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Australia

Grain and Feed Update

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Report Highlights:
Post forecast Australian wheat production at 21 million metric tons (MMT) for 2018/19, 12.5 percent below the official forecast, due to hot conditions and low rainfall in eastern Australia. Barley production is forecast at 9.5 MMT as a result of a larger harvested area and higher prices. Sorghum production is expected to increase to 2 MMT in 2018/19, in response to higher export and domestic demand, as well as an expanded harvest area. Rice production is forecast to be stable at 0.45 MMT in 2018/19, due to competition from other crops such as cotton.

Post: Canberra

Commodities: Wheat, Barley, Sorghum, Rice

EXECUTIVE SUMMARY

Australian grain farmers experienced a difficult planting window for winter crops as rainfall during autumn was well below average. Assuming that average rainfall occurs over winter, wheat production for 2018/19 is forecast at 21 MMT, around the same as the previous year. Barley production in 2018/19 is forecast at 9.5 MMT or 6 percent above the revised total for the previous year, in response to strong demand, higher prices, and an expanded harvest area.

The outlook for summer crops depends critically on average rainfall given the low soil moisture profile, after a drier than average autumn. Strong demand for sorghum is expected to lead to a greater harvest area and increased production of 2 MMT, assuming average rainfall occurs over the winter season. Rice production continues to be constrained by higher water prices and competition from other crops including cotton. Rice production in 2018/19 is forecast at 0.45 MMT, the same as the revised total for the previous year.

On the east coast of Australia, grain prices are near 10-year highs and severe grain and hay shortages have already occurred due to the dry and hot conditions. To reduce the supply shortage, grain has been transported to livestock feedlots in Queensland and northern New South Wales (NSW), from Victoria and southern NSW. In 2018/19, Post expects that high domestic feed prices in eastern Australia will limit wheat exports from this region compared to Western Australia, which accounts for around 40 percent of Australia's total exports.

