Regional Development Australia

Fitzroy and Central West Inc.

An Overview of **Food and Fibre Industries** in Central Queensland

December 2013

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Executive summary

Census material and statistics from the Australian Bureau of Statistics (ABS) signify Central Queensland as a prominent and important area of Australia for the production of food and fibre.

Rockhampton is called the 'Beef Capital of Australia' and the city is situated in Central Queensland, which in 2010-2011 was home to 3.5 million head of cattle and calves or 28% of the state's total number.

There are three abattoirs located in Central Queensland. JBS Australia in Rockhampton which has a daily processing capacity of 676 head of beef[1] and Teys Australia which has a daily slaughtering capacity of 1,731 head of beef. Located in Biloela is also Teys Australia which has a daily capacity of 703 head of beef.[2]

The Central Queensland region had a total of 3,642 agricultural businesses as at the 30th June 2011, of which beef cattle farming accounted for 2,634 businesses or 72% of the total number of agricultural businesses in the region.

In the Central West region 1.4 million head of sheep or 39% of Queensland's total sheep numbers were located.

Also in the Fitzroy region 46% of the state's field peas were produced; 43% of the state's lupins; 41% of the state's rice; 47% of the state's table grapes; and 42% of the state's Carambolas (star fruit).

The Queensland Government has outlined an Agricultural Strategy, which aims to double the value of Queensland's food production by 2040. However, meeting this target will only occur if the level of productivity within the sector increases across the supply chain.

Introduction

Regional Development Australian Fitzroy and Central West undertook a study to identify exactly what was produced in Central Queensland in relation to food and fibre and what happened to the produce after it left the "farm".

The purpose of this initiative was to help raise awareness of Central Queensland as a resource region –to ensure that 'resource' is not simply synonymous with 'coal production' but also to agriculture supply.

This initiative will explore the areas of food and fibre production in the Central Queensland region with emphasis on the following areas:

» Location of supply

» Number of producers

» Production by volume

» Gross value, land holdings and weight of commodities

» Seasonality

» Supply chain and networks

» Sales destinations (including exports)

This report is a synopsis of published and unpublished data relating to food and fibre industries with the Central Queensland region and its related food chain routes.

Background of study

Australia has a strong, safe and stable food system with a high level of food security. Australia produces far more food than it consumes and has the capacity to increase food production in response to population needs, and to take advantage of growing markets in Asia. To make the most of the emerging opportunities and to plan for the future Australia needs a more integrated approach to government food policy along the supply chain.

On 17 July 2012, Minister Ludwig released the National Food Plan green paper – the next step in developing the National Food Plan. Its aim was for the Australian Government to put forward an overarching framework for its role in the food system. Australia's food system relies on collaboration between the food industry, the Australian Government, state and territory governments, and the community. The Australian Government at the time sought discussion on the development of the National Food Plan white paper.[3]

The Queensland Government in 2013 released the Queensland's Agriculture Strategy: A 2040 vision to double agricultural production. The 2040 vision is for agriculture, fisheries and forestry to be an efficient, innovative, resilient and profitable sector. In order to double Queensland's agricultural production, productivity growth must lift above the 30 year long term average. The key to productivity growth is in the development and adoption of innovation across the supply chain. The framework for growth is based on four key pathways:

1. Securing and increasing resource availability
2. Driving productivity growth across the supply chain
3. Securing and increasing market access
4. Minimising the costs of production[4]

Queensland's agricultural industry

Geographically, Queensland is Australia's second-largest state, covering more than 173 million hectares. In 2013 almost 144 million hectares (83 percent) of the land in Queensland was used for agriculture. Queensland has the largest area of agricultural land of any Australian state and the highest proportion of land area dedicated to agriculture.[5]

In 2010-11 the Agriculture, Forestry and Fishing industry accounted for 2.7 percent of total nominal Gross Value Added (GVA) to the Queensland economy, compared to 4.7 percent in 2000-01.[6]

Queensland's agriculture commodities have a forecast estimate value of $13.7 billion (gross value of production) for 2012-13.[7] Queensland's overseas agricultural exports (food and live animals) in 2012-13 was worth $6 billion, comprising 13% of the state's total gross value of exports.[8]

In 2012, Queensland produced around 47 percent of Australia's total cattle and calves, which is worth well over $3 billion per annum. Queensland also produced over 60 percent of Australia's sorghum. Queensland is Australia's hub for tropical knowledge and expertise, producing approximately 94 percent of Australia's sugar cane, 90 percent of bananas, 89 percent of limes, 55 percent of mangoes and almost all of the country's pineapples and lychees.[9]

For the May quarter 2013 an estimated 67,000 employed persons in Queensland worked in the Agriculture, Forestry and Fishing Industry. In other words, 2.9% of employed persons in Queensland worked in the Agriculture, Forestry and Fishing industry.[10]

Foreign ownership of agricultural businesses

In late 2010 the Foreign Acquisitions Amendment (Agricultural Land) Bill was introduced, which sought to amend the Foreign Acquisitions and Takeovers Act 1975 to enable greater scrutiny of potential foreign investment of agricultural land in Australia.

Results from the Australian Bureau of Statistics (ABS) 2010 Agricultural Land and Water Ownership Survey showed that 89% of Australian agricultural land was 100% Australian-owned and 99% of Australian agricultural businesses were 100% Australian-owned. The survey captured information on the foreign ownership of all leased and operated only land. This enabled the capture of the level of foreign ownership where the businesses may have leased parcels of land from owners with differing degrees of foreign ownership.

Within Australia, Queensland had the lowest level of foreign ownership of agricultural businesses, with 0.5% of its businesses reporting some level of foreign ownership. By comparison Queensland had 11.8% of its agricultural land (16,327,665 ha) reporting some level of foreign ownership.

The ABS commenced on 30 June 2013 a further survey on foreign ownership of agricultural land and water within Australia.[11]

Central Queensland region

The vast Central Queensland region covers approximately 26% of the state (453,354 square kilometers) and incorporates the regions of Fitzroy and Central West.

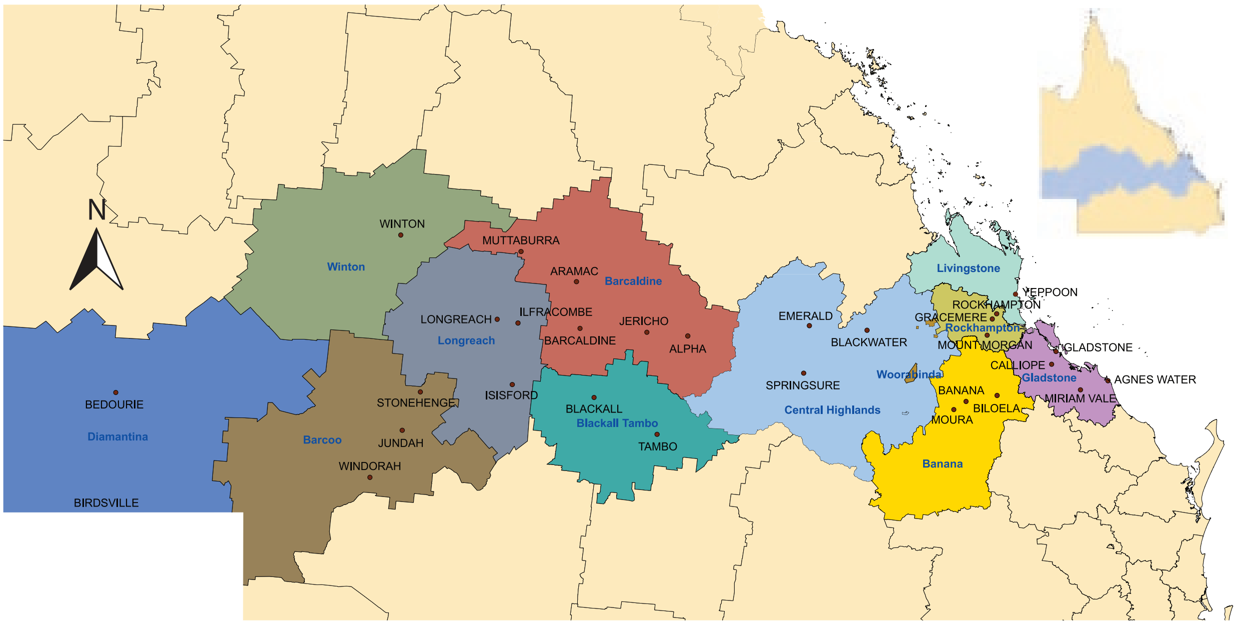
The **Fitzroy region** occupies 117,813 km^2 and comprises six local government authorities:

