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# **Report Name:** Grain and Feed Update

**Country:** Australia

**Post:** Canberra

**Report Category:** Grain and Feed

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**Report Highlights:**

Grain production in Australia is set for a second consecutive big year of production after two years of drought. For the winter crops, wheat area is forecast to slightly increase in MY 2021/22 and barley area is expected to decrease a little. In the April to June planting and early growth period for wheat and barley, rainfall has overall been very good across the growing regions. The rainfall forecasts for July to September for all winter crop growing regions is very favorable with expectations for above average rainfall. If realized, this will set the crops up for well above average yields. For the summer crops, sorghum production in MY 2021/22 is forecast to rise slightly while rice is forecast for a large boost in production.

## EXECUTIVE SUMMARY

Grain production in Australia is set for a second consecutive big year of production after two years of drought. For the winter crops, wheat area is forecast to slightly increase in marketing year (MY) 2021/22 and barley area is expected to decrease a little. In the April to June planting and early growth period for wheat and barley, rainfall has overall been very good across the growing regions. The Mallee region in northwest Victoria and southeast South Australia had been dry until late rains in June triggered some late planting. The rainfall forecast for July to September for all winter crop growing regions is very favorable with expectations for above average rainfall. If realized, this will set the crops up for well above average yields.

For the summer crops, sorghum production in MY 2021/22 is forecast to rise by five percent to a little over the long-term average and rice is forecast for a 33 percent boost in production. The good rains to date along with the forecast rains will establish good soil moisture profiles in the lead up to planting for sorghum in particular. For rice, the irrigation water storages are recovering very well after being depleted from the drought and are expected to improve further in the lead up to planting in October. Because of this much improved water allocations are anticipated, providing significant scope to increase rice production.

## WHEAT

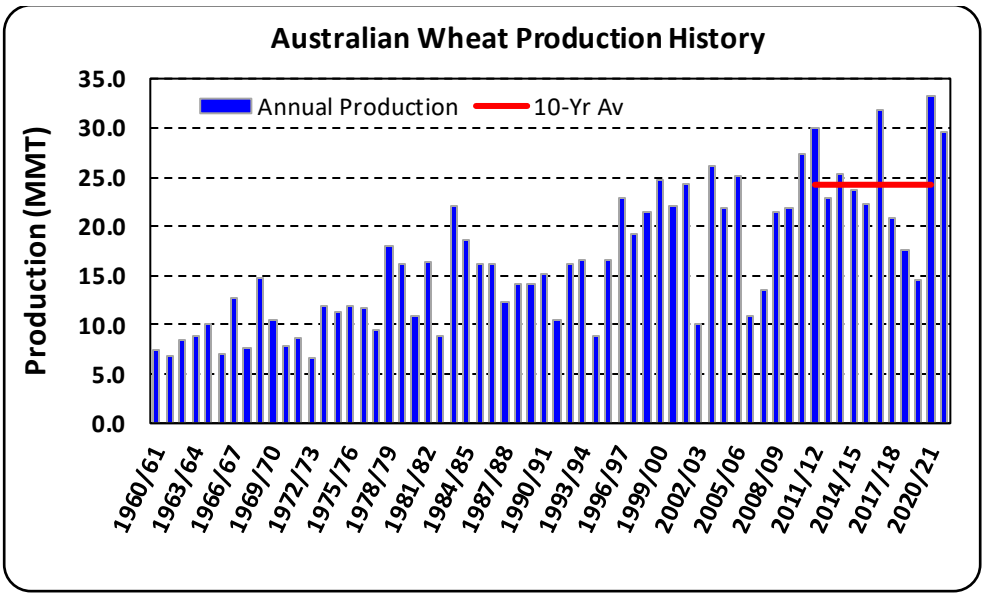
### Production

Very favorable seasonal conditions across much of the grain growing regions of Australia to date, along with an above average rainfall forecast, has resulted in FAS/Canberra forecasting Australia's MY 2021/22 wheat production at 29.5 million metric tons (MMT). This is 22 percent higher than the previous 10-year average and 1 MMT higher than the official USDA forecast. If realized this would be merely 3.8 MMT lower than the record-breaking MY 2020/21 wheat crop and would be the fourth highest on record for Australia (see Figure 1).

FAS/Canberra forecasts a slight increase in wheat harvested area at 13.2 million hectares for MY 2021/22, relative to the 13 million hectares for last year's record-breaking production, but is 100,000 hectares higher than the official USDA forecast.

The wheat area forecast for MY 2021/22 is supported by the high world wheat prices, as well as caution around China duties on barley resulting in some shift to wheat. The Mallee area in northwestern Victoria and southeastern South Australia is a significant production region and has had well below average rainfall in the April to June 2021 period (see Figure 2) causing some farmers to delay planting. However, some good rains in mid to late June 2021 had sparked some late wheat planting which is FAS/Canberra's primary influence in forecasting planted area higher than the official USDA forecast.

**Figure 1 – Australian Wheat Production History**

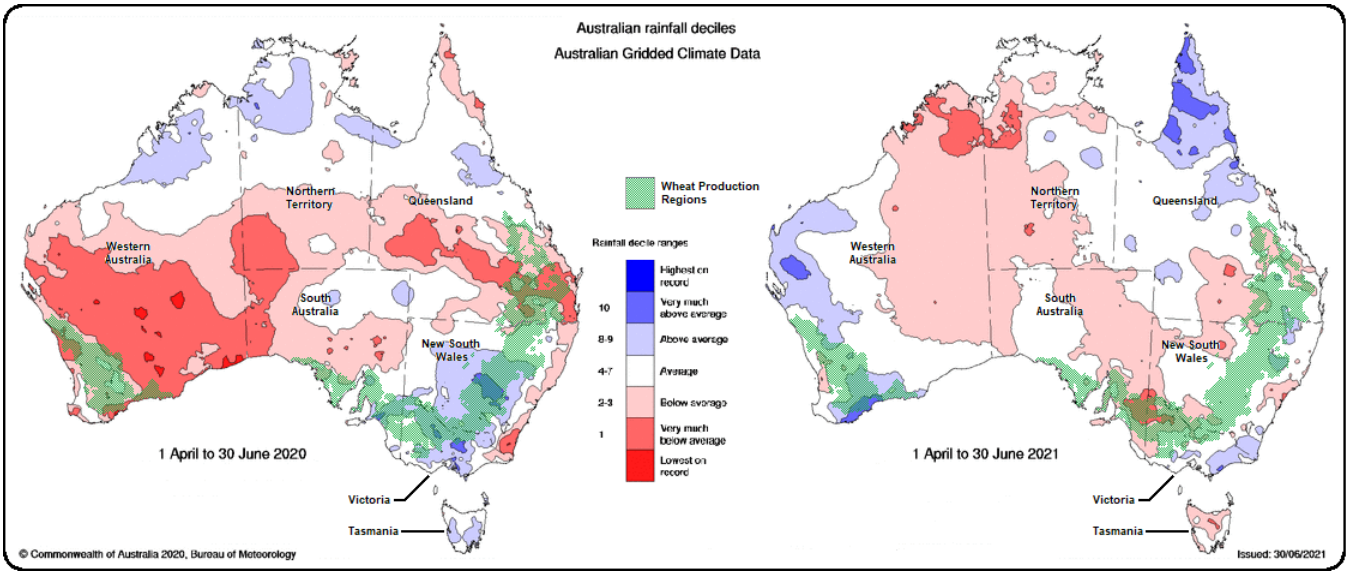



*Source: PSD Online / FAS/Canberra*

Overall yields at this point are expected to be lower than last season. However, rainfall in the planting and early growth period have on balance been similar to the same time last year and soil moisture to the end of June 2021 is broadly better than at the same time in 2020.

The largest wheat producing state of Western Australia has had a much-improved start to the wheat production season with rainfall at average to above-average in the April to June 2021 period compared to the same time in the previous 2020 year when the state had well below average rainfall (see Figure 2).