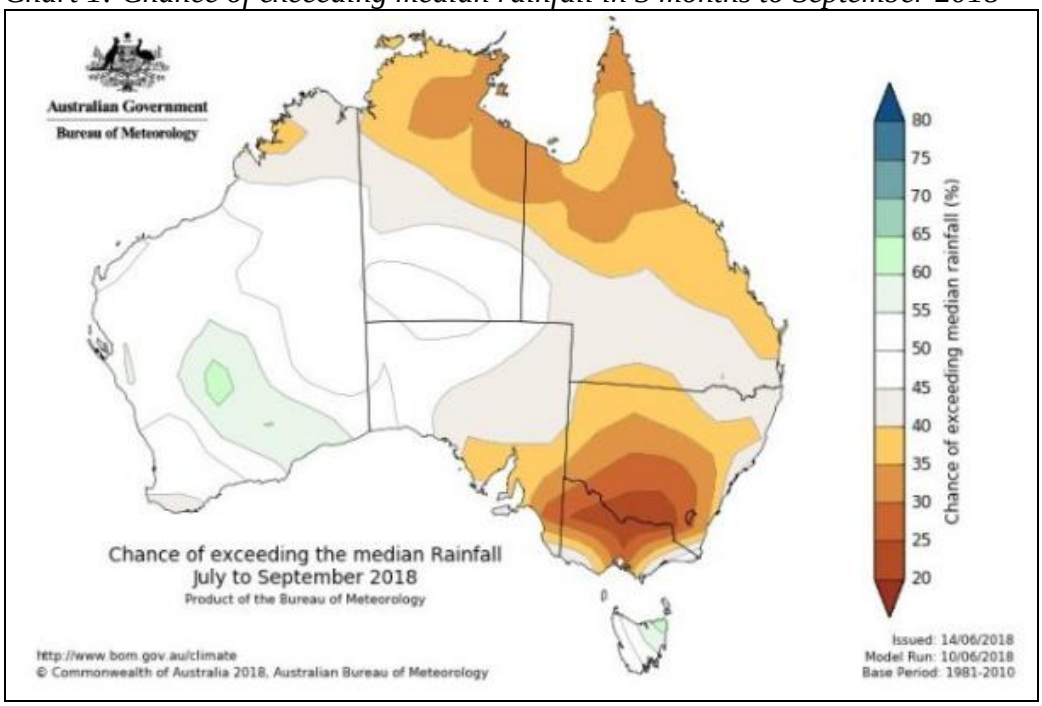
SEASONAL OUTLOOK

In recent years, different cropping regions in Australia have been exposed to extreme variations in climatic conditions. 2017 was the third hottest on record for Australia according to the Bureau of Meteorology (BOM). In the second half of 2017, many cropping regions in eastern Australia received below average rainfall and above average temperatures, which severely affected the growing season. Australia experienced its third driest May on record and the driest May since 2008, with grain producers in NSW particularly affected. Rainfall from late June 2018 appears to have come too late for crop planting and development in many parts of eastern Australia, but has assisted the outlook for winter crops in Western Australia.

The Bureau of Meteorology's seasonal rainfall outlook for the three months from July to September 2018 indicates a drier than average winter is expected for most Australian cropping regions (Chart 1). The outlook is for sufficient rainfall across Western Australian cropping regions, which contribute significantly to exports. Overall, maximum temperatures are expected to be higher than average across southern and western Australia (Chart 2).

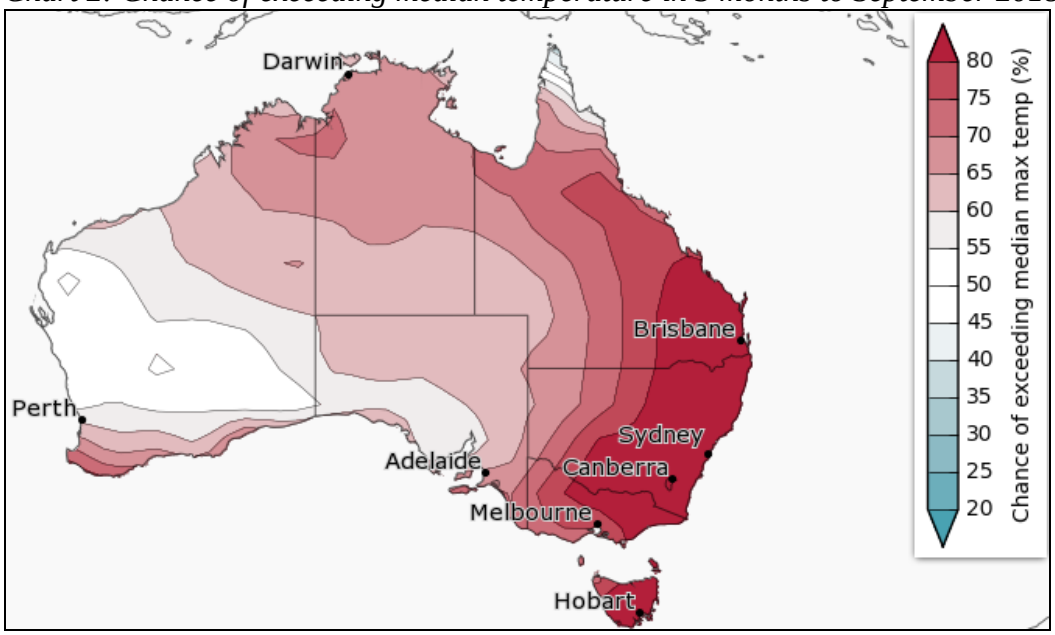
While autumn rainfall in 2018 was well below average, timely rain did occur in May and June across many cropping regions in Western Australia, South Australia, Victoria and southern NSW, which facilitated sowing in these regions. Lower layer soil moisture at the end of autumn was low across most cropping regions in Australia. Continued and timely winter rainfall remains very important for crop development.

Chart 1: Chance of exceeding median rainfall in 3 months to September 2018



Source: Bureau of Meteorology (2018).

Chart 2: Chance of exceeding median temperature in 3 months to September 2018



Source: Bureau of Meteorology (2018).

