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Report Highlights:

Australia is set for a second consecutive record grain crop following two years of drought. For the winter crops, wheat production is estimated to have reached another record in marketing year (MY) 2021/22 and barley production is expected to be the third largest in history, just slightly behind the previous year. With strong world demand for wheat and feed grains, wheat exports are set to reach a new high, and barley exports are anticipated to be the second largest on record. For the summer crops, sorghum production in MY 2021/22 is forecast to be the highest since MY 2014/15, and rice is forecast for a 74-percent boost in production. Good soil moisture profiles at the point of planting and continued above-average rainfalls have supported strong yield expectations for sorghum. Above-average rains have also enabled much improved irrigation water allocations for rice production.

EXECUTIVE SUMMARY

Australia is set for a second consecutive record grain crop following two years of drought. For the winter crops, wheat production is estimated to have reached another record in marketing year (MY) 2021/22 and barley production is expected to be the third largest in history, just slightly behind the previous year. The only blemish in an exceptional production season was heavy rain at harvest in New South Wales and parts of Victoria, which caused some of the wheat to be downgraded to feed wheat. Despite this, strong world demand for wheat and feed grains is expected in MY 2021/22 to lead to a new record export program for wheat, and the second largest exports on record for barley.

For the summer crops, sorghum production in MY 2021/22 is estimated to rise 39 percent above the previous 10-year average and reach the highest level in seven years, and rice is forecast for a 74-percent boost in production. Above-average rains across sorghum production regions established strong soil moisture profiles at the point of planting, and this along with continued rains during the growing season is expected to lead to well above-average yields. For rice, irrigation water storages have recovered strongly to reach near capacity after being depleted during the drought. This supported good irrigation water allocations at the start of October, coinciding with the start of the planting period, and provided confidence for a significant increase rice production to well-above-average levels.

WHEAT

Production

After a record-breaking wheat production year in MY 2020/21, the MY 2021/22 crop is estimated to reach a new record of 34 million metric tons (MMT). For the second successive year, seasonal conditions were overall very favorable across much of the grain growing regions of Australia. Particularly in Western Australia, which produces around 40 percent of the national crop, growing conditions were better for MY 2021/22 compared to the prior year, supporting a bigger national crop. This production estimate is 40 percent higher than the previous 10-year average (see Figure 1) and in line with the official USDA estimate. If realized, this would result in the top three national wheat harvests being achieved in the last six years.

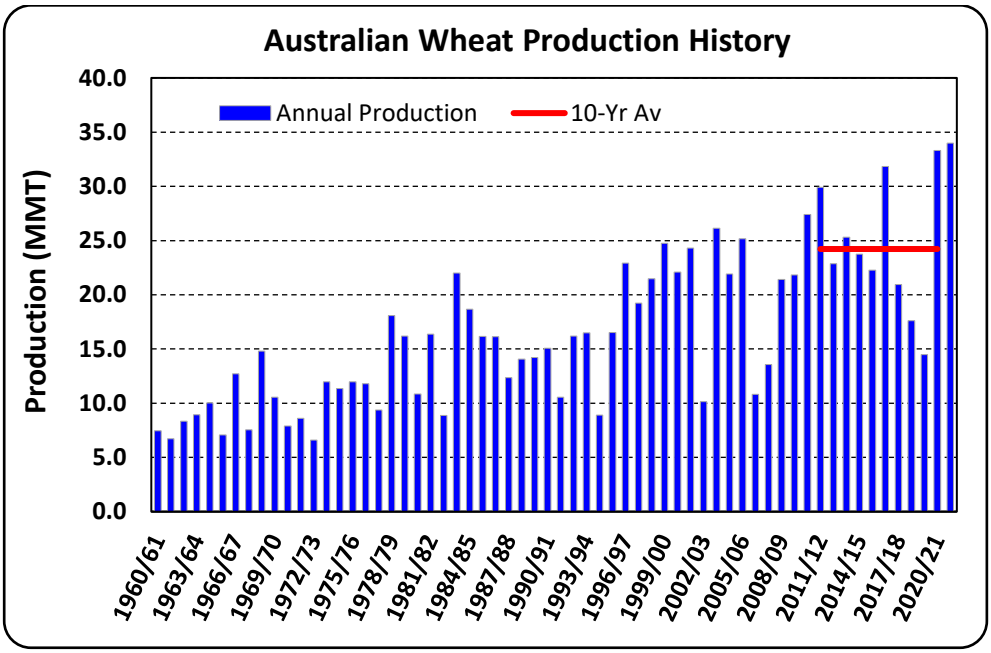
Grain receival results from the three major bulk handling companies in Australia as of mid-January 2021 and 2022 (near the end of the national harvest) provide an insight into the MY 2021/22 wheat harvest. The major grain bulk handling companies (GrainCorp who operates in Queensland, New South Wales and Victoria, Viterra in South Australia and CBH in Western Australia) provide weekly data on the intake of all winter crop grains. Although this total includes a variety of grains, oilseeds and legumes, because wheat is the major winter grain, variances in grain intake from one year to the next at a similar stage of harvest provides an indicator of the wheat crop outcome (see Table 1).

The GrainCorp grain intake at mid-January 2022 is almost the same as for 2021 at 12.9 MMT and 12.8 MMT, respectively. Viterra had a slightly lower grain intake of 5.6 MMT by mid-January 2022 compared to 5.8 MMT in the previous year. However, due to the substantially larger Western

Australian crop, CBH has reported a record grain intake of 21 MMT by mid-January 2022, compared to 15.1 MMT in the prior year.

Although the balance of differing grains can change somewhat and there can be variances in on-farm storage from year to year, the receivals data helps illustrate that wheat production is expected to have reached a new record level in MY 2021/22.

Figure 1 – Australian Wheat Production History



Source: PSD Online / FAS/Canberra

Table 1 – Grain Receivals at mid-January for MY 2020/21 and MY 2021/22

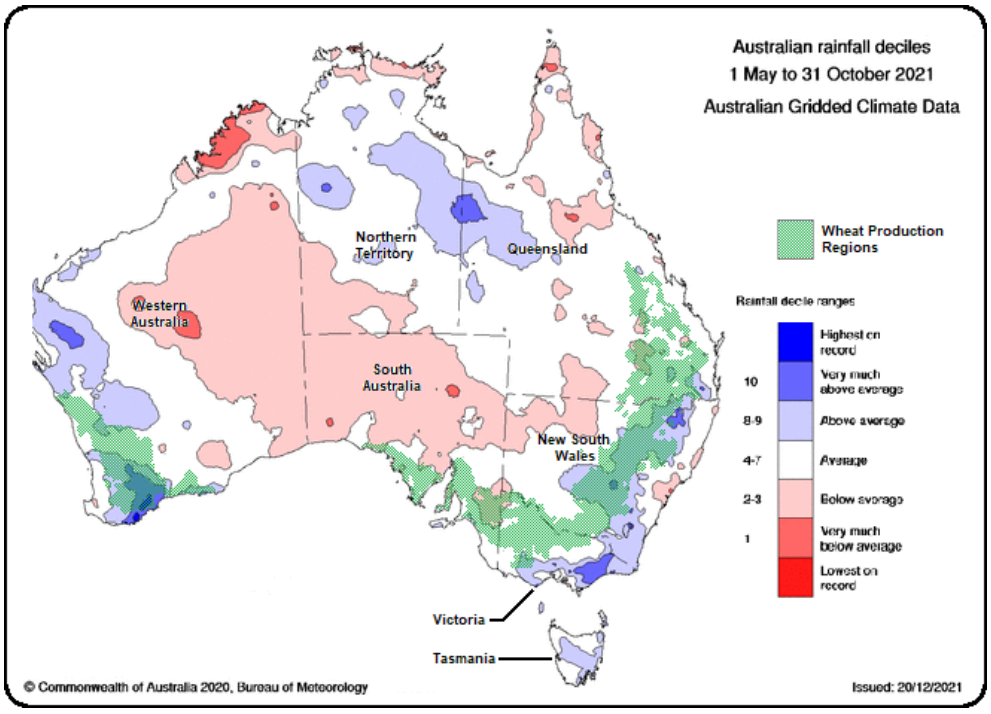
Grain Receiver	State	MY 2020/21	MY 2021/22
		Grain Receival (MT) as at:	
		Jan 11, 2021	**Jan 17, 2022**
GrainCorp	**Queensland**	955,000	1,755,320
	New South Wales	8,363,800	7,535,570
	Victoria	3,505,200	3,575,420
		Jan 10, 2021	**Jan 9, 2022**
Viterra	**South Australia**	5,800,852	5,644,875
		Feb 2, 2021	**Jan 10, 2022**
CBH	**Western Australia**	15,100,000	21,000,000
	TOTAL	**33,724,852**	**39,511,185**

Source: GrainCorp, Viterra and CBH web sites Note: MT=metric tons

Rainfall during the main crop growing period of May to October 2021 across the national wheat growing areas generally was well-above-average (see Figure 2). This is particularly true of the two largest wheat producing states of Western Australia and New South Wales, with parts of these states in-fact having too much rain during the main growing period creating some waterlogged conditions. The Mallee region in north-western Victoria and eastern South Australia were the only significant producing regions that did not seem to receive sufficient overall rainfall.