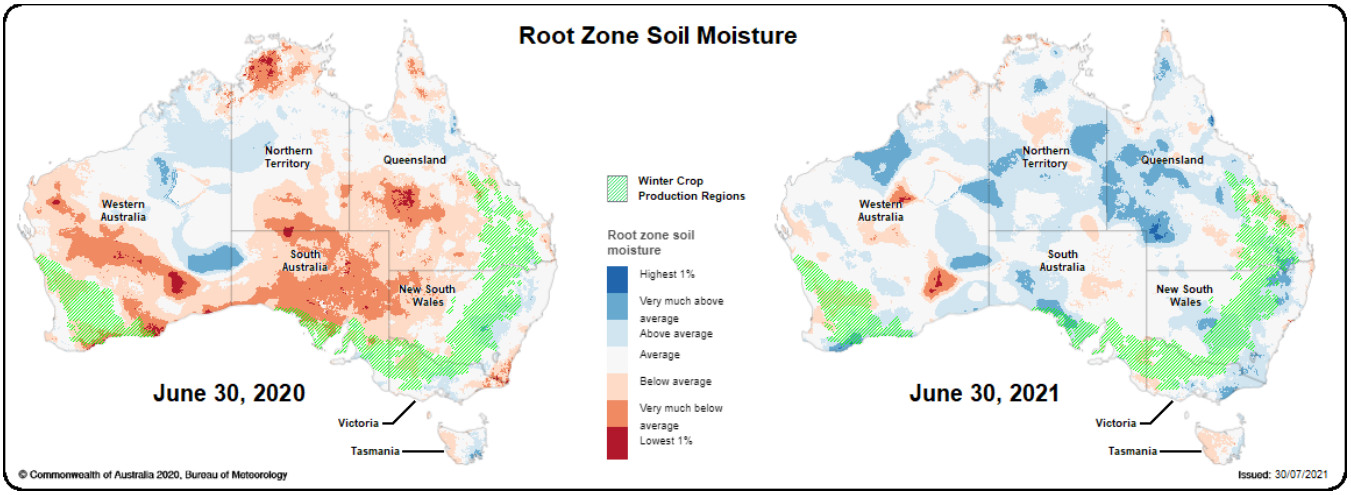
**Figure 2 - Australia Rainfall Deciles – April, 1 to June, 30, 2020 & 2021**




*Source: Australian Bureau of Meteorology / FAS/Canberra*

Although rainfall across the April to June 2021 period in the grain growing regions of New South Wales and southern Queensland were around average, soil moisture levels at the end of June 2021 were generally above average (see Figure 3). These areas had received well above average rainfall in the January to March 2021 period establishing a high moisture profile leading into the planting period. Coupled with around average rainfalls in the April to June 2021 period, their soil moisture reserves have remained high, providing these regions with prospects for above average yields.

**Figure 3 - Australia Root Zone Soil Moisture – as at June 30, 2020 & 2021**

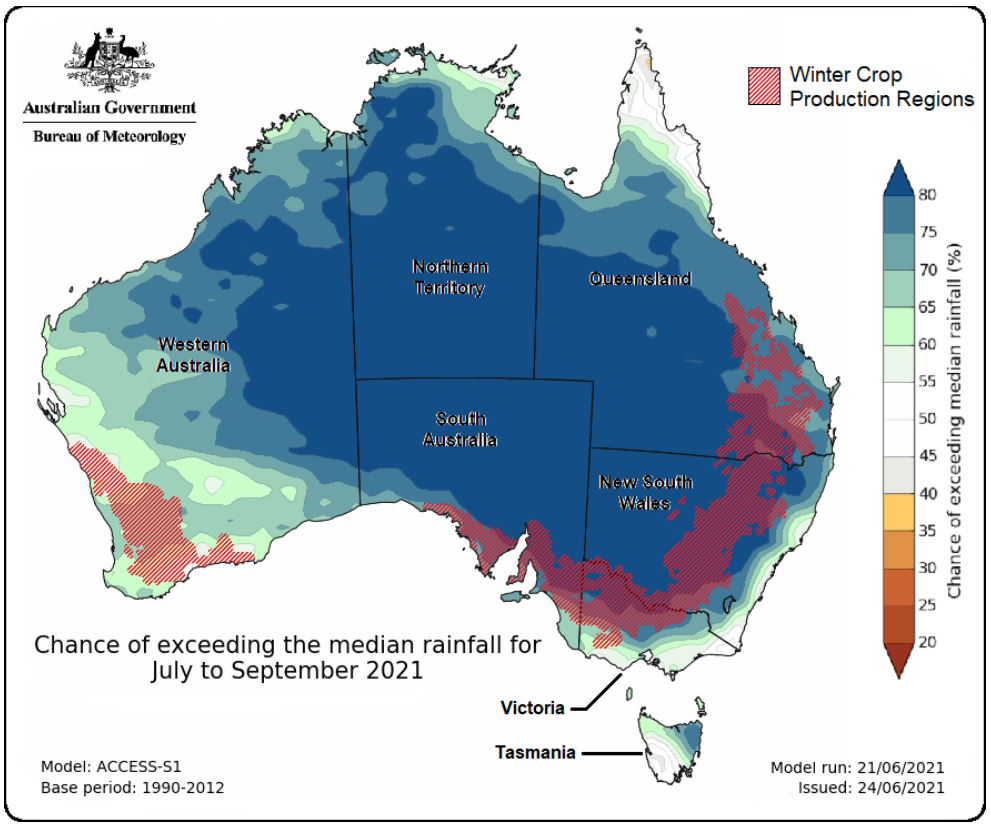



*Source: Australian Bureau of Meteorology / FAS/Canberra*

The Bureau of Meteorology forecasts for the July to September period (see Figure 4) indicates a strong chance of above average rainfall across all grain producing regions, particularly in the eastern states. In conjunction with the current status of the national wheat crop, if this rainfall forecast is realized there is a higher likelihood of an upward revision of wheat production. However, other factors such as frost during the upcoming flowering period can have significant negative impacts of wheat production.

FAS/Canberra's wheat production estimate for MY 2020/21 is 33.3 MMT, and 300,000 metric tons (MT) higher than the official USDA estimate of 33 MMT. The FAS/Canberra estimate is in line with the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimate now around six months after the completion of harvest.

**Figure 4 - Australia Rainfall Forecast – July to September 2021**




*Source: Australian Bureau of Meteorology / FAS/Canberra*

**Consumption**

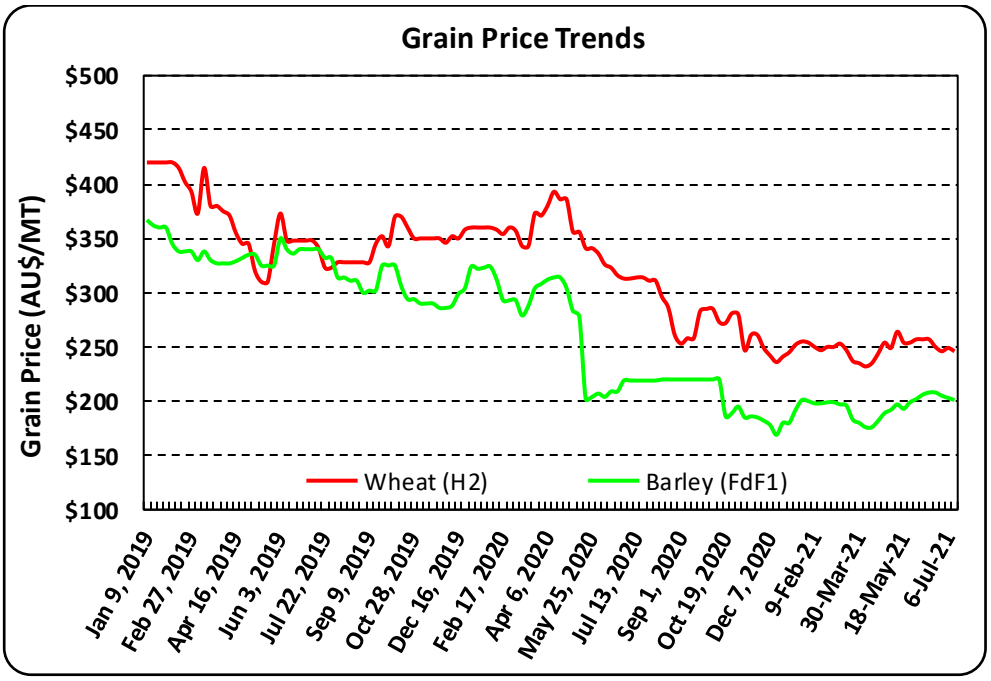
FAS/Canberra forecasts domestic consumption of wheat at 7.5 MMT in MY 2021/22, 500,000 MT lower than the official USDA forecast. This is due to FAS/Canberra forecasting lower feed industry demand at 4 MMT.

