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# Australia

# **Grain and Feed Update**

# January 2019

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#### **Report Highlights:**

Post forecast Australian wheat production at 17 million metric tons (MMT) for 2018/19 due to hot conditions and low rainfall in eastern Australia. Barley production is forecast to decline to 7.3 MMT due to poor seasonal conditions. Sorghum production has been revised up to 2.2 MMT in 2018/19, in response to recent expansion in planting area. However, as these cropping regions have very low soil moisture, rainfall is necessary to produce a good crop for the season. Rice production is expected to fall sharply to 0.11 MMT in 2018/19 as water prices soar.

Post: Canberra

Commodities: Wheat, Barley, Sorghum, Rice

#### **EXECUTIVE SUMMARY**

The winter crop harvest in Australia for 2018/19 is almost complete, with low production in the eastern states partly offset by a good harvest in Western Australia (WA). Wheat and barley production in eastern Australia declined sharply as a result of drier conditions. On the other side of the country, favorable seasonal conditions in Western Australia resulted in increased wheat and barley production as well as improved yields. Overall, wheat production for 2018/19 is forecast to decline to 17 million metric tons (MMT), the lowest since 2007/08, while barley production is forecast at 7.3 MMT.

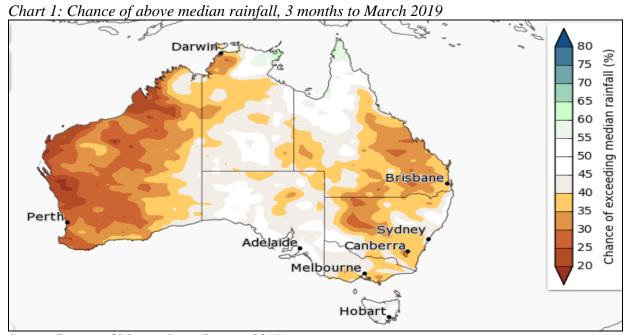
The outlook for summer crops has slightly improved in part because of decent rainfall in December. The Bureau of Meteorology is also forecasting average rainfall until March 2019. Still, many cropping areas are experiencing low soil moisture levels. Sorghum production in 2018/19 is forecast to expand to 2.2 MMT following an expansion in planted area at the end of 2018. Rice production is constrained by higher water prices and is forecast to decline sharply to 0.11 MMT.

On Australia's east coast, grain prices reached near decade-highs in early 2018, although they have moderated recently as the region received decent rainfall in December. Feed grain shortages still exist in northern New South Wales (NSW) and southern Queensland resulting in grain being transported from WA to meet animal feed demand. High domestic feed prices in eastern Australia will limit wheat exports from this region, while the good growing conditions are likely to increase WA's share of Australia's total wheat exports to 60 percent from 40 percent.

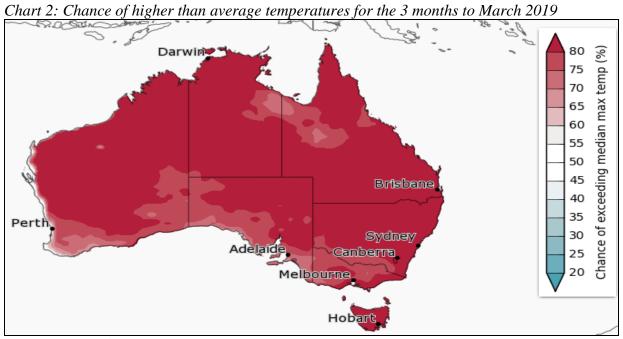
#### SEASONAL OUTLOOK

In 2018, many cropping regions in eastern Australia experienced low precipitation and above average temperatures, which severely affected the growing season (see charts 1 and 2 below). Australia experienced its driest September on record in 2018, but average-to-above average rainfall occurred in October and November, with widespread rain falling across most cropping regions in December. Despite the late season rainfall, soil moisture levels remain very low in parts of eastern NSW, most of Victoria, and southwest Australia. As a result, many growers harvested their wheat, barley, and canola crops early to sell as hay and feed grain in response to higher animal feed prices and likely lower yields.

Drought conditions in eastern Australia, where soil moisture is low and pasture growth is poor, have contributed to shortage of animal feed. Currently, all of NSW, two thirds of Queensland, parts of Victoria, and all of South Australia are experiencing drought conditions. The Bureau of Meteorology has forecast a drier than average summer in Queensland and northern Western Australia until March 2019, while average conditions are expected for rainfall across the rest of the country.