Although there were some reports of frost damage in parts of Western Australia the overall impact on the national wheat crop was minimal.

Figure 2 - Australia Rainfall Deciles – May 1 to October 31, 2021

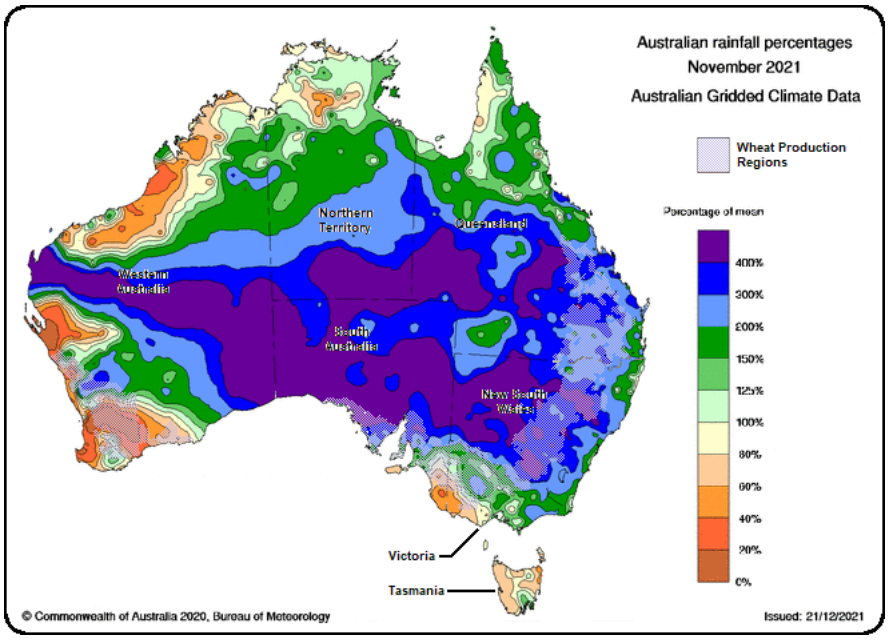


Source: Australian Bureau of Meteorology / FAS/Canberra

The wheat crop, particularly in northern and central New South Wales - and to a lesser degree southern New South Wales and northern Victoria - was impacted by very strong rainfall in November 2021 at a time after grain fill when the crops were maturing towards harvest (see Figure 3). This caused some grains to sprout, and although not greatly affecting yield, resulted in substantial volumes of grain being downgraded in quality to feed wheat. The northern and central parts of New South Wales were more significantly affected, as the harvest in the more northern areas commences earlier and is progressively later the further south.

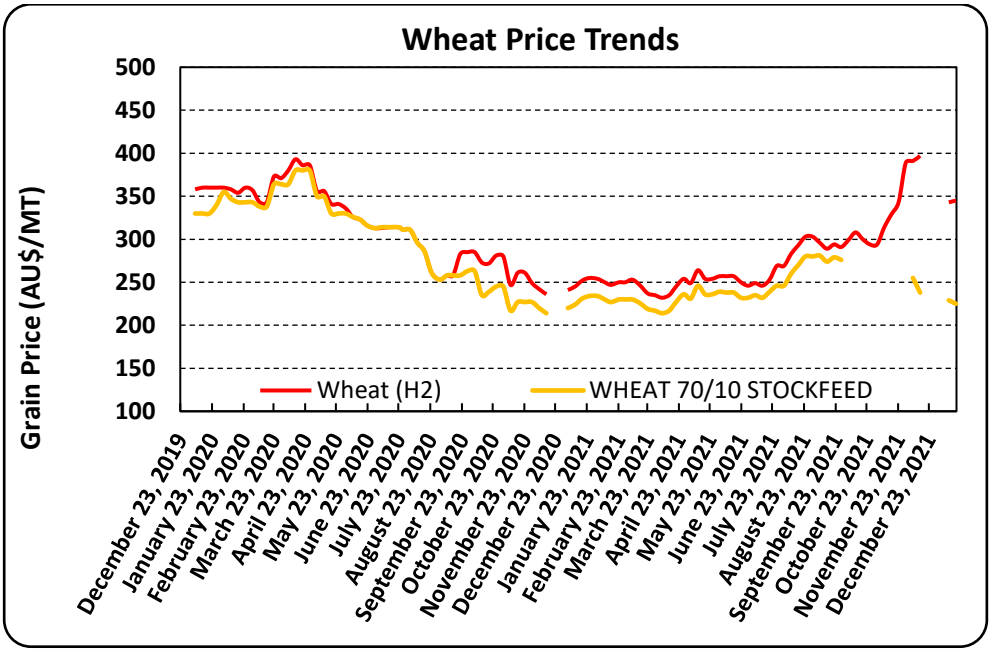
Although these rains had a large quality impact in key eastern growing regions, in others regions such as Western Australia, South Australia, and much of Victoria and Queensland, this was not a significant issue. As a result, milling wheat out of these areas is in large supply this year.

Figure 3 - Australia Rainfall Percentage – November, 2021



Source: Australian Bureau of Meteorology / FAS/Canberra

Figure 4 – Wheat Price Trends



Source: The Land newspaper

The volume of downgraded wheat in eastern growing regions has had a significant impact on wheat prices. Typically, the price differential between milling wheat and feed wheat is in the order of AU$20 to AU$40 per metric ton (MT) (approximately US$14-$19). However, at the tail end of harvest in late

December 2021 and early January 2022, with the large volume of feed wheat supplies, the price differential between milling wheat and feed wheat is around AU$110 to AU$150 per MT (approximately US$79-$107) (see Figure 4). Although feed wheat prices have dropped by around AU$50 per MT since the pre-harvest peak in August 2021, the milling wheat prices over the same period have increased by as much as AU$100 per MT. Also, even with the recent decline in feed wheat prices, these prices in Australia still remain relatively strong compared to historical levels because of robust global demand.

A key concern for winter crop producers for the MY 2022/23 season is the escalation in the price of nitrogen-based fertilizer and chemicals (mainly herbicides) which have increased by two to three-fold in recent months. A key trigger for the recent escalation in fertilizer prices has been due to Chinese state-owned producers in September 2021 being banned from exporting fertilizer which appears to be for the purpose of reducing their own domestic prices. However, non-state-owned fertilizer producers at this point are reportedly free to continue to export their products.

Australia sources the majority of its urea requirements from the Middle East and a relatively small proportion from China. However, for blended fertilizer products such as diammonium phosphate (DAP) and monoammonium phosphate (MAP) a large proportion of Australia's requirements have typically been sourced from China. With a decrease in available supply, prices have escalated. Australia is able to source fertilizer products from elsewhere to meet demands and supply is not expected to be an issue, but cost may impact the MY 2022/23 crop.

An important chemical used in cropping programs is glyphosate, much of which is sourced from China. The cost of producing glyphosate has reported to have increased markedly due to increasing energy costs in China.

With fertilizer and chemicals being the two major costs for Australian producers, there is already a great deal of discussion on how best to plan for the MY 2022/23 winter crop. Some thoughts have included a shift towards increased legume crop production and reducing fertilizer inputs and targeting a lower yield for cereal crops.

