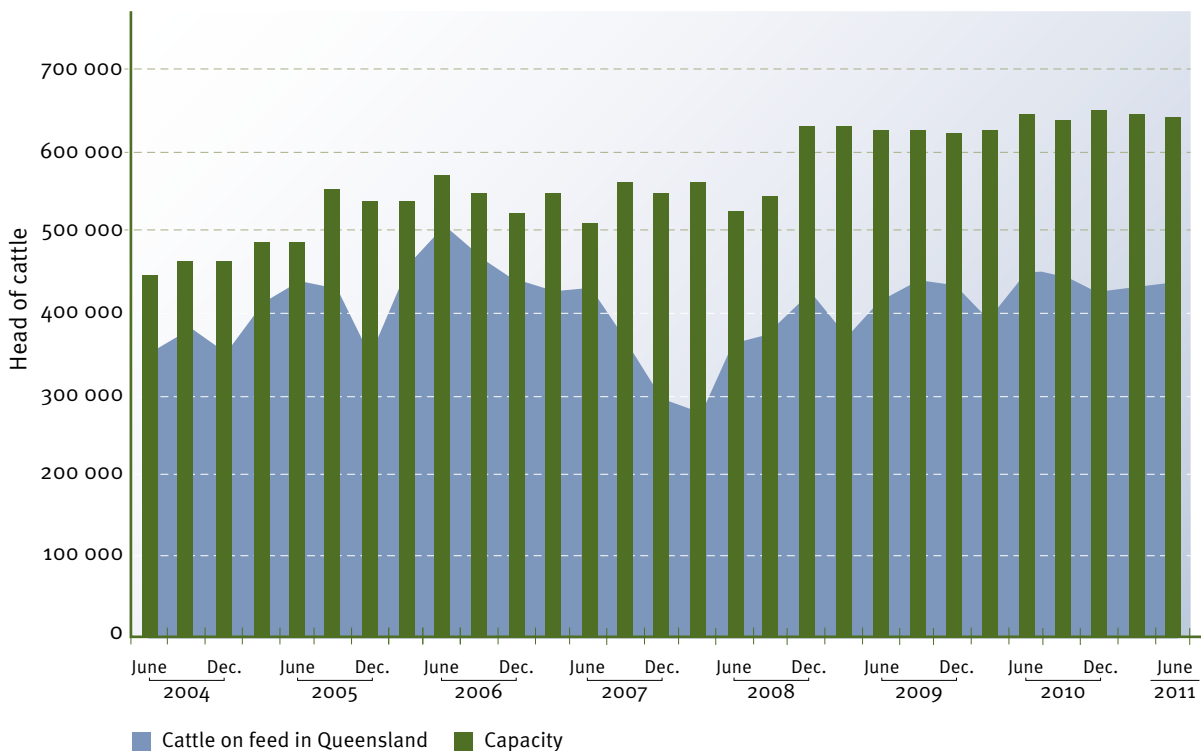


## Feedlots

The number of cattle on feed in Queensland fell consistently between June 2006 and March 2008. However, since June 2008, numbers have gradually increased to reach nearly 439 000 head in the June quarter 2011. This was an improvement from the previous quarter but lower than numbers for the June quarter 2010.

In the June quarter 2011, Queensland's feedlots were operating at 68 per cent capacity, an improvement on the previous quarter but lower than the June quarter 2010. According to MLA, the results for the first half of 2011 indicate an increase in cattle numbers on feed. This reflects increased retention rates of cattle as processors reduced their weekly kills of grain-fed cattle in the wake of subdued demand in markets such as Japan and Korea. They also believe year-on-year increases in both feeder cattle and grain prices in conjunction with a strong Australian dollar (averaging US\$1.08 over the quarter) thwarted any chance for improvement in lot feeder margins. Queensland's grain-fed cattle turn-off in the June quarter 2011 was 2 per cent higher than the previous quarter, but 2 per cent lower than the June quarter 2010.

Turn-off from feedlots generally accounts for approximately 40 per cent 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 7 Queensland cattle on feed and feedlot capacity, June 2004 to June 2011**

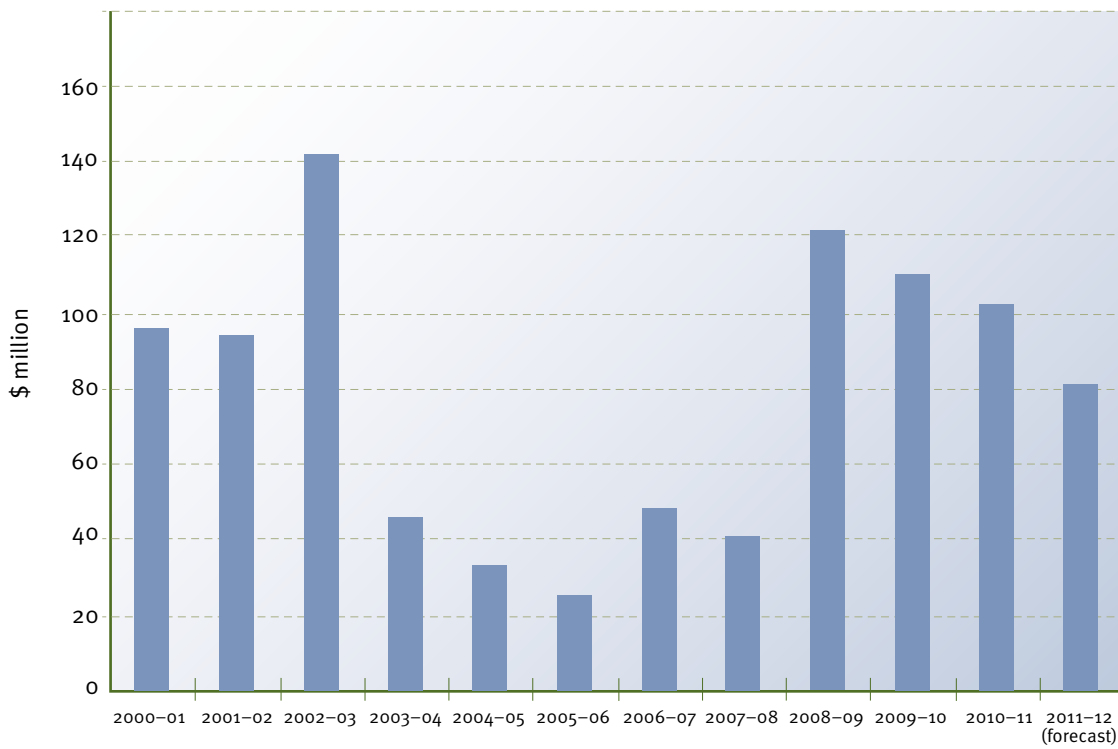
Source: ALFA and MLA, National Accredited Feedlot Survey, June 2011

## Live cattle exports

For 2011–12, the gross value of live cattle exports is forecast at \$81 million. This is 23 per cent lower than the final estimate for 2010–11 and 26 per cent lower than the final estimate for 2009–10.

According to MLA, the series of decisions regarding Australia's live cattle trade to Indonesia since June 2011 has made it very difficult to confidently forecast export numbers over the short term. Total Australian exports of live cattle are estimated to have fallen by around 17 per cent in 2010–11 to 723 000 head. The largest decline was in exports to Indonesia, which are estimated to have fallen by 38 per cent in 2010–11 to 445 000 head.

As was widely reported, in early June 2011, the Australian Government suspended live cattle exports to Indonesia for the purpose of slaughter. On 6 July, the Minister for Agriculture, Fisheries and Forestry signed the Export Control Repeal Order 2011 to lift the suspension of trade in livestock exports to Indonesia, provided that the supply chain assurance principles are in place to achieve internationally agreed animal welfare outcomes.



**Figure 8 Queensland live cattle exports, 2000-01 to 2011-12 (forecast)**

Source: Livecorp

## Industry feature: Grazing BMP on track for late 2011 industry launch

Planning for grazing best management practice (BMP) pilot workshops across Queensland is advancing and cattle producers should be involved in operational projects towards the end of 2011.

DEEDI industry development officer Lindy Symes is leading the Grazing BMP project, which is aimed at developing voluntary best management grazing practices.

Ms Symes said the two-year pilot project, modelled on the successful Grains BMP project, was rapidly gaining momentum.

Initial support for the Grazing BMP project has been progressed by the Fitzroy Basin Association through funding from the Reef Rescue component of the Australian Government's Caring for Our Country program, with further support from AgForce and DEEDI.

'Now there is interest from MLA for the Grazing BMP project to link with existing industry quality-assurance systems', Ms Symes said.

'We have founded a Grazing BMP Landholder Reference Group representing grazing businesses from the Fitzroy, Burdekin and Burnett – Mary River catchments.

'Our charter is to develop self-assessment modules to enable cattle producers to monitor and accurately benchmark their own management practices and identify knowledge or training gaps in their businesses.

'Current discussions are based on a whole-of-business focus and the industry supply chain. They are exploring potential market drivers for beef practices that clearly demonstrate environmental stewardship.

'Queensland's cattle industry is the only major agricultural industry without a BMP program that will ultimately allow producers to effectively manage and report on their environmental performance.'

Ms Symes said that by collating recommended changed management practices, the cattle industry would have an industry scorecard to demonstrate to the wider community documented good land management and environmental stewardship.

'Graziers will be able to benchmark with other grazing businesses both within their catchment and across the state, based on best management principles set at three levels: above, minimum and below standard', she said. 'There is also scope to benchmark industries for mixed farming enterprises.'

Ms Symes said that through the Grazing BMP data, industry would be able to monitor the adoption of beef production and land management research, which was often funded through industry levies, as well as identify any shortfalls in the provision of extension and training.

The industry overview aggregated from graziers' responses should allow better targeting of incentive funding made available through natural resource management groups.

Source: DEEDI media release, 20 June 2011



## Pigs

### Forecast

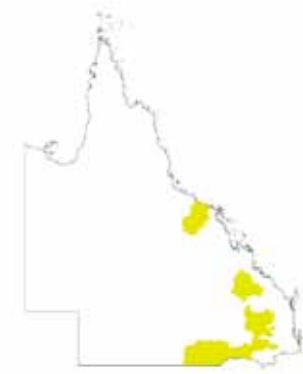
The gross value of Queensland's pig production in 2011–12 is forecast at \$220 million, a 1 per cent decrease on DEEDI's final estimate for 2010–11 and a 5 per cent decrease on the 2009–10 revised ABS estimate.

### Analysis and discussion

Increased competition from imports, aided by a historically strong Australian dollar, is expected to cause the average price for pig meat to marginally decline throughout 2011–12. This coincides with a forecast decline in feed prices throughout 2011–12, reducing the cost of pig meat production. However, production for 2011–12 is forecast to remain relatively unchanged from 2010–11.

While the average saleyard price for pigs is projected to decline, producers' profit margins are expected to be maintained by the fall in feed grain prices in Australia, leading to a gradual increase in breeding sow stocks. Relatively high retail prices for beef and lamb per kilogram are likely to support consumer demand for pig meat into the future.

In recent years, high feed grain prices and competitive pressures from foreign imports have squeezed profit margins and triggered the exit of a large number of small producers. As a result, there has been heavy consolidation within the industry and a trend towards larger, more commercialised pig production systems. To achieve economies of scale and realise the accompanying efficiency gains necessary to compete with imports, the industry is likely to continue this structural change in coming years.



## Poultry

### Forecast

The gross value of Queensland's poultry production in 2011–2012 is forecast at \$377 million, a 2 per cent increase on DEEDI's final estimate for 2010–11 and 5 per cent higher than the 2009–10 final ABS estimate.

### Analysis and discussion

As a result of increasing demand for chicken meat, productivity improvements and easing grain prices, Queensland poultry production is expected to increase throughout 2011–12. The average gross unit value per chicken is expected to remain relatively stable throughout 2011–12.

Poultry consumption is forecast by ABARES to increase by 1 per cent to around 38 kilograms per person in 2011–12 and is projected to grow to 40 kilograms per person by 2015–16. While per capita poultry consumption is expected to increase, population growth is expected to be the key driver of total consumption growth in poultry. The relative inexpensiveness of poultry compared to other sources of protein is likely to ensure it maintains its position as the most-consumed meat on a carcass-weight-equivalent basis.

In recent years, the poultry meat processing sector has undergone considerable consolidation with Baiada (the third largest industry player) acquiring Bartter Holdings (the second largest). As a result of this acquisition, Baiada replaced Inghams as the largest industry operator and the market share of these top two industry participants increased from 46 per cent to 63 per cent. This increased concentration in the processing sector has the potential to diminish the negotiating power of poultry farmers when entering into supply contracts with processors.

For a discussion of egg production, see page 25.





## Sheep and lambs

### Forecast

The gross value of Queensland's sheep and lamb production in 2011–12 is forecast at \$67 million, 16 per cent greater than DEEDI's final estimate for 2010–11 and 49 per cent greater than the 2009–10 revised ABS estimate.



### Analysis and discussion

Following restocking on the basis of improved seasonal conditions in 2010–11 and the positive price outlook for 2011–12, sheep and lamb slaughter rates are expected to increase over 2011–12. This increase is the dominating factor in the rise in GVP for Queensland sheep and lamb production. In 2011–12, lamb slaughterings are expected to increase by 6 per cent from 2010–11 and sheep slaughterings are expected to increase by 12.5 per cent.

Sheep and lamb prices are expected to rise slightly in 2011–12 following substantial gains in the previous year. Lamb prices are expected to increase 1 per cent from 2010–11, following an increase of approximately 19 per cent in 2010–11. Sheep prices are estimated to rise by 2.4 per cent in 2011–12 following a rise of approximately 27 per cent in 2010–11. These price increases are expected to be driven by strong demand for domestic lamb consumption, lamb and sheep exports and restocking.

The significant appreciation of the Australian dollar throughout 2010–11 is not expected to have a marked impact on Queensland lamb exports or domestic saleyard prices. This is due to the appreciation of the New Zealand dollar, New Zealand being Australia's major competitor for the United States and Chinese lamb export markets.