Source: Bureau of Meteorology (January 2019)



Source: Bureau of Meteorology (January, 2019)

#### **WHEAT**

#### **Production**

Australian wheat production is forecast at 17 MMT for 2018/19 as dry and hot conditions prevail across major wheat growing areas. The harvest area is expected to fall to 10 million hectares (ha) for the year, down 18 percent on the previous year. An estimated 5.5 MMT of the total 2018/19 wheat crop is expected to be used for livestock feed. Western Australia is expected to account for more than 50 percent of the country's wheat harvest.

# **Consumption**

Wheat consumption is forecast at 9 MMT for 2018/19 due to higher prices for domestic feed grain and hay in eastern Australia. Human consumption of wheat is expected to remain stable at 3.5 MMT. In eastern Australia, a higher proportion of the east coast wheat harvest of around 7 MMT will be used as livestock feed because of poor pasture growth during the drought. The feed and residual component is expected to increase to 5.5 MMT. Wheat production in Western Australia is estimated at 10 MMT. Higher domestic feed prices in eastern Australia will further encourage intra-state trade in wheat and reduce exports.

#### **Trade**

Australian wheat exports are expected to decline to 10.5 MMT in 2018/2019 due to drought and higher animal feed consumption. In the first 10 months of 2018, Australian wheat exports fell to 11.4 MMT, well below last year's level. Details of wheat exports are shown in Table 1. Wheat exports from WA are expected to account for around 60 percent of total exports.

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP- 11) entered into force on December 30, 2018 for Australia, Canada, Japan, Mexico, New Zealand and Singapore. Brunei, Chile, Malaysia, Peru and Vietnam. Under this agreement, Australian wheat exports are expected to eventually benefit from greater market access, especially from increased access into Japan.

Table 1: Australian exports of wheat by selected country, 2011-2018 ('000 MT and US\$/MT)

Country	2011	2012	2013	2014	2015	2016	2017	2018 (a)
Indonesia								
('000 MT)	3,593	4,594	3,665	4,072	4,153	3,469	5,170	2,073
(US\$/MT)	325	299	317	280	250	210	202	235
China								
('000 MT)	794	2,283	870	1,198	1,378	1,499	1,712	469
(US\$/MT)	279	259	314	296	258	219	192	238
Vietnam								
('000 MT)	2,403	1,994	1,347	1,377	1,306	1,507	1,913	893
(US\$/MT)	298	284	326	292	254	220	217	244
Philippines								
('000 MT)	1,281	1,675	355	550	673	1,026	1,941	1,442
(US\$/MT)	259	267	330	286	254	214	191	229
World								
('000 MT)	19,733	23,576	18,037	18,276	17,073	16,137	22,005	11,420
(US\$/MT)	320	288	331	294	259	224	211	248

Note: (a) Calendar years and first 10 months of 2018. Source: Global Trade Atlas.

Table 2: Production, Supply and Demand Estimates: Wheat ('000 HA and '000 MT)

Wheat	2016/2017		2017/20	18	2018/2019		
Market Begin	October 2016		October 2	October 2017		October 2018	
Year							
Australia	USDA	New	USDA	New	USDA	New	
	Official	Post	Official	Post	Official	Post	
Area Harvested	12,191	12,191	12,250	12,250	10,000	10,000	
<b>Beginning Stocks</b>	3,854	3,854	5,723	5,723	5,698	5,698	
Production	31,819	31,819	21,300	21,300	17,000	17,000	
MY Imports	144	144	150	150	150	150	
TY Imports	154	154	155	155	150	150	
TY Imp. from	2	2	2	2	0	0	
U.S.							
Total Supply	35,817	35,817	27,173	27,173	22,848	22,848	
MY Exports	22,644	22,644	14,000	14,000	10,500	10,500	
TY Exports	22,061	22,061	15,512	15,512	10,500	10,500	
Feed and	4,000	4,000	4,000	4,000	5,500	5,500	
Residual							
FSI	3,450	3,450	3,475	3,475	3,500	3,500	
Consumption							
Total	7,450	7,450	7,475	7,475	9,000	9,000	
Consumption							
<b>Ending Stocks</b>	5,723	5,723	5,698	5,698	3,348	3,348	
Total	35,817	35,817	27,173	27,173	22,848	22,848	
Distribution							

**Yield** 2.6 2.6 1.74 1.74 1.7

#### **BARLEY**

#### **Production**

Barley production in 2018/19 is forecast at 7.3 MMT as hot and dry conditions reduced yields in most states except for Western Australia. Drought and low soil moisture across eastern Australia during late autumn and early winter limited planting opportunities. Western Australia normally accounts for one third of barley production, but it is expected to exceed 50 percent in 2018/19 because of the poor climatic conditions in eastern Australia. Overall, the harvested area is forecast to be 3.7 million ha, slightly below the official forecast of 3.8 million ha.

