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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:**

Good conditions at planting and during the early growth phase for wheat and barley production have prevailed for marketing year (MY) 2023/24. However, after a record setting winter crop in MY 2022/23, Australia is expected to produce a strong but more subdued grain crop in MY 2023/24. Rainfall across the first three months of production has been at average or better supporting solid production forecasts. However, the prospect of an El Niño, if realized would dampen these production expectations. Wheat and barley exports are forecast to fall due to the expectation of much lower production. Sorghum production and exports are forecast to decline in MY 2023/24 after big production results in the previous two years and record exports estimated for MY 2022/23. Rice production in MY 2023/24 is forecast to grow by around one-third from the prior year supported by ample irrigation water availability. Australia is expected to return to becoming a net exporter of rice in MY 2023/24 for the first time since MY 2017/18.

## **EXECUTIVE SUMMARY**

There has been good crop establishment and an early growth phase for wheat and barley across most of Australia's major winter crop production regions for marketing year (MY) 2023/24. This follows robust rains in the lead up to and the start of the winter crop planting window along with very good follow up rains in June 2023. However, production is forecast to be down from the last three years of bumper winter crops, which were mainly due to excellent yields from well-above-average rainfall seasons. Planted area of winter grains is believed to be lower than for last year's record production season, but the main impact is the forecast of yields to be lower and at near long-term average levels. Australia is facing the prospect of an El Niño that brings the likelihood of 'suppressed rainfall' across the winter/spring months that is typically associated with drought conditions. However, earlier forecasts from the Australian Bureau of Meteorology for April to June 2023 were for a high likelihood of well-below-median rainfall across all winter crop producing areas, but the actual results so far have been average or better. Also, despite a possible 'El Niño', these conditions have not always produced drought conditions in the past.

Wheat production is forecast at 29 million metric tons (MMT) for MY 2023/24, down by over one-quarter from the estimated record production of 39.7 MMT in MY 2022/23, but still above the long-term average. With the big drop in wheat production, exports are forecast to fall to 21 MMT in MY 2023/24 from an estimated record of 31 MMT in the prior year. Barley production is expected to fall from a near record 14.1 MMT in MY 2022/23 to 10 MMT in the forecast year, and exports are also forecast to decline to 5.5 MMT from the estimated 7.5 MMT in MY 2022/23.

Sorghum production is forecast to decline in MY 2023/24, after two successive years of big production. Although planted area is expected to shrink, the main driver is that yields are expected at near long-term average levels after the last two exceptionally high yielding seasons. In the event that the looming El Niño does bring drought conditions this winter/spring period, stored soil moisture levels may be low in the lead up to the forecast year planting period which could impact planted area and production further than expected. Sorghum exports are also forecast to decline in MY 2023/24, but this is after an estimated record export program in MY 2022/23.

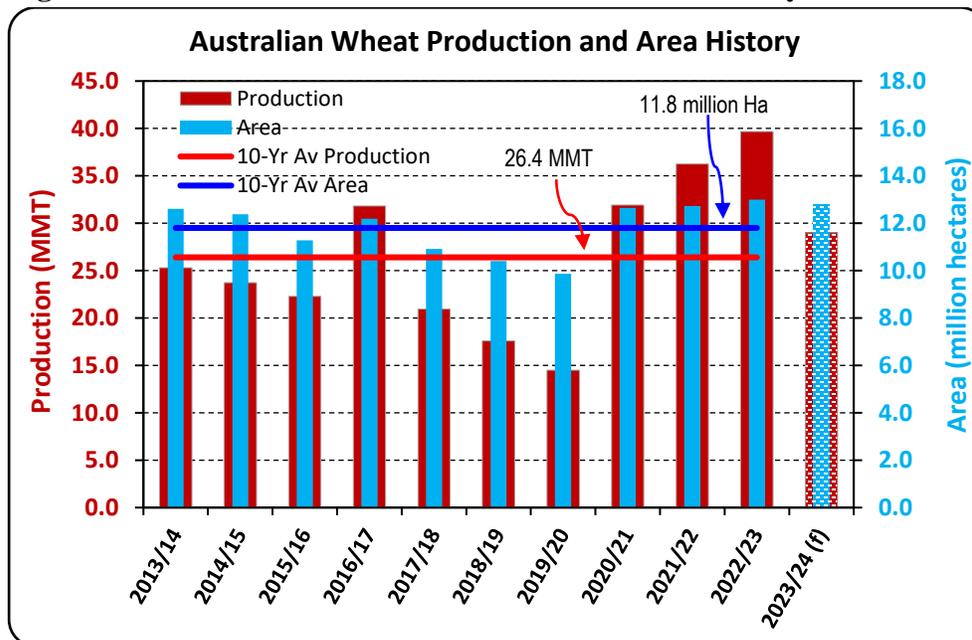
Even at this early stage well before the commencement of rice planting (October 2023), there is confidence of a boost in production for MY 2023/24 of over one-third from the prior year. This is mainly due to irrigation water storages at near capacity well before the start of planting, providing rice producers with the confidence that they will have ample water available at the commencement of planting the forecast crop, even if El Niño conditions prevail. In addition, it is anticipated that the severe disruptions caused by excessive spring rains impacting the MY 2022/23 planting will not repeat itself for the forecast year. With the continued forecast production recovery, Australia is expected to revert back to becoming a net exporter of rice in MY 2023/24 for the first time since MY 2017/18.

