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# **Australia**

# **Grain and Feed Update**

# January 2015

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### Report Highlights:

Over late 2014, prospects for Australian winter grains crops worsened as a result of continued dry weather. Both yields and the volume of production were affected. In 2015, wheat production is expected to fall to 23.2 million tons with exports forecast to decline to 18.1 million tons. Barley production is forecast to decline by around one fifth to 7.4 million tons, as some growers shift acreage out of barley and into wheat and canola. The outlook for summer crops depends on continued rainfall and water availability. In 2015, sorghum production is forecast at 1.3 million tons, 21 per cent above the previous year, with acreage planted up 8 percent. Australia's rice crop is expected to decline to 710,000 tons, around 15 per cent below the previous year, due to adverse weather and limits on water supply.

Post:

Canberra

**Commodities:** 

Wheat

Barley

Sorghum

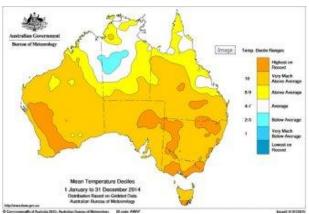
Rice, Milled

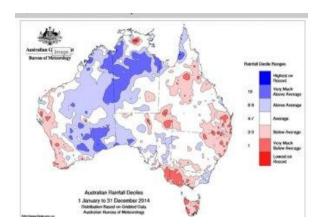
#### **OVERVIEW**

Over late 2014, prospects for Australian winter grains crops worsened as a result of continued dry weather, especially in Queensland, New South Wales and Victoria – although recent rainfall in 2015 could help alleviate this outlook. Wheat production in 2015 has been revised downwards to 23 million tonnes, despite higher acreage, as a result of lower yields. Production of barley is expected to decline by around 20 per cent to 7.3 million tonnes due to adverse weather conditions. Harvesting of winter crops is almost complete in Queensland and northern NSW and is now underway in Western Australia and the other southern States.

Summer crops including sorghum and rice are especially dependent on normal rainfall and the availability of irrigated water. The area sown to both sorghum and rice is below the 10-year average for these crops. Adverse seasonal variations resulted in a low soil moisture levels and planted area for summer crops. It is unclear if this trend will continue. The Bureau of Meteorology's outlook for late 2014 to early 2015 was for this trend to continue but higher than average rainfall occurred from the December quarter of 2014.

Chart 1: Australian temperature variations in 2014 Chart 2: Australian rainfall in 2014





Source: Bureau of Meteorology (2015). See: link

According to BOM records, 2014 was Australia's third-warmest year since national records began in 1910. Australian maximum and minimum temperatures remained well above average for most of 2014 and February was the only month that recorded below average temperatures. Further, a large area of northeast NSW and southern Queensland recorded below average rainfall in 2014. As a result, a record number of cattle were placed on feed in Australia in the second half of 2014.

#### **WHEAT**

#### **Production**

In 2015, wheat production is expected to decline by 14 per cent to 23.2 million tons, as a result of below-average rainfall and falling yields. The previous quarterly estimate of 24 million tons has been revised down based on an expected 16 percent decline in average yields due to lower soil moisture and adverse weather conditions. The downward revision in production comes despite a two percent increase in total harvested wheat area, to 13.8 million hectares.

Wheat is the major winter crop in Australia, with sowing starting in autumn and harvesting, in spring and summer. Harvesting starts in central Queensland during August and progresses down the east coast to Victoria, finishing during January. On the west coast, the wheat harvest starts during October and is completed during January. The main producing states are Western Australia, NSW, South Australia, Victoria and Queensland. Major types of wheat include Prime Hard, Hard, Premium White, Standard, Soft and Durum, based on protein, grain size and moisture content and each grain has different end-uses.

## Consumption

Wheat is Australia's major grain crop and is used for human consumption in the production of breads, noodles and pastas. Lower quality wheat is used as stock feed while some waste wheat starch is used to manufacture biofuel. Australia typically consumes 5 million tons of wheat annually, with the remainder exported. Around 2.5 million tons are used to produce flour, whole grain products and beverages for human consumption, as well as to produce gluten and starch for industrial uses. A further 2.5 million to 3 million tons is used annually as stock feed. Half a million tons of wheat is used as seed.

Wheat consumption in Australia has been stable in recent years with around 70 kg of flour per capita consumed on average over the past decade. Flour producers face a mature domestic market with growth dependent on product innovations to supply market segments such as organic grains, or to meet dietary needs for gluten free and yeast free products. The biggest milling companies in Australia are Allied Mills, George Weston Foods and Manildra. The NSW complex of Manildra is one of the ten largest flour mills in the world and the leading Australian biofuels producer, using waste wheat starch for its feedstock.