After two years of drought impacting much of the dairy and beef cattle industries, improved rains since early 2020 has also greatly increased pasture production and decreased on-farm supplementary feed demand. This has also resulted in very strong re-stocker demand for cattle to rebuild the size of the national herd, with their prices continuing to escalate to record levels. This has resulted in a decline in feedlot cattle and subsequently reduced grain demand for feedlot rations. Sources in the feedlot industry indicate that with the current price of cattle and grain prices many feedlots are operating at a loss, even with the current high beef prices. It is anticipated that the number of livestock on feed in the beef feedlot sector will decline in the coming months, which will further impact both feed wheat and barley demand.

A further important impact on the demand for wheat from the livestock sector has been the widening price gap between wheat and barley. Since the domestic supply pressure for feed grains during the drought, Australia has produced a record wheat crop and a near record barley crop in MY 2020/21. This

has contributed to widening the price gap between wheat and barley to more typical levels with a price premium of around AU$40 per MT for wheat (see Figure 5). This price differential will encourage increased use of feed barley over wheat.

**Figure 5 – Wheat and Barley Price Differential**




*Source: The Land newspaper*

Domestic consumption for flour milling is forecast to largely remain unchanged at 3.5 MMT in MY 2021/22. Consumption of wheat for flour has typically only been increasing with population growth. With Australia's international border essentially expected to remain closed for the remainder of 2021 Australia's population is expected to remain stagnant resulting in stable domestic consumption for flour milling.

FAS/Canberra's wheat consumption estimate for MY 2020/21 is 7.5 MMT and is 1 MMT lower than the official USDA estimate of 8.5 MMT due to lower feed use. As previously mentioned, the drought drove a very high feed demand particularly from the beef industry, and after drought breaking rains from early 2020 pasture production has been strong which has reduced the demand for feed grain.

**Exports**

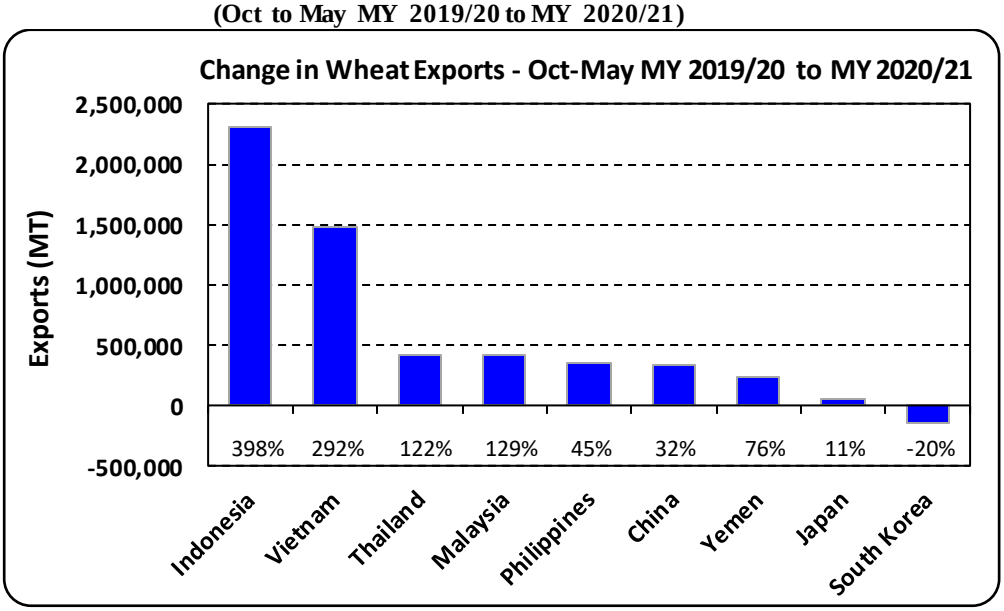
FAS/Canberra forecast's another big year of wheat exports in MY 2021/22 at 21.5 MMT, down by just 1.5 MMT from the prior year near-record exports. This forecast is 1 MMT higher than the official USDA forecast and is directly related to FAS/Canberra's larger forecast production.

Australian wheat exports in MY 2020/21 have been extremely strong with 15.8 MMT exported in the marketing year to date (October 2020 to May 2021). At this rate Australia is on track to achieve total exports of 23 MMT in MY 2020/21 which is in line with the FAS/Canberra and official USDA forecasts.

The majority of the increased export shipments so far in MY 2020/21 have been to Indonesia and Vietnam. In comparison to the same time the previous year, exports to Indonesia and Vietnam have increased by almost 400 percent and 300 percent, respectively, and by volume up 3.8 MMT (see Figure 6). Of the other usual significant trading partners China, Philippines, Thailand, Yemen and Malaysia have also shown significant but more modest increases. Exports to these nations have on average increased by over 80 percent over the same period. Japan and South Korea are also significant export destinations, but their trading volumes remain relatively stable despite fluctuations in Australia's export supplies.

Notably there are numerous nations to which there have been relatively little exports over the last five years who have become strong wheat export markets for Australia in MY 2020/21, including South Africa, Kenya, Saudi Arabia, Sri Lanka and Italy. Exports in the October 2020 to May 2021 period have risen by over 250,000 MT to each of these countries, compared to the corresponding prior year. This is largely attributed to the shortage of wheat supply from the northern hemisphere.

**Figure 6 – Change in Wheat Exports to Major Destinations**
**(Oct to May MY 2019/20 to MY 2020/21)**




*Source: Australia Bureau of Statistics*

**Imports**

FAS/Canberra forecast imports of wheat in MY 2021/22 at 200,000 MT, in line with the estimate for MY 2020/21. 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 grow slightly as a result of a second anticipated big year of production. FAS/Canberra forecasts MY 2021/22 ending stocks to rise significantly to 6.6 MMT, around 2 MMT higher than the official USDA forecast.

After a record-breaking year in MY 2020/21, despite a strong export program there are reports of high on farm stocks of wheat. With another big production year forecast in MY 2021/22 and a return to good production levels in the northern hemisphere, world market prices for wheat have been easing. This combination of factors has influenced the forecast increase in wheat stocks.

FAS/Canberra's estimate of the MY 2020/21 ending stock of wheat is 5.9 MMT, around 1.5 MMT higher than the official USDA estimate of 4.4 MMT. The primary driver of the differential is lower expected feed use resulting in greater stocks.

| 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 | 10200 | 13000 | 13000 | 13100 | 13200 |
| **Beginning Stocks** (1000 MT) | 4440 | 4440 | 2678 | 2898 | 4378 | 5898 |
| **Production** (1000 MT) | 14480 | 15200 | 33000 | 33300 | 28500 | 29500 |
| **MY Imports** (1000 MT) | 894 | 894 | 200 | 200 | 200 | 200 |
| **TY Imports** (1000 MT) | 820 | 820 | 500 | 465 | 200 | 200 |
| **TY Imp. from U.S.** (1000 MT) | 3 | 3 | 0 | 0 | 0 | 0 |
| **Total Supply** (1000 MT) | 19814 | 20534 | 35878 | 36398 | 33078 | 35598 |
| **MY Exports** (1000 MT) | 9136 | 9136 | 23000 | 23000 | 20500 | 21500 |
| **TY Exports** (1000 MT) | 10121 | 10118 | 19500 | 19500 | 22000 | 22000 |
| **Feed and Residual** (1000 MT) | 4500 | 5000 | 5000 | 4000 | 4500 | 4000 |
| **FSI Consumption** (1000 MT) | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 |
| **Total Consumption** (1000 MT) | 8000 | 8500 | 8500 | 7500 | 8000 | 7500 |
| **Ending Stocks** (1000 MT) | 2678 | 2898 | 4378 | 5898 | 4578 | 6598 |
| **Total Distribution** (1000 MT) | 19814 | 20534 | 35878 | 36398 | 33078 | 35598 |
| **Yield** (MT/HA) | 1.4681 | 1.4902 | 2.5385 | 2.5615 | 2.1756 | 2.2348 |
| | | | | | | |

(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 forecasts Australia's MY 2021/22 barley production at 10.5 MMT, 2.6 MMT below the MY 2020/21 estimate of 13.1 MMT but unchanged from the USDA official forecast. The MY 2020/21 crop was the second highest on record after 13.5 MMT in 2016/17.