## WHEAT

### Production

FAS/Canberra forecasts Australia's MY 2023/24 wheat production at 29 MMT after a generally good start at planting and the subsequent early growth phase. This forecast is 10 percent higher than the previous 10-year average (26.4 MMT) and is in line with the official USDA forecast (see Figure 1). If realized, this would be 10.7 MMT lower than the prior year record-breaking wheat crop of 39.7 MMT. The forecast production at above the 10-year average is mostly due to the planted area which is anticipated to be eight percent above the 10-year average (see Figure 1), and a forecast yield slightly above the long-term average.

**Figure 1 – Australian Wheat Production and Area History**



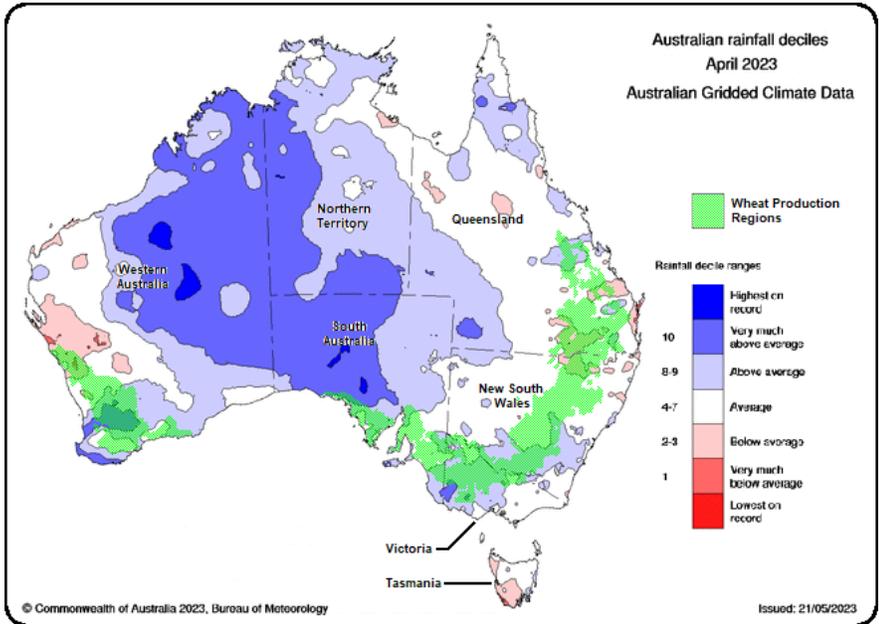
Source: PSD Online / FAS/Canberra

Note: (f) = forecast

The harvested area is forecast at 12.8 million hectares for MY 2023/24, relative to the 13 million hectares for last year's record-breaking production. The large planted area for MY 2023/24 was encouraged by a good start to the planting season. Also, despite falls in world wheat prices, they remain firm particularly in comparison to the much steeper fall in canola prices, an important alternate winter crop.

Rainfalls in April across the main wheat growing regions were very good at generally average to above-average for the month (see Figure 2). Combined with similarly good rains in March, along with generally very good sub-surface moisture from the previous abnormally wet spring period, this has resulted in an early start to the planting and a big planted area and successful crop emergence this season.

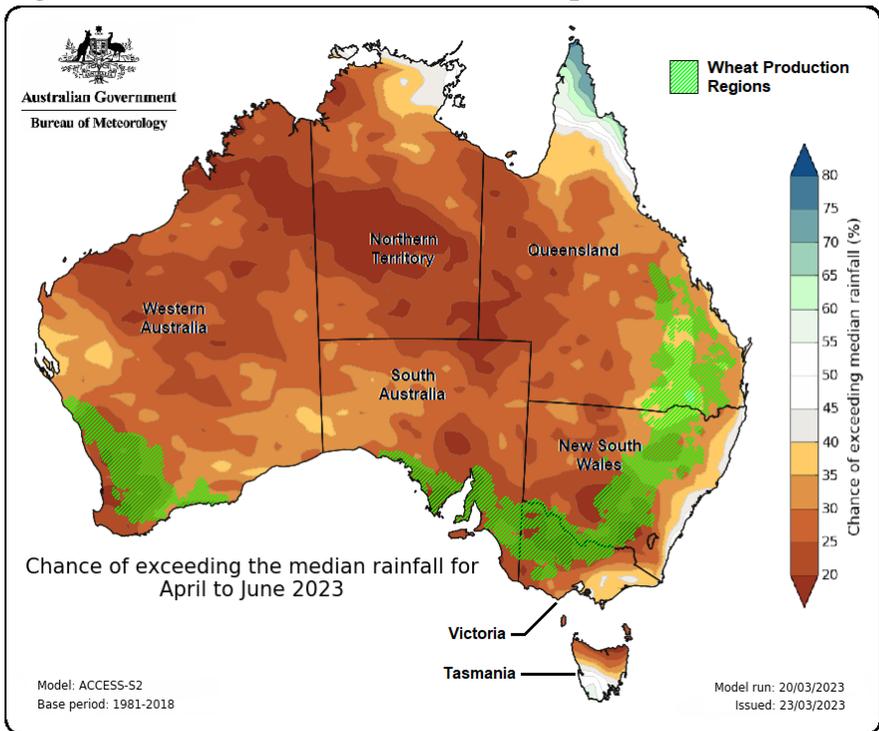
**Figure 2 - Australia Rainfall Deciles – April 2023**



Source: Australian Bureau of Meteorology / FAS/Canberra

This very positive start to the season was despite the Australian Bureau of Meteorology three month forecast (set in late March 2023) for April to June 2023 being for a very high likelihood of dry conditions (see Figure 3).