Banana	Gladstone	Rockhampton
Central Highlands	Woorabinda	Livingstone

The **Central West region** covers 335,542 km^2 and includes six local government authorities:

Barcaldine	Blackall-Tambo	Longreach
Barcoo	Diamantina	Winton

Map 1 – The area of responsibility for Regional Development Australia Fitzroy and Central West



As at 30 June 2012 the estimated resident population of the Central Queensland region was 235,010 persons, 5.2% of the Queensland population. Between 2007 and 2012 Central Queensland's population increased by 6.6% (14,501 persons).

The 2012 estimated resident population of the Fitzroy region was 223,087 persons, with the largest Council (Rockhampton) having 115,399 persons. The population between 2011 and 2012 saw a positive movement across the division, with growth in Gladstone (3%), Central Highlands (3.4%) and Rockhampton (2.7%), largely as a result of industry expansion.

The 2012 estimated resident population of the Central West region was 11,923 persons; 5% of the Fitzroy and Central West region as a whole, with the largest Council (Longreach) having 4,298 persons.[12]

OESR data indicated that in 2012 an estimated further 5,580 non-resident workers existed in the Central Highland area, plus a further 1,590 in Banana.[13] There is a large non-resident population which reflects the nature of the mining workforce; shift workers operating on a fly-in, fly-out or drive-in, drive-out basis.

Table 1 – Estimated Resident Population, local government areas – Central Queensland

Local government area	ERP at 30 June		Change	
	2011	2012	2011-12	
	No.	No.	%	No.
Banana	14,861	14,988	0.9	127
Barcaldine	3,286	3,305	0.6	19
Barcoo	365	363	-0.5	-2
Blackall - Tambo	2,254	2,285	1.4	31
Central Highlands	29,533	30,545	3.4	1,012
Diamantina	294	292	-0.7	-2
Gladstone	59,402	61,170	3.0	1,768
Longreach	4,308	4,298	-0.2	-10
Rockhampton	112,383	115,399	2.7	3,016
Winton	1,388	1,380	-0.6	-8
Woorabinda	982	985	0.3	3
Total Fitzroy and Central West	**229,056**	**235,010**	**2.6**	**5,954**
Queensland	4,474,098	4,560,059	1.9	85,961
Fitzroy and Central West as % of Queensland	*5.1*	*5.2*	..	..

Note: Estimated resident population (ERP) is the official estimate of the Australian population. ERP is based on Census counts by place of usual residence (excl. short term overseas visitors in Australia), with an allowance for Census net under count, to which are added the estimated number of Australian residents temporarily overseas at the time of the Census.

Source: Australian Bureau of Statistics – Regional Population Growth, Australia, 2011-12.

Overview of Central Queensland's food and fibre industries

Seasonality

Table 2 - Seasonality of produce in Central Queensland

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Avocado				■	■	■	■	■				
Baby corn	■	■	■	■	■	■	■	■	■	■	■	■
Capsicum					■	■	■	■	■	■	■	
Carrots								■	■	■		
Cucumber							■	■	■	■	■	
Custard apple		■	■	■	■							
Figs	■	■	■	■				◐	■	■	■	■
Honeydew									◐	■	■	
Hydroponic/fancy lettuce	■	■	■	■	■	■	■	■	■	■	■	■
Lettuce						■	■	■	■			
Lychee	■											■
Longans		■	■									
Mango	■	■	■									■
Pawpaw	■	■	■	■	■	■	■	■	■	■	■	
Pineapple	■	■	■	■	■	■	■	■	■	■	■	■
Potato							■	■	■	■	■	
Pumpkin	■	■	■	■	■	■	■	■		■	■	■
Rockmelon	■	■	■	■	■	■	■		◐	■	■	■
Silverbeet	■	■	■	■	■	■	■	■	■	■	■	
Squash	■	■	■	■	■	■	■	■	■	■	■	■
Sweetpotato	■	■	■	■	■	■	■	■	■	■	■	■
Table grapes										■	■	■
Tomato					■	■						
Watermelon	■	■	■	■	■	■	■			◐	■	■
Zucchini	■	■	■	■	■	■	■	■	■	■	■	■
Basil & Dill	■	■	■	■	■	■	■	■	■	■	■	■
Coriander				■	■	■	■	■	■	■	■	
Mint & Parsley	■	■	■	■	■	■	■	■	■	■	■	■
Onion chives & Watercress	■	■	■	■	■	■	■	■	■	■	■	■
Shallot	■	■	■	■	■	■	■	■	■	■	■	
Lemons		■	■									
Limes	■	■	■	■	■							
Mandarins			■	■	■	■	■	■	■			
Oranges				■	■		■	■				
Banana prawns				■	■							
Cultured plate size barra	■	■	■	■	■	■	■	■	■	■	■	■
King salmon				■	■	■	■	■	■	■		
Mud crabs	■	■	■									■
Reef fish	■	■	■	■	■	■	■			■	■	■
Scallops	■	■	■	■	■	■	■	■	■	■	■	■
Wild caught barramundi		■								■		
Beef	■	■	■	■	■	■	■	■	■	■	■	■
Coffee	■	■	■	■	■	■	■	■	■	■	■	■

Source: Queensland Government – Department of Agriculture, Fisheries and Forestry

Businesses with agricultural activity

This section contains estimates from the Australian Bureau of Statistics 2010-11 Agricultural Census. The scope of the Census included all businesses undertaking agricultural activity recorded on the ABS Business Register above a minimum size cut-off of $5,000. The measure of size was based on the ABS' Estimated Value of Agricultural Operations (EVAO). Estimated Value of Agricultural Operations is not an actual farm income but the estimated value of agricultural operations.

Tables 3 to 5 of this report categorise businesses with agricultural activity into the industry that represents the business' *main activity*, using the Australian and New Zealand Standard Industrial Classification (ANZSIC 2006 edition).

The Central Queensland region had a total of 3,642 agricultural businesses as at the 30th June 2011, of which beef cattle farming accounted for 2,634 businesses or 72% of the total number of agricultural businesses in the region. By comparison 21% of beef cattle farming businesses in Queensland are located in the Central Queensland region.

Other beef industries including feedlots, grain sheep/beef cattle and combined sheep/beef cattle farming accounted for a further 273 businesses in the Central Queensland region as at the 30th June 2011. In total 16% of other beef farming businesses within Queensland are located in the Central Queensland region.

Horse farming had 193 (14% of the State) agricultural operators as at 30th June 2011 in the Central Queensland region.