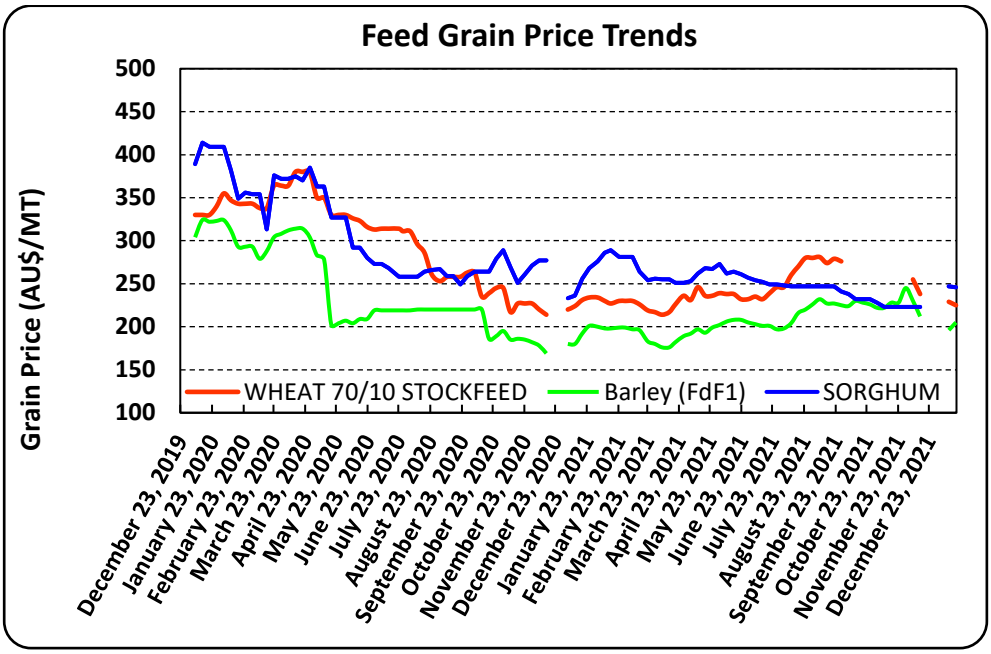
Consumption

FAS/Canberra's forecast for Australian wheat consumption in MY 2021/22 is 9 MMT, 500,000 MT higher than official USDA forecast of 8.5 MMT due to larger feed wheat supplies caused by the wet harvest. This is particularly in New South Wales, which supplies a large proportion of feed grains to feedlots.

After the rain impact on the wheat harvest in November 2021, it became evident that there would be a significant increase in the supply of feed wheat. From December 2021, the price of feed wheat in Australia had converged more closely with feed barley and sorghum with only a small premium of

around AU$20 per MT (see Figure 5). It has also become evident that there is not expected to be a strong return of feedlots using sorghum in the short to medium term. Many feedlots switched towards white grains (wheat and barley) during the 2018 and 2019 drought when there was very little sorghum available.

Figure 5 – Feed Grain Price Trends



Source: The Land newspaper

Domestic consumption for flour milling is expected to remain unchanged from recent years at 3.5 MMT in MY 2021/22. Consumption of wheat for flour has typically only been increasing with population growth which is expected to remain relatively flat in the short term.

FAS/Canberra's wheat consumption estimate for MY 2020/21 is 8 MMT and in line with the official USDA estimate but 500,000 MT lower than for MY 2019/20. The drought in 2018 and 2019 drove very high feed demand, particularly from the beef industry, and after drought-breaking rains from early 2020 demand for feed grain declined.

Exports

After achieving record wheat exports of 23.8 MMT in MY 2020/21, FAS/Canberra anticipates Australia to achieve a new wheat export record in MY 2021/22 of 25.5 MMT. This estimate is in line with the official USDA forecast. This robust export program is supported by the large crop, strong global import demand and a very strong start in the first two months (October and November 2021) of exports.

Exports for the first two months of MY 2021/22 achieved 3.1 MMT, compared to 871,421 MT at the same time in the previous year. In part this related to the need for grain handlers to move their stock to

make space for the record production achieved this season. Also, this rapid export rate at the start of the marketing year was able to be achieved due to continued strong world demand for wheat.

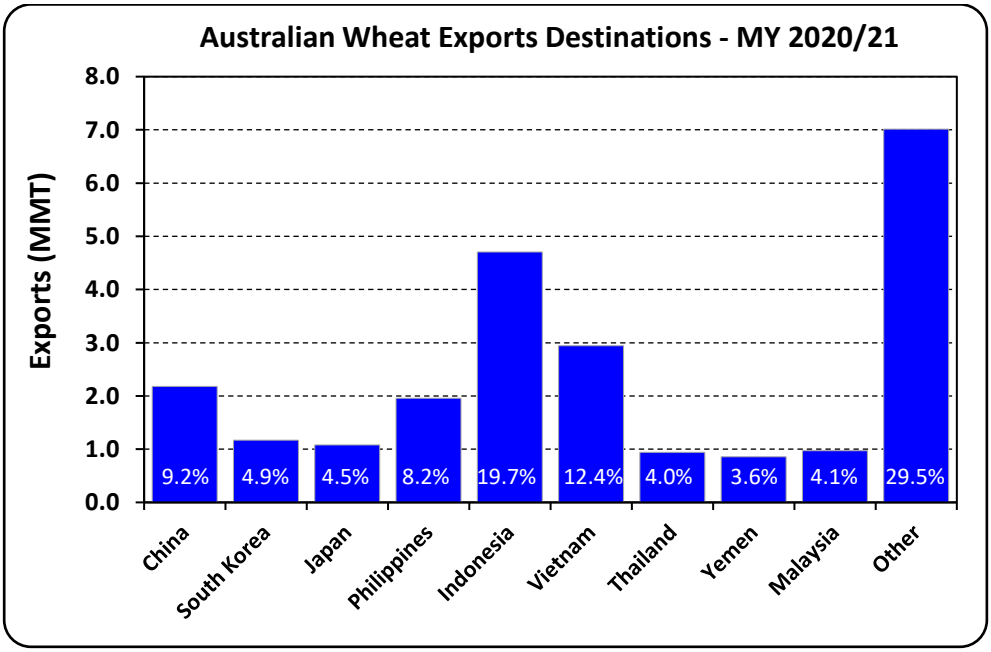
Although there is an increased amount of feed wheat produced in Australia in MY 2021/22 due to heavy rainfall at harvest in parts of the country, it is not anticipated to have a major negative impact on the overall volume of exports. Indications are that there is strong world demand for feed grains which will readily take up any additional supply from Australia.

Indonesia is typically Australia's largest wheat export market by far, but for the start of MY 2021/22 exports to China have been very strong at 925,356 MT, more than double those to Indonesia at 447,387 MT. The majority of exports to date have been to the traditional market base in the Asian region, but exports to African nations are higher than usual, continuing on from MY 2020/21.

For MY 2020/21, almost 20 percent (4.7 MMT) of wheat exports were to Indonesia, with the second largest market Vietnam, at 12 percent (2.9 MMT). Overall, the top five wheat export destinations (Indonesia, Vietnam, China, Philippines and South Korea) accounted for 13 MMT of exports or 54 percent of the total (see Figure 6).

Notably, Yemen, South Africa, Kenya, Saudi Arabia, and Sri Lanka - all typically small export markets for Australia - became substantial markets for Australia in MY 2020/21 accounting for 13 percent (3.1 MMT) of overall exports. These nations turned to sourcing wheat from Australia after a much lower harvest limited supply their traditional northern hemisphere suppliers.