# **Consumption**

Domestic consumption of barley is forecast at 2.9 MMT in 2018/19, 11.5 percent above the official forecast, as a result of the continuing drought in eastern Australia. High domestic prices for feed barley are expected to reduce exports. Some feed barley has been transported from Western Australia to meet the shortage in eastern Australia. Barley supplies are expected to decline to below 0.5 MMT as stocks are released to meet domestic demand.

Over one third of Australia' barley production is usually consumed domestically for food and beer production, animal feed, and seed cultivation. The remainder is exported for food and beverage production as well as animal feed. Currently, producers and traders are obtaining better returns on the sale of feed barley in the domestic market compared to exports.

#### **Trade**

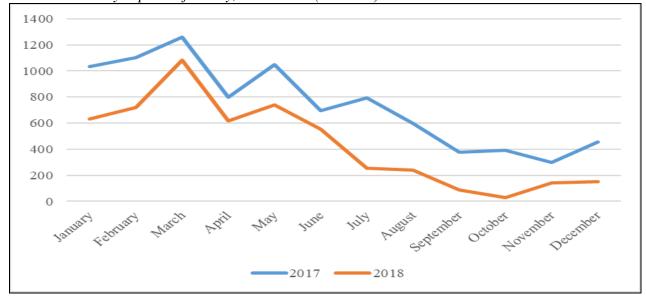
Barley exports are forecast at 5.4 MMT in 2018/19. China remains the leading export destination for barley followed by Japan and Saudi Arabia. Over the past 5 years, the Chinese market has grown and now accounts for almost 70 percent of Australia's total exports. However, exports to China could be significantly affected by an ongoing anti-dumping investigation. Chinese officials are currently investigating claims that imported Australian barley between October 2017 and September 2018 were sold below the cost of production. A positive finding could lead to anti-dumping duties, which would reduce the outlook for Australia's barley exports in the Chinese market. Annual barley exports for the past eight years are shown in Table 3, while Chart 3 displays monthly exports.

Table 3: Australian exports of barley, 2011-2018 ('000 MT and US\$/MT)

Country	2011	2012	2013	2014	2015	2016	2017	2018 (a)
China	1,268	2,102	1,766	4,377	3,586	3,516	5,603	3,819
(US\$/MT)	301	273	297	259	255	193	180	210
Saudi Arabia	1,667	1,153	1,702	471	525	304	739	0
(US\$/MT)	272	259	275	253	182	181	161	0
Japan	962	769	967	605	217	1,058	876	748
(US\$/MT)	292	265	293	262	273	194	188	236
World	5,058	5,111	5,121	6,123	5,188	5,857	8,859	4,967
	282	267	289	259	255	193	182	224

Note: (a) Calendar years and first 10 months of 2018. Source: Global Trade Atlas

Chart 3: Monthly exports of barley, 2017-2018 ('000 MT)



Source: Global Trade Atlas

Table 4: Production, Supply and Demand Estimates: Barley ('000 HA and '000 MT)

Barley	2016/2017		2017/20	2017/2018		2018/2019	
Market Begin	November 2016		November	November 2017		November 2018	
Year							
Australia	USDA	New	USDA	New	USDA	New	
	Official	Post	Official	Post	Official	Post	
Area Harvested	4,834	4,834	3,900	3,900	3,800	3,720	
<b>Beginning Stocks</b>	1,068	1,068	1,884	1,884	1,459	1,487	
Production	13,506	13,506	8,900	8,928	7,300	7,300	
MY Imports	0	0	0	0	0	0	
TY Imports	0	0	0	0	0	0	
<b>Total Supply</b>	14,574	14,574	10,784	10,812	8,759	8,787	
MY Exports	9,190	9,190	5,725	5,725	5,400	5,400	
TY Exports	9,192	9,192	6,088	6,088	5,400	5,400	
Feed and	2,200	2,200	2,300	2,300	1,300	1,600	
Residual							
<b>FSI Consumption</b>	1,300	1,300	1,300	1,300	1,300	1,300	
Total	3,500	3,500	3,600	3,600	2,600	2,900	
Consumption							
<b>Ending Stocks</b>	1,884	1,884	1,459	1,487	759	487	
Total	14,574	14,574	10,784	10,812	8,759	8,787	
Distribution							
Yield	2.79	2.79	2.28	2.29	1.92	1.96	

#### **SORGHUM**

#### **Production**

Sorghum production in 2018/19 is forecast at 2.2 MMT with the harvest area expected to increase to 750,000 ha. Decent rainfall across southern Queensland and northern NSW in late 2018 significantly increased sorghum planting. Despite the expanded planting area, prospects for the sorghum crop depend heavily on continued rainfall until May. The shortage of pasture, hay, and grain in drought-affected regions incentivized farmers to plant sorghum as a result of higher animal feed prices.