Also in the Fitzroy region 30 businesses were in vegetable production; 10 in beekeeping; 58 in cotton growing; and 82 businesses grew fruit and nut crops in the 2010-2011 financial year.

Table 3 – Top 5 businesses with agricultural activity – Central Queensland – at 30 June 2011

	No.	% Qld
FITZROY REGION		
Other Fruit and Tree Nut Growing	65	5.3
Beef Cattle Farming (Specialised)	2,114	16.9
Grain-Sheep or Grain-Beef Cattle Farming	146	14.0
Other Grain Growing	146	12.6
Horse Farming	168	12.3
Total all agricultural farms	**2,913**	**11.4**
CENTRAL WEST REGION		
Sheep Farming (Specialised)	54	20.4
Beef Cattle Farming (Specialised)	520	4.2
Beef Cattle Feedlots (Specialised)	3	1.6
Sheep-Beef Cattle Farming	124	28.0
Horse Farming	25	1.8
Total all agricultural farms	**729**	**2.8**

Note: The Australian and New Zealand Standard Industry Classification has been used to categorise businesses according to their main activity.

Source: Australian Bureau of Statistics – Agricultural Census 2010-11.

Area of holding

In 2010-2011 of the 2,114 beef cattle farms (specialised) in the Fitzroy region 20% were less than 49 hectares in land holding and 27% were between 2,500-24,999 hectares in area. Only one beef cattle farm reported an area of holding greater than 100,000 hectares.

By comparison in the Central West region, 46% of the beef cattle farms (specialised) had an area of holding between 2,500-24,999 hectares. Also 48 or 9% of the beef cattle farms had an area greater than 100,000 hectares.

Table 4 – Top 5 businesses with agricultural activity – Central Queensland – at 30 June 2011

	AREA OF HOLDING (HA)											
	0-49	50-99	100-499	500-999	1,000-2,499	2,500-24,999	25,000-99,999	100,000-199,999	200,000-499,999	500,000 plus	Total	% Qld
FITZROY REGION												
Other Fruit and Tree Nut Growing	45	9	10	-	1	-	-	-	-	-	65	5.3
Beef Cattle Farming (Specialised)	422	98	437	254	296	578	30	1	-	-	2,114	16.9
Grain-Sheep or Grain-Beef Cattle Farming	20	2	19	16	29	58	1	-	-	-	146	14.0
Other Grain Growing	31	8	37	15	25	29	2	-	-	-	146	12.6
Horse Farming	74	32	40	6	4	11	2	-	-	-	168	12.3
Total all agricultural farms	**692**	**177**	**601**	**311**	**374**	**721**	**36**	**1**			**2,913**	**11.4**
CENTRAL WEST REGION												
Sheep Farming (Specialised)	12	-	-	-	-	30	12	-	-	-	54	20.4
Beef Cattle Farming (Specialised)	99	-	6	11	14	239	102	16	19	13	520	4.2
Beef Cattle Feedlots (Specialised)	-	-	-	-	-	1	1	-	-	1	3	1.6
Sheep-Beef Cattle Farming	17	-	-	1	-	78	25	1	1	-	124	28.0
Horse Farming	6	3	2	1	3	7	2	-	-	-	25	1.8
Total all agricultural farms	**136**	**3**	**8**	**14**	**17**	**357**	**143**	**17**	**20**	**14**	**729**	**2.8**

Note: The Australian and New Zealand Standard Industry Classification has been used to categories businesses according to their main activity.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11

Estimated value of agricultural operations (EVAO)

The ABS term estimated value of agricultural operations (EVAO) is not an actual farm income but the estimated value of agricultural production.

In 2010-2011 in the Fitzroy region 172 or 6% of all agricultural farms reported an estimated value of agricultural operations over $1 million. Subsequently in the Central West region 142 or 19% of all agricultural farms reported an estimated value of agricultural operations over $1 million.

In the Fitzroy region 3% of the beef cattle farms (specialised) had an estimated value of agricultural operations over $1 million this compared to 23% in the Central West region.

Also in the Fitzroy region 43 or 74% of cotton growing farms had an estimated value of agricultural operations over $1 million. There were also 3 grape growing farms with an EVAO over $1 million; 2 citrus growing farms with an EVAO over $1 million; and 1 poultry egg farm, 1 pig farm and 1 horse farm with and EVAO over $2 million.

Table 5 – Top 5 businesses with agricultural activity – Central Queensland – at 30 June 2011

	ESTIMATED VALUE OF AGRICULTURAL OPERATIONS ($'000)											
	Less than 22.5	22.5-49.9	50-99.9	100-149.9	150-199.9	200-349.9	350-499.9	500-999.9	1,000-1,999.9	2,000 plus	TOTAL	% Qld
FITZROY REGION												
Other Fruit and Tree Nut Growing	22	12	12	2	1	6	4	4	1	-	65	5.3
Beef Cattle Farming (Specialised)	366	369	357	206	136	263	153	194	52	18	2,114	16.9
Grain-Sheep or Grain-Beef Cattle Farming	5	9	17	11	11	29	18	34	9	4	146	14.0
Other Grain Growing	7	14	25	14	10	11	20	23	18	4	146	12.6
Horse Farming	76	34	27	19	5	5	-	1	-	1	168	12.3
Total all agricultural farms	**522**	**465**	**462**	**274**	**172**	**336**	**217**	**294**	**108**	**64**	**2,913**	**11.4**
CENTRAL WEST REGION												
Sheep Farming (Specialised)	3	-	9	1	5	20	4	10	2	-	54	20.4
Beef Cattle Farming (Specialised)	23	23	31	37	30	78	63	118	74	43	520	4.2
Beef Cattle Feedlots (Specialised)	-	-	-	-	-	-	-	-	1	2	3	1.6
Sheep-Beef Cattle Farming	1	1	-	7	9	28	28	32	16	1	124	28.0
Horse Farming	9	3	6	4	-	1	-	1	1	-	25	1.8
Total all agricultural farms	**37**	**27**	**46**	**49**	**44**	**127**	**95**	**162**	**96**	**46**	**729**	**2.8**

Note: The Australian and New Zealand Standard Industry Classification has been used to categories businesses according to their main activity.
Note: EVAO is not an actual farm income but the estimated value of agricultural operation.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Land use

In 2010-11 approximately 53% of Australia's total land area was used for agriculture. On a state basis, Queensland had the highest proportion of agricultural farm land at 81%.

The total area of agricultural farms in Central Queensland in 2010-2011 was 43,592,608 hectares, which is 31% of the Queensland's total agricultural farm area. In Central Queensland 509,395 hectares (14.7%) were used for crops and 41,831,475 hectares (31.6%) were used for livestock grazing in the 2010-11 financial year.

Table 6 – Land use – Central Queensland – at 30 June 2011

	Fitzroy Region	Central West Region	Central Queensland	
	Hectare	Hectare	Hectare	*% Qld*
Total area of agricultural farms (a)	**9,714,707**	**33,877,901**	**43,592,608**	*31.2*
Land used for crops (b)	494,489	14,906	509,395	*14.7*
Land used for grazing (c)	8,694,859	33,136,616	41,831,475	*31.6*
Land used for other agricultural purposes	525,359	726,379	1,251,738	*31.3*

(a) Total area of agricultural businesses with an EVAO of $5,000 or more.

(b) Crops include cereals, vegetables, fruit, nuts, rice, cotton, grapevines, nurseries and land left fallow between crops

(c) Includes land spelled between stock rotations, grazing on improved pastures and grazing on other land.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Agricultural commodities

Broadacre crops

In 2010-11 Queensland's sorghum production made up 61% of the national total of 1.9 million tonnes. Central Queensland produced 156,338 tonnes or 13% of the state's total sorghum production.