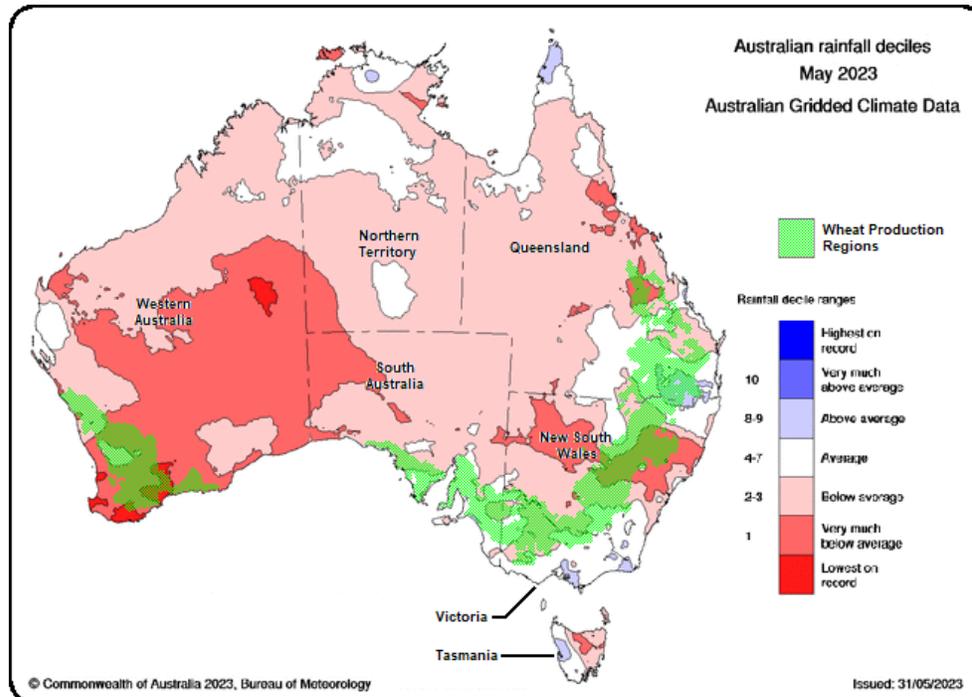
**Figure 3 - Australia Rainfall Forecast – April to June 2023**



Source: Australian Bureau of Meteorology / FAS/Canberra

Rainfall in May 2023 was in fact below average across the wheat growing areas (see Figure 4) and more in line with the earlier three month forecast. However, strong rains returned in June, supporting the crop.

**Figure 4 - Australia Rainfall Deciles – May 2023**

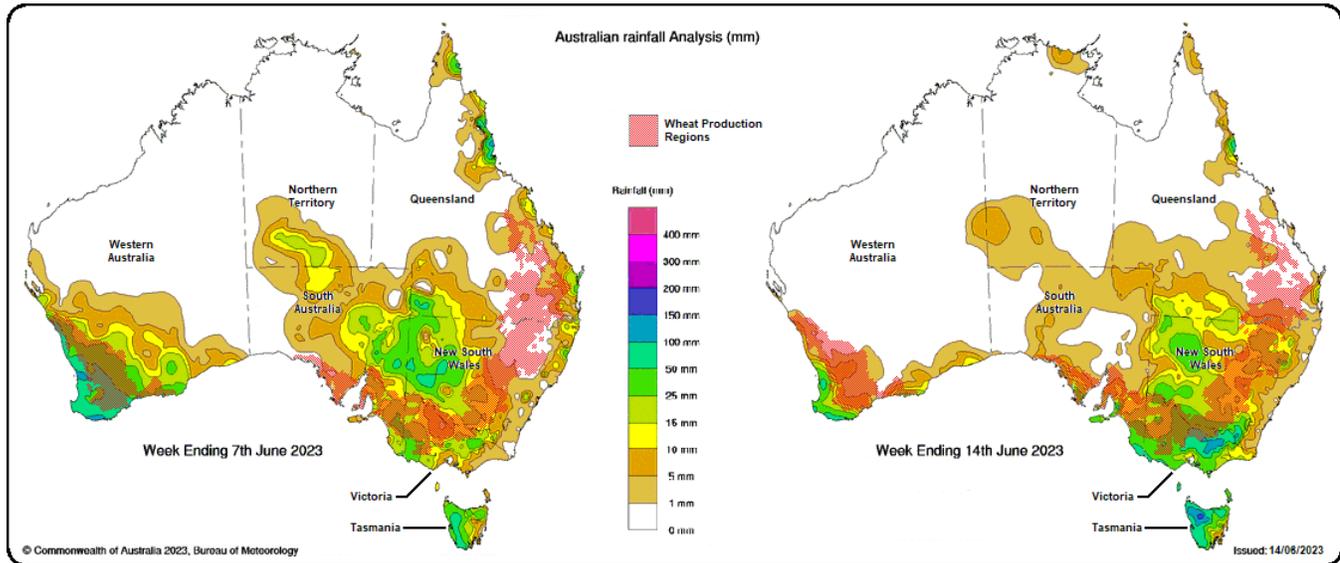


Source: Australian Bureau of Meteorology / FAS/Canberra

There has been very good rainfall for the first two weeks of June across most of the major wheat growing regions, with northern New South Wales the main area that has not fared as well as others (see Figure 5). The short term forecast for the second half of June 2023 is also predicting further rainfalls in the major wheat growing areas. The rainfall outcomes so far for June 2023 are positive and contrary to the three-month forecast (April to June 2023) set back in late March 2023. The likely rainfall outcome for the April to June period is around average rainfall across the major wheat growing regions.