For a discussion on wool, see page 24.

## Kangaroos

### Forecast

The gross value of Queensland's kangaroo industry in 2011–12 is forecast at \$20 million, the same as DEEDI's final estimate for 2010–11 but 33 per cent higher than the final 2009–10 estimate.

### Analysis

Russia's current ban of kangaroo imports from Australia continues to impact the Queensland kangaroo industry. As Russia was previously the destination for around 60 per cent of Australian kangaroo products, the import ban, enacted in August 2009, has effectively cut off the kangaroo meat industry from its largest customer. There could, however, potentially be a new buyer moving into the market, which could see kangaroo exports restored to pre-ban levels. More information on this outcome will be available for the March update.

## Livestock products

**Although *Prospects* 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 less than 1 per cent of Queensland's gross value of primary industry production), it has particular importance to cropping industries. In particular, bees provide significant pollination services as a by-product of the honey/pollen collection process. The value of pollination is reflected in the gross values of the cropping industries that honeybees service, but these services are difficult to value, primarily because of a lack of data about the extent of reliance on feral honeybees.

Australia is the last country that is free of the bee parasite varroa mite. If this mite was introduced, the importance of pollination by managed hives would increase significantly as feral bee numbers dropped.

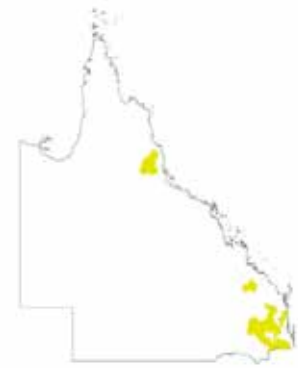


## Milk

### Forecast

The gross value of Queensland milk production for 2011–12 is forecast at \$229 million, 5 per cent lower than DEEDI's final estimate for 2010–11 and 23 per cent lower than the 2009–10 revised ABS estimate.

This forecast decline can be attributed to a combination of lower forecast production and ongoing impacts from the supermarket 'milk price war'. Queensland milk production for 2011–12 is forecast to decrease slightly by 3.4 per cent to approximately 470 million litres.



### Analysis and discussion

In Queensland, extended wet conditions, severe flooding and a cyclone have caused major structural and economic impacts on the industry, affecting all dairying regions. It is expected that the recovery of the industry will take at least another year, subject to reasonable conditions and improvements in farm gate prices.

In the domestic market during 2010–11, there has been significant downward pressure on farm gate prices, where some processors have experienced falls of 15 to 20 per cent.

These cuts to prices have been in response to:

- poor returns from major supermarket 'private label' contracts
- loss of market share of processor milk brand sales to supermarket 'private label' brands
- changes to supermarket 'private label' contracts
- milk in excess of fresh bottled requirements in 2009–10.

In response to Queensland milk production growing beyond market demand for fresh bottled milk in 2009–10, processors have or are moving to a two-tiered price and volume contract system with producers. The first-tier price and volume of milk production are linked to fresh packaged sales of milk and the second-tier price for milk production is a lower price reflecting alternative lower return uses for the milk (such as milk powder).

The most recent price negotiations have seen a slight increase in the base price for milk sold into the fresh milk market of some 1 per cent in southern Queensland. However, given the shortage of milk in Queensland, a stronger price signal was necessary to give dairy farmers the incentive and ability to invest in restoring Queensland's production. The major supermarkets are using a discounted supermarket store brand strategy to grow their brands' market shares. These strategies are increasing major supermarket 'private label' market share at the expense of processor proprietary brands and are lowering overall prices for milk as well as returns through the dairy industry value chain.

An example of this is evident in the modified milk category. From February to April 2011, supermarkets increased their discounted store brand sales in Queensland and New South Wales by some 28 per cent at the expense of processor proprietary brand sales. A major factor undermining returns to the industry is the significant market share held by major supermarket chain 'private label' brands. Approximately 53 per cent of all milk sold in Queensland is sold through supermarkets, and supermarket 'private label' brands account for approximately 54 per cent of these sales.

With the rapid fall in production, the needs of the Queensland fresh milk market have not been met since the end of December 2010. Currently the market is running short by some 4 million litres per month. This shortfall is being imported from New South Wales. During 2010–11, fresh milk sales in Queensland increased by 0.7 per cent, which is less than population growth. Providing economic growth continues across the economy, it is expected that rates of consumption will normalise and begin to grow towards the medium-term growth trend line of around 2.5 per cent per annum.

With milk supply from Queensland dairy farmers falling below market demand, it is expected that processors will have to review their price offers and supply conditions with farmers over the next year if they are able to regain and sustain enough local supply to meet market needs. The pressure to review will increase as the cost of transporting milk from interstate to fill supply gaps increases.



Longer term, forecast population growth (and therefore market demand) in southern Queensland is likely to provide opportunities for the Queensland dairy industry to grow. Conservative ABS population forecasts predict that Queensland’s population will grow by an additional 1 million people over the next decade—this equates to an additional market demand of some 105 million litres of milk (based on current per capita consumption rates for fresh milk).

For the Queensland dairy farming sector to meet these market needs, dairy farmers will need to significantly increase production capacity. To achieve this, dairy farmers will require much stronger farm gate prices and returns (to justify undertaking additional investment and risk). Otherwise, demand growth will increasingly be met by imports from interstate.

**Table 11 Queensland milk production estimates and forecasts by region, 2007–08 to 2011–12**

Region	Production (millions of litres)					Percentage change from 2010–11 to 2011–12
	2007–08 <sup>a</sup>	2008–09 <sup>a</sup>	2009–10 <sup>a</sup>	2010–11 <sup>b</sup>	2011–12 <sup>c</sup>	
South East	377	406	428	397	385	-3.0
Far North	77	76	71	61	57	-6.5
Central	31	30	30	29	28	-3.4
Total Queensland	485	512	529	487	470	-3.4

- a Estimate.
- b Preliminary estimate.
- c Forecast.

Source: Dairy Australia

## Wool

### Forecast

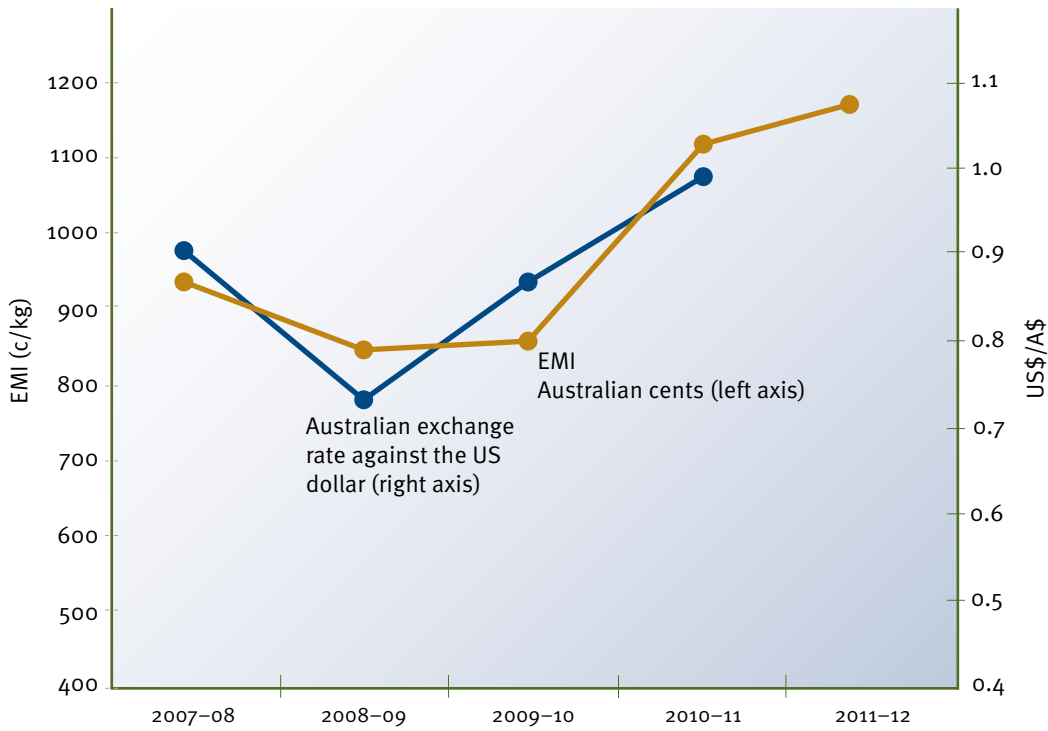
The gross value of wool production (including the value of skins) is forecast to be \$130 million in 2011–12, a 44 per cent increase on DEEDI’s final forecast for 2010–11 and a 49 per cent increase on the 2009–10 revised ABS estimate.

### Analysis and discussion

The gross value of Queensland wool production is forecast to increase substantially due to sustained increases in wool prices since September 2010. The Eastern Market Indicator (EMI) has risen more than 60 per cent since late 2010, reaching a high of 1420 cents a kilogram in early June 2011. For 2011–12 wool prices are expected to ease slightly but remain favourable around 1170 cents a kilogram, despite the appreciation of the Australian dollar against the United States dollar (see Figure 9). The high prices have been driven by increased consumption of domestic wool products in China and increased demand for wool products throughout the Organisation for Economic Co-operation and Development (OECD) region.

Australian wool production in 2011–12 is forecast to be relatively unchanged from 2010–11, increasing by only 2 per cent. Queensland wool production is estimated to increase by approximately 6 per cent. This is based on an expected increase in the number of sheep to be shorn. This increase is likely to outweigh the effect of lower average greasy-fleece weight stemming from an increase in lamb shearings.





**Figure 9 EMI and Australian exchange rate, 2007–08 to 2011–12**

Source: ABARES, *Australian commodities*, June 2011; RBA monthly exchange rate data 2011

## Eggs

### Forecast

For 2011–12, the gross value of Queensland’s egg production is forecast at \$112 million; this is the same as DEEDI’s final estimate for 2010–11 and a 2 per cent increase on the 2009–10 revised ABS estimate.

### Analysis and discussion

During 2011–12, egg production is forecast to increase relative to 2010–11 levels, leading to strong inventory levels. Although production is not expected to reach the record high levels achieved in 2009–10, strong inventory levels will nevertheless exert downward pressure on egg prices in the short term.

Any price effects brought about by an oversupply within the market is not guaranteed to directly translate into an average price change at the farm gate. This is because a significant proportion of growers are contracted to supply major supermarket chains at a set price for 12–18 months.

The Australian Egg Corporation estimated that egg consumption averaged 193 per person in 2010, a 4 per cent increase on the 2008 figure and slightly more than the 5-year average of 181 eggs per person per annum. Population growth is expected to drive further increases in consumption. These per capita increases are expected to be realised through effective promotion of eggs as a healthy and convenient food, dispelling the long-term myth linking egg consumption to heart disease.





# Crops

## Horticulture crops

### *Fruit and nuts*

#### Forecast

The total gross value of Queensland's fruit and nut production in 2011–12 is forecast at \$1.176 billion, 18 per cent greater than DEEDI's final estimate for 2010–11 but 6 per cent lower than the 2009–10 revised ABS estimate.

#### Analysis

The gross value of **banana** production is forecast at \$360 million for 2011–12, 29 per cent greater than DEEDI's final estimate for 2010–11 and 20 per cent lower than the 2009–10 revised ABS estimate.

Banana production had a slow start to 2011–12 with supply running very low in July due to cold weather across Queensland on the back of continued recovery from Cyclone Yasi. Some growing areas reported their coldest winter in almost 10 years.

As cyclone-affected crops mature at the same rate, it is expected that the fruit will flood the market in late 2011, with supply hitting its peak over December and January.

Most of the state's banana production occurs in the Cardwell and Johnstone shires in northern Queensland.



The gross value of **strawberry** production is forecast at \$145 million for 2011–12, the same as DEEDI's final estimate for 2010–11 and the 2009–10 revised ABS estimate.

A cool start to 2011–12 saw a delay in production. However, it is expected that the warmer spring weather will improve yields.

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



The gross value of **mandarin** production for 2011–12 is forecast at \$74 million, 6 per cent greater than DEEDI's final estimate for 2010–11 but 3 per cent lower than the 2009–10 revised ABS estimate.

For most growers, production has returned to normal following the floods. However, there are some producers with trees that will take a few seasons to fully recover. Despite the strong Australian dollar, the outlook for exports is very strong, primarily due to a recent downgrading of forecast production and exports for mandarins in the southern hemisphere.

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





The gross value of **mango** production is forecast at \$70 million for 2011–12, the same as DEEDI’s final estimate for 2010–11 and 3 per cent lower than the 2009–10 revised ABS estimate.

More than 40 per cent of Queensland’s mango production is in the Mareeba shire in Far North Queensland. A further 39 per cent of production occurs in the neighbouring Burdekin, Bowen and Townsville shires.

Note that any estimate made at this time of year is tentative, as it is early in the flowering stage at the time of preparation (early August). Subsequent weather events can significantly influence crop size. In addition, the pattern of alternating high-production and low-production years has broken down over the last few years, making early-season forecasts even more difficult.



The gross value of **avocado** production is forecast at \$95 million for 2011–12, the same as DEEDI’s final estimate for 2010–11 and 19 per cent greater than the 2009–10 revised ABS estimate.

Cyclone Yasi destroyed 20 per cent of the North Queensland crop in early 2011. The Tablelands account for approximately 17 per cent of the nation’s supply, and 30 per cent of the total supply for Queensland. It is expected that it will take the majority of 2011 for supplies from the North Queensland industry to recover and return to normal.

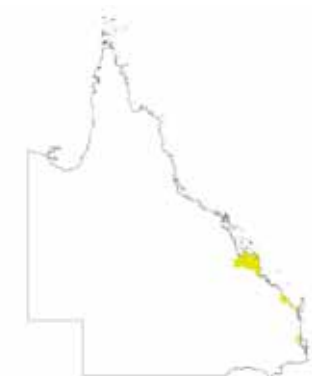
The Isis and Burnett shires produce 37 per cent of Queensland’s avocados, with 29 per cent of production occurring in the Atherton and Mareeba shires in Far North Queensland. Just over 10 per cent of avocados are grown in the Crows Nest shire on the Darling Downs.