Queensland's maize production represented 48% and cotton production represented 41% of the national total production. The Fitzroy region produced 24,085 tonnes or 14% of the state's total maize production. Furthermore the Fitzroy region produced 74.5 million kilograms of cotton seed production covering an area of 38,361 hectares.

Also in the Fitzroy region 46% of the state's field peas were produced; 43% of the state's lupins; 41% of the state's rice; 29% of the state's sunflowers; and 27% of the state's chickpeas.

Central Queensland produced 18% of the State's hay production or 83,132 tonnes in 2010-11.

Table 7 – Broadacre crops – Central Queensland – year ended 30 June 2011

	Fitzroy Region		Central West Region		Central Queensland			
	No.	No. business	No.	No. business	No.	No. business	*% Qld*	*% Qld*
Hay - Total area (ha)	9,100	303	3,971	42	13,071	345	*12.7*	*11.8*
Hay - Total production (t)	70,489	303	12,643	42	83,132	345	*18.2*	*11.8*
Cereal crops for grain or seed (including rice) - Total area (ha)	223,848	398	612	1	224,460	399	*14.8*	*11.6*
Cereal crops for grain or seed (including rice) - Total production (t)	393,853	398	1,122	1	394,975	399	*12.8*	*11.6*
Cereal crops – Sorghum for grain – Production (t)	156,149	252	189	1	156,338	253	*13.2*	*14.5*
Cereal crops – Maize for grain – Production (t)	24,085	33	-	-	24,085	33	*14.1*	*6.7*
Cereal crops – Rice for grain – Production (t)	944	2	-	-	944	2	*41.1*	*28.6*
Non-cereal crops - Cotton - Area planted (ha)	38,361	73	-	-	38,361	73	*14.8*	*15.2*
Non-cereal crops - Cotton - Seed cotton production (kg)	74,517,229	73	-	-	74,517,229	73	*8.4*	*15.2*
Non-cereal crops - Sugar cane -Total - Area (ha)	255	5	-	-	255	5	*0.1*	*0.1*
Non-cereal crops - Sugar cane -Total - Production (t)	27,987	5	-	-	27,987	5	*0.1*	*0.1*
Non-cereal crops - Chickpeas - Production (t)	37,674	130	-	-	37,674	130	*27.1*	*23.4*
Non-cereal crops - Field beans - Production (t)	19,866	131	46	1	19,912	132	*42.7*	*30.6*
Non-cereal crops - Field peas for grain - Production (t)	121	1	-	-	121	1	*45.8*	*7.7*
Non-cereal crops - Lupins for grain or seed - Production (t)	63	1	-	-	63	1	*43.2*	*20.0*
Non-cereal crops - Sunflower - Production (t)	2,776	9	-	-	2,776	9	*29.0*	*9.1*
Non-cereal crops - Peanuts - Production (kg)(a)	1,204,820	1	-	-	1,204,820	1	*6.8*	*0.7*

(a) Peanuts in shell.

Note: Includes businesses that may be involved in more than one agricultural activity. Therefore total number of agricultural businesses for a particular commodity may not equal the sum of its components.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Vegetables, fruit and nuts

In 2010-11 Queensland's herb production made up 49% of the national total of 7.4 million kilograms. The Fitzroy region produced 249,592 kilograms or 7% of the state's total herb production. Queensland's pineapple production represented 100% of the national total of 83.2 million tonne. The Fitzroy region produced 10,466 tonnes or 13% of the state's total pineapple production.

Furthermore the Fitzroy region produced 5,486 tonnes of table grapes (47% of Queensland's total production) covering an area of 1,335 hectares. Also in the Fitzroy region 42% of the state's Carambolas (star fruit) and 11% of the state's Lychees were produced.

In 2010-11 Queensland had a total of 1.1 million mandarin trees which made up 61% of the national total of 1.8 million. The Fitzroy region had a total of 323,389 mandarin trees or 23% of Queensland's total.

Table 8 – Vegetables, fruit and nuts – Central Queensland – year ended 30 June 2011

	Fitzroy Region		Central West Region		Central Queensland			
	No.	**No. business**	**No.**	**No. business**	**No.**	**No. business**	***% Qld***	***% Qld***
Vegetables - Herbs - Production (kg)	249,592	6	-	-	249,592	6	*6.9*	*5.7*
Vegetables - Lettuce - Production (kg)	75,130	2	-	-	75,130	2	*0.1*	*1.3*
Vegetables - Melons - Production (t)	1,733	11	-	-	1,733	11	*2.5*	*6.8*
Vegetables - Pumpkins - Production (t)	2,697	19	-	-	2,697	19	*6.5*	*4.7*
Vegetables - Sweet corn - Production (t)	1,413	5	-	-	1,413	5	*5.5*	*6.1*
Vegetables for seed (excluding potatoes) - Production (kg)	178,976	2	-	-	178,976	2	*18.9*	*3.0*
Citrus fruit - Oranges - Total trees (no.)	1,872	13	-	-	1,872	13	*1.5*	*10.2*
Citrus fruit - Oranges - Production (kg)	152,077	12	-	-	152,077	12	*2.0*	*10.1*
Citrus fruit - Lemons and limes - Total trees (no.)	27,546	10	-	-	27,546	10	*7.0*	*3.0*
Citrus fruit - Lemons and limes - Production (kg)	157,340	9	-	-	157,340	9	*1.0*	*3.1*
Citrus fruit - Mandarins - Total trees (no.)	323,389	15	-	-	323,389	15	*23.0*	*8.4*
Citrus fruit - Mandarins - Production (kg)	2,392,057	14	-	-	2,392,057	14	*3.4*	*8.6*
Nuts - Macadamias - Total trees (no.)	32,826	11	-	-	32,826	11	*1.2*	*4.3*
Nuts - Macadamias - Production (t)	191	11	-	-	191	11	*1.4*	*4.5*
Other orchard fruit - Avocados - Total trees (no.)	3,748	12	-	-	3,748	12	*0.6*	*3.1*
Other orchard fruit - Avocados - Production (kg)	46,851	11	-	-	46,851	11	*0.2*	*3.0*
Other orchard fruit - Carambolas - Total trees (no.)	200	1	-	-	200	1	*23.3*	*5.0*
Other orchard fruit - Carambolas - Production (kg)	4,550	1	-	-	4,550	1	*41.2*	*5.9*
Other orchard fruit - Custard apples - Total trees (no.)	3,907	11	1	1	3,908	12	*12.0*	*10.8*
Other orchard fruit - Custard apples - Production (kg)	35,543	11	21	1	35,564	12	*7.5*	*11.7*
Other orchard fruit - Lychees - Total trees (no.)	20,892	17	-	-	20,892	17	*11.0*	*7.2*
Other orchard fruit - Lychees - Production (kg)	169,359	17	-	-	169,359	17	*11.1*	*7.5*
Other orchard fruit - Mangoes - Total trees (no.)	45,361	40	-	-	45,361	40	*4.8*	*7.9*
Other orchard fruit - Mangoes - Production (kg)	501,432	40	-	-	501,432	40	*2.6*	*8.1*
Other fruit - Pineapples - Total area (ha)	734	14	-	-	734	14	*18.4*	*13.7*
Other fruit - Pineapples - Production (t)	10,466	14	-	-	10,466	14	*12.6*	*13.9*
Grapevines - Grapevines for wine production - Total Area (ha)	16	2	-	-	16	2	*1.8*	*1.5*
Grapevines - Grapevines for wine production - Production (t)	38	2	-	-	38	2	*3.8*	*1.6*
Grapevines for table and/or other grape production - Total Area (ha)	1,335	14	-	-	1,335	14	*63.3*	*17.5*
Grapevines for table and/or other grape production - Production (t)	5,486	13	-	-	5,486	13	*46.6*	*18.6*

Note: Includes businesses that may be involved in more than one agricultural activity. Therefore total number of agricultural businesses for a particular commodity may not equal the sum of its components.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Livestock

In 2010-11 Queensland had 44% of Australia's total number (28.5 million) of cattle and calves. Central Queensland was home to 3.5 million head of cattle and calves owned by 3,484 businesses. In other words 28% of the state's total number of cattle and calves were located in Central Queensland.