### **Consumption**

Australian domestic sorghum consumption in 2018/19 is forecast to be stable at 0.8 MMT. Sorghum has traditionally been used domestically for feed grain in the beef, dairy, swine, and poultry industries. Around 0.2 MMT of sorghum is processed into biofuel in Queensland.

#### **Trade**

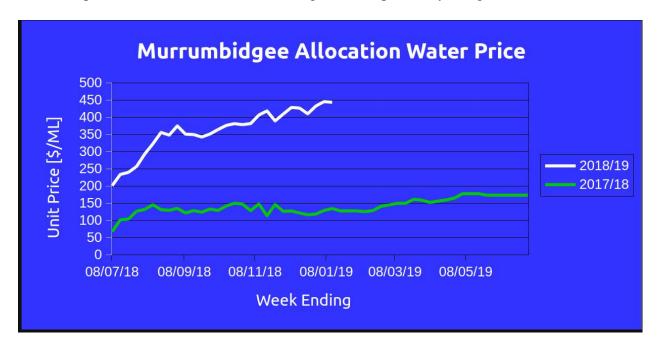
Post forecasts sorghum exports at 1.4 MMT in 2018/19. The amount of rainfall during the growing season will heavily influence total production and the volume of exports. There is also uncertainty about exports as prices for feed grains in northern NSW and southern Queensland are relatively high. In addition, China, which has been the predominant buyer of Australian sorghum in recent years, has a number of policy issues relating to Australia sorghum, which could affect demand.

Market Begin Year	March 2017		March 20	18	March 20	March 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested	368	368	531	531	750	750	
<b>Beginning Stocks</b>	233	233	272	272	261	261	
Production	994	994	1,439	1,439	2,200	2,200	
MY Imports	0	0	0	0	0	0	
TY Imports	0	0	0	0	0	0	
TY Imp. from	0	0	0	0	0	0	
U.S.							
<b>Total Supply</b>	1,227	1,227	1,711	1,711	2,461	2,461	
<b>MY Exports</b>	280	280	500	500	1,400	1,400	
TY Exports	542	542	300	300	1,500	1,500	
Feed and Residual	475	475	750	750	600	600	
<b>FSI Consumption</b>	200	200	200	200	200	200	
Total	675	675	950	950	800	800	
Consumption							
<b>Ending Stocks</b>	272	272	261	261	261	261	
<b>Total Distribution</b>	1,227	1,227	1,711	1,711	2,461	2,461	
Yield	2.7	2.7	2.7	2.7	2.9	2.9	

# **RICE**

#### **Production**

Rice production is being constrained by higher water prices and competition from other crops. Australia's rice production in 2018/19 is forecast at 0.11 MMT, which is sharply below last year's total due to the drought and higher water prices. The rice planted area is forecast to contract by 75 percent to 15,000 hectares in large part because of reduced supplies of affordable irrigation water and lower water levels in the Murrumbidgee dam. Higher water prices have led many farmers to sell their water licenses instead of planting rice. Temporary water prices have increased sharply to around A\$450 a megaliter (ML) compared to less than A\$150/ML during the same period a year ago.



## **Consumption**

Post forecasts 2018/2019 rice consumption to decline slightly to nearly 0.4 MMT, as a result of the lower production. The Australian population is growing slowly and demand for rice products is comparatively mature.

### **Trade**

In 2018/2019, rice exports are forecast at 0.05 MMT as a result of the much smaller crop.

Table 7: Production, Supply and Demand Estimates: Rice ('000 HA and '000 MT)

Rice, Milled	2016/2	2016/2017		2018	2018/2	2018/2019		
Market Begin Year	March	<b>March 2017</b>		2018	March	March 2019		
Australia	USDA	New	USDA	New	USDA	New		
	Official	Post	Official	Post	Official	Post		
Area Harvested	82	82	60	60	15	15		
<b>Beginning Stocks</b>	77	77	208	208	177	177		
<b>Milled Production</b>	581	581	454	454	110	110		
<b>Rough Production</b>	807	807	631	631	153	153		
Milling Rate (.9999)	7200	7200	7200	7200	7200	7200		
MY Imports	161	161	155	155	200	200		
TY Imports	164	164	155	155	200	200		
TY Imp. from U.S.	12	12	0	0	0	0		
<b>Total Supply</b>	819	819	817	817	487	487		
MY Exports	226	226	250	250	50	50		
TY Exports	187	187	275	275	50	50		
<b>Consumption and</b>	385	385	390	390	385	385		
Residual								
<b>Ending Stocks</b>	208	208	177	177	52	52		
<b>Total Distribution</b>	819	819	817	817	487	487		
Yield (Rough)	9.8	9.8	10.5	10.5	10.2	10.2		
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