WHEAT

Production

Australian wheat production is forecast at 21 MMT for 2018/19, 12.5 percent below the official forecast, due to very dry and hot conditions across major wheat growing areas. The harvested area is expected to fall slightly to 12 million hectares. Moderate rainfall from May 2018 has improved soil moisture for the winter wheat crop, but continued rainfall is essential during the planting window across many regions, especially in eastern Australia.

Wheat is the major winter crop in Australia, with sowing starting between April and July. The main producing states are Western Australia, NSW, South Australia, Victoria, and Queensland. Central Queensland's harvest starts in August and progresses down the east coast to Victoria, and ends in January. On the west coast, the wheat harvest starts in October and is completed during January.

Western Australia usually accounts for over 40 percent of exports, while a greater proportion of the east coast wheat harvest is consumed domestically. Australian wheat farmers are increasingly using new technology, such as autonomous tractors, robotic weed killers, drone monitoring, and other satellite sensing systems. Increasing wheat output in Australia is mainly due to increases in the planted area rather than long term yield increases, reflecting the widespread and significant fluctuations in seasonal conditions.

Consumption

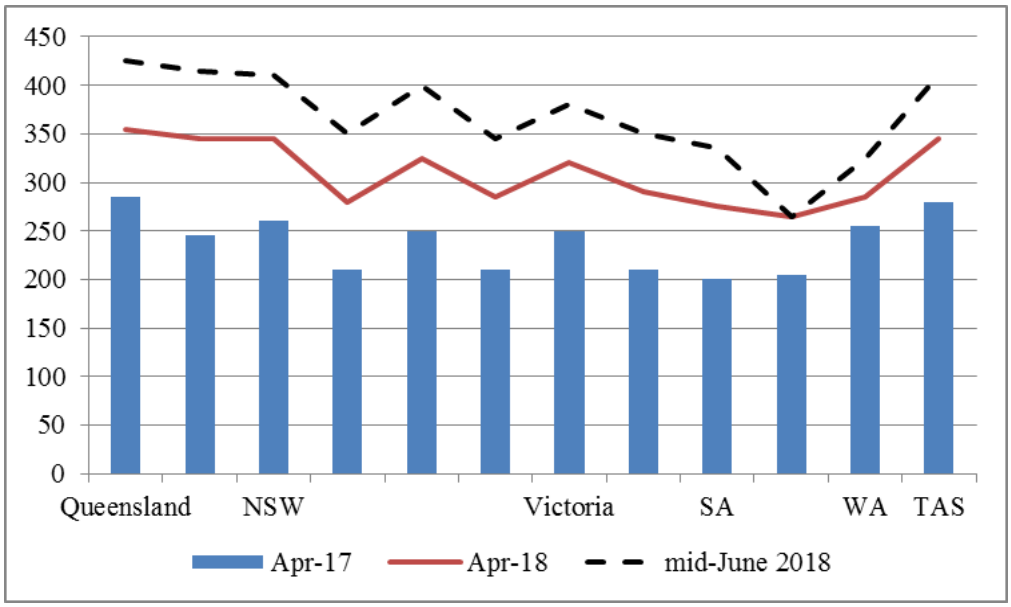
Wheat domestic consumption is estimated at 8.5 MMT for 2018/19, due to a significant shortage of grains for livestock production caused by poor pasture and dry conditions across eastern Australia. This situation has led to a sharp rise in domestic feed grain and hay prices in eastern Australia (see Table 1 and Chart 3). Higher domestic consumption is expected to come primarily from increasing feed grain demand, which is expected to rise to 5 MMT while human wheat consumption is expected to remain stable at 3.5 MMT.

Table 1: Selected stock feed prices across Australia by region, mid-June 2018 (A$/MT)

Region	Wheat	Barley	Maize
Atherton Tableland, Queensland	425	570	485
North Coast of NSW	410	410	430
Bega Valley, NSW	400	400	430
Gippsland, Victoria	380	370	420
South-west Victoria	350	340	430
South East South Australia	335	325	370
Central South Australia	265	275	450
Tasmania	410	400	435

Source: Dairy Australia

Chart 3: Feed wheat prices by state, April 2017, 2018 and June 2018 (A$/MT)



Source: Dairy Australia.