The year-on-year reduction in production is in part due to a forecast decrease in area from 4.4 million hectares to 4.2 million hectares. This is due to sentiment in the major barley exporting states of Western Australia and South Australia associated with China imposing an 80.5-percent duty on imports from May 18, 2020 for a period of five years. Although this shift from barley is expected to be significant in the more export-oriented states of Western Australia and South Australia, it is anticipated to be less of a factor on barley planting in the eastern states due to the majority of their production being consumed domestically for malting and livestock feed. Particularly in the export-oriented states there has been a shift away from barley and towards canola buoyed by the high demand and price for the oilseed.

As mentioned earlier for wheat, rainfall and soil moisture conditions have broadly been favorable other than in the Mallee region of northwestern Victoria and southeastern South Australia. This region did receive late rains in June 2021 and have responded with late plantings. Overall conditions to date in barley producing regions are as good, and perhaps a little better, than the prior year which produced the second largest barley crop on record. Combined with a high chance of above average rainfall across the July to September period (see Figure 4), this could spur even better yields and overall production than currently forecast.

FAS/Canberra's MY 2021/22 yield forecast of 2.5 MT per hectare is slightly above the 2.3 MT per hectare average over the previous 10-years. This is in part due to an expected shift by farmers from malting barley to higher-yielding feed barley varieties and also as mentioned the favorable seasonal conditions to date. China has in the past been the major export destination for Australian barley with a high proportion being for malting. The loss of this vital malting barley market has shifted grower sentiment away from malting barley, with a positive expected impact on yields.

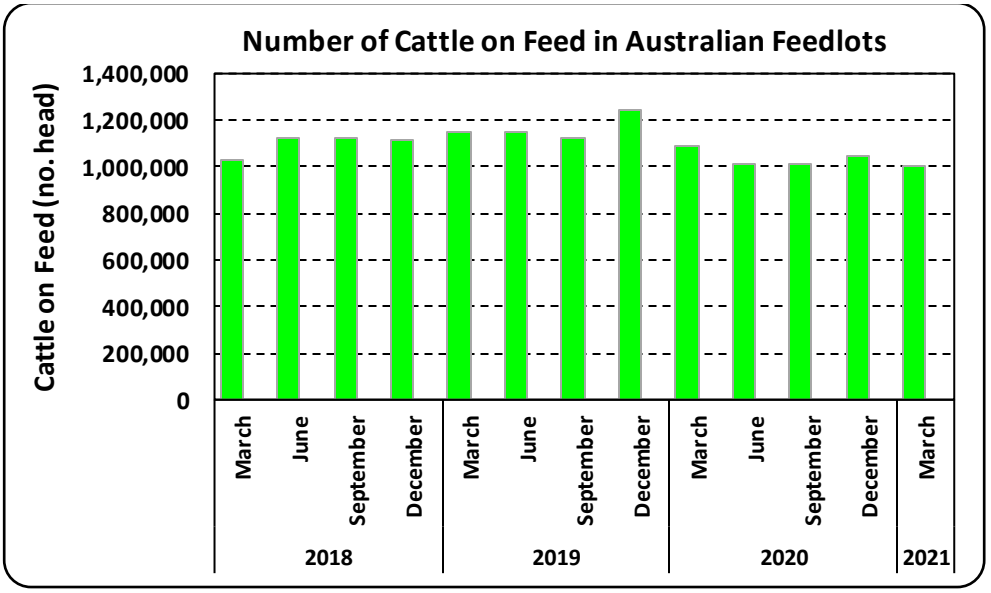
FAS/Canberra's barley production estimate for MY 2020/21 is 13.1 MMT, and 100,000 MT higher than the official USDA estimate of 13 MMT. Now around six months after the completion of harvest, the FAS/Canberra estimate is in line with the ABARES estimate.

**Consumption**

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

As mentioned earlier, after drought breaking rains commenced in early 2020 pasture production improved markedly which has resulted in a significant reduction in on-farm grain feed demand, particularly from beef producers and to a lesser extend dairy producers. Beef feedlot barley demand from early 2020 has also declined after the drought primarily due to reduced cattle on feed in feedlots (see Figure 7) and this trend is expected to continue due to the strong beef cattle re-stocker demand.

**Figure 7 – Cattle on Feed Trends**




*Source: Meat and Livestock Australia*

FAS/Canberra's consumption estimate for MY 2020/21 is 5.5 MMT, and 500,000 MT lower than the official USDA estimate. The variance is related to FAS/Canberra's feed consumption estimate being lower than that of the official USDA estimate. This is due to the reduced post drought feed demand and as previously mentioned the current dynamics of re-stocker, beef and feed grain prices likely to lead to lower numbers of cattle on feed in feedlots.

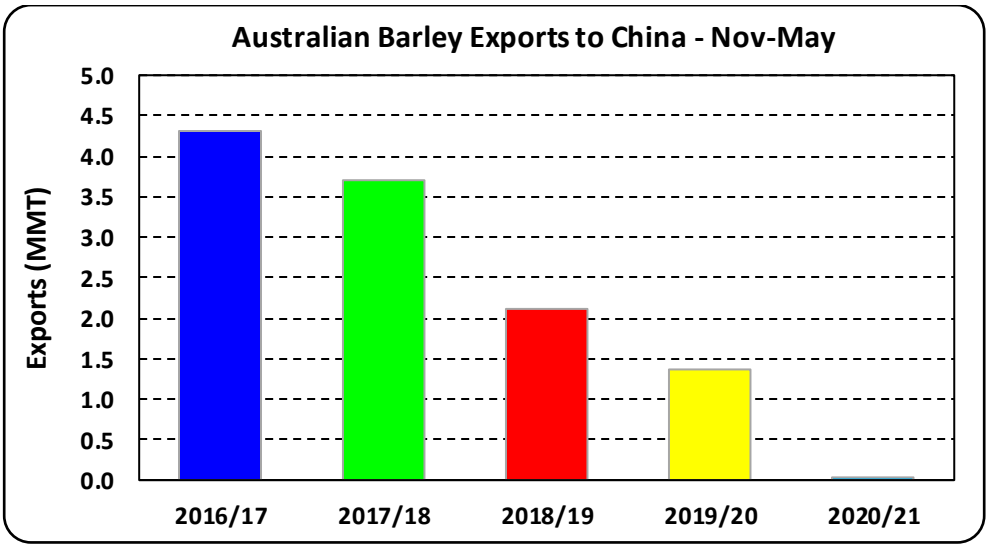
**Exports**

Australia's barley exports for MY 2021/22 are forecast at 5 MMT, down 3 MMT from the revised MY 2020/21 estimate of 8 MMT. This is driven by a 2.6 MMT-forecast reduction in barley production while domestic consumption is forecast to remain stable. There is also an expectation that Australian barley will face greater competition in Middle Eastern markets next year as northern hemisphere feed grain production is expected to recover.

Prior to China's commerce ministry imposing an 80.5 percent duty on Australian barley in May 2020, China accounted for around two-thirds of Australia's barley exports. For the November 2020 to May 2021 period of MY 2020/21 there has been only 34,000 MT of barley exported to China in November and no exports in the six months since then due to the duties (see Figure 8). Although barley export

volumes to China over the last five years indicates a declining trend, the low volumes in MY 2018/19 and 2019/20 are attributed to the lack of production caused by the drought.