## **Trade**

In 2015, Australian wheat exports are forecast to fall to 17 million tons, down 8 per cent from the previous year as a result of lower production and yields. Sufficient stocks of wheat are available from the 2014 season to meet export commitments. The average export price for wheat is expected to fall in 2015, but this will be offset by the depreciation of the Australian dollar in early 2015.

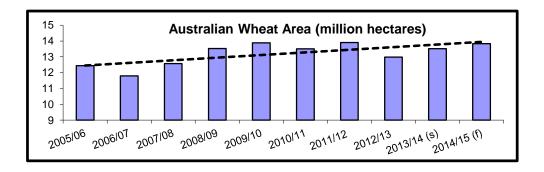
Australia is the seventh largest wheat producer in the world and the fourth largest exporter. Around 80 per cent of Australian wheat production is exported, with WA the leading State. Australia has the capacity to export wheat in the December to May marketing window when the northern hemisphere season is ending. During this period, seasonal demand for grain, rail and port services and shipping slots increases significantly and a queuing system has been used for bulk grain exporters.

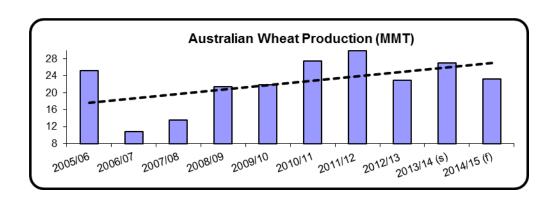
Around half of wheat grown in eastern Australia is consumed locally, while 90 per cent of grain produced in Western Australia and South Australia is exported. The major export markets are in the Asian and Middle East regions and include Indonesia, Japan, South Korea, Malaysia, Vietnam and Sudan.

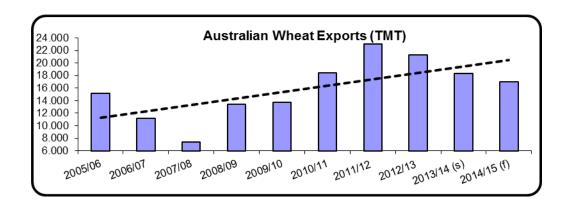
## **Production, Supply and Distribution Statistics:**

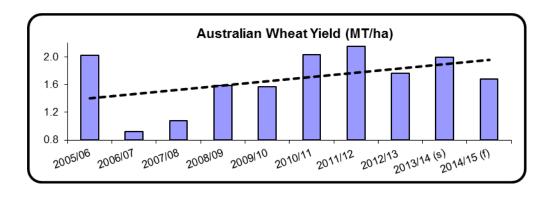
Wheat	2012/2013 Oct 2012		2013/2014 Oct 2013		2014/2015 Oct 2014	
Market Begin Year						
Australia	USDA Official	New post	USDA Official	New post	USDA Official	New post
Area Harvested	12,979	12,979	13,511	13,511	13,800	13,836
Beginning Stocks	7,051	7,051	4,654	4,654	6,242	6,249
Production	22,856	22,856	27,009	27,009	24,000	23,222
MY Imports	144	144	150	113	150	115
TY Imports	136	136	151	113	150	115
TY Imp. from U.S.	2	2	3	3	0	0
Total Supply	30,051	30,051	31,813	31,776	30,392	29,586
MY Exports	18,657	18,657	18,621	18,577	17,500	17,000
TY Exports	21,269	21,269	18,339	18,336	18,000	16,993
Feed and Residual	3,400	3,400	3,600	3,600	3,400	3,600
FSI Consumption	3,340	3,340	3,350	3,350	3,400	3,400
Total Consumption	6,740	6,740	6,950	6,950	6,800	7,000
Ending Stocks	4,654	4,654	6,242	6,249	6,092	5,586
Total Distribution	30,051	30,051	31,813	31,776	30,392	29,586
1000 HA, 1000 MT, MT/HA	I		I			<u> </u>

## Charts on the Australian Wheat Industry, 2005 to 2015









#### **BARLEY**

#### **Production**

In 2015, Australian production of barley is forecast to decline by over 20 per cent to 7.4 million tons due to a decline in average yields and the area planted. Barley area planted is forecast to fall by four per cent to 3.8 million hectares, as some growers shift to wheat and canola crops. The average yield is expected to fall due to low rainfall in the growing season. Barley is generally harvested from October to late November.

## Consumption

Malting barley for the brewing and food industry accounts for around 1 million tons of domestic barley consumption per year, while consumption of barley for feed is around two million tons each year. Australian barley is used in the malting, brewing, distilling, Shochu and feed industries. Malt barley is for human consumption, while feed barley is for animal feed. Malt barley is used in beer production and malt extract is used in the food industry.