The gross value of **pineapple** production is forecast at \$68 million for 2011–12, which is 3 per cent lower than DEEDI’s final estimate for 2010–11 and 3 per cent lower than the 2009–10 revised ABS estimate.

Lower volumes of smooth cayennes for both processing and fresh markets are expected to be offset by higher prices, especially for fresh fruit.

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



The gross value of **apple** production is forecast at \$40 million for 2011–12, the same as DEEDI’s final estimate for 2010–11 and 18 per cent greater than the 2009–10 revised ABS estimate.

More than 95 per cent of Queensland’s apples are grown in Stanthorpe.





The gross value of **macadamia** production in 2011–12 is forecast at \$42 million, 5 per cent greater than DEEDI's final estimate for 2010–11 and 45 per cent greater than the 2009–10 revised ABS estimate.

While production looks like it may fall slightly in 2011–12, Queensland's share of national production is expected to grow from the current 38 per cent to 40 per cent to reach around 12 000 tonnes. A global shortage of macadamia kernel has resulted in good prices, which are about 15 per cent higher than in the previous year.

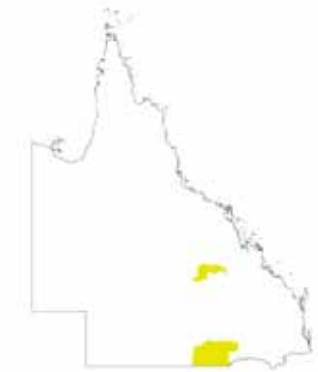
A major production area is in the Burnett shire north of Bundaberg, where 40 per cent of macadamias are grown. Significant amounts are also grown around Gympie and just north of Gympie in the Tiaro shire.



The gross value of **table grape** production is forecast at \$50 million for 2011–12, the same as DEEDI's final estimate for 2010–11 and 39 per cent greater than the 2009–10 revised ABS estimate.

The main varieties are Menindee seedless, flame seedless and red globe. Queensland table grapes are early season, with 90 per cent harvested between October and December.

The major production areas are in the Balonne shire, where more than 40 per cent of Queensland's table grapes are grown, and the Emerald shire, where a third of production occurs.



## Vegetables

### Forecast

For 2011–12, the gross value of Queensland's vegetable production is forecast at \$1.188 billion, 3 per cent greater than 2010–11 and 24 per cent greater than the 2009–10 revised ABS estimate.

### Analysis

#### Major vegetables

The gross value of Queensland's **potato** production is forecast at \$54 million, 8 per cent greater than DEEDI's final forecast for 2010–11 but 5 per cent lower than the 2009–10 revised ABS estimate.

Following the improvement in water supplies after drought-breaking rains over the past year, some growers are planning to increase plantings in the main potato-growing regions this financial year. This could potentially lead to a fall in prices.

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



The gross value of **tomato** production for 2011–12 is forecast at \$266 million, 2 per cent lower than DEEDI's final forecast for 2010–11 and 83 per cent higher than the 2009–10 revised ABS estimate.

As with most vegetables grown this year, the improvement in water supplies should see greater production than in previous years. However, lower prices are expected to temper this outcome.

Half of Queensland's tomato production occurs in the Bowen shire, with some production in the Isis shire around Childers.





The gross value of **capsicum and chilli** production in Queensland is forecast at \$139 million for 2011–12, which is 7 per cent greater than DEEDI’s final forecast for 2010–11 and 39 per cent greater than the 2009–10 revised ABS estimate.

Reasonable water availability is likely to result in an increased volume of production across the state. There is, however, expected to be a slight reduction in prices associated with this improvement.

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



The gross value of **sweetpotatoes** is forecast at \$56 million, which is 6 per cent greater than DEEDI’s final forecast for 2010–11 and 2 per cent greater than the 2009–10 revised ABS estimate.

The growth of the sweetpotato industry has been rapid over the past five years. However, the industry has entered a period of consolidation and is not expected to continue to expand as rapidly.

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



### **Other vegetables**

The gross value of **lettuce** production in Queensland in 2011–12 is forecast at \$54 million, 12 per cent lower than DEEDI’s final forecast for 2010–11 and 17 per cent lower than the 2009–10 revised ABS estimate.

Improved water-supply levels will see production rebound over the next financial year. However, lower than expected prices are likely to result in a reduction in gross value of production in 2010–11.

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



The gross value of **mushroom** production is forecast at \$64 million for 2011–12, the same as DEEDI’s final forecast for 2010–11 and 7 per cent greater than the 2009–10 revised ABS estimate.

The mushroom industry has experienced rapid growth over the past four years, driven by steady growth in market demand. However, this growth is expected to level off over the next financial year.

The two main production areas for mushrooms are the Beaudesert and Stanthorpe shires, south-west of Brisbane, where almost 60 per cent of production occurs. The neighbouring shires Isis (around Childers) and Burnett (north of Bundaberg) account for 12 per cent of production, while 9 per cent of production occurs in the Maroochy shire (around Nambour).





The gross value of **watermelon** production in Queensland in 2011–12 is forecast at \$37 million, which is slightly greater than DEEDI's final forecast for 2010–11 but 16 per cent lower than the 2009–10 revised ABS estimate.

A third of Queensland's watermelon production occurs in the adjoining shires of Bowen and Burdekin in Central Queensland. Smaller pockets of production are in the Chinchilla and Rosalie shires on the Darling Downs, as well as in the Banana and Gatton shires.



## Lifestyle horticulture

### Forecast

The GVP of the production segment of the lifestyle horticulture industry in 2011–12 is forecast at \$1.118 billion. This is an 11 per cent decline on DEEDI's revised estimate of \$1.253 billion for lifestyle horticulture production activity in 2010–11.

### Analysis

In response to lifestyle horticulture industry requests for more contemporary data to reflect the current state of the industry, the Queensland Government conducted a comprehensive survey of the industry in 2008 (see article on page 55).

This edition of *Prospects* uses the results of this survey as the basis of the DEEDI estimates and forecasts for the lifestyle horticulture production segment. Note that this rebasing has led to some revisions to the DEEDI lifestyle horticulture industry GVP estimates/forecasts since 2007–08.

Production nurseries have experienced declining sales and have reduced their level of business investment as a result of the recent natural disasters and difficult trading conditions. Therefore the gross value of the nursery production sector is forecast at \$821 million in 2011–12, a 10 per cent decrease on DEEDI's revised estimate for 2010–11. The nursery production sector is the largest sector of the lifestyle horticulture production segment and it accounts for almost three-quarters of lifestyle horticulture production activity.

Uncertainty about economic conditions has affected consumer confidence, and a number of economic commentators have reported that consumers have reduced discretionary expenditure to focus on increased savings and debt reduction. Also, a number of regional economies such as North Queensland and the Gold Coast are being negatively impacted by the slowdown in tourism. These factors have dampened consumer/household demand for ornamental plants.

A number of production (and retail) nurseries were inundated by floodwater or damaged by Cyclone Yasi in early 2011. Many of these businesses are still recovering from these disasters, particularly those that suffered significant damage to infrastructure as a result of Cyclone Yasi.

On a positive note, the extremely high rainfall across Queensland at the beginning of 2011 provides some optimism for the production nursery sector, particularly for those supplying seedlings, tubestock and planting material for the food-producing horticultural industries, as these industries expand production due to the favourable growing conditions.

The high rainfall in the first six months of 2011 and the warming temperatures over the next few months are also expected to encourage householders back to their gardens in the spring season. Consequently, the production nursery sector is expecting good sales of ornamental plants over the balance of 2011 and into early 2012.

Bunnings' entry into the 'big-box' retail hardware sector on the east coast of Australia in the 1990s provided a significant stimulus to the production nursery sector because it increased overall sales of ornamental plants. Industry participants hope that the entry of Masters Hardware (a joint venture between Woolworths and the United States hardware chain Lowe's) as a significant new player in the Australian big-box retail hardware sector over the next few years will have a similar positive impact on the production nursery sector. Masters indicate that they intend to establish new stores at 150 sites across Australia over the next few years.





Anecdotal reports indicate that production nurseries are continually looking to diversify their markets, particularly into interstate markets, to reduce their reliance on local markets. The Queensland Government survey of the lifestyle horticulture industry indicates that in excess of 20 per cent of total production nursery sales are made to interstate or international markets.

The gross value of the **turf** production sector is forecast at \$146 million for 2011–12, a significant fall of 20 per cent on DEEDI’s revised estimate for 2010–11.

Demand for turf is closely linked to dwelling construction activity, with almost two-thirds of all turf sales being made directly to the public or to landscapers. A significant slowdown in housing construction in major Queensland population centres, particularly in South East Queensland and tropical North Queensland, is negatively impacting on the demand for turf. The number of annual new housing starts in Queensland fell to 28 000 in 2010–11, almost 40 per cent below the 45 000 starts recorded during the most recent peak in Queensland housing construction activity in 2007–08. There are some industry reports of significant price-cutting by some producers seeking to maintain markets or sustain sales.



The Queensland Government’s Queensland Building Boost grant will operate in the period from 1 August 2011 to 31 January 2012 and this initiative will provide a much-needed stimulus to the housing construction sector, particularly in the first six months of 2012. Queensland Treasury indicates that the grant is expected to cost \$140 million, equivalent to 14 000 payments of \$10 000. Based on analysis of previous temporary stimulus measures, this is expected to see dwelling starts of around 4000 more than they would have been otherwise.

Major infrastructure investment and government economic stimulus policies have bolstered demand for turf over recent years and the reconstruction process from the flooding across South East Queensland has stimulated some demand for turf since the beginning of 2011. However, tighter budgets as governments seek to reduce debt are likely to affect the demand for turf as expenditure on major public infrastructure projects declines from the recent very high levels.

Innovation will drive the growth of the turf production sector, with industry leaders looking to adopt strategies to increase mechanisation, improve productivity and use environmentally best-practice procedures. The turf production sector is also looking to diversify the markets for turf with a view to increasing overall turf sales and is currently focusing on expanding the use of turf grass as a cost-effective erosion-control measure.

The gross value of **cut flower** production is forecast at \$151 million for 2011–12, which is 5 per cent lower than DEEDI’s revised estimates for 2010–11.

The cut flower sector is the only lifestyle horticulture sector currently facing significant import competition. Imported traditional flowers (for example roses, chrysanthemums, carnations and static) from relatively low-cost producers in Africa, South America and Asia are exerting considerable pressures on the Queensland cut flower production sector. The traditional flower sector accounts for the overwhelming majority of cut flower production in Queensland, with some industry estimates indicating that traditional cut flowers account for about 90 per cent of total production.



The sharp appreciation of the Australian dollar over the last 12 months has exacerbated the pressure from imports, with local producers losing considerable cost-competitiveness. There are industry reports that some larger producers of traditional cut flowers are diversifying into other areas such as ornamental plants as a result of the stronger competition from imports.

Australian primary industries have traditionally adopted strategies to increase productivity, such as increasingly automating production processes to reduce labour costs and to remain cost-competitive with imports. However, the highly specialised nature of cut flower growing means it will be some time before the growing process becomes largely automated.



Mass merchandising of cut flowers in the Australian market began in the late 1990s and consumers are now more likely to purchase flowers from supermarkets or other mass-merchandising stores than from retail specialists. Larger industry participants that are able to supply large retailers have benefited from this trend, and as a consequence the larger cut flower producers are capturing increased shares of the overall market at the expense of smaller producers.

Past research indicates that increased demand for cut flowers correlates strongly with higher disposable incomes, which leads to increased per capita consumption. However, as reported earlier in this section, consumers have reduced discretionary expenditure to focus on strategies to increase savings and reduce debt.

The cut flower production sector is also the only lifestyle horticulture sector that has established significant export markets, with almost 10 per cent of all cut flower sales being made to overseas markets. The smaller native cut flower component is particularly export-focused and is currently suffering a significant loss of competitiveness in international markets due to the appreciation of the Australian dollar, as well as other factors such as the rising cost of many production inputs and transport costs. To compound these issues, large areas of the northern Pacific coast of Japan (Queensland's major cut flower export market) were swamped by a major tsunami in March 2011 and the recovery process is expected to take many years. This devastating natural disaster has disrupted many aspects of Japanese life and its economy, including the demand for cut flowers.

More information about the results of the new lifestyle horticulture industry survey, and the lifestyle horticulture services segment, is included in the special feature 'Queensland lifestyle horticulture' (page 55).

## Other crops

### Sugarcane

#### Forecast

The gross value of Queensland's **sugarcane** production in 2011–12 (that is, from the 2011 harvest) is forecast at \$1.22 billion, which is 30 per cent greater than DEEDI's final estimate for 2010–11 but 15 per cent below the 2009–10 revised ABS estimate.

Total revenue from Queensland's 2011 crop, in raw sugar equivalent, is expected to be \$1.9 billion.

There is an increasing use of different pricing options for sugarcane. However, it is assumed that the Queensland seasonal pool (QSP) price from Queensland Sugar Limited (QSL) and the grower share in the uniform cane payment formula are still the best indicators for industry valuation along the supply chain.

#### Analysis

Queensland's 2011 sugarcane crop has been significantly set back along the Queensland coastline due to an extremely wet 12 months following April 2010. The persistent and prolonged unseasonal rainfall during the 2010 harvest period made it impossible to harvest about 20 per cent of the 2010 export crop, which has had flow-on impacts. Cyclone Yasi in February 2011 compounded the wet weather impact on the 2011 crop.

Nonetheless, a return to more normal weather conditions has helped harvesting schedules and improved sugar content. However, the high percentage of standover cane in this year's crop has made forecasting difficult. The size of the season's sugarcane crop for Queensland is expected to be around 28 million tonnes and of relatively low sugar content (CCS<sup>5</sup> of about 13) due to the amount of standover cane.