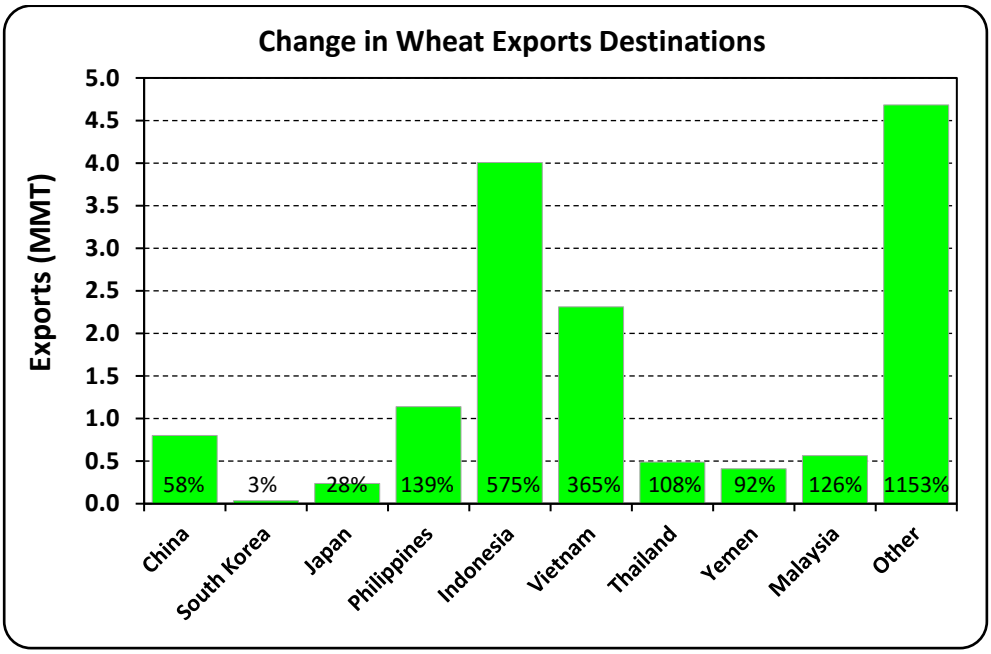
Figure 6 - Australia Wheat Export Destinations – MY 2020/21



Source: Australia Bureau of Statistics

After a low supply of wheat available for export from Australia due to drought in MY 2019/20 there was a very large growth in exports particularly to the usual markets in Asia (see Figure 7). However, there was only small growth in exports to South Korea and Japan in MY 2020/21 as their imports of Australian wheat remained relatively constant even through the drought-affected wheat supply period.

Figure 7 – Change in Wheat Exports Destinations – MY 2019/20 to 2020/21



Source: Australia Bureau of Statistics

Imports

FAS/Canberra's wheat import estimate for MY 2021/22 remains low at 200,000 MT and aligned with the official USDA estimate. Imports primarily consist of wheat products and pasta and volumes for this purpose have been relatively stable in Australia.

Stocks

Australia's ending stocks of wheat in MY 2021/22 are expected to decline slightly as strong global demand is anticipated to result in a second record year of exports.

Wheat	2019/2020		2020/2021		2021/2022	
Market Year Begins	Oct 2019		Oct 2020		Oct 2021	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	9863	9863	12900	12900	13100	13100
Beginning Stocks (1000 MT)	4440	4440	2678	2178	4332	3864
Production (1000 MT)	14480	14480	33300	33300	34000	34000
MY Imports (1000 MT)	894	894	200	198	200	200
TY Imports (1000 MT)	820	820	464	464	200	200
TY Imp. from U.S. (1000 MT)	3	3	0	0	0	0
Total Supply (1000 MT)	19814	19814	36178	35676	38532	38064
MY Exports (1000 MT)	9136	9136	23846	23812	25500	25500
TY Exports (1000 MT)	10118	10118	19720	19720	26000	26000
Feed and Residual (1000 MT)	4500	5000	4500	4500	5000	5500
FSI Consumption (1000 MT)	3500	3500	3500	3500	3500	3500
Total Consumption (1000 MT)	8000	8500	8000	8000	8500	9000
Ending Stocks (1000 MT)	2678	2178	4332	3864	4532	3564
Total Distribution (1000 MT)	19814	19814	36178	35676	38532	38064
Yield (MT/HA)	1.4681	1.4681	2.5814	2.5814	2.5954	2.5954

(1000 HA) ,(1000 MT) ,(MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Wheat begins in July for all countries. TY 2021/2022 = July 2021 - June 2022

BARLEY

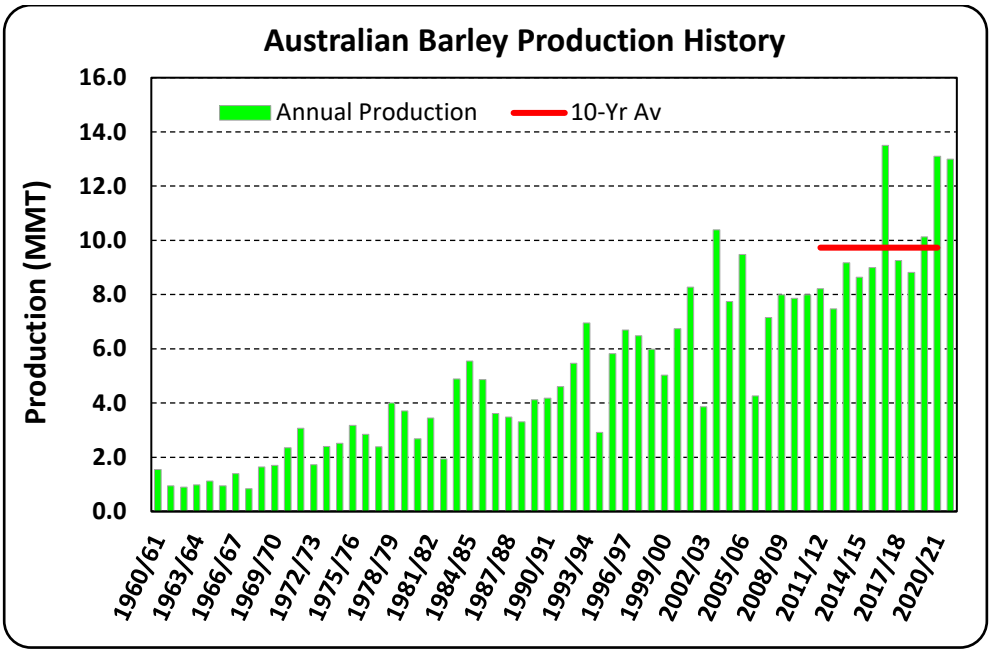
Production

FAS/Canberra's barley production estimate for MY 2021/22 is 13 MMT, 100,000 MT below the MY 2020/21 estimate of 13.1 MMT, but in line with the USDA official estimate. If realized, the MY 2021/22 crop would be the third largest on record after the record crop of 13.5 MMT in MY 2016/17 and the MY 2020/21 estimate of 13.1 MMT (see Figure 8).

Despite China imposing a prohibitive duty on imports of Australian barley in May 2020, this seems to not have resulted in major area changes as farmers continued to use barley in their crop rotations. There was, however, a small shift away from barley planting this past year due to high demand and strong international prices for oilseeds, which encouraged increased canola planting.

The MY 2021/22 barley crop is estimated to be around 34 percent higher than the previous 10-year average. As previously mentioned, the general winter crop growing conditions, in particular in Western Australia, were very good for the MY 2021/22 crop which has led to a record winter grain receivals by CBH.

Figure 8 – Australian Barley Production Trend



Source: PSD Online / FAS/Canberra

Similar to wheat, barley crops mainly in northern and central New South Wales, and to a lesser extent southern New South Wales and northern Victoria, were impacted by large rainfalls just prior to harvest (see Figure 3). This had an impact on the quality of barley grain, however most of the barley produced in New South Wales is for feed use, in part supplying beef feedlots and dairy farm requirements in the eastern states of Australia. The overall impact of barley quality issues on exports is expect to be minimal as most of Australia's exported barley is from Western Australia and South Australia, which were unaffected.

Consumption

FAS/Canberra's barley consumption estimate for MY 2021/22 is 5.5 MMT, in line with the official USDA estimate and MY 2020/21. Domestic consumption for malting purposes is relatively stable with livestock feed consumption being the primary variant from year to year.

Since the 2018 and 2019 drought, rainfall across the eastern states has generally been above average in 2020 and 2021. This has resulted in firm but lower numbers of cattle on feed in feedlots and lower on-farm grain feed demand, and with these two factors, lower feedlot barley demand from early 2020. This trend is expected to continue into 2022.