Queensland had 42% of the 170,000 stock horses that were farmed in Australia. Central Queensland was home to 18,704 stock horses (26% of Queensland's total stock horses) owned by 2,013 businesses.

Also in the Central West region 1.4 million head of sheep or 39% of Queensland's total sheep numbers were being managed by 255 businesses.

Table 9 – Livestock – Central Queensland – at 30 June 2011

	Fitzroy Region		Central West Region		Central Queensland			
	No.	No. business	No.	No. business	No.	No. business	*% Qld*	*% Qld*
Poultry and eggs - Total poultry (no.)	**66,614**	**49**	**218**	**14**	**66,832**	**63**	**0.3**	***13.2***
Live poultry - Layers (no.)(a)	62,225	42	158	12	62,383	54	*1.8*	*15.9*
Live poultry - Total meat poultry (no.)	4,389	12	61	4	4,450	16	-	*7.5*
Hen egg production for human consumption (dozens)	1,523,163	41	2,779	12	1,525,942	53	*2.0*	*15.7*
Cattle - Total (no.)(b)	**1,888,403**	**2,762**	**1,668,785**	**736**	**3,557,188**	**3,498**	**28.2**	***17.8***
Dairy cattle (no.)(c)	5,666	81	13	2	5,679	83	*3.5*	*8.6*
Meat cattle (no.)(d)	1,882,737	2,748	1,668,772	736	3,551,509	3,484	*28.5*	*18.1*
Sheep (no.)	10,251	49	1,429,370	255	1,439,621	304	*39.4*	*16.7*
Pigs (no.)(e)	19,934	37	677	6	20,611	43	*3.2*	*8.4*
Deer (no.)(f)	54	66	1,217	15	1,271	81	*10.2*	*19.3*
Goats (no.)(g)	4,253	111	17,226	38	21,479	149	*12.9*	*17.0*
Horses - Stud (no.)	2,505	289	597	62	3,102	351	*12.7*	*16.9*
Horses - Other (no.)(h)	13,326	1,650	5,378	363	18,704	2,013	*26.2*	*21.4*

(a) Includes hens in moult.
(b) Includes cattle and calves - dairy and meat cattle for all purposes.
(c) Includes cows in milk and dry and all other dairy cattle.
(d) Includes cows and heifers one year and over, and all other meat cattle.
(e) Includes breeding sows and all other pigs.
(f) Excludes unmanaged feral deer.
(g) Excludes unmanaged feral goats.
(h) Includes stock horses.

Note: Includes businesses that may be involved in more than one agricultural activity. Therefore total number of agricultural businesses for a particular commodity may not equal the sum of its components.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Value of agricultural commodities

In 2010-11 the gross value of Queensland's agricultural production was $9.6 billion, which represented 21% of Australia's total gross value of agricultural commodities produced. Central Queensland produced in gross value $1.2 billion in agricultural production, representing 13% of Queensland's total gross value.

The gross value of Queensland's livestock slaughtered was worth $4.1 billion or 30% of the national total. Livestock slaughtered includes sheep, lambs, cattle, calves, pigs, goats and poultry. The total gross value of livestock slaughtered in the Central Queensland region was $931 million (23% of Queensland total).

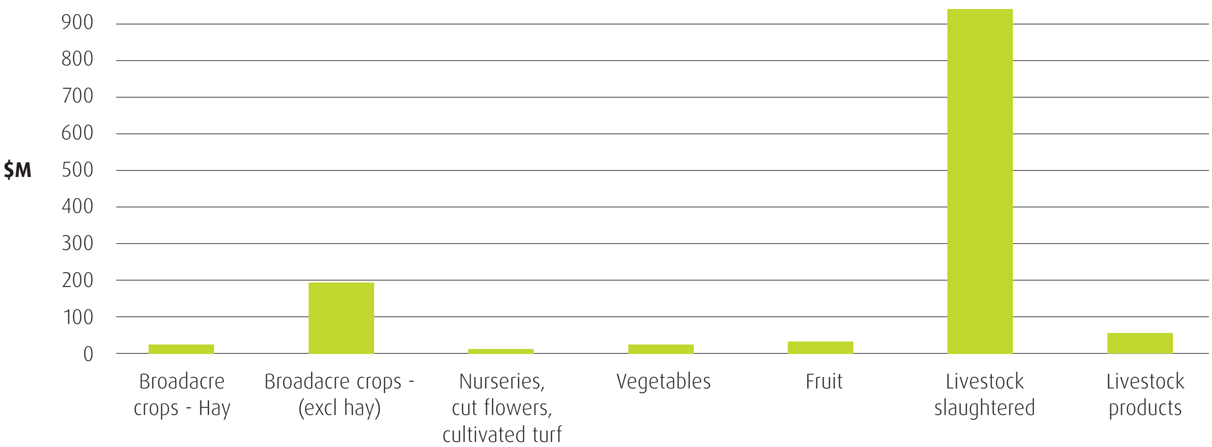
Table 10 – Value of agricultural commodities – Central Queensland – year ended 30 June 2011

	Fitzroy Region	Central West Region	Central Queensland	
	Gross Value	Gross Value	Gross Value	
	$M	$M	$M	*% Qld*
Agriculture (a)	**766.3**	**486.5**	**1,252.8**	***13.1***
Crops (b)	**263.1**	**3.6**	**266.7**	***5.4***
Broadacre crops - Hay - pasture and cereal and other crops cut for hay	17.6	3.3	20.9	*18.8*
Broadacre crops (excluding hay) (c)	192.0	0.3	192.3	*7.6*
Horticulture - Nurseries and cut flowers and cultivated turf	9.6	-	9.6	*3.3*
Horticulture - Vegetables (d)	15.3	-	15.3	*1.4*
Horticulture - Fruit (e)	28.7	-	28.7	*3.3*
Livestock - Livestock slaughtered and other disposals (f)	490.7	440.7	931.4	*22.6*
Livestock - Livestock products (g)	12.5	42.2	54.7	*10.4*

(a) Includes crops, livestock slaughtered and livestock products.
(b) Includes broadacre crops (including hay), nurseries, cut flowers and cultivated turf, vegetables and fruit.
(c) Includes cereal crops, legumes for grain, oilseeds, other crops (excludes hay).
(d) Includes vegetables for human consumption - potatoes, asparagus, beans, broccoli, carrots, cauliflowers, herbs, mushrooms, peas (green), pumpkins, sweet corn, tomatoes, onions, capsicums, melons, lettuce and other vegetables. Also includes vegetables for seed (potatoes and other).
(e) Includes citrus fruit, pome fruit, stone fruit, other orchard fruit, berry fruit, plantation fruit, grapes and nuts.
(f) Includes sheep, lamb, cattle, calves, pigs, goats, poultry and nec.
(g) Includes eggs, wool and milk.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Gross value of agricultural commodities produced Central Queensland – 2010-11



Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Water allocations

In 2010-11, Queensland was the second largest user of water for irrigation at 1,694 gigalitres in Australia. Furthermore 28% of all agricultural businesses in Queensland used irrigation compared to only 15% in Central Queensland.