A recent upswing in global raw sugar prices has lifted expected returns for Queensland growers and millers this season. QSL's September 2011 forecast for the 2011 QSP price is \$495 to \$560 per IPS<sup>6</sup> tonne and is expected to exceed the record 2009 actual price of \$508.77 per tonne. This is a significant improvement on the 2010 QSP price range of \$396 to \$434 per IPS tonne with the 2010 actual price calculated at \$428.32 per tonne. The 2010 price range reflects the QSL trading losses and allocation of those via 2010 season delivery shortfall costs, where suppliers each received a different QSP price for the 2010 season. In a non-exceptional year, all suppliers would receive the same or much higher QSP price.



<sup>5</sup> Commercial cane sugar (CCS) is a measure of sugar content.

<sup>6</sup> International polarity scale.



Therefore, despite recent volatility in the world market and the impacts on crop production, there is cautious optimism that Queensland canefarmers can anticipate a better than expected return.

### **Industry background**

According to the June quarter forecasts from ABARES, world sugar production is expected to increase by 8.1 million tonnes in 2011–12 to a record 177.1 million tonnes. Large production increases are forecast for all major sugar-producing countries as both sugarcane and sugar-beet growers respond to recent high sugar prices.

However, the current crop outlook for Brazil is now much less optimistic than it was at the start of their harvest and recent frost may see a further downward revision on Brazil production estimates. Brazil's forecast has tempered the impact of the forecasted bumper Thai crop (up 2 per cent to 10.2 million tonnes) and strong beet crop expectations from Europe, particularly in Russia (which is expecting 1.6 million tonnes more than in 2010–11).

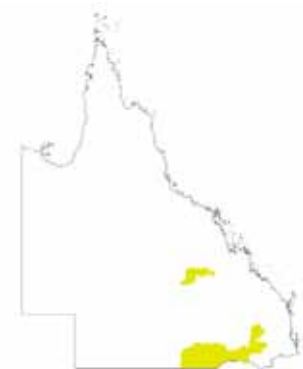
In May, the global surplus for 2011–12 was anticipated to be around 8 million tonnes. Since then, the sugar market has strengthened, with 2011 season prices currently up over \$500 and most futures contracts reaching life-of-contract highs (July). QSL is cautiously optimistic that current prices will be sustained in the short term, but are closely monitoring the macro-economic conditions in Europe and the United States with the unfolding debt crisis and the possible slowdown in Chinese growth prospects. However, while commodities have generally been weaker, sugar has inexplicably gone against the trend, with the changing fortunes of the Brazil crop playing a key role in price activity.

Industry realignment is continuing in Queensland. In July 2011, Chinese company COFCO successfully acquired Tully Sugar Limited after a three-way bidding war between Mackay Sugar Limited and the United States agribusiness Bunge. At the time of writing, Sucrogen (which is owned by Singapore-based agribusiness conglomerate Wilmar International) was bidding for the acquisition of the Proserpine Cooperative Sugar Milling Association Limited.

### **Cotton**

#### **Forecast**

The gross value of **cotton** production for 2011–12 is forecast to be \$872 million, 32 per cent greater than DEEDI's final estimate for 2010–11 and 146 per cent greater than the 2009–10 revised ABS estimate. The 2011–12 season has very strong prospects based on relatively high expected prices and very good water supplies.

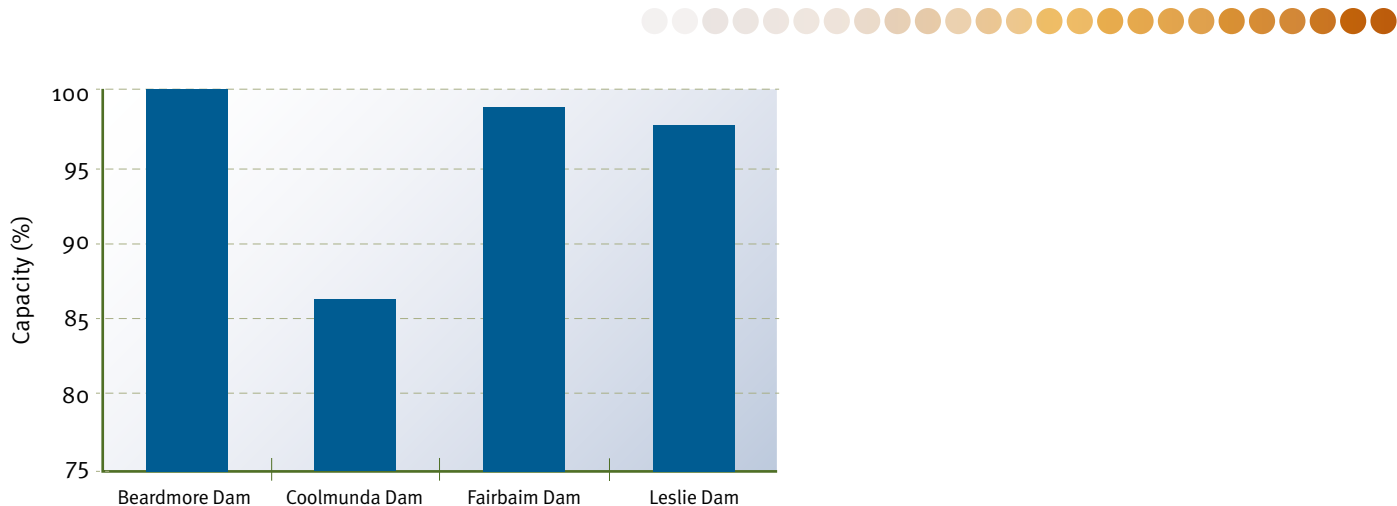


#### **Analysis**

For 2011–12, the total area sown to cotton in Queensland is forecast to increase by 6 per cent to 203 000 hectares. There is an anticipated 39 per cent increase in average yields due to increased irrigated cotton plantings, cotton lint production and cottonseed production. The cotton price per bale is expected to fall slightly by 6 per cent to \$490 per bale, but the cottonseed price is expected to remain constant at \$175 per tonne. The irrigated cotton cropping area is expected to increase by 39 per cent to 152 000 hectares across the state. This includes 40 000 hectares on the Darling Downs, 65 000 hectares in the St George – Dirranbandi region, 16 000 hectares in the Border Rivers region and 31 000 hectares in Central Queensland.

#### **Improved water storages and rainfall**

There has been a great improvement in irrigated water supplies in the Condamine, Border, Macintyre, Barwon and Moonie rivers regions. Significant summer rainfall in all regions has ensured ample stored soil-moisture supplies for both irrigated and dryland growers. As a consequence, water-storage levels in the major irrigation dams for cotton have grown considerably in the past year. This is depicted in Figure 10.



**Figure 10 Capacity of major Queensland irrigation dams for cotton, 16 August 2011**

Source: Sunwater

### Domestic production

A forecast increase in area sown by 32 per cent to 203 000 hectares in 2011–12 is estimated to increase cotton lint production to 1 591 500 bales (361 271 tonnes), up 39 per cent from the 2010–11 level. Cottonseed production is also forecast to increase by 39 per cent in 2011–12 to 523 842 tonnes from the 2010–11 level of 376 515 tonnes.

### World production

As detailed in Table 12, China is the world’s largest cotton producer, yielding over 6.6 million tonnes in 2010–11 and accounting for 27 per cent of world production. The next largest cotton producers are India, the United States and Pakistan, contributing 22 per cent, 16 per cent and 8 per cent respectively to world production. Although China is the world’s largest producer of cotton, it is also a net importer, possessing a large share of global cotton mills, and is the biggest manufacturer of cotton textiles. China is forecast to import 3.3 million tonnes of cotton in 2011–12. The United States, although producing the equivalent of 50 per cent of Chinese production in 2010–11, is the world’s largest cotton exporter, and is forecast to export 2.7 million tonnes of cotton in 2011–12, accounting for around 33 per cent of global exports.

**Table 12 World production of cotton, 2010–11**

Producer <sup>a</sup>	Production ('000s of tonnes)	Share of world production (%)
China	6 641	27
India	5 530	22
United States	3 942	16
Pakistan	1 916	8
Brazil	1 851	7
Australia	914	4
Total world production	24 942	100

<sup>a</sup> Not all cotton producers are shown in the table.

Source: United States Department of Agriculture, Foreign Agriculture Service, *Cotton: World Markets and Trade Monthly Circular*, August 2011

### International supply and demand forces

The latest information from the United States Department of Agriculture (USDA) indicates that the United States exportable supply is expected to contract by nearly 10 per cent from last season. This is due to low starting stocks (the smallest in 15 years) coupled with a forecast decrease in production due to adverse weather conditions in Texas. Expected record crops in Australia and Brazil will provide substantial export competition for the United States over the next few months.



For the major world importers, USDA forecasts the following changes for 2011–12:

- **China** to decrease imports by 250 000 bales to 15 million bales
- **Bangladesh** to decrease imports by 300 000 bales to 3.7 million on prospects for weaker consumption
- **Mexico** to decrease imports by around 100 000 bales to 1.1 million bales.

Changes to rates of cotton exports by most major exporters are also forecast for 2011–12:

- **United States** to increase exports by around 300 000 bales to 12.3 million bales on increased production
- **Australia** to decrease exports by 100 000 bales to 4.3 million bales
- **Brazil** to slash exports by 700 000 bales to 3.7 million bales on lower available supplies.

As at August 2011, global cotton imports for 2011–12 are forecast to be 8.18 million tonnes. Global closing stocks are expected to be 11.47 million tonnes. Total global production is projected to be 26.72 million tonnes, slightly greater than the consumption of 25.08 million tonnes. Global trade is contracting and the average prices are falling; however, prices still remain at record high levels.

## Other major field crops

### *Chickpeas*

#### Forecast

The gross value of chickpeas in 2011–12 is forecast to be \$56 million, 45 per cent higher than DEEDI's final estimate for 2010–11 and the same as the 2009–10 revised ABS estimate.



#### Analysis and discussion

This increase can be attributed to a forecast 42 per cent increase in production to 198 000 tonnes and a slight (4 per cent) increase in price to \$400 per tonne.

#### Area sown and production

The area sown for chickpeas is estimated at 70 500 hectares, 42 per cent below that of autumn 2010 (122 000 hectares).

In 2010 the harvest was ravaged by flood; crops were downgraded due to fungus and excessive moisture. Only 10 per cent of the Queensland crop was of optimal quality, and this received around \$430 per tonne. Yields also suffered in 2010, as the crops were affected by fungal conditions. In 2011, many growers opted to plant what they consider to be safer crops, such as wheat and sorghum. Also, there was a lack of planting seed in the 2011 autumn.

Yields are expected to be closer to average during the crop finishing phase in spring 2011, increasing by an estimated 36 per cent on yield levels of 2010–11. However, in net terms the reduced area sown is calculated to outweigh the yield increase, reducing production by 16 per cent to 116 000 tonnes in 2011 (2011–12 season), down from 131 000 tonnes in the previous season.

#### Price

Despite converted world prices being around \$460 per tonne (March quarter 2011), the 2010 crop averaged a price of \$295 per tonne, due to most of the Queensland crop being weather damaged. The September quarter 2011 price of \$480 per tonne is an increase of 63 per cent on the disastrous price received for the 2010 crop, and represents a 4 per cent increase on the levels of the last *Prospects* estimate (March quarter 2011).

Strong support for pulse prices exists. There are reports of shortages of the larger Kabuli types on the global market, which has flowed on as price support for Desi types. Generally there are tight international supplies of chickpeas, which are not expected to ease until the beginning of 2012 with anticipated supplies from India and Argentina.



Chickpea prices currently face two challenges. Firstly, the high Australian dollar is currently hurting Queensland growers, as they are receiving less dollars per tonne of chickpeas exported. Secondly, internationally there has been a push by the Indian government for their growers to plant more pulses domestically, increasing supplies of chickpeas in this major Australian pulse export market.

## *Peanuts*

### **Forecast**

The gross value of peanut production in 2011–12 is forecast to be \$26 million, an increase of 18 per cent on DEEDI's final estimate for 2010–11 and 31 per cent higher than the 2009–10 revised ABS estimate.



### **Analysis and discussion**

#### ***Area sown and production***

Due to wet weather in the 2010–11 summer season, only 7000 hectares of peanuts were planted. This was primarily as a result of waterlogged paddocks, particularly in the main peanut-growing region of Kingaroy. Assuming that there are adequate soil-moisture levels without waterlogging for the 2011–12 season, a sown area of 8500 hectares is expected, which is 6 per cent greater than the area sown in 2010–11.

Excessively cloudy and wet weather over the previous season affected yields, which were 41 per cent below the average expected yield for the coming 2011–12 season. For more productive peanut soil types, yields fell from between 5 and 5.5 tonnes per hectare to 3 tonnes per hectare. Assuming that average pollination conditions and average yields prevail over 2011–12, production is expected to be 30 000 tonnes, a marked increase (50 per cent) on 2010–11. Queensland produces the vast majority of Australian peanuts. Production outside Queensland in 2010–11 is estimated at between 300 and 400 tonnes.

#### ***Price***

Due to strong crushing demand for world oilseeds such as sunflowers and soybeans, particularly in Asian economies, the world oilseeds indicator price (soybeans, CIF, Rotterdam) is estimated to average around US\$560 per tonne in 2011–12, 1 per cent higher than the 2010–11 price of US\$549 per tonne. The increase in world oilseed price is expected to help the peanut price per tonne received by Queensland farmers, which is forecast to increase by 6 per cent from \$800 (2010–11 crop) to \$850 per tonne. The price received by Queensland growers over 2010–11 was highly variable due to varying crop qualities.

#### ***World peanut market***

China produces a sizeable 13.5 million tonnes of peanuts per annum, most of which it consumes domestically. Argentina is also a major producer and exports 500 000 tonnes of edible peanut kernels to the world market. The United States produces 2 million tonnes and exports up to 300 000 tonnes annually. Overall, there are 1 million tonnes of edible peanut kernels (not including those used for oil crushing) in world trade. Australia consumes all peanuts that are produced domestically. If there is a supply shortfall, Australia will likely import peanuts from Argentina to meet the deficit.