**Figure 8 – Australian Barley Exports to China – Nov-Feb**



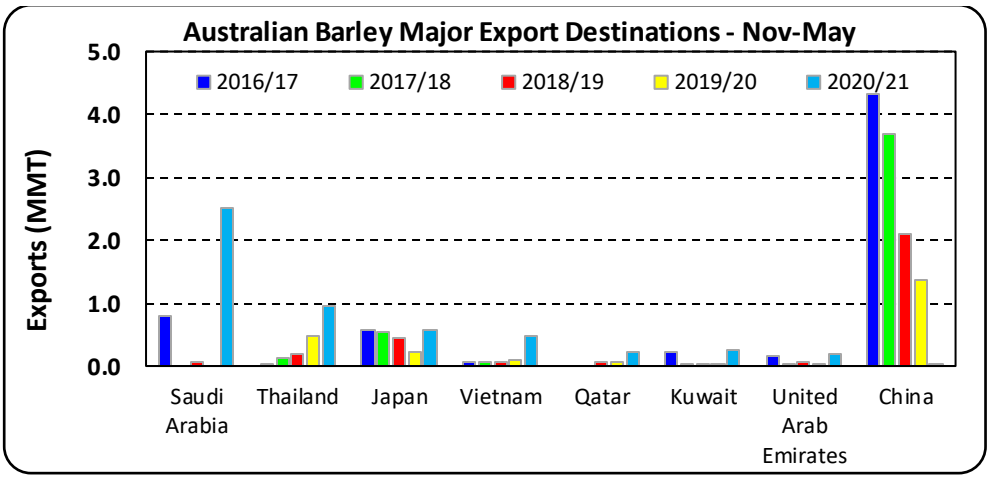

*Source: Australia Bureau of Statistics*

Despite the huge drop in exports to China caused by the imposed duties, total Australian exports have skyrocketed with extremely large shipments to Saudi Arabia, as well as significant increases to other Middle East markets. Exports to nearby Asian market such as Thailand, Vietnam, and Japan have also risen (see Figure 9). In the first seven months of MY 2020/21, Saudi Arabia has gone from importing no barley for the same period in the previous year to importing 2.5 MMT, accounting for 44 percent of Australia's barley exports.

Australian barley exporters have been able to diversify feed barley exports away from China in MY 2020/21 mainly due to the supply constraints from their usual Black Sea suppliers, supported by high world feed grain prices. However, the Australian barley industry is mindful that the circumstances surrounding the success of diversifying feed barley exports away from China and that this may not exist for the export campaign in MY 2021/22. The industry has partly adapted by reducing barley planted area towards canola taking advantage of the high prices on offer.

The Australian government on March 15, 2021, referred the matter of China imposing duties on Australian barley imports from May 2020 to the World Trade Organization (WTO).

**Figure 9 – Australian Barley Major Exports Destinations (Nov-Feb)**




*Source: Australia Bureau of Statistics*

Barley exports for the first seven months of MY 2020/21 (November 2020 to May 2021) have been extremely strong, reaching 5.7 MMT and taking export seasonality into consideration is on track to achieve full year exports of 8 MMT. Due to the pace of exports, FAS/Canberra has revised the MY 2020/21 barley export estimate upwards from the USDA official estimate of 6.7 MMT.

## Stocks

Australia's ending stocks of barley are forecast to remain relatively low and stable at around 1.7 MMT in MY 2021/22. FAS/Canberra has revised down the ending stock from the previous forecast of 2.6 MMT. This is driven by the revised 1 MMT increase in exports in MY 2020/21, resulting in lower ending stocks in that year flowing into the MY 2021/22 forecast.

| 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 | 4050 | 4400 | 4400 | 4200 | 4200 |
| **Beginning Stocks** (1000 MT) | 1908 | 1908 | 2711 | 2084 | 3011 | 1684 |
| **Production** (1000 MT) | 10127 | 9000 | 13000 | 13100 | 10500 | 10500 |
| **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 | 10908 | 15711 | 15184 | 13511 | 12184 |
| **MY Exports** (1000 MT) | 3324 | 3324 | 6700 | 8000 | 5900 | 5000 |
| **TY Exports** (1000 MT) | 3231 | 3228 | 6700 | 8000 | 5900 | 5000 |
| **Feed and Residual** (1000 MT) | 4500 | 4000 | 4500 | 4000 | 4400 | 4000 |
| **FSI Consumption** (1000 MT) | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| **Total Consumption** (1000 MT) | 6000 | 5500 | 6000 | 5500 | 5900 | 5500 |
| **Ending Stocks** (1000 MT) | 2711 | 2084 | 3011 | 1684 | 1711 | 1684 |
| **Total Distribution** (1000 MT) | 12035 | 10908 | 15711 | 15184 | 13511 | 12184 |
| **Yield** (MT/HA) | 2.0089 | 2.2222 | 2.9545 | 2.9773 | 2.5 | 2.5 |
| | | | | | | |

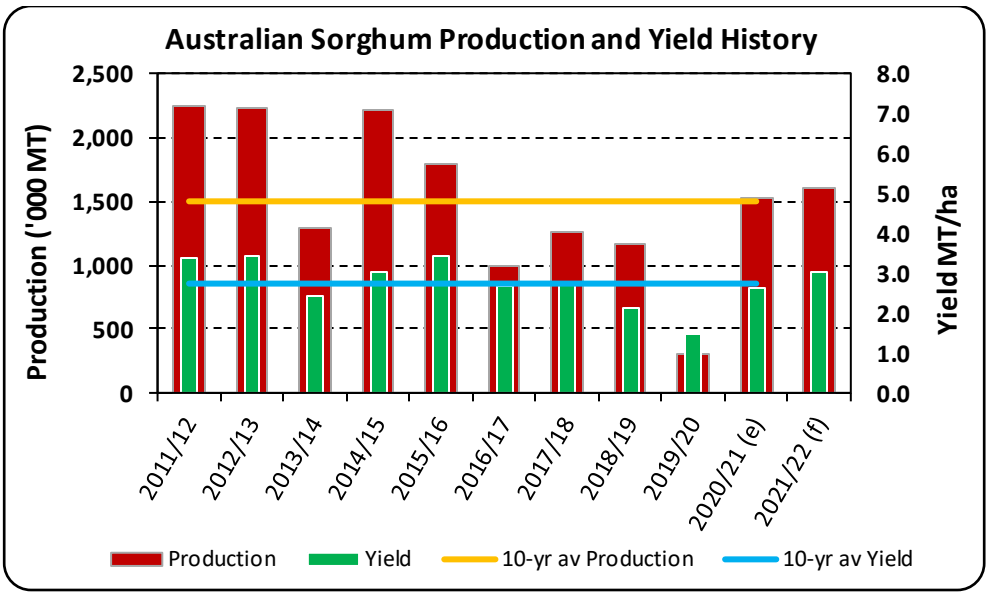
(1000 HA) ,(1000 MT) ,(MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Barley begins in October for all countries. TY 2021/2022 = October 2021 - September 2022

**SORGHUM**

**Production**

The FAS/Canberra sorghum production forecast for MY 2021/22 is revised up to 1.6 MMT from 1.4 MMT, and in line with the official UDSA forecast. The forecast is five percent above the upward revised MY 2020/21 estimate and around seven percent above the previous 10-year average (see Figure 10). Harvested area is forecast at 530,000 hectares, slightly up from an estimated 511,000 hectares in MY 2020/21. But with the crop yet to be planted, yield at this point is expected to be a little over the 10-year average of 2.8 MT/ha.

**Figure 10 – Australian Sorghum Production and Yield History**

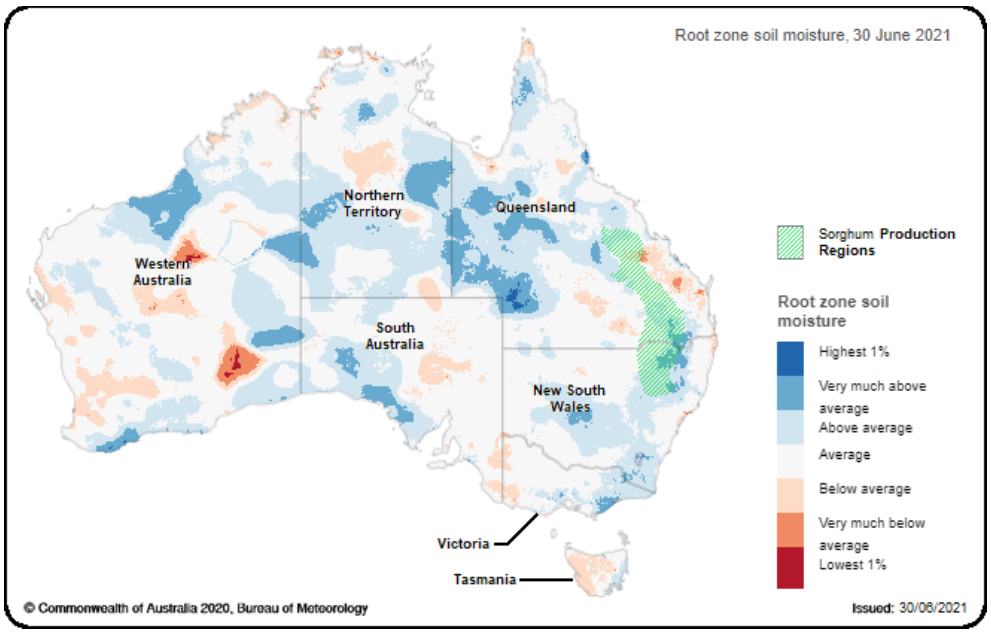



*Source: PSD Online / FAS/Canberra*

The sorghum producing regions have had good autumn and early winter rainfalls which has built up soil moisture profiles to generally above average levels as at the end of June 2021 (see Figure 11). The northern New South Wales sorghum growing area in particular has well above average soil moisture at this early point, well prior to planting which typically occurs from October.