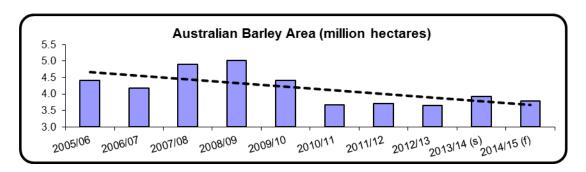
#### **Trade**

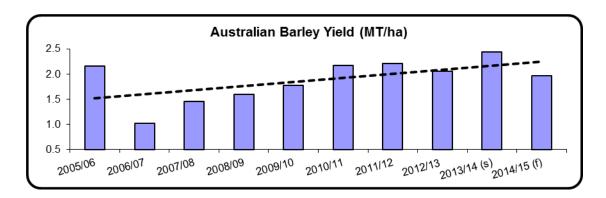
Australia was the world's second largest barley exporter in 2014, but exports are forecast to fall by 30 per cent in 2015 to 4.5 million tons. Australia normally supplies around 30 per cent of global trade in malt barley and 20 per cent of trade in feed barley. Australia's three largest barley importers are China, Saudi Arabia and Japan, which will account for 90 per cent of its exports in 2015.

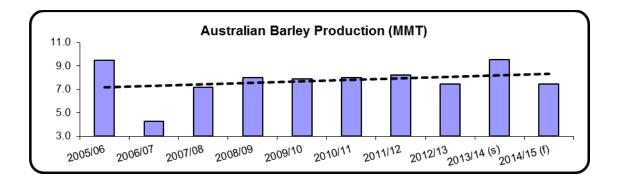
## **Production, Supply and Distribution Statistics:**

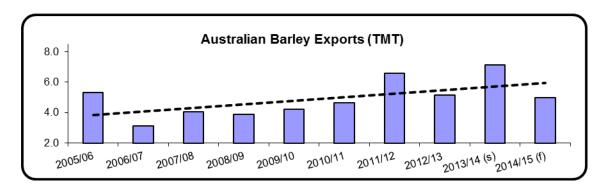
1 44 49 72	Nov 2012  USDA Official  3,644 549 7,472	New post 3,644 549 7,472	Nov 201 USDA Official 3,920 539	New post 3,920 539	Nov 2014 USDA Official 3,800	New post
144 49 72	Official  3,644  549  7,472	<b>post</b> 3,644 549	Official 3,920	<b>post</b> 3,920	Official	post
49 72	549 7,472	549	,	·	3,800	3,800
72	7,472		539	530		
		7.472		555	562	561
0		7,472	9,539	9,539	7,600	7,445
U	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
21	8,021	8,021	10,078	10,078	8,162	8,006
82	4,482	4,482	6,216	6,217	4,500	4,500
21	4,621	4,621	6,262	6,261	4,500	4,500
00	1,800	1,800	2,000	2,000	2,000	1,900
00	1,200	1,200	1,300	1,300	1,300	1,300
00	3,000	3,000	3,300	3,300	3,300	3,200
39	539	539	562	561	362	306
	8,021	8,021	10,078	10,078	8,162	8,006
)(	3,0	539	000 3,000 539 539	000     3,000       539     539       562	000     3,000     3,300     3,300       539     539     562     561	000     3,000     3,300     3,300       539     539     562     561     362

## Charts on the Australian Barley Industry, 2005 to 2015









#### **SORGHUM**

#### **Production**

Sorghum is a summer crop used mainly for livestock feed. In 2015, sorghum production is forecast at 1.3 million tons, 21 per cent above the previous year. The area planted is expected to rise by 8 per cent to 532,000 hectares if more normal rains occur over the growing period. In this case, sorghum yields are likely to recover to 2.5 tons per hectare. However, there is uncertainty in forecasting due to seasonal variations. Over the last two years, output has been revised down significantly due to poorer than expected rainfall and the impact of drought. Further, harvesting occurs mid-year and could be reported in either financial year.

Australia normally produces around two to three per cent of global sorghum and accounts for five per cent of global exports. Sixty per cent of the Australian crop is grown in Queensland and the remainder in northern NSW. Planting times are from September to January and sorghum is classified as either grain sorghum or forage sorghum according to the tannin content. Grain sorghum is often used for feed grain for the beef, dairy, pig and poultry industries and is the main summer grain crop in most regions of Queensland. The grain, stalks and leaves are all used for animal feeding products.