## Soybeans

### Forecast

The gross value of soybean production in 2011–12 is forecast to be \$11 million, 15 times greater than DEEDI's final estimate for 2010–11 and 27 per cent higher than the 2009–10 revised ABS estimate.



### Analysis and discussion

#### Area sown, yields and production

The area sown to soybeans in 2010–11 was estimated at 500 hectares, 93 per cent below what was expected over the summer season (7250 hectares). This was due to excessively wet weather; much of the cropping land available for soybeans could not be prepared due to waterlogging and muddy paddocks. Some areas sown were also totally lost to flooding. What was estimated in 2009–10 to be an 18 000 tonne crop became a decimated 1000 tonne crop in 2010–11.

Assuming average seasonal rainfall and soil-moisture conditions for 2011–12, the area sown to soybeans is anticipated to increase to 10 000 hectares, a significantly larger area than the estimated 500 hectares planted in 2010–11. Average yields for 2011–12 are expected to be similar to the 2010–11 crop, since the only crop areas worthy of harvesting yielded average results. As a consequence, production is forecast to increase to 20 000 tonnes this coming season, a significantly larger crop than the 1000 tonnes produced in 2010–11. The forecast 2011–12 crop is nearly 70 per cent below the bumper crop production estimate for 2008–09 but is closer to the more average estimate for the 2007–08 crop of 20 700 tonnes.

In Central Queensland, the area sown is likely to decline, as growers are increasingly favouring cotton as a crop. However, this region contributes the minority share of total Queensland production, with just 600 tonnes anticipated for 2011–12.

#### Domestic prices

Although world soybean production is anticipated to increase overall, crushing demand for oil remains strong, and this will apply upward pressure on exports and domestic soybean prices. However, current soybean prices received by Queensland growers have fallen 18 per cent from an estimated \$675 per tonne in the March quarter 2011 to \$550 per tonne in the September quarter 2011.

The majority of Queensland soybeans go to the crushing market. Locally produced beans command a slight premium over imported beans for crushing. Prices for locally produced beans can often be 10 per cent or more above the import price; this encourages import substitution, which in turn drives down the domestic price. However, the Queensland soybean industry has significant economic potential in larger soybean varieties, which are sold for niche human consumption in the form of tofu and whole edible soybeans. In this market, a price premium well above export crushing prices can be commanded.

#### World production and demand conditions

World production of soybeans is forecast to increase 2 per cent to 266 million tonnes in 2011–12. Reduced United States production is expected to be more than offset by increased production from Brazil and Argentina. United States plantings suffered from adverse weather. Production there is forecast to be around 90 million tonnes, a decline of 2 million tonnes from 2010–11. Brazil's producers are favouring plantings of soybeans over corn. Production there is forecast to increase 5 per cent to around 77 million tonnes. Argentina's production is expecting to recover from drought conditions that affected 2010–11 crops. Production is forecast to increase 6 per cent in 2011–12 to 23 million tonnes.

During the last decade, the soybean sector for human consumption has been increasing, with expanding export opportunities to Asian countries, including Japan, Taiwan, Thailand, Singapore and Indonesia. Currently the United States and Canada are the major suppliers to these markets, but there is significant opportunity for Australian soybeans at the top end of the market. Australia has a reputation for non-GM (genetically modified) soy crops, an excellent food safety record and high-quality produce.



## Sunflowers

### Forecast

Sunflower seed GVP is forecast to be \$9 million in 2011–12, which is 23 per cent higher than DEEDI's final estimate for 2010–11 and 47 per cent above the 2009–10 revised ABS estimate.



### Analysis and discussion

#### Area sown and production

The area sown to sunflowers is expected to increase 20 per cent to 13 200 hectares in 2011–12. The early planting of sunflowers is in October, and a later planting follows in the middle of summer. The area planted in the coming season will not just be price-dependent; it will also depend on rainfall around the early and late planting windows.

There may be some switching from planting sorghum to sunflowers in areas where there are late planting options for both crops, assuming there has been sufficient rain. The price of sunflowers of \$500 per tonne in the March quarter 2010 is well under the high \$600 per tonne received over 2009–10. Historically, when the sunflower price is three times that of sorghum (now at \$225 per tonne), growers are more likely to switch to planting sunflowers. Given that the sunflower price is currently up to two-and-a-half times the sorghum price, sorghum will remain a close competitor with sunflowers as a crop to grow over 2011–12. Sunflowers remain the favoured crop over maize on price (maize is currently \$233 per tonne) and should remain favoured over sorghum, given average seasonal conditions and less intense rainfall over 2011–12. Further, there has been an increase in domestic demand for mono-unsaturated sunflower seed varieties, which encourages larger plantings.

Assuming average seasonal rainfall and soil-moisture conditions prevail in 2011–12, yields are anticipated to increase by 13 per cent, nearing the current five-year average. This, coupled with increased area sown, is calculated to boost sunflower production by 35 per cent from the 2010–11 level to 17 600 tonnes.

#### Domestic price

Despite an increased world oilseed price, domestic sunflower seed prices have fallen significantly from the last *Prospects* update (March 2011) by 17 per cent to an estimated \$500 per tonne. This is partly due to increased imports of sunflower oil encouraged by the appreciation of the Australian dollar.

#### World supply and demand conditions

World production of sunflower seeds is forecast to increase by 10 per cent to 34 million tonnes in 2011–12. Argentina's production is forecast to fall to 3.1 million tonnes in 2011–12 after a record 3.5 million tonnes in 2010–11. The Black Sea region's production is expected to recover this year, following drought-affected production in 2010–11. After investing in capital to take advantage of the higher prices, sunflower production in the Ukraine and Russian Federation is forecast at 8 million tonnes and 7.5 million tonnes respectively.

World oilseed consumption is forecast to rise by 2 per cent in 2010–11 to around 461 million tonnes. The increase in consumption is being driven by record crushing demand for vegetable oil. Higher world vegetable oil prices have supported crush margins and world oilseed crush is forecast to increase by 2 per cent in 2011–12.

Despite increasing world sunflower seed production and that of soybeans, strong crushing demand for oil is expected to increase the world oilseeds indicator price (soybeans, CIF, Rotterdam) to average around US\$560 per tonne in 2011–12. This is higher than the 2010–11 price (US\$549 per tonne).

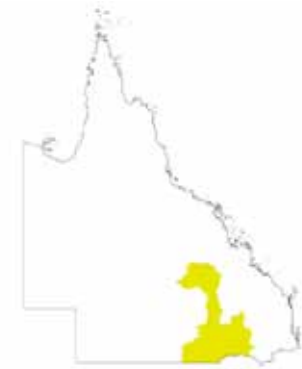


## Winter cereal grains

### Wheat

#### Forecast

Wheat gross value of production for 2011–12 is forecast to be \$313 million, 4 per cent higher than DEEDI's final estimate for 2010–11 and 18 per cent above the 2009–10 revised ABS estimate.



#### Analysis and discussion

##### Area sown

Favourable world wheat prices and the movement out of chickpeas (due to fungal disease) have increased the area sown to wheat to around 816 700 hectares in autumn 2011 for the 2011–12 crop, a 6 per cent increase from last year.

##### Yields

As at the end of July 2011, soil conditions and the seasonal rainfall outlook indicated that chances of above-median wheat yield for 2011–12 were likely for most of Queensland. However, variation exists across the regions, with South East Queensland and Central Queensland having a good chance of above-average yields, while South West Queensland has a lower chance of average crop yields.

In mid-August 2011, the planting window was closed, with most of the state's soil-moisture profile levels above 80 per cent; however, these levels were as low as 60 per cent in parts of South West Queensland. The three-month rainfall outlook from the end of June 2011 indicated a reduced chance of receiving normal rainfall across most of the South West Queensland cropping area. It is predicted that rainfall levels will be reduced around crop flowering time (early September), which has decreased yield expectations.

The yield forecasts for South East Queensland (2.44 tonnes per hectare) and Central Queensland (1.37 tonnes per hectare) are above or close to the long-term median expectations for those regions. However, the forecast for South West Queensland, at 1.13 tonnes per hectare, is below the long-term median of 1.29. These yield forecasts could increase, given improvements in rainfall over the growing season and to the end of October.

As at July 2011, reports on yields are very mixed. Some areas have been double-cropped; for example, sorghum or mungbeans were planted over the 2010–11 summer, then wheat was planted immediately afterwards in autumn 2011. These areas are more moisture-depleted and soil-depleted than single-cropped fallowed land. Land that was flooded in early 2011, although moisture-boosted, suffered significant nutrient leaching, particularly of nitrogen. These areas will suffer lower than average wheat yields; however, there are conflicting reports that areas in the Condamine and Northern Downs have experienced yields well above average.

Overall, it is estimated that yields will increase by 11 per cent in 2011 compared to the previous season.

Much of the 2010–11 wheat crop could not be harvested due to excessively wet conditions. There was also a shortage of fungicide, which made it more difficult to contain foliar fungal diseases.

##### Production

Assuming average temperature and moisture conditions prevail, particularly during the crop head development phase over September and October, an increase in yields is expected. This, coupled with an increase in area sown, is estimated to increase production 18 per cent from 984 300 tonnes in 2010–11 to 1 159 800 tonnes in 2011–12.

##### International production, demand and price

World wheat production is forecast to increase 3 per cent to 669 million tonnes in 2011–12, primarily due to improved conditions in the Black Sea region. Production in the United States is forecast to fall by 7 per cent to 56 million tonnes due to a reduction in rainfall, with additional quality downgrades. Also, the European Union has experienced dry conditions similar to last year. Production is expected to fall by 1 per cent to around 134 million tonnes in 2011–12.



Conversely, Canada's wheat production is forecast to increase by 9 per cent to around 25 million tonnes in 2011–12. Argentina had an increase in production of 71 per cent in 2010–11 due to favourable conditions; in 2011–12, production is forecast to decline by 11 per cent to 13 million tonnes. Additionally, the Black Sea major exporters (the Russian Federation, Ukraine and Kazakhstan) are likely to see a vast improvement in volumes from improved seasonal conditions. Production in the region is forecast to increase by 33 per cent to 91 million tonnes.

Reduced supplies of milling wheat due to production downgrades from Canada, the United States and Australia, in addition to increased Black Sea supplies of wheat, will cause some downward pressure on average prices. As at the end of July 2011, 70 per cent of the United States winter wheat crop harvest is complete. The general market consensus is that the wheat price has reached its seasonal low. Until the United States winter and spring wheat crops are in the bin for 2011, it is likely that wheat prices will continue to be volatile, with corn futures dictating wheat price movements for the second half of 2011.

World trade is forecast to increase by 3 per cent in 2011–12 to around 126 million tonnes, primarily due to recovery in production and a relaxation of export bans in the Black Sea region.

Overall, wheat prices will remain relatively high by historic standards, partly due to demand shifts on the back of an increase in the ratio of coarse grain price to white grain price. This is despite the world coarse grain price (United States corn, FOB Gulf ports) being expected to fall by 7 per cent in absolute terms over 2011–12. An increasing corn-to-wheat price ratio is causing some switching of feed-grain use away from corn towards feed-grade wheat. This substitution will help buoy wheat prices. Human food consumption accounts for around 70 per cent of world wheat consumption.

Overall, increased world wheat supplies via the Black Sea region will likely outweigh the effects of feed buyers switching from coarse grains to wheat, increased demand in East Asia and Indian wheat export bans. Consequently, the average world wheat price is expected to fall by around 2.5 per cent, from \$318 to \$310 per tonne. This price is still high by historical standards.

### **Domestic wheat price**

Despite the relatively high world wheat price reported by ABARES, domestic prices will remain subdued in 2011–12 due to large opening stocks and forecast high production. The price received by Queensland growers (multi-grade APW) is estimated to have fallen by 12 per cent from an estimate of \$306 per tonne at March 2011 to \$270 per tonne at September 2011. This is due to some downward pressure on prices internationally.

## **Barley**

### **Forecast**

The gross value of Queensland barley production for 2011–12 is forecast to be \$45 million, 36 per cent higher than DEEDI's final estimate for 2010–11 and 45 per cent above the 2009–10 revised ABS estimate.



### **Analysis and discussion**

#### **Area sown**

As at early August 2011, there is good subsoil moisture over most Queensland barley-growing areas. However, planting rains from the second week of May to mid-June were patchy. Areas planted to barley have increased in 2011 in some areas due to reportedly bullish market conditions for coarse grains. This has been the case on the Southern Downs. Overall, no change in the total Queensland area sown (currently 65 625 hectares) is expected for the 2011–12 crop.

#### **Yields**

Reportedly, in 2010 around half of the wheat and barley from the east coast of Australia was downgraded to feed quality. Barley and wheat harvesting in Queensland in 2010 was greatly hampered by excessively wet weather. There was leaf rust in barley and head blight in wheat. Rust causes a greater proportion of the crop grain to fall through smaller sized sieves, meaning that grain size is below the optimal size to pass through milling machines for crushing. This is referred to as a high screenings crop, which downgrades quality and reduces price.



In many areas, rain was below ideal levels for planting in April–May 2011. Queensland’s winter has been cold and dry, keeping diseases at bay, but a good dose of rain is needed by the end of winter to promote crop growth.

Some of the late-planting barley crop for 2011–12 has been deferred to late June or early July due to insufficient rain at the traditional planting time. This could reduce yields, unless climatic conditions in late September to October are cool and moist, which would bolster yields. So far, barley crop development in the 2011 winter has been slow due to cold conditions.

Due to difficulties with disease in the 2010 barley crop, Queensland growers are expecting a return to average yields for 2011, assuming that moisture profiles (both soil and atmospheric) are not excessive during the crop head development phase. Correspondingly, crop yield is expected to increase by around 38 per cent in 2011.

### **Production**

Given that the area sown is expected to remain approximately the same in 2011, production is forecast to increase by 38 per cent from the estimate of 137 813 tonnes produced in 2010 to about 190 000 tonnes for 2011. This directly reflects the increased yield expectation.

### **International barley production, demand and price**

Significant production increases from the Black Sea region and Canada will increase barley production in 2011–12 by 6 per cent to 133 million tonnes after a significant decline in 2010–11 due to adverse conditions. Australia was the only barley producer to increase production in 2010–11.