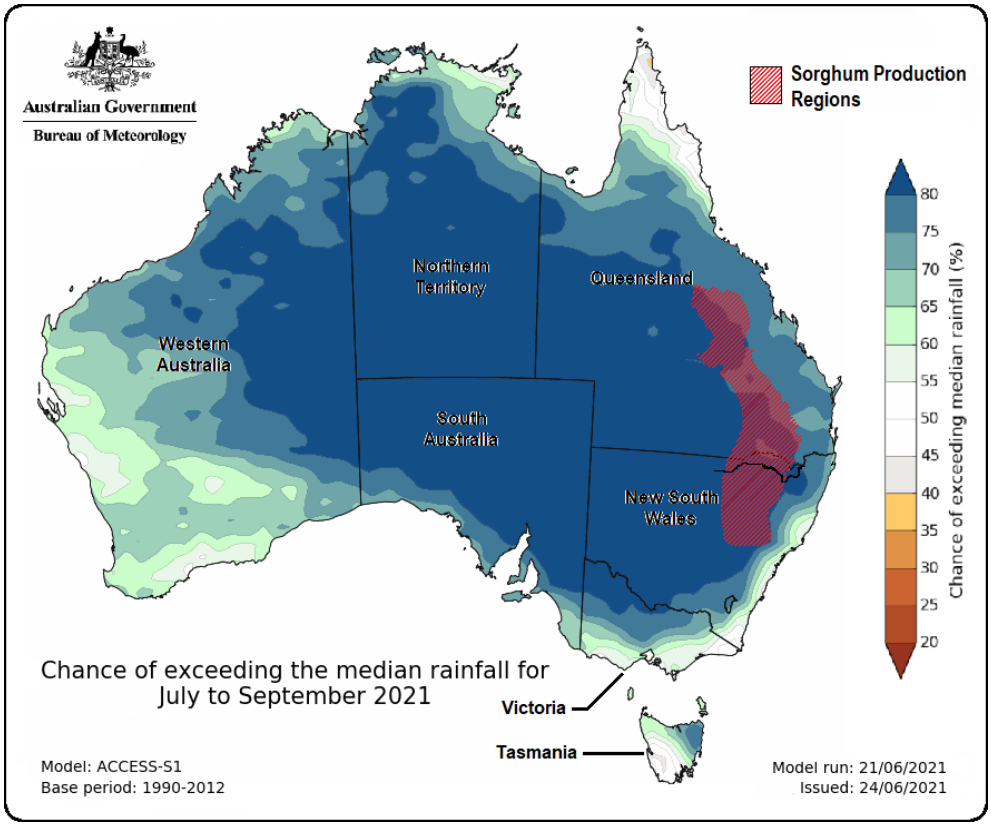
A further positive for sorghum growers is that in the next three months in the lead up to planting the Bureau of Meteorology forecasts indicate a high likelihood of above average rainfall (see Figure 12). If this is realized, sorghum producers are likely to enter the main planting period with ample stored soil moisture giving the forecast crop every opportunity to achieve long term average yields in the forecast year.

**Figure 11 – Root Zone Soil Moisture – as at June 30, 2021**




*Source: Australian Bureau of Meteorology / FAS/Canberra*

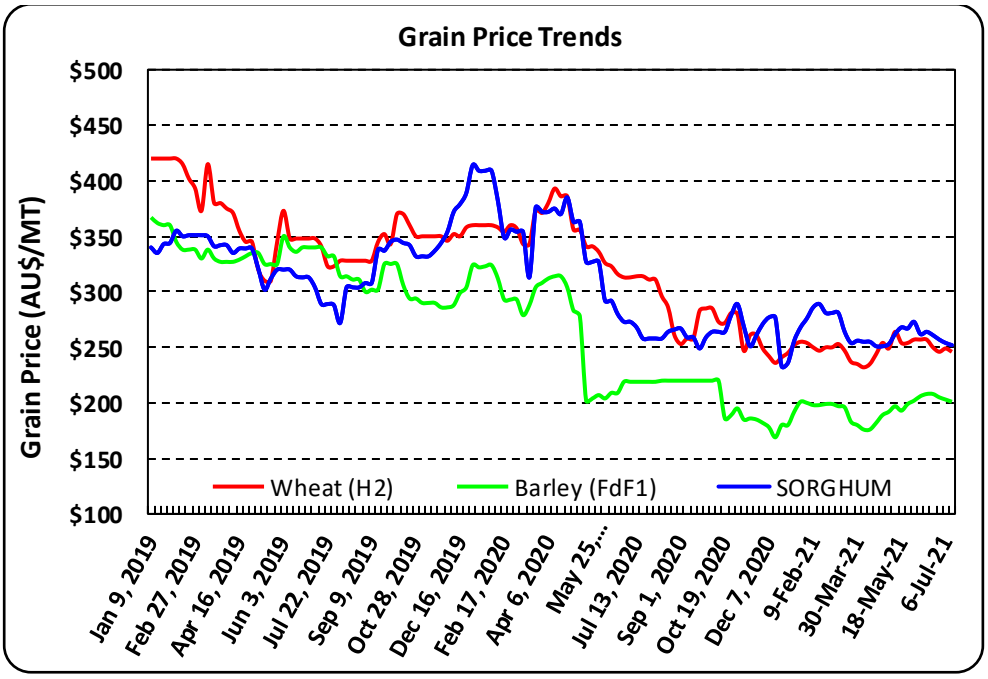
**Figure 12 – Rainfall Forecast – July to September 2021**




*Source: Australian Bureau of Meteorology / FAS/Canberra*

The anticipated high soil moisture levels in the lead up to planting will encourage another good planting area following on from the MY 2020/21 area. A further influence on the planted area is the sorghum price. At this point sorghum is very well priced in comparison to other feed grains such as wheat and barley. Although sorghum is a summer crop, and wheat and barley are winter crops, all of them are typically sold all year round on the domestic and export markets, and the relative price of sorghum against other feed grains has some influence over farmers sorghum planting area considerations. Sorghum is generally regarded as a lower quality feed grain to barley, and in particular wheat, and would typically attract a lower price. However, after the strong domestic demand for feed grains during the drought, sorghum prices have maintained around parity with wheat over the last 18 months after the drought had begun to break in early 2020 (see Figure 13). High sorghum prices are being driven in part by strong export demand. Along with the current and prospective positive soil moisture reserves, these prices will further encourage a good sorghum planting area in the forecast year.

**Figure 13 – Grain Price Trends**




*Source:* *The Land newspaper*
*Notes:* *Barley is cash price at West Wyalong, New South Wales*
*Sorghum is cash price at Moree, New South Wales*

**Consumption**

FAS/Canberra forecasts sorghum consumption in MY 2021/22 at 610,000 MT, which is 300,000 MT higher than the MY 2020/21 estimate, as a result of higher feed use.

The disparity in prices between the major feed grains, wheat, barley and sorghum as previously mentioned (see Figure 13) is currently not attractive to for livestock feed grain users to significantly increase their use of sorghum. However, with an increasing supply and availability of sorghum there is

an expectation that the relative price of sorghum compared to wheat and barley will decline. This is anticipated to attract a moderate increase in consumption for livestock feeding.

There is no expectation of industrial consumption of sorghum for the production of fuel ethanol as the only processing facility in Australia remains mothballed. The facility in the past has consumed around 150,000 MT of sorghum but indications are that prices would need to fall significantly to attract the recommissioning of the facility.