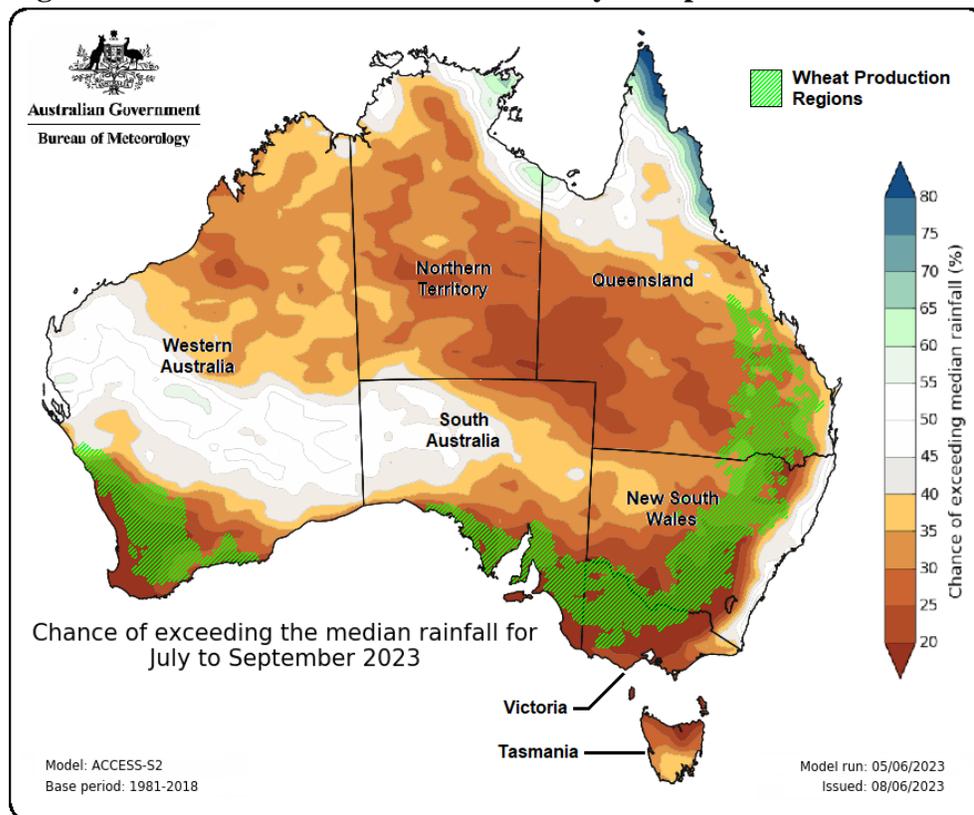
The Australian Bureau of Meteorology has recently set an alert status for an El Niño and many suggest that it is likely to become official by the end of June 2023. El Niño is based on a set of parameters that conform to a likelihood of 'suppressed rainfall' across the winter/spring months that is typically associated with drought conditions. El Niño is also usually associated with warmer-than-usual temperatures. The three-month forecast for the July to September period, when crop demand for moisture is at its highest, is for a high likelihood of below-average rainfall (see Figure 6). However, it is pertinent to note that El Niño conditions in Australia in the past have mostly but not always resulted in drought conditions. Furthermore, El Niño conditions have generally had a greater influence on the eastern states than the west - where typically almost 40 percent of the national wheat crop is produced – and which is not as strongly influenced by El Niño.

**Figure 5 - Australia Rainfall – Weeks 1 and 2 of June 2023**



Source: Australian Bureau of Meteorology / FAS/Canberra

**Figure 6 - Australia Rainfall Forecast – July to September 2023**



Source: Australian Bureau of Meteorology / FAS/Canberra

The actual rainfall outcomes for the July to September 2023 period will have a major bearing on the production outcome of the MY 2023/24 wheat crop. Even if rainfall were to be below average but well

timed, after a very good start and an above-average planted area, a national wheat production at 29 MMT for MY 2023/24 is very achievable. However, above-average temperatures associated with El Niño conditions also bring about an elevated risk of frost damage. This is due to warmer weather bringing forward the timing of crop maturity, which if realized could have a substantial impact on the national crop.

The wheat production estimate for MY 2022/23 is 39.7 MMT, and in line with the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimate now around six months after the completion of harvest.

### **Consumption**

FAS/Canberra forecasts domestic consumption of wheat at 8.5 MMT in MY 2023/24, 500,000 metric tons (MT) higher than the official USDA forecast. This is due to FAS/Canberra forecasting higher feed industry demand at 5.0 MMT while the official USDA forecast is 4.5 MMT.