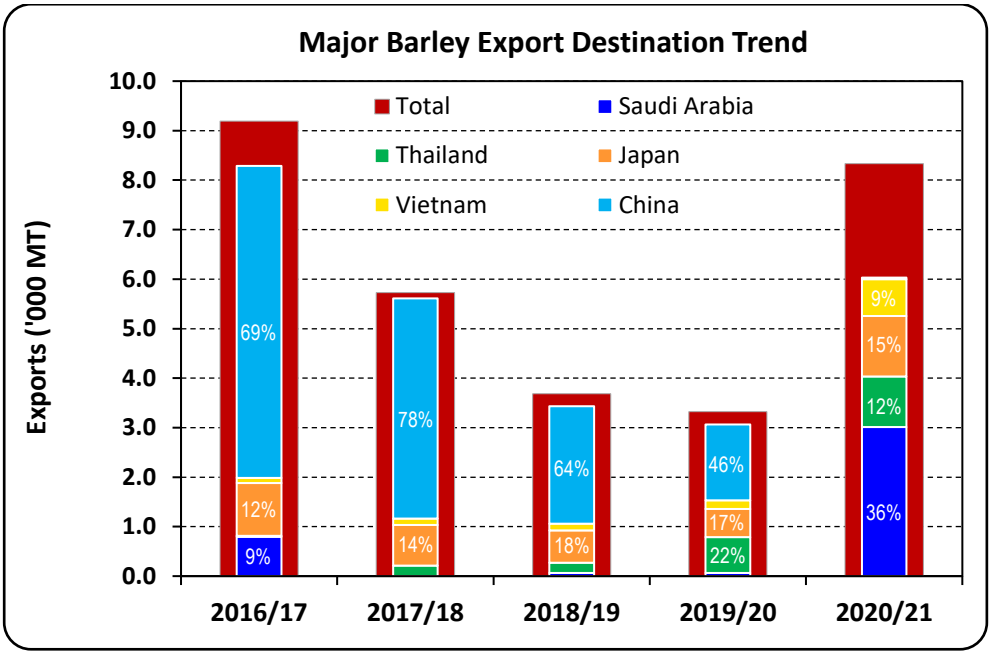
Exports

Australia's barley exports for MY 2021/22 are estimated at 8.5 MMT, in line with the official USDA estimate and around 200,000 MT higher than MY 2020/21. If realized, this would be the second largest barley export year on record, with the largest being 9.2 MMT in MY 2016/17.

These large exports are despite China's Commerce Ministry imposing an 80.5 percent duty on Australian barley in May 2020. These tariffs resulted in China shifting from being by far Australia's largest barley export destination in most years, to importing no Australian barley in MY 2020/21. With strong world demand for feed grains expected to continue into 2022, and Australia having rapidly adapted in MY 2020/21 to diversifying from China to a wide range of destinations, there is industry confidence that MY 2021/22 will achieve similarly strong barley export results.

In the four years from MY 2016/17 to MY 2019/20, exports to China, Thailand, Japan, Vietnam and Saudi Arabia accounted for over 90 percent of overall barley exports (see Figure 9). In MY 2021/22 there was a greater spread of barley export destinations with the same five nations accounting for only 72 percent of overall exports. A key change in MY 2020/21 was a large increase in exports to Saudi Arabia, accounting for 36 percent of overall exports, from nearly zero in the previous three years. Also, in MY 2020/21 export volumes to Japan, Thailand and Vietnam had also increased significantly. All of these increases to other markets helped to more than offset the drop in shipments to China.

Figure 9 – Major Barley Export Destination Trend MY 2016/17 to 2020/21



Source: Australia Bureau of Statistics

Stocks

Despite another year of strong production, Australia's ending stocks of barley in MY 2021/22 are expected to decline because of strong exports as a result of robust global demand.

Barley	2019/2020		2020/2021		2021/2022	
Market Year Begins	Nov 2019		Nov 2020		Nov 2021	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	5041	5041	4400	4400	4300	4300
Beginning Stocks (1000 MT)	1908	1908	2711	3211	1969	2479
Production (1000 MT)	10127	10127	13100	13100	13000	13000
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	12035	12035	15811	16311	14969	15479
MY Exports (1000 MT)	3324	3324	8342	8332	8500	8500
TY Exports (1000 MT)	3231	3231	8007	8004	8500	8500
Feed and Residual (1000 MT)	4500	4000	4000	4000	4000	4000
FSI Consumption (1000 MT)	1500	1500	1500	1500	1500	1500
Total Consumption (1000 MT)	6000	5500	5500	5500	5500	5500
Ending Stocks (1000 MT)	2711	3211	1969	2479	969	1479
Total Distribution (1000 MT)	12035	12035	15811	16311	14969	15479
Yield (MT/HA)	2.0089	2.0089	2.9773	2.9773	3.0233	3.0233

(1000 HA) ,(1000 MT) ,(MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Barley begins in October for all countries. TY 2021/2022 = October 2021 - September 2022

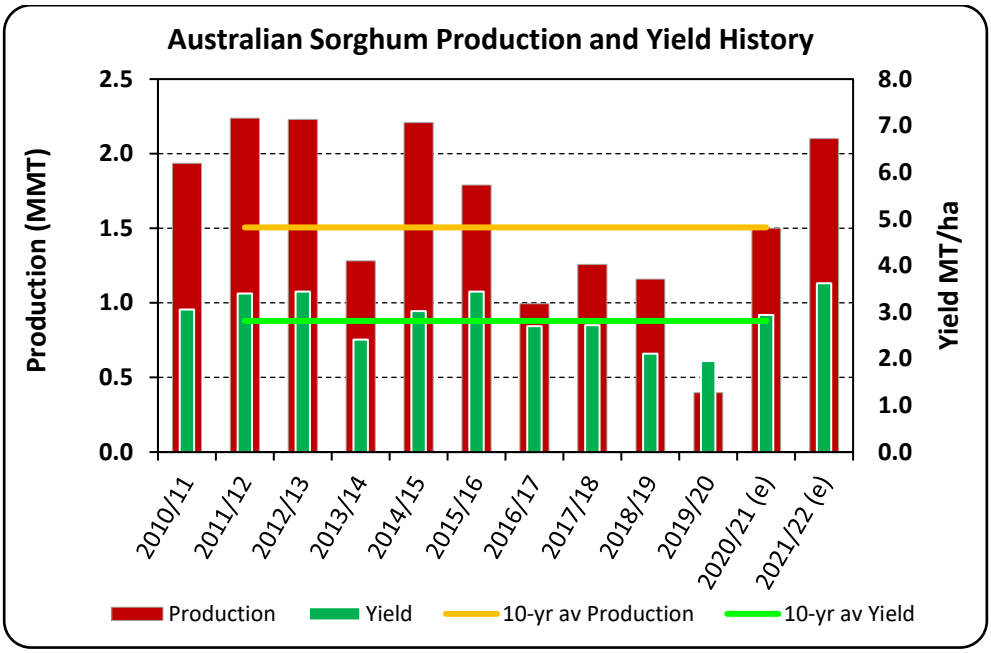
SORGHUM

Production

The FAS/Canberra sorghum production estimate for MY 2021/22 has been upward revised to 2.1 MMT, 200,000 MT higher than the official UDSA estimate. If realized, this would be a return to levels not achieved since MY 2014/15. This upward revised production estimate has been driven by continued above-average rainfalls in key growing areas since the main planting period in September/October 2021, encouraging stronger yields than previously forecast. With harvest commencing in late January in the main production region of southern Queensland, and soon after in northern New South Wales, yield estimates are firming.

The revised production estimate of 2.1 MMT is around 39 percent above the previous 10-year average (see Figure 10). Harvested area is estimated at 580,000 hectares, significantly higher than the previous year of 510,000 hectares. This, combined with the upward revised estimated yield (29 percent higher than the previous 10-year average), has driven the strong increase in sorghum production.

Figure 10 – Australian Sorghum Production and Yield History



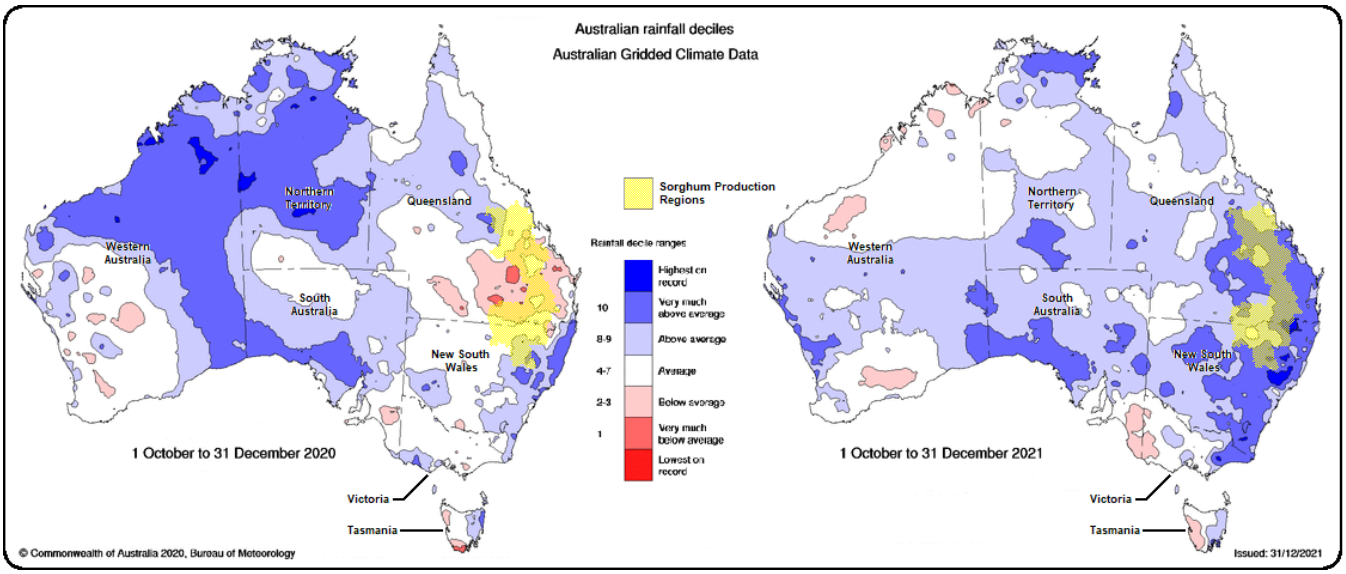
Source: *PSD Online / FAS/Canberra*
Note: *(e) = estimate*