Trade

Australian wheat exports are forecast at 15 MMT for 2018/2019, reflecting lower production caused by poor rainfall and higher average temperatures. Australia is the world's third largest wheat exporter, but its exporters are expected to face stronger competition from Black Sea wheat traders, especially for feed wheat. Details of Australian wheat exports are shown in Table 2.

Table 2: 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	842
(US$/MT)	325	299	317	280	250	210	202	224
China								
('000 MT)	794	2,283	870	1,198	1,378	1,499	1,712	345
(US$/MT)	279	259	314	296	258	219	192	244
Vietnam								
('000 MT)	2,403	1,994	1,347	1,377	1,306	1,507	1,913	426
(US$/MT)	298	284	326	292	254	220	217	227
Philippines								
('000 MT)	1,281	1,675	355	550	673	1,026	1,941	606
(US$/MT)	259	267	330	286	254	214	191	223
World								
('000 MT)	19,733	23,576	18,037	18,276	17,073	16,137	22,005	5,147
(US$/MT)	320	288	331	294	259	224	211	240

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

Table 3: Production, Supply and Demand Estimates: Wheat ('000 HA and '000 MT)

Wheat	2016/2017		2017/2018		2018/2019	
Market Begin Year	October 2016		October 2017		October 2018	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	12,191	12,191	12,250	12,237	12,200	12,000
Beginning Stocks	3,854	3,854	5,723	5,723	5,098	4,642
Production	31,819	31,819	21,500	21,244	24,000	21,000
MY Imports	144	144	150	150	150	150
TY Imports	154	154	150	150	150	150
TY Imports from U.S.	2	2	0	0	0	0
Total Supply	35,817	35,817	27,373	27,117	29,248	25,792
MY Exports	22,644	22,644	15,000	15,000	17,000	15,000
TY Exports	22,061	22,061	16,000	16,000	17,000	16,000
Feed and Residual	4,000	4,000	3,800	4,000	4,000	5,000
FSI Consumption	3,450	3,450	3,475	3,475	3,500	3,500
Total Consumption	7,450	7,450	7,275	7,475	7,500	8,500
Ending Stocks	5,723	5,723	5,098	4,642	4,748	2,292
Total Distribution	35,817	35,817	27,373	27,117	29,248	25,792
Yield	2.61	2.61	1.76	1.74	1.97	1.75

Note: 'New Post' data reflects FAS/Canberra's assessment and is not official data.

BARLEY

Production

Barley production in 2018/19 is forecast at 9.5 MMT, due to increased demand and an expanded harvest area. Relatively high prices and stronger Chinese demand are expected to encourage increased plantings and production for 2018/19. In 2017/18, barley production across Australia fell to 8.9 MMT, down 34 percent from the 2016/17 harvest of 13.5 MMT, due to less favorable seasonal conditions.

Barley is usually sown in May and harvested during November. The crop grows through Australia's winter months, typically in rotation with wheat, canola, oats, and pulses. Western Australia is the major barley producing state with over one third of the harvested area and output. NSW, South Australia, and Victoria each account for around one fifth of barley production. One third of barley is generally used in Australia for food and beer production, animal feed, and seed cultivation. The remainder is exported with around 50 percent used as feed barley, one third as malting barley, and the rest for the manufacture of beer or spirits.

Consumption

Post forecasts domestic consumption of barley to increase to 3.5 MMT in 2018/19, due to high prices for feed barley in eastern Australia. Barley in Australia is used to produce distilled spirits and in traditional and craft beer production. Barley is also used as feed grain for domestic and overseas livestock industries. Demand for malt barley is increasing and is used primarily to produce alcohol (beer and distilled spirits such as Shochu, a Japanese distilled spirit) and food including confectionary, snack foods, breakfast cereals, miso, and tea.