World closing barley stocks are forecast to decline by 15 per cent to 19 million tonnes in 2011–12, following a decline of 39 per cent in 2010–11. World stock-to-use ratio for barley is forecast to decline by 14 per cent; this was estimated at 16 per cent in 2010–11.

Industrial use of coarse grains is forecast to rise by 2 per cent to 475 million tonnes in 2011–12. Growth in industrial use of barley is being driven by the use of biodiesel in the European Union and ethanol from corn in the United States. Demand for coarse feed grains continues to be strong in the United States and is growing in Asian countries, such as China, as increasing household incomes fuel demand for grain-fed meat.

Despite a 15 per cent decline in stocks, the world barley indicator (French Rouen feed barley) is forecast to average 7 per cent lower than 2010–11 at US\$260 per tonne. This is due to an increase in production in all the major barley-producing nations.

### **Domestic price**

Although a slight reduction in world coarse grain prices is expected over 2011–12, world carryover stocks of corn and wheat are lower in 2011–12 than the previous year. This should help maintain relatively strong prices for coarse grains and barley, now estimated at \$235 per tonne ex Brisbane port. This represents a 2 per cent fall in price on the \$239 per tonne estimated in the March 2011 *Prospects*.

### **Malting barley production**

Malting barley commands a price premium of \$20 to \$25 per tonne above that of feed-grade barley (\$235 per tonne). Two of the main malting barley plants in Queensland are the Pinkenba malt house (owned by Graincorp and Barrett Burston), which requires 100 000 tonnes of grain to process 80 000 tonnes of malt, and Redbank malt house (owned by Vittera, a Canadian company), which requires about 31 000 tonnes of grain to produce 25 000 tonnes of malt. The malt is used for beer manufacturing. (Weight is lost during the malting process.) Some malt is exported.



## Summer cereal grains

### Grain sorghum

#### Forecast

The gross value of sorghum production is forecast to be \$313 million for 2011–12, which is 2 per cent lower than DEEDI's final estimate for 2010–11 but 102 per cent higher than the 2009–10 revised ABS estimate.



#### Analysis and discussion

##### Area sown

Sorghum has to compete with cotton on price as a crop for farmers to grow. With a strong cotton price (\$490 per bale) and a sorghum price of \$225 per tonne, cotton appears to be a more attractive crop. However, cotton also requires much higher set-up costs than sorghum in terms of field cultivation, fertiliser and irrigation equipment. On the possibility that the 2011–12 summer produces dry conditions, sorghum also has the advantage of being highly drought-resistant.

The area sown to sorghum in Central Queensland is expected to increase by 1 per cent in 2011–12, to around 173 000 hectares. Some switching by growers to cotton away from sorghum may occur in Queensland, although this is likely to be limited due to high set-up costs associated with cotton. Based on DEEDI advice, it is believed that most of the potential switching from sorghum to cotton occurred over 2010–11, when cotton prices were particularly favourable. Little or no substitution is expected to occur over 2011–12. The total Queensland area sown to sorghum is projected to increase by 1 per cent to 397 550 hectares.

##### Yields and production

The 2010–11 season saw relatively low average yields, which were affected by excessive rainfall. This in turn caused leaching of soil nutrients and encouraged head blight and root diseases. Assuming seasonal conditions for 2011–12 return to normal, with minimal excessive soil and atmospheric moisture, yields are expected to improve. However, in view of the difficulty of forecasting rainfall, a small improvement in yields (2.5 per cent) is forecast.

Given the forecast slight increase in area sown, coupled with a small increase in yields, production is estimated to increase by 3.5 per cent from an estimated 1 347 250 tonnes in the previous season to 1 392 870 tonnes over 2011–12. Note that this is a conservative estimate at this stage.

##### International coarse grains production, demand and price

Global corn production is forecast to increase by 5 per cent in 2011–12 to 855 million tonnes. Barley production is forecast to increase by 6 per cent in 2011–12 to 133 million tonnes. Industrial use of coarse grains is forecast to rise 2 per cent to 475 million tonnes in 2011–12, with continued strong demand for barley in biodiesel production in the European Union and corn for ethanol in the United States. However, industrial demand is slowing. While demand for feed grain in China is expected to increase by 3 per cent to 118 million tonnes, it is forecast to decline in the United States by 2 per cent to 130 million tonnes.

While the stock-to-use ratio for barley is declining, world closing stocks of corn are forecast to increase by 5 per cent in 2011–12 to 127 million tonnes. Overall, forecast record production is expected to outweigh slowing growth in consumption. Consequently, the world coarse grains indicator price (United States corn, FOB Gulf ports) is forecast to fall by around 7 per cent from the 2010–11 value. See the maize outlook for more details on international coarse grain market conditions.

##### Domestic price

Domestic sorghum prices broadly follow international coarse grain prices, although domestic demand conditions also exert some influence. However, price has fallen slightly from the March quarter 2011 level. This is partly due to the strong Australian dollar, which means that Queensland sorghum growers receive less per tonne of sorghum exported. The dampened price is also due to reduced demand for feed grain by cattle feedlots. Feedlot producers are currently not receiving a premium for grain-fed cattle, because ample pasture



production on cattle properties is making pasture fed-cattle production more viable. Additionally, the demand for feed grains is increasing due to an expanding poultry sector.

Overall, there is more downward pressure than upward pressure on domestic coarse grain prices. The sorghum price per tonne is estimated to have fallen by 5.4 per cent from the March quarter 2011 value to \$225 per tonne in the September quarter 2011.

## Maize

### Forecast

The gross value of maize production for 2011–12 is forecast to be \$43 million, 68 per cent lower than DEEDI's final estimate for 2010–11 and 16 per cent above the 2009–10 revised ABS estimate.



### Analysis and discussion

#### Area sown, yields and production

Improved growing conditions are anticipated for the 2011–12 season, as the previous season was excessively wet during first plantings. However, the area sown is expected to fall 34 per cent to 42 900 hectares, reflecting a return to average seasonal conditions. Yields are also expected to be closer to average, falling 39 per cent from the 2010–11 levels. As a result, production is expected to be reduced 60 per cent to 182 600 tonnes. Despite this fall, the production level is close to the current five-year average.

#### International maize production, demand and price

Global corn production and demand is a major driver of international coarse grain prices, and as such is a prime determinant of Queensland coarse grain prices for barley, sorghum and maize, given that Queensland producers of these crops are largely export price takers. A detailed overview of international corn market conditions is given here in order to understand Queensland coarse grain price movements.

Global corn production is forecast to increase by 5 per cent in 2011–12 to 855 million tonnes, which would be a new record. This increase is primarily driven by increased production from the United States and Latin America.

Consumption of corn for feed is forecast to increase by 1 per cent to 505 million tonnes in 2011–12. China's feed consumption is expected to increase by 3 per cent to 118 million tonnes. Consumption in the United States (the world's largest feed grain market) is forecast to decline by 2 million tonnes to 130 million tonnes in 2011–12.

Industrial use of coarse grains is forecast to rise by 2 per cent to 475 million tonnes in 2011–12. Growth in industrial use of coarse grains is being driven by the manufacture of biodiesel from coarse grains such as barley in the European Union and ethanol from corn in the United States, although continued strong industrial demand has been slowing recently as the share of corn-based ethanol approaches the limit specified in United States ethanol mandates. In the coming season, at least 130 million tonnes will be required as ethanol margins remain positive despite higher corn prices.

World closing stocks are forecast to increase by 5 per cent in 2011–12 to 127 million tonnes, after falling 16 per cent in 2010–11. Forecast recovery is expected to be driven by record production and slowing consumption in growth.

As a result of increasing corn stocks and supply outweighing demand, the world coarse grains indicator price (United States corn, FOB Gulf ports) is forecast to fall by around 7 per cent from the 2010–11 value, to average US\$251 per tonne in 2011–12.

#### Domestic coarse grain and maize prices

International price movements will most likely cause a fall in prices for Queensland coarse grains such as maize, barley and sorghum. This is because any domestic price increase much above export parity would be met by increased imports of these grains to Queensland, effectively keeping Queensland coarse grain prices in check. Correspondingly, the maize price in Queensland is estimated to have fallen by 23 per cent from the March quarter to the September quarter 2011, to \$233 per tonne. There has reportedly been an increase in demand for grit maize for human consumption, providing some support for the Queensland maize price.

## Industry feature: Wheat and barley 2011 variety guides now available

Wheat and barley 2011 variety guides for Queensland's winter cereal growers can now be accessed online. They are also available in print from DEEDI business support centres.

DEEDI senior research scientist John Sheppard said each variety guide was a long-established one-stop information source produced annually by DEEDI and the Grains Research and Development Corporation.

Mr Sheppard said the variety guides provided growers with the most up-to-date data on the maturity, disease reaction, yield and quality assessments for wheat and barley varieties relevant to southern Queensland, northern New South Wales and Central Queensland cropping regions.

'There is an absolute need for all growers to get their retained seed stock for the 2011 winter cereal planting season tested to ensure it has good germination and vigour', Mr Sheppard said.

'Extremely wet 2010 winter crop harvesting conditions may have resulted in seed weather damage which is not visibly obvious and, irrespective of the varietal selection, there is a real risk of poor crop establishment.

'There are good subsoil moisture levels in the lead-up to planting, and growers need to ensure their soil nutrient levels are adequate to allow the selected wheat and barley varieties to achieve potential yields.'

Mr Sheppard said that if wheat growers were unsure of a paddock's crown rot disease history or its root-lesion nematode status, tests should be progressed as soon as possible.

Growers should also familiarise themselves with the potential herbicide reactions that can have a negative impact on overall crop yield prospects. These are listed in the guides.

DEEDI principal plant pathologist Greg Platz reported that several barley varieties tested had shown reasonable resilience to rust infection during the 2010 season.

'This will give barley growers a degree of confidence in selecting rust-resistant varieties', Mr Platz said.

'Growers should avoid sowing barley on barley, as the high levels of stubble from the 2010 season are likely to carry high levels of inoculum into this year's crop.

'If sowing a variety that is very susceptible to leaf rust, growers should budget for two foliar fungicide sprays, which work best as protectants', he said.

'The malting barley Commander did quite well last season despite enormous stress. This variety will lodge, so it is not suited to high-nutritional situations and it is not recommended for Central Queensland.'

**Source: DEEDI media release, 10 May 2011**



# Fisheries

The total GVP of Queensland's fisheries for 2011–12 is forecast at \$448 million, which is 5 per cent greater than last year but 2 per cent lower than the 2009–10 estimate. This includes a forecast of \$284 million for commercial fishing (9 per cent higher than 2010–11) and \$91 million for aquaculture (3 per cent below 2010–11). Recreational fishing estimates continue to be included in this year's forecast, with an estimated commercial value equivalent of \$73 million. This estimate has not changed from the previous year.

## Likely impacts (overall)

At the time of writing, the Australian dollar remained above parity with the United States dollar. The effect of this will be the same as last year, with reduced exports of products such as prawns and increased likelihood of import substitution. This will have the flow-on effect of lowering the price offered to seafood producers generally. The net effect will cause prices to hold at present levels, or even decline for the majority of species.

The impacts of two cyclones in northern Queensland (Yasi and Anthony) will have both short-term and long-term effects on fisheries throughout the state. In addition, the floods in Central Queensland and South East Queensland in January 2011 will have significant consequences.

Apart from the immediate effects (such as the destruction of fishing vessels and infrastructure), there were modifications to known fishing grounds (because of flood debris in the inshore areas and run-off both adjacent to the shore and further offshore) and modifications to reef areas (because of cyclonic wave effects). These factors will combine to affect the levels of fisheries production in both the short term and the long term. For some species, there may be enhanced production in the short term, but for others production will be constrained over the next few years.

Confidence in the commercial fisheries sector continues to wane primarily because of the steady reduction in real prices being offered for the product harvested. This is most likely due to the effect of a strong Australian dollar and an increase in operating costs in the fisheries. Additionally, the availability of labour for fishing vessels is reduced because of competition from the high pay levels being offered to people working in the resources sector.

The declining terms of trade for fishing businesses, when combined with often difficult and complex access and management arrangements in most fisheries, appears to make life difficult for many sectors in the commercial fishing industry. This is contributing to a lack of confidence about the future for those involved.

The wild-caught sector of Queensland fisheries includes:

- commercial fishing (Queensland-managed and managed by other agencies in Queensland waters)
- recreational fishing and its subset of charter fishing.

## Commercial fishing

The GVP of the Queensland-based commercial sector in 2010–11 is forecast to be about \$284 million, a 9 per cent increase from the previous year. This increase is essentially due to the spectacularly good harvest of prawns from the Gulf of Carpentaria in 2011.

Queensland-managed fisheries are forecast to have a GVP of about \$203 million in 2011–12, slightly lower than in 2010–11. The GVP of Commonwealth-managed fisheries in Queensland waters is forecast at \$81 million.

The total value of the commercial fishing value chain (including input suppliers, processors, wholesalers and retailers) is estimated to be around \$460 million. The strong Australian dollar creates opportunities for overseas competitors to expand into overseas markets supplied by Australian producers (such as live fish, spanner crabs and frozen prawns) and opportunities to offer very competitive prices for finfish, prawns and other fish products for import into Australia. This competition reduces prices offered to domestic fishers and forces processors to present the Australian product in a form that is convenient for the consumer.



## Crustaceans

### *Prawns and bugs*

GVP from prawns and Moreton Bay bugs from Queensland waters in 2011–12 is forecast to be about \$119 million, assuming prices remain steady. Overall prices being offered for the various prawn species have not changed in the last few years. An excellent prawn harvest in the Gulf of Carpentaria, as well as the base price provided by prawn imports into Australia and lower returns for exports due to a higher Australian dollar, have limited the potential for an increase in prawn prices being offered to fishers.

The banana prawn harvest in the Gulf of Carpentaria (4000 tonnes with a GVP of about \$30 million) was one of the best on record and was well above what can typically be expected. It is anticipated that next year prawn production will be above this level.