FAS/Canberra's sorghum consumption estimate for MY 2020/21 is 510,000 MT and 190,000 MT lower than the official USDA estimate of 700,000 MT. This relates entirely to the FAS/Canberra's estimate accounting for the consumption food, seed, and industrial sector consumption at 10,000 MT for seed only, acknowledging that the bioethanol plant is unlikely to reopen in MY 2021/22.

**Exports**

The FAS/Canberra sorghum export forecast for MY 2021/22 is at 800,000 MT and unchanged from the USDA official forecast.

The rate of exports in the first three months of MY 2020/21 (March-May) have been very strong with 315,000 MT exported. Based on the strong early export result, FAS/Canberra's sorghum export estimate for 2020/21 is now 800,000 MT, 350,000 MT higher than the official USDA estimate of 450,000 MT.

China is traditionally the major export destination of Australian sorghum. For the first three months of MY 2020/21, China has continued this trend with 88 percent of overall exports.

**Stocks**

Sorghum stocks are forecast to remain stable in MY 2021/22 after being replenished in MY 2020/21 on the back of much improved production following drought.

| 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 | 511 | 530 | 530 |
| **Beginning Stocks** (1000 MT) | 287 | 287 | 34 | 155 | 234 | 367 |
| **Production** (1000 MT) | 297 | 398 | 1350 | 1522 | 1600 | 1600 |
| **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) | 584 | 685 | 1384 | 1677 | 1834 | 1967 |
| **MY Exports** (1000 MT) | 250 | 250 | 450 | 800 | 500 | 800 |
| **TY Exports** (1000 MT) | 107 | 102 | 450 | 900 | 500 | 800 |
| **Feed and Residual** (1000 MT) | 200 | 250 | 500 | 500 | 900 | 800 |
| **FSI Consumption** (1000 MT) | 100 | 30 | 200 | 10 | 200 | 10 |
| **Total Consumption** (1000 MT) | 300 | 280 | 700 | 510 | 1100 | 810 |
| **Ending Stocks** (1000 MT) | 34 | 155 | 234 | 367 | 234 | 357 |
| **Total Distribution** (1000 MT) | 584 | 685 | 1384 | 1677 | 1834 | 1967 |
| **Yield** (MT/HA) | 1.4559 | 1.951 | 2.6471 | 2.9785 | 3.0189 | 3.0189 |
| | | | | | | |

(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

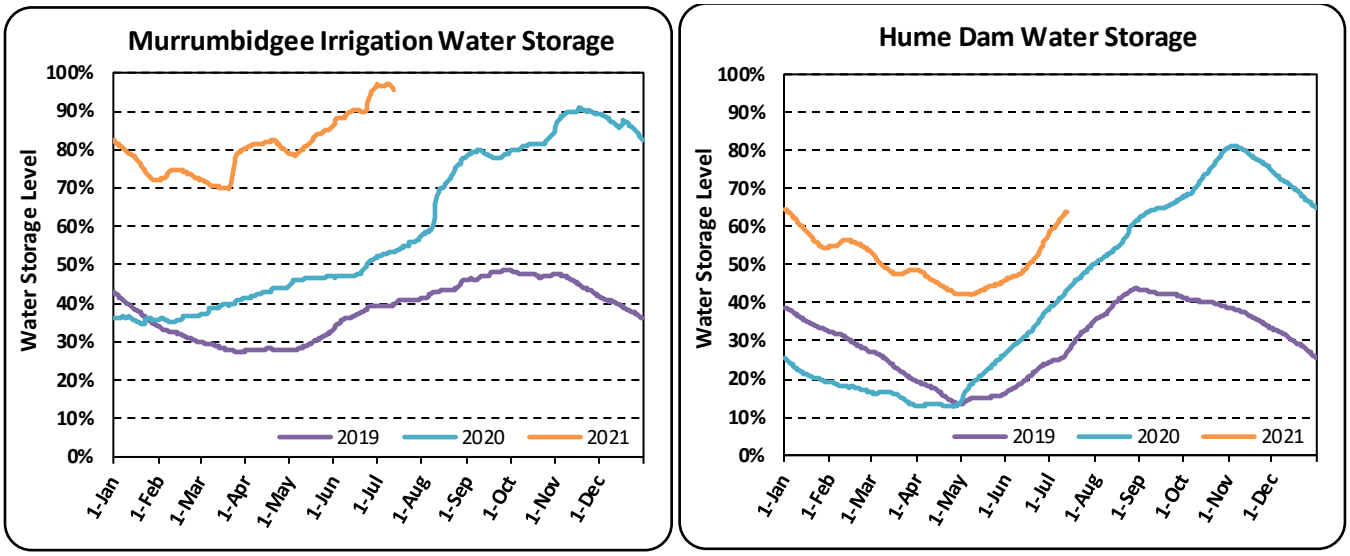
## RICE

### Production

FAS/Canberra forecasts milled rice production at 440,000 MT in MY 2021/22, a 33 percent increase over the MY 2020/21 estimate but is 24 percent lower than the official USDA forecast of 576,000 MT. The forecast increase is primarily as a result of an expected improvement in irrigation water storage levels and associated improvement in irrigation water availability for the MY 2021/22 rice crop (to be planted from October 2021). The forecast production, if realized, would be around four percent higher than the previous 10-year average.

Rice growers are reported to have taken advantage of rainfall in autumn and winter by harvesting water from overland and high waterway flows, filling their on-farm storage dams in readiness for the MY 2021/22 season. These rains have also resulted in significant inflows into the major irrigation systems that rice growers in southern New South Wales are dependent upon. These inflows, in combination with a partial recovery in 2020, have resulted in significantly improved water storage levels (see Figure 14) in the lead up to planning for and planting (commencing October 2021) the MY 2021/22 rice crop. The irrigation water storage recovery has been strong and is anticipated to help boost irrigated rice area for MY 2021/22.

**Figure 14 – Irrigation Water Storage Levels**




*Source:* *Australian Bureau of Meteorology / FAS/Canberra*

*Notes:* *Murrumbidgee Irrigation Water Storage chart is the combination of Burrinjuck and Blowering Dams*
*Hume Dam is a component of water storage delivering to the NSW Murray Irrigation system*

Although all irrigation water sources are important, the strongest influence on rice production is the availability of water from the irrigation storage dams influencing the irrigation schemes in southern New South Wales. In mid-July each year the water authority provides water license holders with their initial water allocation for the upcoming irrigation season. This is then reviewed monthly as additional water storage inflows occur during the winter and spring months. The initial water allocations are low and typically increase significantly as the season progresses. The Murrumbidgee irrigation system has announced an opening water allocation of 50 percent which is a vast improvement on the 14 percent in the prior year when the storages were recovering during their transition from drought (see Table 1). The New South Wales Murray Irrigation system also has an improved opening water allocation at 10 percent for this season although well below that of the Murrumbidgee Irrigation system.

**Table 1 – Irrigation Water Allocations in Cotton Production Regions**

| Irrigation Catchment | Capacity (GL) | Water Allocation as mid-July | | |
|---|---|---|---|---|
| | | Drought 2019/20 | Transition from drought 2020/21 | Post-drought 2021/22 |
| **Murrumbidgee** | 2,659 | 0% | 14% | 50% |
| **NSW Murray** | 1,600 | 0% | 2% | 10% |

*Source:* *Murray Darling Basin Authority*

*Notes:* *GL = Giga Liters (1.0 GL = 1.0 billion liters)*
*Water Allocation = percent of irrigators licensed water holdings*

The Bureau of Meteorology rainfall forecast for the July to September 2021 period in the rice production regions and associated irrigation water catchment areas is for a high likelihood of above average rainfall. With this there is an expectation that that water allocations for those in the rice growing regions will improve markedly and it is likely that water availability will not be a significant limiting factor to grower considerations around planted area for the upcoming MY 2021/22.

However, rice growers are generally mixed farmers and in the main rice growing area of the Riverina region, cotton production is a significant alternate summer crop option for many growers. In addition to planting cotton, these growers may also consider selling their water or carrying some of it over to the following irrigation season. According to sources in the rice industry, these factors are expected to limit even further increases to rice production in MY 2021/22.