Growers in southern Queensland and northern New South Wales were fortunate to have ample soil moisture in the lead up to the main planting period in September/October 2021, which encouraged a large area of sorghum planting. The well-above-average rains in November 2021 in the region supported a further increase in planted area after some wheat producers utilized the ample soil moisture to plant sorghum shortly after harvesting their wheat in November.

From October to December 2021, during the growing period, there has generally been well-above-average rainfall. This rainfall has been significantly more favorable than was the case in the same period in the previous year (see Figure 11), which encouraged not only an increased planting area but also the strong estimated yield.

In the northern sorghum production area in Queensland (central Queensland), the above-average rainfall across the October to December 2021 period has established a strong sub-surface moisture profile for the main planting period in January/February. With a strong starting position, and anticipation of typical tropical wet season rainfall from January to March, this region is expected to produce a good sorghum crop, which is typically harvested around April to June. This supports the high production estimate for MY 2021/22.

Figure 11 – Rainfall Decile Comparison – Oct-Dec 2020 and 2021



Source: Australian Bureau of Meteorology / FAS/Canberra

Consumption

FAS/Canberra's forecast sorghum consumption in MY 2021/22 has been revised down to 310,000 MT, compared to the official USDA estimate of 550,000 MT. This is in part due to the higher feed wheat availability. Also, FAS/Canberra anticipates that there will be no industrial consumption of sorghum.

As previously mentioned, since the drought in 2018 and 2019 when very little sorghum was available in Australia, beef feedlots that had been using sorghum in their rations modified their facilities and converted to using white grains (feed wheat and barley). Feedlot operators have found that white grains are easier to roll and steam flake and there is reduced wear on their equipment compared to using sorghum. With the increased availability of feed wheat in MY 2021/22, there has been a convergence of feed grain prices with only a small premium for feed wheat (see Figure 5). This is expected to encourage the continuation of feedlots using white grains at the expense of sorghum.

Industrial consumption of sorghum for the production of fuel ethanol is not expected to resume as the only processing facility in Australia remains mothballed. In the past the facility consumed around 150,000 MT of sorghum, but sorghum prices are high and there are expectations that they may remain too high in the short term to attract the recommissioning of the facility.

FAS/Canberra's sorghum consumption estimate for MY 2020/21 is 110,000 MT, 10,000 MT higher than the official USDA estimate of 100,000 MT. This estimate, however, is still lower than previous expectations because of robust export demand for sorghum, which has left limited supply for domestic consumption. This is also in conjunction with ample available feed wheat and barley supplies.

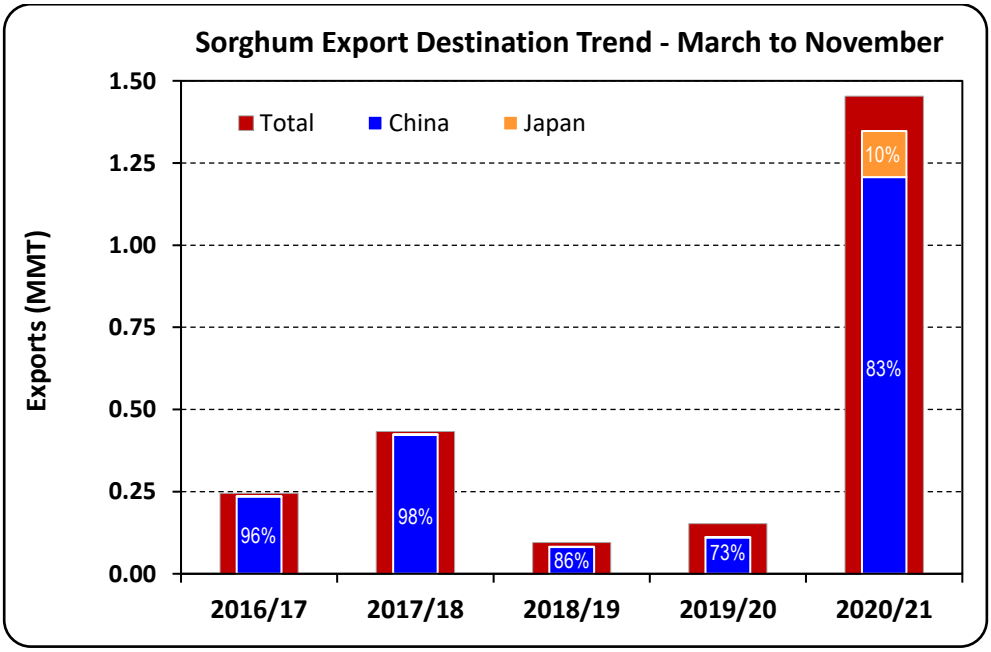
Exports

The FAS/Canberra sorghum export forecast for MY 2021/22 has been upward revised to 1.6 MMT, and 300,000 MT higher than the USDA official estimate of 1.3 MMT. This has been driven by the upward revised production forecast and strong world demand.

The rate of exports in the first nine months of MY 2020/21 has been very strong with over 1.4 MMT shipped, and well above previous expectations. This has been driven by the strength of world feed grain demand which is anticipated to remain strong in the coming months.

China is traditionally the major export destination for Australian sorghum, typically accounting for well over 80 percent of overall exports over the last five years. Although Australia's sorghum exports have been low from MY 2016/17 to 2019/20, so far in MY 2020/21 (March to November 2021) there has been a surge in exports, and China has remained the major export destination accounting for 83 percent. Notably, Japan has become a significant export destination in MY 2020/21 at 10 percent of overall exports so far.

Figure 12 – Australian Sorghum Exports – March to November



Source: Australia Bureau of Statistics

FAS/Canberra's export estimate for MY 2020/21 is 1.5 MMT, 100,000 MT higher than the official USDA estimate of 1.4 MMT. Exports for the first nine months of MY 2020/21 (March to November 2021) are at over 1.4 MMT. It is anticipated that the rate of exports will slow in the final three months of the marketing year awaiting new season stock to replenish supply.

Stocks

Stocks are estimated to increase somewhat but remain relatively low in MY 2021/22, despite a large increase in estimated production, due to strong anticipated export demand.