The majority of the wheat demand by the livestock industry is for beef cattle feedlots, and to a lesser degree the dairy industry, along with swine and poultry industries. Weather conditions for pasture production have generally been very positive over recent years which has continued into the current autumn period. With good conditions over recent years, pasture production and fodder reserves are high - particularly for the largest cattle producing state of Queensland which relies on tropical wet season rainfalls from December to April each year - which will carry through to the start of the MY 2023/24 year. However, as mentioned the prospect of dry conditions associated with an El Niño, if realized could have a substantial impact on the livestock industry demand for wheat in MY 2023/24. Typically, in drought conditions the beef cattle industry responds by reducing stocking rates on their grazing properties which also ramps up the volume of cattle in feedlots. As discussed, the forecast dry conditions for April to June has broadly not happened, and it is likely that the final result will be around average rainfall for this period and as mentioned El Niño conditions do not always result in drought. With these factors at play, it is far too early to forecast an increase in feed demand from the livestock sector for MY 2023/24.

The two main grains used by the livestock sectors are wheat and barley. Wheat is broadly considered a nutritionally superior product to barley for livestock. So, the market price gap between wheat and barley has a bearing on the domestic feed demand between the two grains. With ample supply of feed grain in Australia after three successive big production years and another above average year forecast for MY 2023/24, at this stage there is no expectation that there will be any reason for a significant change in the price premium for the preferred feed wheat over barley in the forecast year. However, the improving relationship between Australia and China over the last year has analysts seeing an increased possibility that China may remove its import tariffs on Australian barley. A sudden increase in demand for Australian barley could have a short-term impact closing the price gap between domestic wheat and barley (until grain producers have the opportunity to respond to such price changes) and result in an

increase in demand for wheat for livestock feed purposes. But this is unlikely to occur in the remaining months of MY 2022/23 but has the possibility of having an impact in MY 2023/24.

Domestic consumption for flour milling is expected to remain unchanged from recent past years at 3.5 MMT in MY 2023/24. The Australian population has remained flat in recent years due to national border lockdowns associated with the COVID-19 pandemic, but the federal government anticipated a significant increase in immigration to Australia over the next two years which may drive future domestic consumption demand.

FAS/Canberra's wheat consumption estimate for MY 2022/23 remains unchanged at 8.5 MMT and is in line with the official USDA estimate.

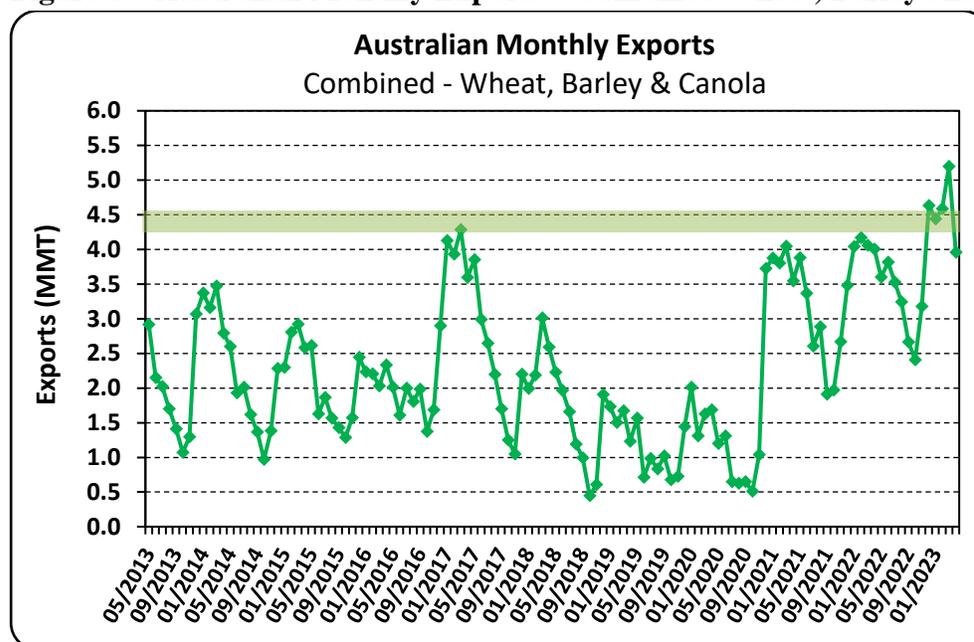
### **Exports**

FAS/Canberra forecasts a far more subdued year of wheat exports in MY 2023/24 at 21 MMT, down 10 MMT from the prior year record export estimate, but still 12 percent above the previous 10-year average of 18.8 MMT. The FAS/Canberra forecast is in line with the official USDA forecast for MY 2023/24. This 10 MMT fall in forecast wheat exports is directly related to the production anticipated to be 10.7 MMT lower than the prior year.

FAS/Canberra's MY 2022/23 wheat export estimate has been upward revised to 31 MMT from the previous estimate and is in line with the official USDA estimate. If realized this would exceed the previous record of 27.5 MMT from the previous year by 13 percent.

After setting yet another record winter crop production year in MY 2022/23, logistical constraints have been the major concern for Australia to meet its very strong export demand. Australian wheat, barley and canola typically are exported through the same ports and at similar times. Although typically Australian export and port capacity is more than sufficient to meet export requirements, the combination of strong global demand, and as mentioned record winter crop production from last season, is resulting in sales bumping up against logistical export capacity. In the past, around 4.3 MMT of monthly exports of these crops was the peak that could be shipped (see Figure 7). But with industry investment over recent years, particularly at regional grain handling sites, the bar has been raised with the industry achieving a monthly record of 5.2 MMT of exports in March 2023. In the same month wheat exports achieved a record 3.8 MMT, far above the peak of 2.7 MMT in the previous record-breaking wheat export year (MY 2021/22).