Trade

Barley exports are forecast at 6.5 MMT in 2018/19, slightly above official estimates, due to a shortage of feed grain and hay in eastern Australia. China is the leading destination for Australian barley exports, followed by Japan and Saudi Arabia. Australian barley exports from 2011 to early 2018 are shown in Table 4.

Table 4: 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	484
(US$/MT)	301	273	297	259	255	193	180	220
Saudi Arabia	1,667	1,153	1,702	471	525	304	739	0
(US$/MT)	272	259	275	253	182	181	161	0
Japan	962	769	967	605	217	1,058	876	55
(US$/MT)	292	265	293	262	273	194	188	201
World	5,058	5,111	5,121	6,123	5,188	5,857	8,859	2,988
	282	267	289	259	255	193	182	215

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

Table 5: Production, Supply and Demand Estimates: Barley ('000 HA and '000 MT)

Barley	2016/2017		2017/2018		2018/2019	
Market Begin Year	November 2016		November 2017		November 2018	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	4,834	4,834	3,900	3,878	4,500	4,300
Beginning Stocks	1,069	1,069	1,883	1,883	883	811
Production	13,506	13,506	8,000	8,928	9,800	9,500
MY Imports	0	0	0	0	0	0
TY Imports	0	0	0	0	0	0
TY Imports from U.S.	0	0	0	0	0	0
Total Supply	14,575	14,575	9,883	10,811	10,683	10,311
MY Exports	9,192	9,192	6,200	6,500	7,000	6,500
TY Exports	9,193	9,193	6,200	6,500	7,000	6,500
Feed and Residual	2,200	2,200	1,500	2,200	1,500	2,200
FSI Consumption	1,300	1,300	1,300	1,300	1,300	1,300
Total Consumption	3,500	3,500	2,800	3,500	2,800	3,500
Ending Stocks	1,883	1,883	883	811	883	311
Total Distribution	14,575	14,575	9,883	10,811	10,683	10,311
Yield	2.79	2.79	2.05	2.30	2.18	2.21

Note: 'New Post' data reflects FAS/Canberra's assessment and is not official data.

SORGHUM

Production

Sorghum production in 2018/19 is expected to increase to 2 MMT, due to an expansion in the harvested area to 600,000 hectares. Sorghum prices are relatively strong due to the tight market for feed grains in Queensland and northern NSW. In 2017/18, yields of around 3 metric tons (MT) a hectare occurred in central Queensland on reduced area, helped by late rains at the end of summer. Yields in NSW fell to around 2.5 MT a hectare due to above average heat and limited rainfall.

Planting of sorghum is primarily located across Queensland and in northern NSW, which begins in October for NSW but extends to February for central Queensland. Harvest normally occurs from February to August. Sorghum competes with a number of other summer crops, including cotton, mung beans, and maize, but it has an advantage in some regions because of higher drought tolerance. Post expects that timely rain over this period will allow an expansion in planting of grain sorghum during the extended planting window, especially in central Queensland.

Consumption

Australian domestic sorghum consumption in 2018/19 is forecast at 1 MMT, due to higher production and a shortage of feed grain in feedlots and farms northern NSW and Queensland. Sorghum has traditionally been used domestically for feed grain in the beef, dairy, swine, and poultry industries.

Trade

Post forecasts sorghum exports at 1 MMT in 2018/19, below the official forecast of 1.3 MMT due to increased domestic demand from feedlots and other livestock producers. Export demand for sorghum has varied significantly in recent years, as shown in Table 6.

Table 6: Australian exports of sorghum by country, volume and value, 2011-2018 ('000 MT)

Country	2011	2012	2013	2014	2015	2016	2017	2018
China	0	39	758	349	1,512	752	257	124
(US$/MT)	..	248	327	302	272	203	215	214
New Zealand	16	27	2	0	0	0	25	0
(US$/MT)	351	258	306	..	..	..	192	0
Taiwan	19	34	13	3	4	19	7	1
(US$/MT)	319	244	300	327	284	184	254	
Other	23	41	13	4	8	23	4	3
World	116	205	797	356	1,524	794	293	128
(US$/MT)	300	257	327	303	273	203	251	214

Note: Calendar year and first four months of 2018. *Source*: Global Trade Atlas.