Sorghum	2019/2020		2020/2021		2021/2022	
Market Year Begins	Mar 2020		Mar 2021		Mar 2022	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	204	204	510	510	580	580
Beginning Stocks (1000 MT)	287	287	34	155	34	45
Production (1000 MT)	397	398	1500	1500	1900	2100
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	684	685	1534	1655	1934	2145
MY Exports (1000 MT)	250	250	1400	1500	1300	1600
TY Exports (1000 MT)	107	102	1230	1209	1300	1600
Feed and Residual (1000 MT)	300	250	50	100	350	300
FSI Consumption (1000 MT)	100	30	50	10	200	10
Total Consumption (1000 MT)	400	280	100	110	550	310
Ending Stocks (1000 MT)	34	155	34	45	84	235
Total Distribution (1000 MT)	684	685	1534	1655	1934	2145
Yield (MT/HA)	1.9461	1.951	2.9411	2.9412	3.2759	3.6207

(1000 HA) ,(1000 MT) ,(MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Sorghum begins in October for all countries. TY 2021/2022 = October 2021 - September 2022

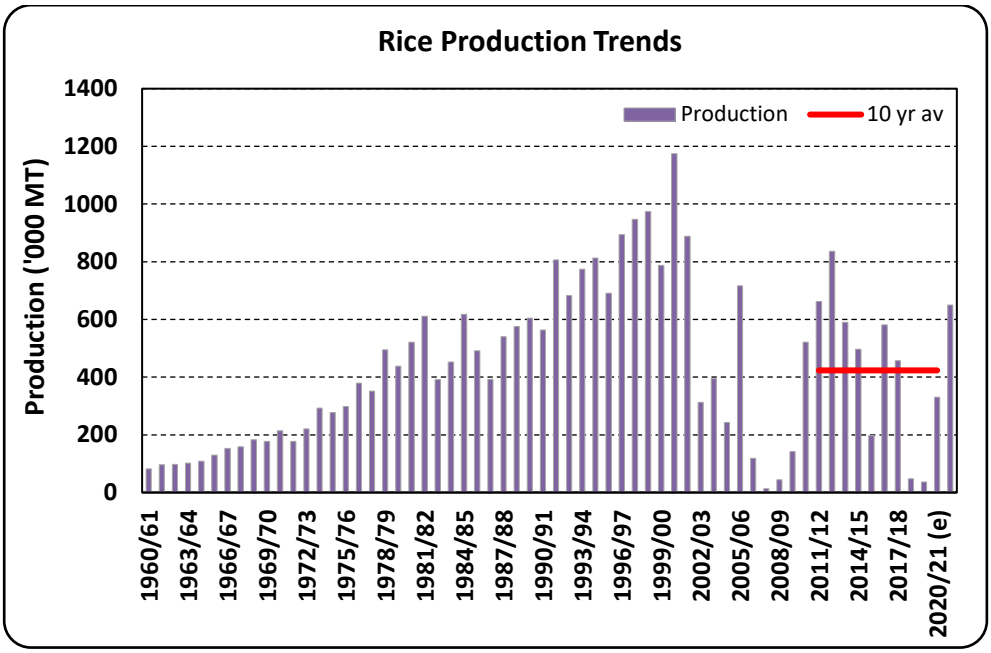
RICE

Production

FAS/Canberra's milled rice production for MY 2021/22 is estimated at 575,000 MT, a 74-percent increase over the MY 2020/21 estimate but 12 percent (75,000 MT) lower than the official USDA estimate. This increase is primarily as a result of a strong improvement in irrigation water storage levels and an associated improvement in irrigation water availability for the MY 2021/22 rice crop (planted from October 2021).

The estimated production for MY 2021/22, if realized, would be around 36 percent higher than the 10-year average (see Figure 13). This is still far below the peak of 1,175,000 MT achieved in MY 2000/01. A series of factors have influenced the decline in production from this peak, including the encroachment of cotton production in the main rice production region with improved cotton varieties able to cope with the more southern cooler growing conditions. This has created competition for planting area but also water resources. Growth in horticulture has also created competition for water resources which has caused a general increase in traded water prices, reducing the competitiveness of rice production.

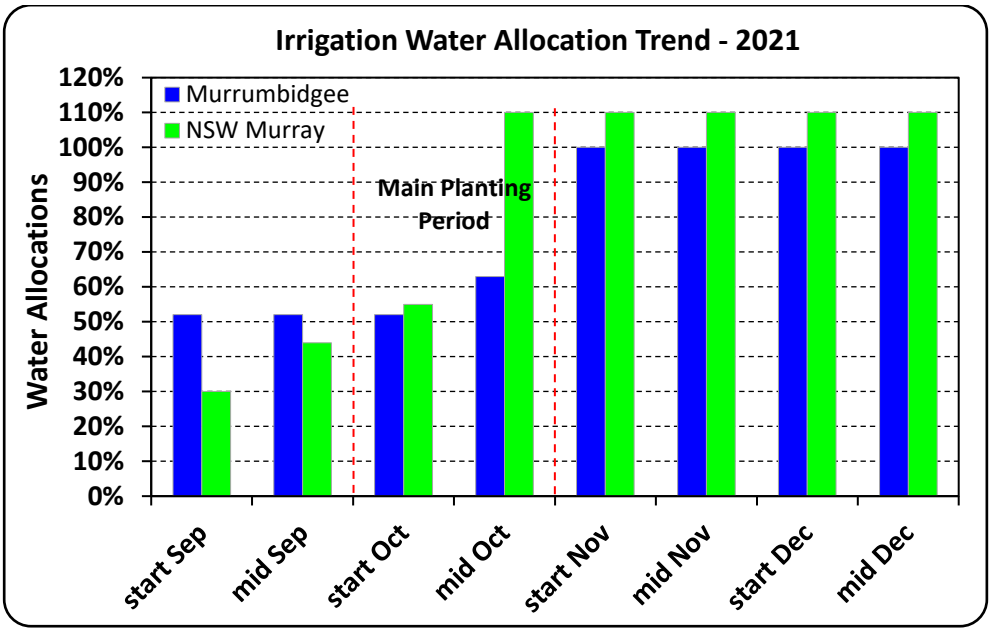
Figure 13 – Australian Rice Production and Yield History



Source: *PSD Online / FAS/Canberra*

Above-average rains over 2020 and 2021 had resulted in strong inflows of water into the major water storage dams from which irrigation water is delivered to rice producing regions. As at the end of September 2021, water storages overall were at near capacity which would typically encourage a strong rice planting program which mainly occurs in October. However, available water allocations announced by the Murrumbidgee and New South Wales Murray (NSW Murray) irrigation schemes at the start and middle of each month during the irrigation season have a large bearing on rice planting programs. At the start of October 2021, the water allocation for the Murrumbidgee irrigators was 52 percent and for NSW Murray 55 percent (see Figure 14), which did not provide rice growers with water resource certainty to expand their planting area further. In mid-October 2021, Murrumbidgee irrigators received a small increase in water allocation to 63 percent, but NSW Murray was increased to 110 percent. This may have allowed some rice growers to increase their planting area somewhat, but the announcements were too late to support any significant increase. For this reason, FAS/Canberra has maintained the planted area estimate of 80,000 hectares, which is below the official USDA estimate.

Figure 14 – Irrigation Water Allocation Trend – 2021



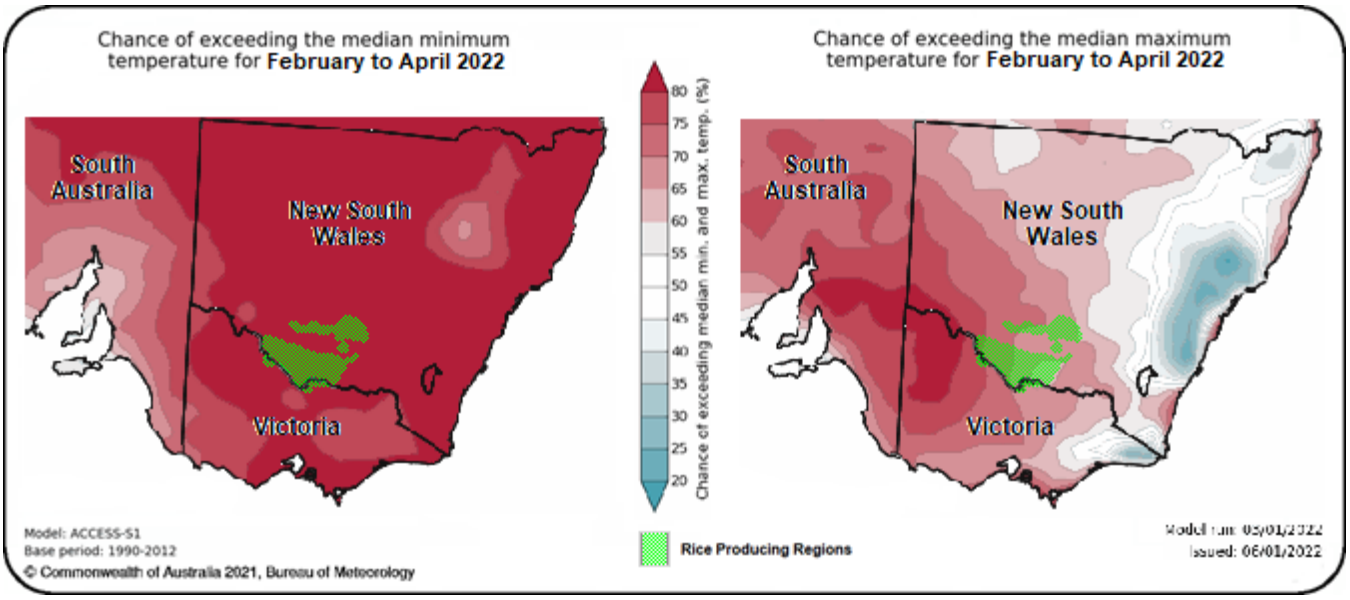
Source: WaterNSW

Irrigation water storages are currently at near capacity, and the above-average rainfalls across the current irrigation season to date has reduced water usage below usual levels. With this, rice producers are buoyed by the prospect that they may receive much higher water allocations by the start of October 2022. The rice industry at this early stage has received indications from its growers that they are likely to significantly increase the planting area for MY 2022/23.