The Fitzroy region had 3,200 businesses, of which 18% irrigated their pastoral lands. The Fitzroy region had 9.7 million hectares using 127,042 million litres of water per annum to irrigate which equates to 2.7 mega litres per hectare, which was below the state average of 3.6 mega litres.

The Central West region had 787 agricultural businesses of which 29 irrigated their pastoral lands. These businesses used 1,337 mega litres per annum which equates to 1.5 mega litres per hectare. This was also well below the state average of 3.6 mega litres per hectare.

Table 11 – Water use on Central Queensland farms –2010-11

	Agricultural businesses (a)	Agricultural businesses irrigating (a)	Area of agricultural land	Area irrigated	Volume applied	*Application rate(b)*
	No.	No.	'000 ha	'000 ha	ML	*ML/ha*
Central Queensland	**3,987**	**602**	**43,592.6**	**47.5**	**128,379.9**	***4.2***
Fitzroy Region	3,200	573	9,714.7	46.6	127,042.5	*2.7*
Central West Region	787	29	33,877.9	0.9	1,337.4	*1.5*

(a) Includes businesses that may be involved in more than one agricultural activity.
(b) Averaged across all pastures and crops.

Note: ML = Mega litre, one million litres.

Source: Australian Bureau of Statistics: Agricultural Census 2010-11.

Employment in the agricultural industry

Employment data for this section has been taken from the Australian Bureau of Statistics Census of Population and Housing 2011. Industry of employment has been coded to the ABS 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC) and includes employed persons aged 15 years and over. It is also based on the location of the person's workplace in the week prior to the Census.

In 2011, Agriculture, Forestry and Fishing was the largest industry of employment for the Central West region, with 26.7%. Other industries with relatively large numbers of employed persons included Public Administration and Safety (10.6%) and Health Care and Social Assistance (9.5%).

By comparison in the Fitzroy region, Construction and Retail Trade were the largest industries of employment, both with 9.7%. Other industries with high numbers of employed persons included Manufacturing (9.6%) and Mining (8.7%). The Agriculture, Forestry and Fishing industry represented 4.6%.

For Central Queensland in 2011 an estimated 6,234 or 5.8% employed persons worked in the Agriculture, Forestry and Fishing Industry which was higher than the Queensland average of 2.7%.[14]

Table 12 – Employment in the Agriculture, Forestry and Fishing Industry – Central Queensland – 2011

	No.	%
Central Queensland	**6,234**	**5.8**
Fitzroy Region	4,613	4.6
Central West Region	1,621	26.7
TOTAL ALL INDUSTRIES – CENTRAL QUEENSLAND	***107,186***	..

Note: Industry of employment was coded to the ABS 2006 ANZSIC.
Note: Based on the location of the person's workplace in the week prior to the Census.
Note: Employed persons aged 15 years and over.

Source: Australian Bureau of Statistics, Census of Population and Housing 2011.

Overseas exports of agricultural commodities

Overseas export data for this section has been taken from the Australian Bureau of Statistics Foreign Trade unpublished data. Australia's foreign trade statistics are compiled from information submitted by exporters and importers or their agents to the Australian Customs and Border Protection Service. Overseas commodities exported and imported are coded to the Standard International Trade Classification (Revision 4).

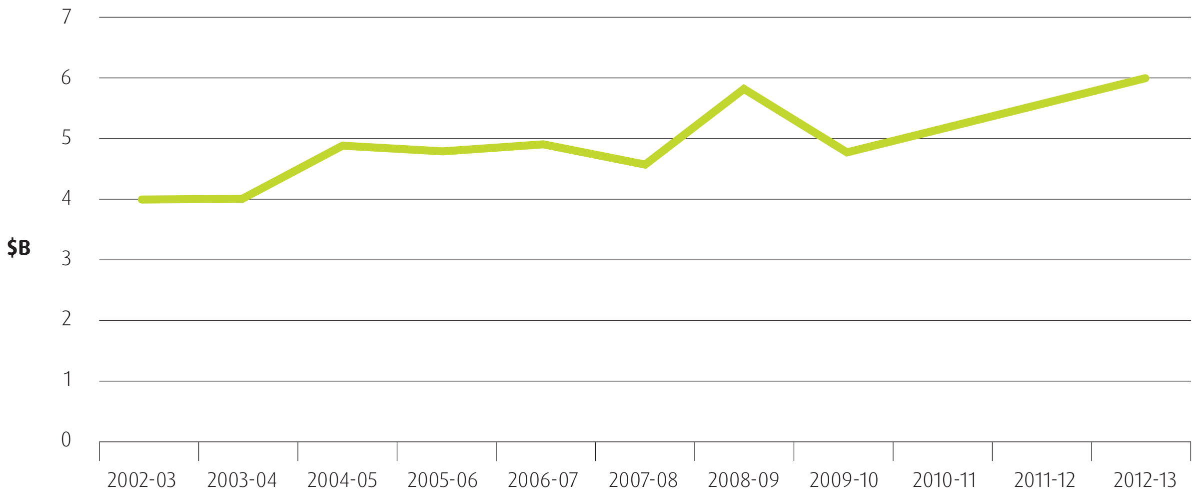
Section 0 refers to FOOD AND LIVE ANIMALS and includes:

- 00 – Live animals (other than fish, crustaceans, molluscs and aquatic invertebrates)
- 01 – Meat and meat preparations
- 02 – Dairy products and birds eggs
- 03 – Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates
- 04 – Cereals and cereal preparation
- 05 – Vegetables and fruit
- 06 – Sugars, sugar preparations and honey
- 07 – Coffee, tea, cocoa, spices
- 08 – Feeding stuff for animals (excl. unmilled cereals)
- 09 – Miscellaneous edible products

Over the past ten years the value and quantity of overseas exports of 'food and live animals' from Queensland ports has steadily been rising, peaking in 2012-13 at just over 5 million tonnes valued at $6 billion.

Agricultural commodities (food and live animals) comprised only 2.4% of total Queensland ports overseas export volumes in 2012-13.

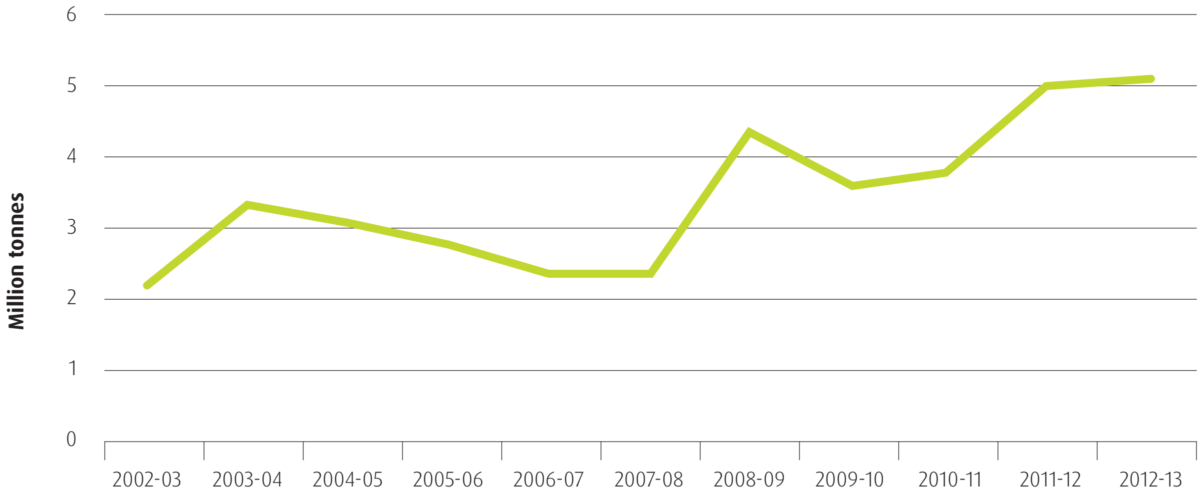
Value of overseas exports of food and live animals Queensland ports



Note: Based on the Standard International Trade Classification (Revision 4).
Note: Based on port of loading.