The Queensland-managed trawl fishery stretches from Cape York to the New South Wales border. Prawns make up about 80 per cent of the total trawl harvest by weight and GVP.

Prawn harvest on the east coast of Queensland continues a general overall decline. During 2010–11, the king prawn harvest declined by about one-quarter to about 2800 tonnes, while the banana prawn harvest increased by about one-fifth to about 1000 tonnes.

The prawn harvest for 2011–12 is estimated at 6300 tonnes with a GVP of about \$68 million. The otter trawl sector harvests are expected to be about 5900 tonnes and the beam trawlers harvest about 400 tonnes.

The Moreton Bay bug harvest, which is incidental to both the prawn and scallop targeted catch, is expected to be about 400 tonnes with a GVP of about \$10 million.

It is estimated that the prawn harvest will stabilise between 5500 tonnes and 7000 tonnes over the next few years. Boat numbers were thought to have stabilised at about 330 active otter trawlers and 80 beam trawlers. However, there appears to be a steady continuing decline of fishing businesses that are prepared to remain active in the otter trawl fishery, given the current economic circumstances. For those remaining active in the trawl fishery, mean days fished per boat appears to have increased to 115 days, while the mean daily prawn catch rate appears to be also increasing.

### *Crabs*

The GVP for the crab harvest is expected to be about \$28 million in 2011–12, as crab prices appear unlikely to increase significantly and the harvest is expected to decline slightly over time with a reduction in the number of fishing operations involved.

The GVP of the commercial harvest of mud crab and blue swimmer crab in 2011–12 is expected to decline slightly due to a reduction in the blue swimmer crab harvest, although the mud crab harvest received a boost from the high rainfall over summer. It is anticipated that the mud crab harvest will benefit from this rainfall in the next year.

The decline in the number of boats and days fishing for blue swimmer crabs continues, as does the mean daily harvest rate. Concern has been expressed about the performance of this crab sector and it is currently under review. Effort in the mud crab sector has declined at a lesser rate and not as many concerns have been expressed for this species.

The spanner crab fishery is quota-managed. It is expected to fill about 1200 tonnes of the quota in 2010–11, slightly less than the previous year. The current GVP for this sector is about \$5 million. Most of Queensland's spanner crabs are exported. This fishery produces within the available quota, driven by export prices. The appreciation of the Australian dollar is expected to only have a marginal impact on the price being offered to fishers.

### *Tropical rock lobster*

This Queensland-managed dive fishery operates mainly on the eastern side of Cape York and does not include the Torres Strait. It typically produces between 200 tonnes and 250 tonnes of tropical rock lobster and has a GVP of about \$8 million.

The appreciation of the Australian dollar will have a small effect on this type of fishery. Its GVP in 2011–12 is expected to remain at about the same level.



## ***Molluscs***

Even with some changes in the management of the scallop fishery, it is anticipated that the GVP will be about \$9 million in 2011–12. The harvest is expected to be about 600 tonnes of scallop meat.

As with the other sectors, scallop imports into Australia are holding down the price being offered to fishers. The high Australian dollar has also affected the level of scallop export prices.

## **Finfish**

The Queensland-managed finfish sector is anticipated to have a GVP of about \$82 million in 2011–12. This is slightly less than the previous year.

### ***Line-caught species***

There are three parts to the line fishery managed by Queensland:

- Gulf of Carpentaria
- Great Barrier Reef Marine Park area (reef line fishery)
- southern area (rocky reef fishery).

The line fisheries of Queensland have an estimated GVP for 2011–12 of about \$46 million and an estimated harvest of 3300 tonnes. The reef line fishery provides about 90 per cent of the GVP and 75 per cent of the harvest weight. Compared to the other sectors, the reef line harvest is expected to at least maintain its present level of harvest and GVP.

The species taken within the coral reef line sector are quota-managed. The main focus in this fishery is coral trout. Most of Queensland's coral trout harvest is exported, with live fish trade the main focus. In 2010–11, only about 70 per cent of the available coral trout quota was used. This is primarily due to the prices being offered as well as the effects of the cyclones on availability of this fish at the time of the major market demand (Christmas and Chinese New Year). Compared to other reef species, coral trout have a very high value (especially as live fish), and for them fishers receive 7–9 times the price of other species harvested. With the current level of the Australian dollar compared to other currencies, it is unlikely that there will be an increase in the price offered to fishers for reef line species.

Harvests of other reef species (such as Spanish mackerel, red-throat emperor and fish grouped in the 'other reef species' category) are more seriously affected by economic and other factors currently operating in the reef line sector. These species are almost completely targeted for the domestic market.

Given the prices currently being offered, the likelihood of filling these quotas in 2010–11 is low. Typically, the level of harvest is about one-third of the available quota. Fishers report that fish are available for harvest whenever prices improve.

### ***Net-caught species***

In 2011–12, production from the Queensland net fishery is expected to be about 7900 tonnes and GVP about \$38 million. It is not anticipated that the prices being offered for wild-caught Queensland products will increase. This is because of the competition from imported products and from skilfully marketed Australian products such as Tasmanian salmon. As most of Queensland's net-caught harvest is destined for the local and wider Australian market, it is unlikely that prices offered to fishers will increase.

The Gulf of Carpentaria net fishery has had a good start to the season with very high levels of barramundi catch being reported. Also, on the east coast, barramundi harvest is the highest it has been for a few years. It is anticipated that there will be a carryover effect into the 2011–12 year.

Mullet harvest continues to decline. The primary cause is that the price being offered for winter fish with their roe has collapsed—other countries now supply the markets at a lower price.

As stated previously, the reduction in harvest of net-caught species cannot be interpreted as a decline in fish stocks. Recent studies indicate that, from a biological perspective, most of the species harvested by net fishers are in robust health and are being harvested at a sustainable level.



## Recreational fishing

Recreational fishing and associated leisure activities form an important part of the psyche of the Queensland community. A major study of this recreational and lifestyle activity continues at Fisheries Queensland.

There are two parts to this study:

- a telephone survey of approximately 12 000 people to estimate the proportion of the community that undertake fishing as recreation
- select participants who take part in a diary program where they report on their fishing activity and catch by species and general fishing location.

The information collected will update the estimates made from surveys undertaken some years ago.

In the meantime, recreational fishing estimates continue to be included in this year's forecast with an estimated commercial value equivalent of \$73 million. This is a conservative estimate based on the equivalent price received by commercial fishers for landed fish. Alternative estimation methods would show higher values; for example, expenditure by recreational fishers on their pastime is estimated to exceed \$400 million per year.

## Aquaculture

### Forecast

The gross value of the Queensland aquaculture industry is forecast to be \$91 million in 2011–12. This is 3 per cent lower than DEEDI's final estimate for 2010–11 and 11 per cent lower than the 2009–10 revised estimate.

### Discussion

After a 21 per cent increase in the value of the aquaculture industry in 2009–10, the industry was predicting another strong year in 2010–11. However, generally unfavourable weather conditions, combined with floods and cyclones, have led to a significant reduction in aquaculture production expectations. For 2011–12, the value of the aquaculture industry is expected to decrease by 3 per cent to \$91 million.

Prawn farming is the largest sector of the Queensland aquaculture industry and it is one of the sectors most significantly affected by the adverse summer weather conditions. Prawn production is predicted to decrease by 18 per cent to 4200 tonnes, with a farm-gate value of \$60.5 million.

Barramundi, the second largest sector, has also been impacted by unfavourable weather. Queensland's only marine aquaculture operation was completely destroyed by Cyclone Yasi. Barramundi production is expected to remain static with a farm-gate value of approximately \$21 million.

Freshwater fish production (primarily silver perch, Murray cod and jade perch) is also expected to remain static with an approximate value of \$2.2 million.

Oyster production is expected to decrease, while red claw and the hatchery sectors are expected to increase slightly on the production levels achieved in 2010–11.

## Industry feature: State dams full and geared for a good fish

More than 2 million fish have been stocked in Queensland dams over the past year, and with many at full capacity, now's the time for fishers to reap the benefits.

Manager of Recreational Fisheries Development for Fisheries Queensland, Tony Ham, said the state's Stock Impoundment Permit Scheme (SIPS) dams were ready to be fished.

'Nearly \$640 000 worth of fish have been stocked in SIPS dams around the state over the past year', Mr Ham said.

'This, coupled with the fact that most dams are full, means there will be more fish to catch.

'Fishing at a SIPS dam is a sustainable fishing option.

'Seventy-five per cent of funds from the sale of permits go to restocking the dams with native fish species.

'As a keen freshwater fisher myself, I would expect a large number of fishers will be flocking to their closest dam to bring home a big one.'

Mr Ham said all of Queensland's iconic freshwater species were just a 'stone's throw away' from many avid recreational fishers.

'Fishers can catch big barramundi or sooty grunter in North Queensland, or a world-record-sized barra in central or southern Queensland', he said.

'The south-eastern dams are home to some of the best Australian bass fishing in the country, and Murray cod fishing is outstanding in SIPS dams that are fed from the Murray-Darling basin.

'Consistent feeds of golden perch and bass can also be caught in most of the dams, with the odd big silver perch to be caught too.

'With many of the 33 dams around the state now full, fishers currently have access to some of the best impoundment fishing in Australia.'

Mr Ham said, effective today (1 July 2011), there would be a slight increase in the permit fees.

'The new permit fees will be \$7.20 for a weekly permit, \$36.05 for a yearly permit and \$32.40 for a discount yearly permit', he said.

'These are the first increases in the price of permits since the beginning of the scheme and they are in line with the consumer price index.

'The increases have been introduced to continue to replenish fish stocks in the scheme's dams, and to effectively manage and promote the program as a sustainable fishing experience.

'It also means more fish will be stocked into the dams under the new fee structure.

'On current financial figures, it could mean an extra \$20 000 available for stocking native fingerlings each year.'

Source: DEEDI media release, 1 July 2011



# Forestry

## Forecast

The GVP of the forest-growing sector of the Queensland forest industry for 2011–12 is forecast at \$189 million. This is 1 per cent higher than DEEDI's final estimate for 2010–11 and 11 per cent higher than the revised DEEDI estimate for 2009–10.

DEEDI also estimates that the first-round processing sector of the Queensland forest industry will contribute \$390 million to the Queensland economy in 2011–12. This means that, when combined, the forest-growing and first-stage processing sectors of the Queensland forest industry are forecast to directly contribute \$579 million of economic activity to Queensland in 2011–12.

## Analysis and discussion

The forecast negligible growth for activity in the Queensland forest industry in 2011–12 is a reflection of a levelling off of the earlier reported recovery in market conditions for timber products in 2010–11 following the global financial crisis. Future market prospects for the forest industry are very closely linked to activity in the housing and construction sector. Industry sources suggest that about 70 per cent of Queensland's timber is used by the housing construction sector.

The forest industry reported a depressed market for timber and timber products for 2010–11, correlating with a significant drop in the number of annual Queensland housing starts (to 28 000). Housing starts in 2010–11 are almost 40 per cent down from those recorded during the most recent peak in Queensland housing construction activity, in 2007–08 (45 000).

A number of factors have contributed to the recent poor performance of the housing construction sector in Queensland. These include the sharp deterioration in housing affordability since the mid-2000s and the slowing population growth in Queensland in recent times. Flat or falling housing prices in many major population centres over the last twelve months have also reduced investor interest in the housing sector due to expectations of limited capital gains. Tropical cyclones and flooding across many areas of Queensland in late 2010 and early 2011 also created difficulties in accessing building and forest-harvesting sites. In addition, some timber-processing and timber-wholesaling facilities were inundated by floodwaters, and Cyclone Yasi severely damaged much of the North Queensland timber plantation estate.

The most recent housing sector data indicate that housing approvals in Queensland continue to languish. The OESR estimates (from trend data) that 2141 new dwelling units were approved in June 2011. This is 0.4 per cent lower than the May 2011 trend figure.

According to the URS Timber Market Survey, price falls were recorded across nearly all of the structural timber products surveyed for the three months to March 2011 in Queensland. General comments from the survey participants confirmed these price trends, with many participants reporting particularly poor sales in January and February 2011, brought about by a generally weak market and record levels of rainfall hampering building activity.

Timber product demand, particularly in the dominant structural framing product segment of the market, is expected to remain subdued until the end of 2011. Reconstruction of buildings damaged by flood and cyclone is expected to continue to stimulate some increased forest and timber industry activity, although much of the January 2011 flood damage to housing stock in South East Queensland was confined to wall panels and not timber framing. There are some anecdotal reports of a marked pick-up in some timber market segments such as treated roundwood (particularly for repairs to fencing damaged by the recent flooding and truss manufacture) at the start of 2011–12.

The Queensland Government's Queensland Building Boost grant will operate in the period from 1 August 2011 to 31 January 2012. This initiative will provide a much-needed stimulus to the housing construction sector, particularly in the first six months of 2012. Queensland Treasury indicates that the grant is expected to cost \$140 million, equivalent to 14 000 payments of \$10 000. Based on analysis of previous temporary stimulus measures, this is expected to see dwelling starts around 4000 more than they would have been otherwise.

The Queensland Government also has a number of other policy initiatives that will support the housing construction sector. These include the continuation of the First Home Owner Grant (which provides \$7000 for



first homes valued at less than \$750 000), the provision of about \$93 million over five years into the National Rental Affordability Scheme (which will deliver over 11 300 dwellings) and a further injection of \$60 million from the Future Growth Fund in 2011–12 into social housing stock (which will provide nearly 200 homes for vulnerable Queenslanders).

Headwinds for the housing construction sector for the balance of 2011–12 include continuing low buyer confidence due to relatively poor housing affordability, tight credit conditions, rising living costs, and falling or flat housing prices in major markets. On balance, Queensland Treasury is forecasting that overall dwelling investment in Queensland will recover by 5.75 per cent in 2011–12.