**Figure 7 – Australian Monthly Exports – Combined Wheat, Barley and Canola**



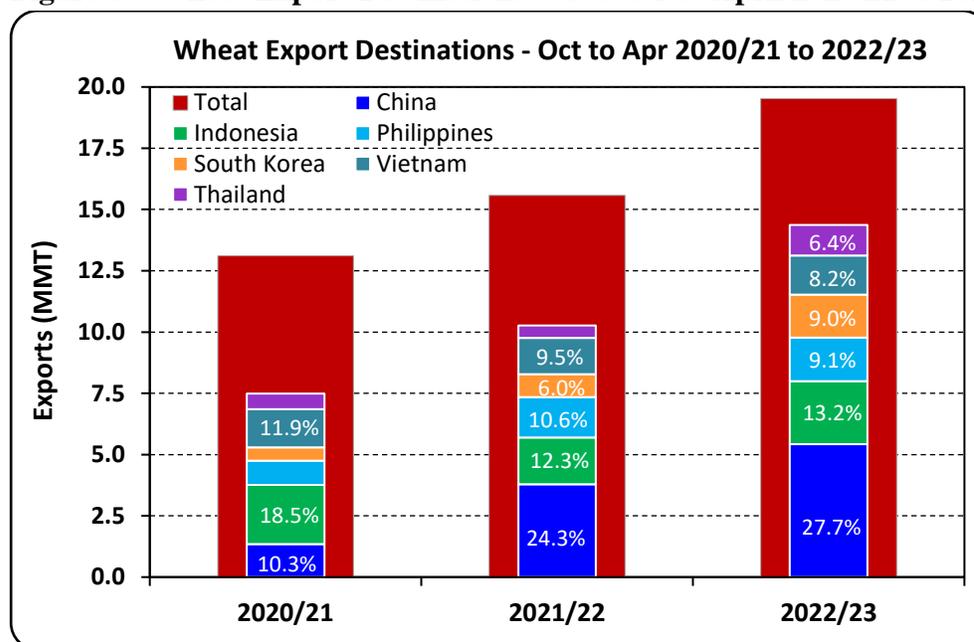
Source: Australian Bureau of Statistics

Australian wheat exports in MY 2022/23 have been extremely strong with 19.5 MMT exported in the marketing year to date (October 2022 to April 2023). At the current rate and accounting for past seasonality trends the full MY 2022/23 exports are tracking at 34 MMT. If this were to be achieved there would be virtually no stock of wheat at the end of MY 2022/23. However, industry sources indicate that demand for Australia’s wheat from its primary markets in Southeast Asia has weakened. With the improved expectations of world wheat supplies for the coming year, and reports that markets in Southeast Asia generally have supply coverage for the next few months before the northern hemisphere supply starts to become available, demand from Australia is expected to weaken. In this circumstance industry sources anticipate that wheat exports from Australia will decline by more than the usual seasonal decline in June and July 2023.

Australia has for many years had over 50 wheat export destinations and of these, six major customers have overall strengthened their demand to almost three-quarters of all exports for the year to date (October 2022 to April 2023) in MY 2022/23. China has been the biggest growth market for Australian wheat exports over the last two years, increasing from around 10 percent to over a quarter of overall exports (see Figure 8). Notably, exports of Australian wheat to South Korea and Thailand have also substantially strengthened over the last two years.

Torrential rain just before the start of harvest in China’s central provinces has reportedly had substantial negative impact on the quality and production volume of the nation’s wheat production this season. This may trigger a further demand for Australian wheat from China in the coming months and potentially further elevate China’s share of Australia’s overall exports for MY 2022/23.

**Figure 8 – Wheat Export Destinations – October to April 2020/21 to 2022/23**



Source: Australian Bureau of Statistics

### Imports

FAS/Canberra forecasts imports of wheat in MY 2022/23 at 200,000 MT, in line with the estimate for MY 2021/22. The imports for the October 2022 to April 2023 period are very similar to the same period in the previous year. 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 2022/23 are expected to remain stable at typical past levels. This is despite a big drop in production forecast, but with an expectation of stronger world supply of wheat there will be less pressure on the supply of export wheat from Australia.

FAS/Canberra's estimate of the MY 2022/23 ending stock of wheat is 3.8 MMT, slightly higher than the official USDA estimate of 3.1 MMT.

**Table 1 - Production, Supply, and Distribution of Wheat**

Wheat Market Year Begins Australia	2021/2022		2022/2023		2023/2024	
	Oct 2021		Oct 2022		Oct 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	12728	12728	13000	13045	12500	12800
Beginning Stocks (1000 MT)	3018	3018	3454	3454	3154	3839
Production (1000 MT)	36237	36237	39000	39685	29000	29000
MY Imports (1000 MT)	210	210	200	200	200	200
TY Imports (1000 MT)	196	196	200	200	200	200
Total Supply (1000 MT)	39465	39465	42654	43339	32354	33039
MY Exports (1000 MT)	27511	27511	31000	31000	21000	21000
TY Exports (1000 MT)	25958	25958	32500	31800	24500	24000
Feed and Residual (1000 MT)	5000	5000	5000	5000	4500	5000
FSI Consumption (1000 MT)	3500	3500	3500	3500	3500	3500
Total Consumption (1000 MT)	8500	8500	8500	8500	8000	8500
Ending Stocks (1000 MT)	3454	3454	3154	3839	3354	3539
Total Distribution (1000 MT)	39465	39465	42654	43339	32354	33039
Yield (MT/HA)	2.847	2.847	3	3.0422	2.32	2.2656