Source: Queensland Office of Economic and Statistical Research, Queensland Ports (ABS, Foreign Trade, unpublished data).

Quantity of overseas exports of food and live animals Queensland ports



Note: Based on the Standard International Trade Classification (Revision 4).
Note: Based on port of loading.

Source: Queensland Office of Economic and Statistical Research, Queensland Ports (ABS, Foreign Trade, unpublished data).

In 2012-2013 Gladstone port exported 389,442.4 tonnes of 'food and live animals' valued at $162.8 million predominately to Indonesia, India, Japan, Malaysia, Mozambique, New Zealand, Pakistan, Philippines, Papua New Guinea, South Africa, Taiwan, Thailand and Vietnam.[15]

By comparison Cairns port exported 50,425.2 tonnes; Townsville port 235,748.2 tonnes; and Mackay 524,038.9 tonnes of 'food and live animals' in 2012-2013.

Across all commodities Gladstone port exported overseas 62 million tonnes to the value of $8.7 billion in 2012-2013.

Table 13 – Overseas exports by agricultural commodities – Gladstone port – 2012-13

	Gladstone Port		Total Queensland Ports	
	Tonnes	**$M**	**Tonnes**	**$M**
Live animals (other than fish, crustaceans, molluscs, aquatic invertebrates)	1,072.1	8.9	10,704.3	38.8
Meat and meat preparations	-	-	833,264.2	3,799.7
Dairy products and birds eggs	-	-	12,700.8	48.3
Fish (not marine mammals), crustaceans, molluscs, aquatic invertebrates	-	-	10,663.3	145.7
Cereals and cereal preparation	199,356.0	66.4	1,876,388.0	661.0
Vegetables and fruit	96,566.6	58.5	746,538.9	638.0
Sugars, sugar preparations and honey	-	-	559,877.9	162.5
Coffee, tea, cocoa, spices	-	-	4,228.5	40.5
Feeding stuff for animals (excl. unmilled cereals)	92,447.6	29.1	976,608.5	353.2
Miscellaneous edible products	-	-	45,752.2	155.1
Total food and live animals (agricultural commodities)	**389,442.4**	**162.8**	**5,076,726.6**	**6,042.8**
TOTAL ALL COMMODITIES	***62,060,590.0***	***8,729.7***	***213,742,557.7***	***46,313.7***

Note: Based on the Standard International Trade Classification (Revision 4).
Note: Based on port of loading.

Source: Queensland Office of Economic and Statistical Research, Queensland Ports (ABS, Foreign Trade, unpublished data).

Queensland interstate trade of agricultural commodities

Data for this section is from the Australian Bureau of Statistics Queensland Interstate Trade quarterly survey which collects information about the interstate movement of goods into and out of Queensland from and to other parts of Australia. This movement can be by purchase, sale or transfer. The information sought is the dollar value of goods by commodity classification of the goods. The classification used is based on the Standard International Trade Classification, revision 4 (SITC).

The value of interstate 'meat and meat preparations' imported to Queensland for 2011-2012 was $1,297.1 million and $1,020.1 million in 2012-2013. This compared to the value exported of $1,369.6 million for 2011-2012 and $1,248.0 million in 2012-2013.

'Other food and live animals' includes - live animals, fish, cereals and cereal preparation, vegetables and fruit, sugars, sugar preparations and honey, feeding stuff for animals and miscellaneous edible products.

The value of interstate 'other food and live animals' imported to Queensland for 2011-2012 was $5,456.7 million and $6,333.7 million in 2012-2013. By comparison the value exported in 2011-2012 was $1,802.2 million and $5,613.0 million in 2012-2013.

Table 14 – Queensland interstate trade by commodity – Sept Qtr 2011 – June Qtr 2013

	Sept Qtr 2011	Dec Qtr 2011	Mar Qtr 2012	June Qtr 2012
	$'000	$'000	$'000	$'000
EXPORTS				
Meat and meat preparations	373,404	321,771	258,970	415,478
Dairy products	78,226	93,095	78,208	n.p.
Coffee, tea, cocoa and spices	n.p.	10,237	5,442	7,286
Other food and live animals	535,126	398,305	428,259	440,549
IMPORTS				
Meat and meat preparations	353,291	340,717	303,033	300,149
Dairy products	209,464	217,661	200,817	209,602
Coffee, tea, cocoa and spices	80,091	60,463	50,323	55,456
Other food and live animals	1,323,896	1,437,913	1,466,598	1,228,286
	Sept Qtr 2012	**Dec Qtr 2012**	**Mar Qtr 2013**	**June Qtr 2013**
	$'000	**$'000**	**$'000**	**$'000**
EXPORTS				
Meat and meat preparations	270,900	369,329	272,568	335,246
Dairy products	n.p.	n.p.	n.p.	n.p.
Coffee, tea, cocoa and spices	7,388	8,668	7,355	12,059
Other food and live animals	2,132,116	1,455,936	898,725	1,126,279
IMPORTS				
Meat and meat preparations	238,057	285,934	243,893	252,208
Dairy products	213,394	224,630	197,878	216,743
Coffee, tea, cocoa and spices	55,790	57,261	46,633	54,672
Other food and live animals	1,474,546	1,760,272	1,461,021	1,637,868

n.p. - not published due to confidentiality.

Note: Based on the Standard International Trade Classification (Revision 4).

Source: Australia Bureau of Statistics, Interstate Trade Queensland, unpublished data.

Transport networks for food and fibre industries in Central Queensland

The Queensland economy comprises a higher proportion of agricultural, mining, manufacturing, construction, trade and transport industry sectors than any state other than Western Australia. These sectors comprise more than half of Queensland's $280 billion economy and are serviced supply chains which generate freight movement.[16] The main highways utilised in Central Queensland for the transport and distribution of produce are Bruce Highway, Leichhart Highway, Burnett Highway, Capricorn Highway, Landsbrough Highway, Overland Way and Beef Development Road. Map 2 identifies the key agricultural production areas and road/rail links critical to supporting the agricultural industry throughout Southern Queensland.

Map 2 – Key agricultural production regions – Southern Queensland – 2013

Source: Department of Transport and Main Roads, Department of Agriculture, Fisheries and Forestry and Cotton Australia, 2013.

Freight movements in Queensland by primary mode 2010-11

Source: Centre for Transport Energy and the Environment: Queensland Transport Facts 2013.

Characteristics of general freight movements in Queensland include:

» Road transport supports the majority of general freight movements within Queensland
» Commodities predominantly move in a west to east direction to Queensland's ports
» There is a strong north-south flow between the major centres along the coastline
» The majority of commodities that move in bulk comprise of mining and agricultural exports
» Rail freight is predominately attributed to coal exports[17]

In 2012 Queensland had the third highest total freight tonnage carried (502.9 million tonnes) on its roads in Australia as reported to the Australian Bureau of Statistics (Survey of Motor Vehicle Use). New South Wales had the highest with 572.7 million tonnes of total freight movements within its state.