October to December 2021 was cooler than usual which delayed crop growth and panicle initiation, but with some warmer weather in late December 2021 panicle initiation is reported to have completed successfully and crop development had caught up. A successful fertilization stage remained a risk for the current crop. If weather conditions are suitable to negotiate this phase successfully the forecast of above-average minimum and maximum temperatures for February to April 2022 (see Figure 15) will encourage good grain fill and achieve good rice yields.

The rice industry in Australia has developed a new medium grain variety of rice which is in the process of being commercialized. It was first trialed at commercial scale in MY 2020/21 and has been expanded in MY 2021/22. Its cooking and taste characteristics are reportedly very similar to the favored medium grain variety currently grown in Australia. The key feature of this new variety is that it is cold tolerant, significantly reducing the risks at the two critical panicle initiation and fertilization stages. With these characteristics, if commercialization proves successful, there will be a reduced need for a water blanket at panicle initiation which will reduce crop water use, and yields from year to year could be more consistent and at a higher level.

Figure 15 – Minimum and Maximum Temperature Forecast – February to April 2022



Source: Australian Bureau of Meteorology / FAS/Canberra

Consumption

Forecast rice consumption by FAS/Canberra in MY 2021/22 is 360,000 MT, some 20,000 MT higher than the MY 2020/21 estimate and in line with the official USDA forecast. Prior to drought-influenced production impacting domestic supply, consumption was relatively stable with a five-year average of around 365,000 MT. With a return to above average-production it is anticipated that consumption will move more rapidly towards past average levels.

FAS/Canberra's rice consumption estimate for MY 2020/21 is 340,000 MT, which is also in line with the official USDA estimate.

Trade

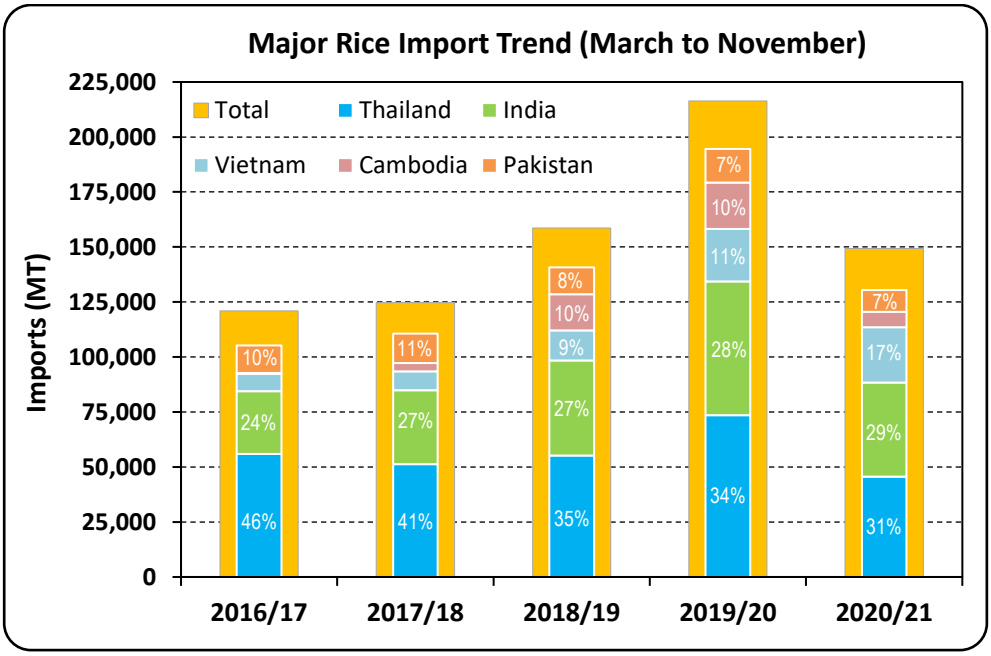
Imports

FAS/Canberra estimated imports of 130,000 MT in MY 2021/22, a 70,000 MT (31 percent) decline from the MY 2020/21 estimate of 200,000 MT which are both in line with the official USDA estimate. The large decline from the MY 2020/21 estimate to MY 2021/22 is directly related to the large increase in forecast rice production. With this large improvement in production in MY 2021/22, after two years of very low drought-affected results, estimated imports are expected to fall to 20 percent below the five-year pre-drought average of 163,000 MT.

Imports for the March to November 2021 period are at 149,333 MT and after accounting for seasonality variances for the remaining three months, imports are on track to achieve the estimated 200,000 MT for MY 2020/21.

Traditionally, the major sources of rice imports by Australia have been from Thailand and India, accounting for around two-thirds of overall imports. Combined with Vietnam, Cambodia and Pakistan the top five sources of rice imports represent almost 90 percent of overall imports. However, there has been a small shift in the balance of sources in MY 2020/21 with reduced imports from Thailand and an increase from Vietnam (see Figure 16).

Figure 16 – Australian Rice Import Trends – March to November



Source: Australian Bureau of Statistics

Exports

FAS/Canberra's estimate for exports in MY 2021/22 is 230,000 MT which is 40,000 MT below that of the official USDA estimate of 270,000 MT. However, if realized this would still be over double that of the MY 2020/21 estimate of 110,000 MT, and would be the highest export volume since MY 2017/18. This increase is directly related to the anticipated 74-percent increase in rice production, allowing Australian rice to return in large quantities to key export markets.

FAS/Canberra's rice export estimate for MY 2020/21 at 110,000 MT is in line with the official USDA estimate. Exports for the first six months from March to November 2021 were 55,768 MT. Taking into account increasing milled supply from prior year production, and a significant increase in the rate of exports from September to November 2021, achieving the MY 2020/21 estimate is anticipated.

Stocks

Rice stocks are estimated to recover further in MY 2021/22 on the back of an anticipated large improvement in rice crop production. Rice stocks were heavily depleted at the end of MY 2019/20 due to two successive years of drought affected poor production and is estimated to have partially recovered

in MY 2020/21 after improved rice production. Ending stock are expected to return to more typical levels after the expected above-average production in MY 2021/22.

Rice, Milled	2019/2020		2020/2021		2021/2022	
Market Year Begins	Mar 2020		Mar 2021		Mar 2022	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	5	5	46	46	90	80
Beginning Stocks (1000 MT)	52	52	15	15	95	95
Milled Production (1000 MT)	36	36	330	330	650	575
Rough Production (1000 MT)	50	50	458	458	903	799
Milling Rate (.9999) (1000 MT)	7200	7200	7200	7200	7200	7200
MY Imports (1000 MT)	272	272	200	200	130	130
TY Imports (1000 MT)	276	276	200	200	130	130
TY Imp. from U.S. (1000 MT)	9	9	0	0	0	0
Total Supply (1000 MT)	360	360	545	545	875	800
MY Exports (1000 MT)	35	35	110	110	270	230
TY Exports (1000 MT)	42	42	60	75	270	230
Consumption and Residual (1000 MT)	310	310	340	340	360	360
Ending Stocks (1000 MT)	15	15	95	95	245	210
Total Distribution (1000 MT)	360	360	545	545	875	800
Yield (Rough) (MT/HA)	10	10	9.9565	9.9565	10.0333	9.9875
(1000 HA) ,(1000 MT) ,(MT/HA) MY = Marketing Year, begins with the month listed at the top of each column TY = Trade Year, which for Rice, Milled begins in January for all countries. TY 2021/2022 = January 2022 - December 2022						

Attachments:

No Attachments