(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 2023/2024 = July 2023 - June 2024

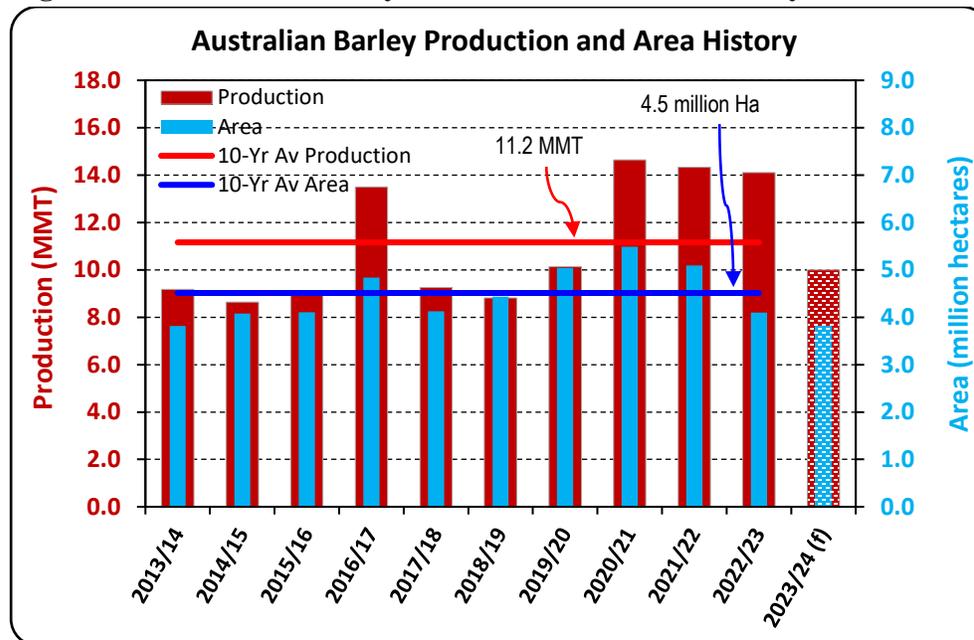
## BARLEY

### Production

FAS/Canberra forecasts Australia's MY 2023/24 barley production at 10 MMT, 4.1 MMT below the near record MY 2022/23 crop of 14.1 MMT, but unchanged from the USDA official forecast. The forecast production would still be a relatively large crop but remain 10 percent below the previous 10-year average after the previous three seasons produced the three biggest crops on record (see Figure 9). The lower production is mainly related to the 16-percent lower forecast planted area relative to the previous 10-year average. Similar to that for wheat, a key positive for barley production in MY 2023/24 is that there were very good rains in March and April 2023 and there was very good sub-surface moisture from the very wet previous spring period. This resulted in an early planting and the barley crops have had every opportunity to establish well. Although May 2023 was dry (see Figure 4), June 2023 has had good rains so far (see Figure 5) and the short-term forecasts are for further rains in the second half of June.

The good rainfalls so far will carry the barley crop well into the season, but sufficient rains in the late winter and early spring months, when crop moisture demands are at their highest, will be important to achieving the forecast yield. As mentioned earlier, there is the prospect that by the end of June 2023 that the Australian Bureau of Meteorology will determine that Australia is in an El Niño phase, which typically brings drought conditions to the winter/spring period. El Niño in Australia mostly but not always correlates to drought conditions in the winter/spring period, and the start of winter (June) so far has produced good rains in most of the major winter crop producing regions. Based on the current circumstances it is too early to downgrade yield expectations based on the possibility of a dry period in the coming months.

**Figure 9 – Australian Barley Production and Area History**



Source: PSD Online / FAS/Canberra

Note: (f) = forecast

The barley planted area is forecast to decline in MY 2023/24 by eight percent from the previous year. As previously mentioned, this is mainly due to farmers having less suitable area available in their crop rotations after the previous two big-planted-area years. Also, farmers have favored maintaining high wheat planted area at the expense of canola and barley area. After such a heavy winter cropping program over the previous two seasons, farmers will be reintroducing fallow areas into their crop rotations which has reduced the available area for winter crop planting.

FAS/Canberra’s barley production estimate for MY 2022/23 is 14.1 MMT, and in line with the official USDA estimate. Now around six months after the completion of harvest, the estimate is in line with the ABARES estimate.

### Consumption

FAS/Canberra forecast’s MY 2023/24 barley consumption at 6.0 MMT and in line with the MY 2022/23 estimate. Domestic consumption for malting purposes is relatively stable with livestock feed consumption being the primary variant from year to year.

Similar to feed wheat, the beef cattle feedlot industry, along with the dairy industry, is a major feed barley grain consumer. As mentioned, weather conditions for pasture production have generally been very positive over recent years which has continued into the current autumn period. With good conditions over recent years, pasture production and fodder reserves are high which will carry these primarily pasture-based industries through to the start of the MY 2023/24 year. But if El Niño

conditions prevail in the coming months there could be a substantial increase in demand for feed barley by the beef and dairy industries in MY 2023/24. With actual rainfall outcomes over recent months being far more positive than earlier forecast, at this stage it is too early to forecast an increase in feed barley demand from the livestock sector for MY 2023/24.