FAS/Canberra's milled rice production estimate for MY 2020/21 has been revised up by 5,000 MT to 330,000 MT and is in line with the official USDA estimate. This production correlates with the ABARES rough production estimate of 458,000 MT.

**Consumption**

Forecast rice consumption by FAS/Canberra in MY 2021/22 is 350,000 MT and is a modest 5,000 MT higher than the MY 2020/21 estimate. However, this is 5,000 MT lower than the official USDA forecast due to FAS/Canberra's smaller rice production forecast.

FAS/Canberra's rice consumption estimate for MY 2020/21 is 345,000 MT, 10,000 MT higher that the official USDA estimate of 335,000 MT. Prior to the drought impacting domestic supply, consumption was relatively stable with a five-year average of around 365,000 MT. With a return to near average-production it is anticipated that consumption will move more rapidly towards past average levels.

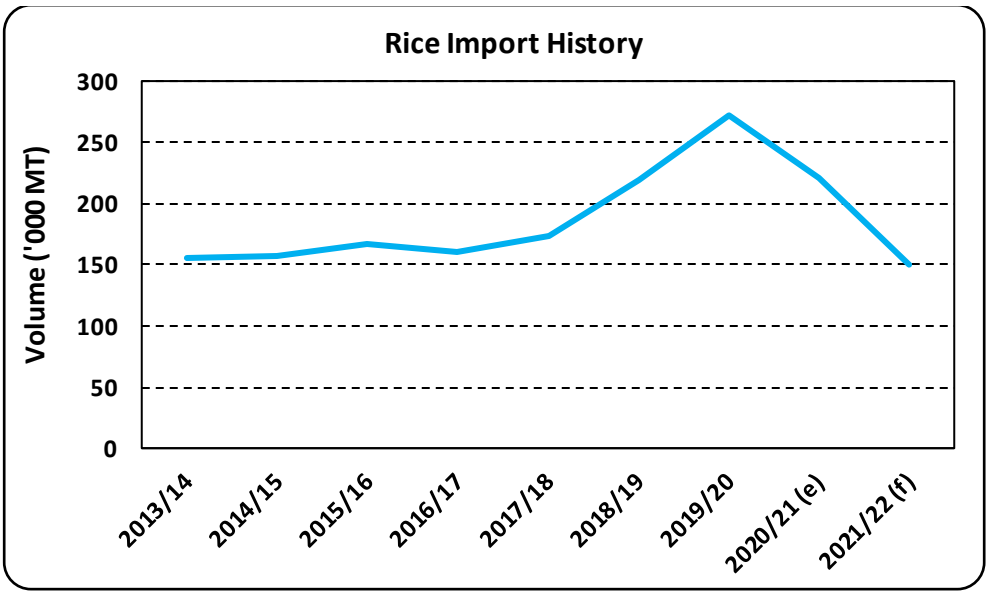
**Trade**

Imports

FAS/Canberra forecasts imports of 150,000 MT in MY 2021/22, a 70,000 MT (32 percent) decline from the MY 2020/21 estimate of 220,000 MT which are both in line with the official USDA forecast and 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.

Imports for the March to May 2021 period are at 51,753 MT and after accounting for seasonality variances for the remaining nine months, imports are on track to achieve the estimated 220,000 MT for MY 2020/21. Although there was a significant improvement in rice production in MY 2020/21 after two years of very low drought affected results, the estimated imports remain 35 percent above the five-year pre-drought average of 163,000 MT (see Figure 16) as carry-in stocks were almost non-existent.

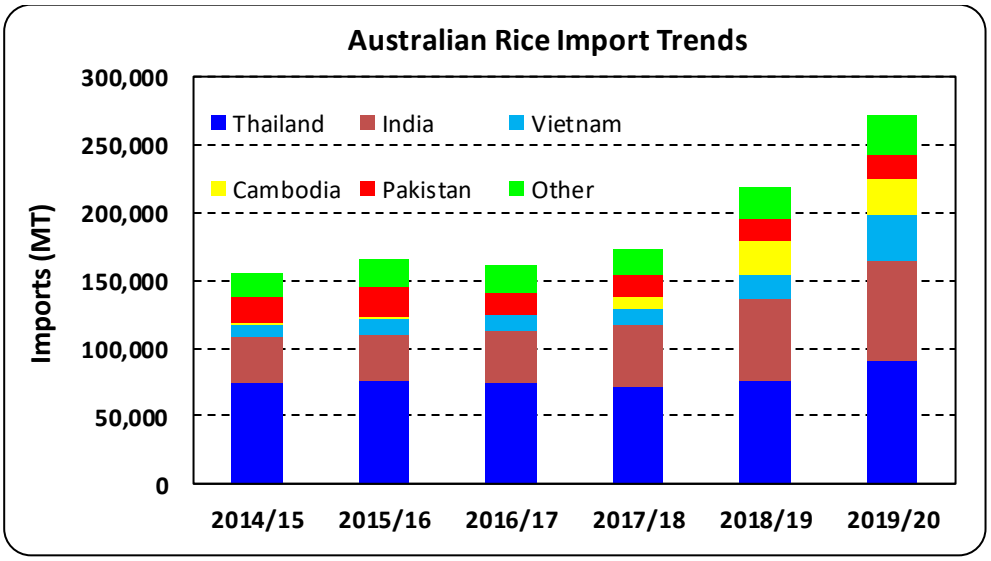
**Figure 16 – Rice Import History**




*Source: Australian Bureau of Statistics / PSD Online / FAS/Canberra*

The source of rice imports by Australia has remained relatively unchanged even during the recent large growth in imports caused by the drought (see Figure 17). The first three months (March to May 2021) of MY 2020/21 has seen an overall decline in imports relative to the same period in the prior year with little variance in the proportion of imports from the major sources.

**Figure 17 – Australian Rice Import Trends**




*Source: Australian Bureau of Statistics*

Exports

FAS/Canberra's forecast for exports in MY 2021/22 of 200,000 MT are a 33 percent increase over the MY 2020/21 estimate, but 60,000 MT lower than the official USDA forecast.

Exports of rice from Australia was very low over the first three months of MY 2020/21 at 2,087 MT. However, the rice harvest occurred during this period and the result reflects the extremely low available domestic supply of rice from the very low drought impacted production in the prior MY 2019/20. As processing of the MY 2020/21 rice crop begins in earnest, FAS/Canberra anticipates significant increases in exports of rice from Australia for the remaining nine months of the marketing year.

**Stocks**

Rice stocks are forecast to recover somewhat further in MY 2021/22 on the back of a much-improved forecast 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, not seen since MY 2008/09 and MY 2009/10. Although stocks are expected to grow after two years of post-drought production it is anticipated that further years of good production will be needed for stocks to fully recover to pre-drought levels.

| 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 | 80 | 60 |
| **Beginning Stocks** (1000 MT) | 52 | 52 | 15 | 11 | 70 | 66 |
| **Milled Production** (1000 MT) | 36 | 36 | 330 | 330 | 576 | 440 |
| **Rough Production** (1000 MT) | 50 | 50 | 458 | 458 | 800 | 611 |
| **Milling Rate (.9999)** (1000 MT) | 7200 | 7200 | 7200 | 7200 | 7200 | 7200 |
| **MY Imports** (1000 MT) | 272 | 272 | 220 | 220 | 150 | 150 |
| **TY Imports** (1000 MT) | 276 | 212 | 220 | 220 | 150 | 150 |
| **TY Imp. from U.S.** (1000 MT) | 9 | 9 | 0 | 0 | 0 | 0 |
| **Total Supply** (1000 MT) | 360 | 360 | 565 | 561 | 796 | 656 |
| **MY Exports** (1000 MT) | 35 | 29 | 160 | 150 | 260 | 200 |
| **TY Exports** (1000 MT) | 42 | 33 | 130 | 120 | 260 | 200 |
| **Consumption and Residual** (1000 MT) | 310 | 320 | 335 | 345 | 355 | 350 |
| **Ending Stocks** (1000 MT) | 15 | 11 | 70 | 66 | 181 | 106 |
| **Total Distribution** (1000 MT) | 360 | 360 | 565 | 561 | 796 | 656 |
| **Yield (Rough)** (MT/HA) | 10 | 10 | 9.9565 | 9.9565 | 10 | 10.1833 |
| | | | | | | |

(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