The total weight in tonnage of 'food and live animals' freighted on Queensland roads in 2012 was 69.0 million tonnes. Queensland had the second highest freight tonnage of 'food and live animals' in Australia. Victoria had the highest with 90.8 million tonnes of 'food and live animals' freighted on their roads in 2012.

In 2012, 21% of all 'food and live animals' transported in freight vehicles within Australia occurred on Queensland roads.[18]

Table 15 – Tonnes carried of food and live animals – 12 months ended 30 June 2012

	Queensland	Australia
	'000	'000
Light commercial vehicles	524.7	7,078.2
Rigid trucks	19,196.5	82,778.4
Articulated trucks	49,307.6	239,292.3
Total freight vehicles	**69,028.9**	**329,148.9**

Note: Articulated trucks are constructed primarily for load carrying consisting of a prime mover which has no significant load carrying area, but with a turntable device which is linked to a semitrailer. Light commercial vehicles constructed for the carriage of goods and which are less than or equal to 3.5 tonnes GVM. Rigid trucks constructed with a load carrying area and which exceeds 3.5 tonnes GVM.

Note: Based on the Standard International Trade Classification (Revision 4).

Source: Australian Bureau of Statistics, Survey of Motor Vehicle Use, Australia 2012.

Forecasts for food and fibre industries in Central Queensland

The Queensland Government has outlined an Agricultural Strategy, which aims to double the value of Queensland's food production by 2040. However, meeting this target will only occur if the level of productivity within the sector increases across the supply chain.

Examples of how the Queensland Government will drive productivity growth across the supply chain include:

» Increase the uptake of best practice for – conservation cropping techniques, irrigation efficiency, machinery adaption and sustainable grazing land use

» Improve mechanisms to enhance resilience to natural disasters and biosecurity threats

» Focus on research projects through the Northern Beef Research Alliance that aims to improve the productivity and profitability of Queensland's beef industry

» Enhance science and technology capabilities

» Continue the Queensland Alliance for Agriculture and Food Innovation

» Invest in industries that have the potential for growth, such as tropical pulses, through investment with the Queensland University of Technology into research that will help increase the production and export of chickpeas, mungbeans and other pulses

» Deliver an updated Queensland climate adaptation strategy

» Collaborate with producer groups, industry and scientists from around the world to develop solutions and opportunities for Queensland's field crops and pasture industries, including winter cereals such as wheat, barley, oats, canary and triticale

» Work with producers, local governments and communities to continue the fight against weeds

» Hold a feral animal summit with key government departments, local governments, producers and other organisations to develop future approaches to feral animal management, including wild dogs[19]

The Queensland's Agricultural Strategy highlights the importance of improved freight access and options to support the agricultural industry's growth. Opportunities exist to develop more reliable, efficient and cost-effective freight solutions to satisfy future food consumption demands. This can be realised through enhancing supply chain relationships, challenging existing roles and responsibilities and better managing commercial risks.[20]

Queensland Government Transport and Main Roads in conjunction with a consultancy agency are developing two projects; Resources Rail Lines (Link Planning) and Sea Freight Action Plan (Coastal Shipping) that are due for completion by 30 June 2014.

Resources Rail Lines (Link Planning) project

The Resources Rail Lines Link Planning project has a Queensland wide focus on the rail system connecting the ports of Gladstone and Mackay to the resource areas of the Bowen and Galilee basins. The project will review existing rail freight operations and provide recommendations on how to optimise the supply chain.

The project will examine the benefits of transporting mining inputs and agricultural exports by rail, using sea freight containers (twenty foot equivalent unit -TEU) as the standard logistics platform. Achieving a modal shift of certain commodities from road to rail will support new trade and marketing opportunities.

The project will also report on how freight movements in Central Queensland could be improved by developing an inland port to back-load agricultural commodities in TEU's to Gladstone, Mackay or Brisbane ports. Establishing an inland port is central to achieving a modal shift of mining inputs (fuel, cement, chemicals) and agricultural exports (grain, cotton, citrus) from bulk freight movements (on road), to containerised freight movements by rail utilising rail freight services. Consultation with industry has identified two inland port options for consideration – Emerald and Alpha.[21]

Sea Freight Action Plan (Coastal Shipping) project

The Sea Freight Action Plan (Coastal Shipping) project will examine the freight network benefits that could be achieved with the introduction of an intra-state coastal shipping service by:

- Provide the Resource sector with a cost effective alternative to trucking Over Size Over Mass (OSOM) mining equipment on the Bruce Highway
- Improve supply chain performance and export opportunities for the Agricultural industry in Central and Far North Queensland and improve the opportunities for the Construction industry to move large scale project materials in a cost effective and timely manner
- Increase port throughput with a multi-modal freight network focus
- Examine potential benefits that could be achieved by facilitating a coastal shipping service calling at a range of ports between Brisbane and Cairns

The introduction of an intra-state coastal shipping service would support the movement of OSOM cargo (other than by road) and connect regional ports to the Port of Brisbane, providing an opportunity to back load containerized exports of grain, cotton, fruit, vegetables and beef on these ships from regional areas of primary production. Coastal shipping could address road and rail infrastructure failures associated with annual and extreme weather events in Central Queensland and Far North Queensland given their impacts on supply chain security and productivity in these regions.

A coastal shipping service would also provide opportunities for Queensland's agricultural exporters, providing an equipment pool of sea freight containers (TEU) at regional ports to back load coastal ships with agricultural commodities such as grain, cotton, citrus and beef for transhipment via the port of Brisbane to international and domestic markets.[22]

Endnotes

1 www.jbsswift.com.au

2 www.teysaust.com.au

3 Australian Government: National Food Plan Green Paper 2012

4 Department of Agriculture, Fisheries and Forestry: Queensland's Agriculture Strategy- A 2040 Vision

5 Department of Agriculture, Fisheries and Forestry: Queensland Agricultural Land Audit 2013

6 Queensland Treasury and Trade: Experimental Estimates of Gross Regional Product 2000-01, 2006-07 and 2010-11

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10 Australia Bureau of Statistics: Labour Force, Australia (6291.0) May 2013

11 Australian Bureau of Statistics: Agricultural Land and Water Ownership (7127.0), December 2010

12 Australian Bureau of Statistics: Regional Population Growth, Australia, 2011-12

13 OESR: Bowen and Galilee Basins non-resident population projections, 2012-13

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15 Australian Bureau of Statistics, Foreign Trade, unpublished data

16 Queensland Transport and Logistics Council: Strengthening Queensland's supply chains, 2013-15

17 Department of Transport and Main Road: Draft Moving Freight, A plan for more efficient freight movement, June 2013

18 Australian Bureau of Statistics: Survey of Motor Vehicle Use, Australia, 2012

19 Department of Agriculture, Fisheries and Forestry: Queensland's Agriculture Strategy- A 2040 Vision

20 Department of Transport and Main Road: Draft Moving Freight, A plan for more efficient freight movement, June 2013

21 Queensland Government, Transport and Main Roads: Consultants Brief for Resources Rail Lines (Link Planning), September 2013

22 Queensland Government, Transport and Main Roads: Consultants Brief for Sea Freight Action Plan (Coastal Shipping), September 2013

Notes

Regional Development Australia

Fitzroy and Central West Inc.

25 Yeppoon Road
Parkhurst Q 4701

PO Box 307
Rockhampton Q 4700

P: 07 4923 6217
E: ceo@rdafcw.com.au

www.rdafcw.com.au