Logs from mature softwood plantations account for around 75 per cent of the domestically produced log timber used each year by Queensland's forest industry. Forestry Plantations Queensland Pty Ltd (FPQ) is Queensland's largest plantation timber company. It was purchased in 2010 by Hancock Queensland Plantations, a company managed by the Hancock Timber Resource Group on behalf of institutional investors. FPQ's major asset is a 99-year licence from the Queensland Government to manage, harvest and regrow plantation timber on government-owned lands. FPQ manages 212 000 hectares of hardwood and softwood plantations in a total estate of 343 000 hectares. Each year some two million tonnes of log timber are harvested from FPQ-managed plantations for the production of sawn timber, plywood, reconstituted panels and woodchip products for domestic and international markets.

As outlined above, poor domestic housing construction market conditions negatively impacted on the demand for timber products sourced from FPQ-managed plantations during 2010–11. Furthermore, in early 2011, Cyclone Yasi severely damaged approximately 10 000 hectares of the FPQ-managed mature softwood plantation estate in North Queensland. The damaged log timber from this estate is currently being salvaged for sale to export markets.

Queensland's total hardwood plantation estate covers about 50 000 hectares. In addition to the 13 000 hectares of FPQ-managed hardwood sawlog estate in South East Queensland, there is also a significant pulpwood (short-rotation) plantation estate in Central Queensland. However, much of this estate has underperformed due to a range of factors, including a prolonged drought (2001–2009) and significant disease and pest infestations. One plantation manager announced in 2010 that their estate was so badly affected by the *Kirramyces* leaf blight that much of it would be written off and not replanted. This land is currently for sale. Cyclone Yasi also damaged much of the relatively immature exotic long-rotation hardwood estate being established in North Queensland.

Most of Queensland's hardwood plantation estate has been established over the last 10 years using management investment scheme (MIS) arrangements. MIS is also known as 'managed funds', 'pooled investments' or 'collective investments'. Generally in MIS, a large number of individual investors contribute funds to obtain an interest in the scheme and a 'responsible entity' operates the scheme. Investors do not have day-to-day control over the operation of the scheme.

Financial year 2010–11 was another very difficult period for the MIS sector with investor interest declining further following the highly publicised demise of a number of large entities over recent years. The Australian Agribusiness Group (AAG) reports that the Australian agribusiness MIS sector raised \$36 million in 2010–11. This is a decrease of 65 per cent on the funds raised in 2009–10, and a very long way from the peak of the agribusiness MIS fundraising activity a few years ago, when the sector was raising more than \$1 billion across Australia on an annual basis.

For a number of years, in excess of \$100 million of the funds raised by the MIS sector were allocated to fund the expansion of the hardwood timber plantation estate in Queensland. However, AAG reports that only 1 per cent of funds raised by the agribusiness MIS sector in 2010–11 will be allocated to projects in Queensland. The data do not reveal the nature of the new MIS project/s in Queensland, although DEEDI is not aware of any new Queensland-based MIS projects for timber plantations. In fact, the MIS sector is not expected to generate any further significant growth in the Queensland plantation estate for the foreseeable future.

The Forest Products Group of the Department of Environment and Resource Management (DERM) is responsible for the commercial management of state-owned native forest resources and therefore is a significant supplier of native hardwood and cypress log timber to the Queensland forest industry. DERM reports that 209 000 cubic metres of state-owned native forest log timber was sold in 2010–11, a 10 per cent decline on the result in the previous year.



DERM indicates that sales of native forest log timber are expected to total about 230 000 cubic metres in 2011–12, a 10 per cent increase over the previous year. In addition, there is a significant supply of native forest log timber coming from privately owned forests, and while actual volume information is no longer collected by the Queensland Government, historically this volume has been similar to that harvested from state-owned lands. Anecdotally, there are reports of private growers receiving higher stumpage values for their native log timber, which may stimulate increased landowner interest in harvesting this resource.

A number of supply constraints limit the ability of the Queensland forest and timber industry to respond to further demand growth for timber products, because the majority of log timber available from native forests managed by DERM and Queensland's mature timber plantation estate is committed under current sales agreements. However, some recent processing-sector business closures may have lessened these constraints to some extent.

Using ABS data, DEEDI estimates that Queensland imported \$864 million of forest and timber industry products in 2010–11 to meet domestic demand. Forest and timber industry imports to Queensland have increased by more than \$340 million (not accounting for inflationary impacts) over the last decade.

About two-thirds of Queensland's forest and timber imports (\$574 million) in 2010–11 comprised paper and wooden furniture products. Note that the Queensland forest industry has limited capability in paper-product manufacturing and therefore limited scope to compete with imports. Almost 20 per cent (\$158 million) of Queensland forest and timber product imports comprised sawn timber products; the other 17 per cent (\$142 million) were manufactured and fabricated timber products (plywood, veneers, medium-density fibreboard, engineered wood products, pallets, doors, packing cases, trusses etc.).

Indonesia accounted for about 30 per cent of all sawn timber product imports to Queensland in 2010–11; New Zealand (23 per cent) and Malaysia (10 per cent) were also significant sources. The data also reveal that a number of eastern European countries (such as the Czech Republic and Estonia) have also become significant suppliers of sawn timber products to Queensland.

Over the longer term, new investment in greenfield timber plantations, particularly solid wood plantations, will be needed in Queensland to:

- meet expected demand growth for forest and timber products
- provide increased regional economic diversity
- compete with imported forest and timber products, particularly those produced using illegal or unsustainable harvesting practices
- prevent the substitution of timber products with less environmentally friendly building products such as concrete and steel.


The Centre for International Economics recently estimated that around 10 per cent of Australia's timber imports may be illegally produced.

The Queensland Government is supporting new investment in timber plantation projects in Queensland through the Queensland Timber Plantation Strategy (QTPS), which was developed in consultation with industry and other stakeholders. DEEDI is currently working to implement the high-priority actions in QTPS.

### ***A note about forest industry data sources***

Prior to September 2007, *Prospects* 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 ABS in their survey of manufacturing, as an indicator of the gross value of forest industry activity in Queensland. However, while these data do separately report the forest-growing sector, they exclude some elements of the first-stage processing sector and they also contain some elements of double counting.

*Prospects* now uses data produced by ABARES in its biannual Australian wood and forest products statistics publication about 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 of ANZSIC Group 231 and ANZSIC Code 2321 (*Plywood and veneer manufacturing*), provides an overall estimate of Queensland forest industry activity.



# Special feature 1: Agricultural productivity

## Introduction

According to Mullen et al.<sup>7</sup>, agricultural productivity growth in Australia has been strong relative to other sectors of the economy and to the agricultural sectors of other OECD countries. They demonstrated that between 1952–53 and 2006–07, the growth rate of total factor productivity (TFP) in Australian broadacre agriculture was around 2 per cent a year. This growth, it can be argued, has helped to counter the declining terms of trade and the effects of adverse seasonal conditions such as droughts and floods. In the process, it has enabled Australian primary producers to remain competitive on an international basis over the past 50 years.

## What is productivity?

Productivity is a key determinant of economic performance, international competitiveness, economic welfare and living standards. An increase in productivity indicates that inputs are being used more efficiently—that is, fewer inputs are required to produce the same output or, alternatively, additional output is possible from a given level of input use.

## Why is productivity growth important?

Productivity improvement is the dominant means by which living standards improve over the long term. Increased output (or decreased input use) leads to lower production costs and higher incomes. Consequently, productivity growth can mean higher returns on capital, higher wages, higher profits and increased tax revenue. It can also lead to lower prices for consumers and may benefit the environment as less land, water and chemicals are required to produce the same amount of output.<sup>8</sup> As Krugman explained, ‘productivity isn’t everything, but in the long run it is almost everything’.<sup>9</sup>

## How is productivity measured?

ABARES productivity estimates for the broadacre industry are derived using an index method similar to that used by official statistical agencies (the ABS and the United States Bureau of Labor Statistics). Two measures of productivity are usually calculated:

- total factor productivity (TFP)
- partial factor productivity (PFP).

TFP is the ratio of the total output to the multiple inputs used in the production process.

PFP is the ratio of the total output to a single input category.

ABARES calculates the total output for the broadacre sector by using a Fisher index across four outputs: crops, livestock, wool and other on-farm outputs. Similarly, total input is calculated across four major inputs: land, labour, capital, and materials and services.<sup>10</sup>

<sup>7</sup> Mullen, JD and Crean, J 2007, *Productivity growth in Australian agriculture: trends, sources, performance*, Australian Farm Institute, Sydney; Nossal, K and Gooday, P 2009, *Raising productivity in Australian agriculture*, ABARE research report, Issues Insights, 9.7, ABARE, Canberra.

<sup>8</sup> Productivity Commission, 2005.

<sup>9</sup> Krugman, P 1992, *The age of diminished expectations: US economic policy in the 1980s*, MIT Press, Cambridge.

<sup>10</sup> Gray, E, Sheng, Y, Nossal, K, Oss-Emer, M and Davidson, A 2011, ‘Improving productivity—the incentives for change’, *Australian Commodities*, vol. 18, no. 1, March quarter, ABARES, Canberra, pp. 218–34.



## **Role of government**

According to Nossal and Gooday, there are a number of ways where significant productivity gains can be made. They also see a role for government to assist through investing in public goods and services and setting policies that enable and encourage productivity growth.<sup>11</sup>

### **Possible target areas**

#### **1. Investing in research and development**

There is a well-established link between research and development expenditure and productivity growth.

#### **2. Adopting new innovations**

This is closely linked to the first area. Innovation can be facilitated by improving the incentives for and capability of industry to develop and adopt new knowledge and technology. This can be achieved through improvements in access to research results, training and education, communication services and public infrastructure.

#### **3. Reducing regulatory constraints**

Some current regulations provide a disincentive for producers to be innovative and change practices in response to market developments.

#### **4. Improving market access**

Greater market access provides a strong incentive to lift productivity.

#### **5. Addressing environmental pressures**

Climate change, resource depletion and other environmental pressures are posing a major threat to productivity growth. Accelerating the development of low environmental impact and mitigation technologies, and implementing policies to allow environmental objectives to be met at least cost, will create opportunities for simultaneously lifting productivity growth and reducing environmental pressures.

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<sup>11</sup> Nossal, K and Gooday, P 2009, *Raising productivity in Australian agriculture*, ABARE research report, Issues Insights, 9.7, ABARE, Canberra.



## Special feature 2: Queensland lifestyle horticulture

### Introduction

Lifestyle horticulture is a large, diverse plant-based industry that is commonly viewed as the ‘non-food’ component of the horticulture industry. Despite this common perception, the production nursery sector of the lifestyle horticulture industry plays an integral role in the supply of seedlings, tube stock and trees for a broad range of food-producing horticultural industries such as fruit, nuts and vegetables.

The lifestyle horticulture industry also produces commodities such as turf, cut flowers and ornamental plants, in addition to offering a range of services. Services include landscape planning, construction and maintenance, wholesaling and retailing activities, and specialised arboriculture and consultancy services.

### Industry survey

The OESR in Queensland Treasury was commissioned by DEEDI to carry out a telephone survey of businesses in the Queensland lifestyle horticulture industry in 2008. The OESR interviewed management and owners of businesses from across the production and services segments of the industry. Survey respondents were asked about matters concerning business demographics, turnover, employees, training and topical industry issues. Where appropriate, responses were then weighted to provide quantitative information about particular sectors and the whole industry.

DEEDI released the survey findings in the *Queensland lifestyle horticulture industry survey report, July 2011*.

During the survey, over 5700 businesses were identified as operating in the Queensland lifestyle horticulture industry. Approximately one-quarter of these businesses identified as being in the production segment and the remaining three-quarters as part of the diverse services segment.

### Survey results

#### Sales

The annual total sales of the Queensland lifestyle horticulture industry during 2007–08 was estimated to be \$4.4 billion, with 25 per cent (\$1.1 billion) attributed to the production segment. Nursery production contributed almost 75 per cent of the total production segment sales.

The survey results also revealed that the services segment of the lifestyle horticulture industry is large and diverse, with estimated annual sales valued at approximately \$3.3 billion. The survey results indicate that within the services segment the landscape construction sector has the largest annual sales.

#### Employment

The lifestyle horticulture industry is a large employer with an estimated 28 000 people directly employed on a full-time equivalent (FTE) basis. This includes both paid and unpaid labour. An estimated 9500 FTEs are employed in the production segment and an estimated 18 500 FTEs work in the services segment.

#### Clusters

The lifestyle horticulture industry operates in both regional and urban areas across Queensland, with almost two-thirds of survey respondents located in South East Queensland. There are also significant clusters in northern and Far North Queensland (14 per cent), Wide Bay Burnett (8 per cent) and the Darling Downs (7 per cent).



### **Business type**

Survey responses also reveal that the lifestyle horticulture industry is dominated by small businesses. The overwhelming majority of survey respondents (92 per cent) reported that they employ less than 15 FTEs.

The lifestyle horticulture industry is very focused on supplying demand from local markets, with 85 per cent of survey respondents reporting that their total revenue was sourced from within 100 kilometres of their business location.

### **Trade**

The survey results reveal that the cut flower sector is the most export-orientated sector in the lifestyle horticulture industry, with 9 per cent of respondents reporting that they currently export.

### **Outlook**

The survey also investigated respondents' perspectives on the industry's outlook for the next five years. Almost 60 per cent reported a good or very good five-year outlook for the industry following the survey. This was predominately attributed to a forecast for positive market trends through increased demand for lifestyle products and services.

Landscaping businesses overall held a more positive view than other businesses for the outlook of the industry. This could be attributed to increased demand due to urban development and growth initiatives in South East Queensland.



## 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, 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 fishery production are available from DEEDI.
- All estimates provided in this publication are in nominal dollar values unless otherwise stated.

## Definitions

**crops** field and horticulture crops

**fisheries** trawl and non-trawl fishing, and aquaculture

**forestry** log sawmilling and timber dressing

**gross value of commodities produced** the value of recorded production at wholesale prices realised in the marketplace (for example, cattle sold for slaughter and sugarcane at the mill)

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

**livestock products** eggs, milk, wool and honey

**marketplace** generally, the metropolitan market in each state and territory (where commodities are consumed locally, or where they become raw materials for a secondary industry); for exports, marketplace prices are generally FOB prices

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