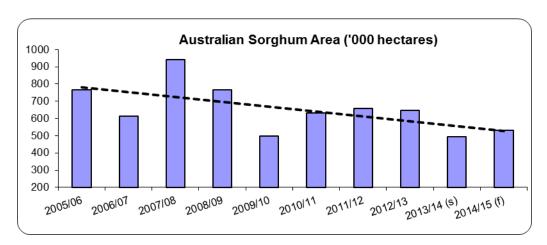
#### **Exports**

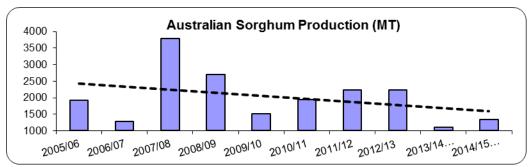
In 2015, sorghum exports are forecast to decline to around 500,000 tons, significantly lower than earlier forecasts. Higher demand and domestic prices for feed grains will contribute to lower exports. China is Australia's largest export market for grain sorghum due to rising use of grain sorghum in animal feed and liquor production in that country.

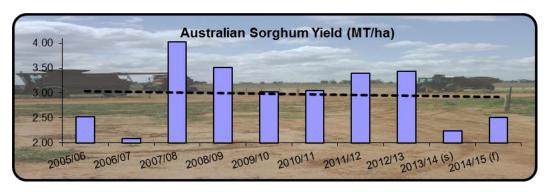
### **Production, Supply and Distribution Statistics:**

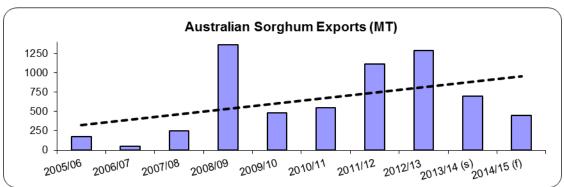
Sorghum	2012/2013 Mar 2012		2013/2014 Mar 2013		2014/2015 Mar 2014	
Market Begin Year						
Australia	USDA Official	New post	USDA Official	New post	USDA Official	New post
Area Harvested	648	648	493	493	660	532
Beginning Stocks	230	230	195	195	147	100
Production	2,230	2,230	1,107	1,110	2,000	1,340
MY Imports	0	0	0	0	0	0
TY Imports	0	0	0	0	0	0
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	2,460	2,460	1,302	1,305	2,147	1,440
MY Exports	1,160	1,160	350	550	800	500
TY Exports	1,425	1,425	405	600	800	500
Feed and Residual	1,100	1,100	800	650	1,200	800
FSI Consumption	5	5	5	5	5	5
Total Consumption	1,105	1,105	805	655	1,205	805
Ending Stocks	195	195	147	100	142	135
Total Distribution	2,460	2,460	1,302	1,305	2,147	1,440
1000 HA, 1000 MT, MT/HA	ı	ı	I		I	

## Charts on the Australian Sorghum Industry, 2005 to 2015









#### **RICE**

#### **Production**

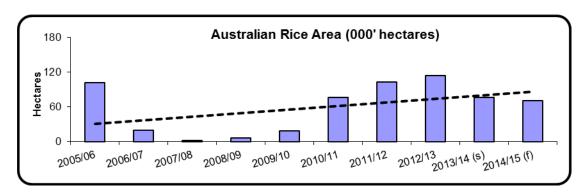
In 2015, Australia's rice crop is expected to decline to 710,000 tons, around 15 per cent below the previous year, due to adverse weather and lower acreage. Contributing factors have been the higher cost of water quotas and limits on water supply. Milled rice production is forecast to fall 15 per cent to 511,000 tons. Yields are likely to be stable at around ten tons per hectare grown. Exports for 2015 are forecast at 400,000 tons despite lower production; as stocks are drawn down to meet domestic and overseas market demand.

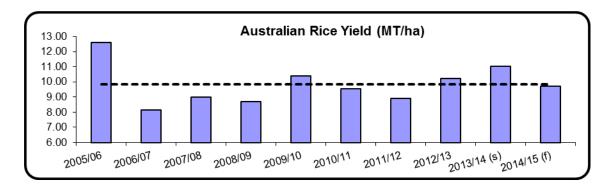
The Australian rice industry has the capacity to produce over one million tonnes of rice per year, but lower average rainfall and water quotas have prevented this total from being reached. In mid-2014, SunRice unsuccessfully called for a 20 per cent increase in water for rice growers to allow them to increase production by an estimated 100,000 tonnes a year. Low water allocations led SunRice to close its Coleambally rice mill for the harvest in 2015, after it had re-opened the site in 2013. SunRice has therefore sought to diversify its domestic supply sources and in 2014 acquired rice milling assets in the Burdekin River region of North Queensland. This region holds Queensland's largest dam and irrigation network and could support a significant expansion of rice production in Australia.