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

Sorghum	2016/2017	2017/2018	2018/2019
Market Begin Year	March 2017	March 2018	March 2019

Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	368	368	500	531	630	630
Beginning Stocks	234	234	274	274	274	213
Production	994	994	1,300	1,439	2,000	2,000
MY Imports	0	0	0	0	0	0
TY Imports	0	0	0	0	0	0
TY Imports from U.S.	0	0	0	0	0	0
Total Supply	1,228	1,228	1,574	1,713	2,274	2,213
MY Exports	279	279	500	500	1,300	1,000
TY Exports	542	542	200	200	1,100	800
Feed and Residual	475	475	600	800	600	800
FSI Consumption	200	200	200	200	200	200
Total Consumption	675	675	800	1,000	800	1,000
Ending Stocks	274	274	274	213	174	213
Total Distribution	1,228	1,228	1,574	1,713	2,274	2,213
Yield	2.70	2.70	2.6	2.71	3.17	3.17

Note: 'New Post' data reflects FAS/Canberra's assessment and is not official data.

RICE

Production

Australia's 2018/19 rice production is forecast at 0.45 MMT, the same as the last year. Rice production and area harvested has declined in recent years as the cost of water has increased and competition from other crops has intensified. The harvest area for rice in 2018/19 is expected to be 60,000 hectares, the same as the previous year. In mid-June 2018, water storage levels in the Murray–Darling Basin (MDB) were at 51 percent, compared to 69 percent at the same time last year.

In Australia, rice is grown from October until March and in rotation with other crops such as wheat, barley, and maize, which utilizes the existing soil moisture from harvested rice crops. Rice growers are dependent upon adequate and well-priced water supply during the planting window. Most rice farmers receive their water as a comparatively low priority in the water allocation system and have their allocations reduced in times of water shortages. The Australian rice industry is developing full traceability capabilities to identify to specific fields for its customers.

Consumption

Post forecasts 2018/2019 rice consumption to be steady at 0.4 MMT. The Australian population is growing slowly and demand for rice products is comparatively mature.

Trade

In 2018/2019, rice exports are forecast at 0.2 MMT, the same as for the previous year, which was revised from 0.325 MMT. The main Australian producer, SunRice, has a number of overseas subsidiaries and sources rice from six other countries to overcome domestic production variations and to supply its domestic and international markets. SunRice sells premium Riverina rice into high returning markets and sources rice offshore to meet demand in lower returning markets. Australian rice exporters are expected to benefit from a rebound in medium grain rice prices following a decade low level.

While official country data for exports is confidential, Papua New Guinea (PNG) has been the major market for exports, but demand has declined significantly in recent years. SunRice's subsidiary, Trukai, has invested in the PNG rice industry and during 2017/18 it grew commercial volumes of rice in that country.

Table 8: Production, Supply and Demand Estimates: Rice ('000 HA and '000 MT)

Rice, Milled	2016/2017		2017/2018		2018/2019	
Market Begin Year	March 2017		March 2018		March 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	82	82	80	60	80	60
Beginning Stocks	77	77	208	208	229	208
Milled Production	581	581	576	455	580	450
Rough Production	807	807	800	632	806	625
Milling Rate (.9999)	7200	7200	7200	7200	7200	7200
MY Imports	161	161	155	155	160	160
TY Imports	164	164	155	155	160	160
TY Imports from U.S.	12	12	0	10	0	10
Total Supply	819	819	939	818	969	818
MY Exports	226	226	300	200	325	200
TY Exports	187	187	325	200	325	200
Consumption and Residual	385	385	410	410	430	400
Ending Stocks	208	208	229	208	214	218
Total Distribution	819	819	939	818	969	818
Yield (Rough)	9.84	9.84	10	10.53	10.01	10.42

Note: 'New Post' data reflects FAS/Canberra's assessment and is not official data.