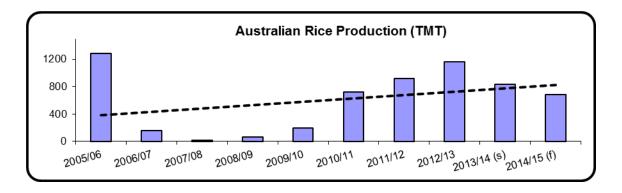
## **Production, Supply and Distribution Statistics:**

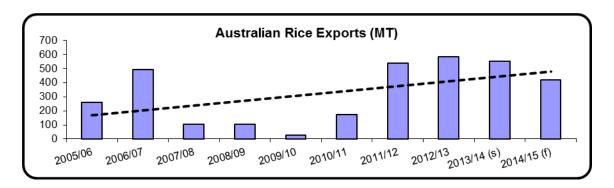
Rice, Milled	2012/2013		2013/2014		2014/2015	
Market Begin Year	Mar 2012		Mar 2013		Mar 2014	
Australia	USDA Official	New post	USDA Official	New post	USDA Official	New post
Area Harvested	114	114	76	76	70	71
Beginning Stocks	40	40	238	238	171	182
Milled Production	836	836	600	600	504	511
Rough Production	1,161	1,161	833	833	700	710
Milling Rate (.9999)	7,200	7,200	7,200	7,200	7,200	7,200
MY Imports	152	152	150	150	150	155
TY Imports	152	152	150	150	150	155
TY Imp. from U.S.	13	13	0	12	0	12
Total Supply	1,028	1,028	988	988	825	848
MY Exports	440	440	460	446	400	400
TY Exports	460	460	430	466	400	400
Consumption and Residual	350	350	357	360	360	360
Ending Stocks	238	238	171	182	65	88
Total Distribution	1,028	1,028	988	988	825	848
1000 HA, 1000 MT, MT/HA						

## Charts on the Australian Rice Industry, 2005 to 2015



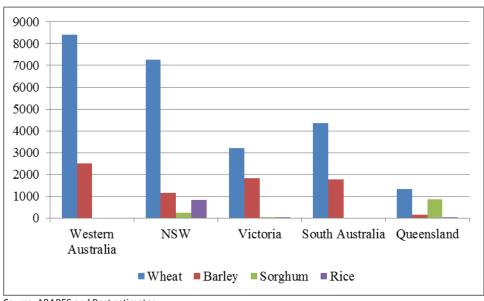






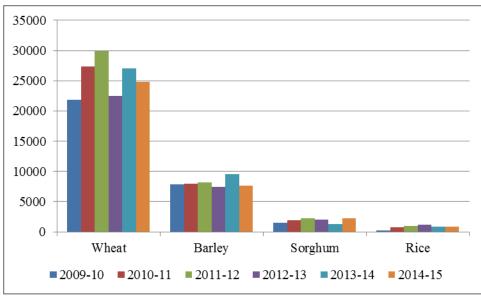
## **Charts on the Australian Grains Industry**

# Production of Australian grains by State. 2014-15 (000' tons)



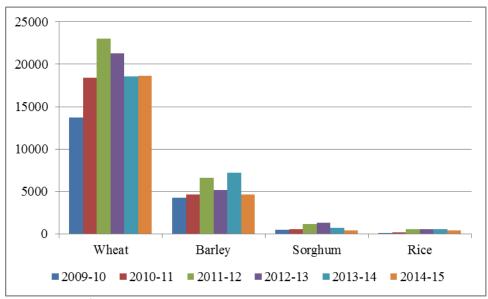
Source: ABARES and Post estimates.

## Production of Australian grains, 2009-10 to 2014-15 (000' tons)



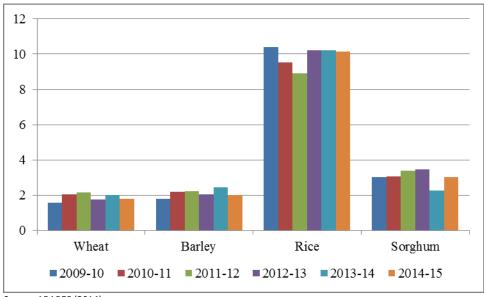
Source: ABARES and Post estimates.

Exports of Australian grains, 2009-10 to 2014-15 (000' tons)



Source: ABARES and Post estimates.

# Average farm yields for Australian grains, 2009-2015 (tons/hectare)



Source: ABARES (2014)