A smaller component of domestic barley consumption of around 1.5 MMT is mainly for malting. This volume of consumption has remained relatively stable over the recent years.

FAS/Canberra's consumption estimate for MY 2022/23 remains unchanged at 6.0 MMT, and in line with the official USDA estimate. This also falls in line with the MY 2021/22 outcome.

## **Exports**

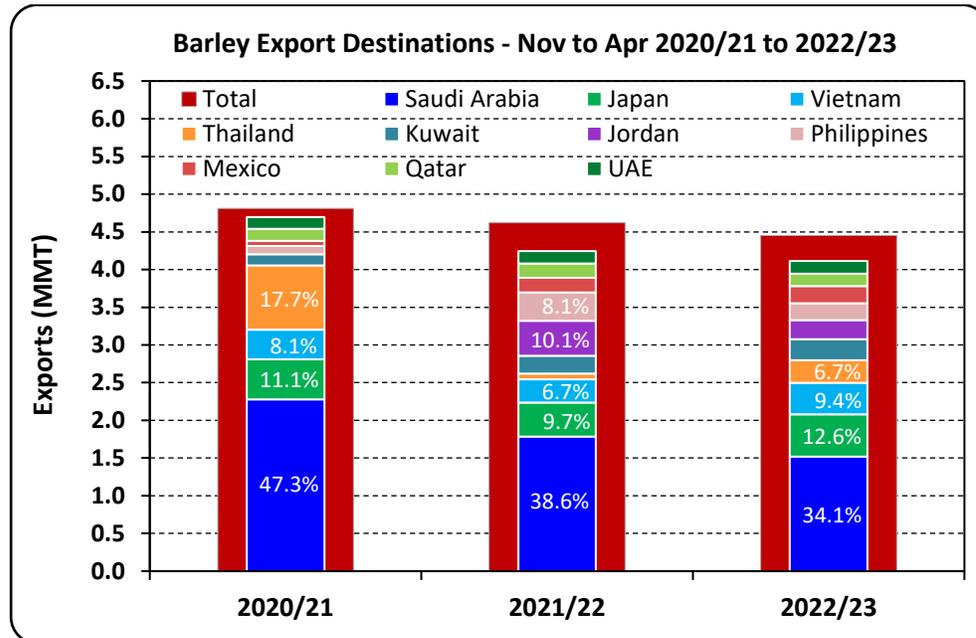
Australia's barley exports for MY 2023/24 are forecast at 5.5 MMT and is in line with the official USDA forecast. This is 2.0 MMT lower than the MY 2022/23 estimate of 7.5 MMT which is driven by the forecast 4.1 MMT reduction in barley production. Even at the substantially lower export forecast it will necessitate a draw down of barley stocks from recent big production years.

Barley is not traded in high volumes on the world export market and there are only six nations that consistently export any significant volumes. Ukraine is typically a significant exporter at around 15 percent of world barley trade. With significant disruption to production, transport, and port logistics due to the Russian invasion of Ukraine, demand for Australian barley is expected to remain firm.

A further factor that may contribute to a strengthening demand for Australian barley is the prospect of China re-entering the market after imposing import tariffs of 80.5 percent in May 2020. Relations between China and Australia have been improving over the last year after Labor Party was elected to lead the federal government. On April 14, 2023 the Chinese Ministry of Commerce announced that it would commence a three to four month review of its anti-dumping and anti-subsidy claims against imported Australian barley in exchange for Australia temporarily suspending its case on the matter at the World Trade Organization. In the event that this review results in China removing the trade tariff on Australian barley, it is likely to further strengthen its export demand in the forecast year (MY 2023/24) given China was a major destination for Australian barley prior to the tariff being imposed.

Over the last three years 90 to 95 percent of overall barley exports have been to 10 nations with Saudi Arabia being a primary destination at well over one-third of overall exports (see Figure 10). Japan and Vietnam have also been consistently significant export markets for Australian barley over recent years, and the remaining top ten destinations have generally ranged from five to ten percent of overall exports. The possible re-entry of China to the market may disrupt the well diversified nature of the current barley markets for Australia.

**Figure 10 – Barley Exports Destinations – November to Apr 2020/21 to 2022/23**



Source: Australian Bureau of Statistics

Barley exports for the first six months of MY 2022/23 (November 2022 to April 2023) have been firm, reaching 4.45 MMT, a little below the 4.62 MMT for the same period in the previous MY 2021/22 that achieved a full marketing year result of 8.0 MMT. After accounting for trade seasonality trends for the second half of the marketing year the full year export expectation has been revised down to 7.5 MMT from the official USDA estimate of 8.0 MMT.

### Stocks

Australia’s ending stocks of barley are forecast to decline to typical past levels of around 2.0 MMT in MY 2023/24, after slightly elevated levels from recent big production years. But this is some 500,000 MT higher than the official USDA forecast. This is mainly due to FAS/Canberra’s 500,000 MT decrease in exports in MY 2022/23 (compared to the official USDA estimate) resulting in higher ending stocks in that year flowing into the MY 2023/24 forecast.

**Table 2 - Production, Supply, and Distribution of Barley**

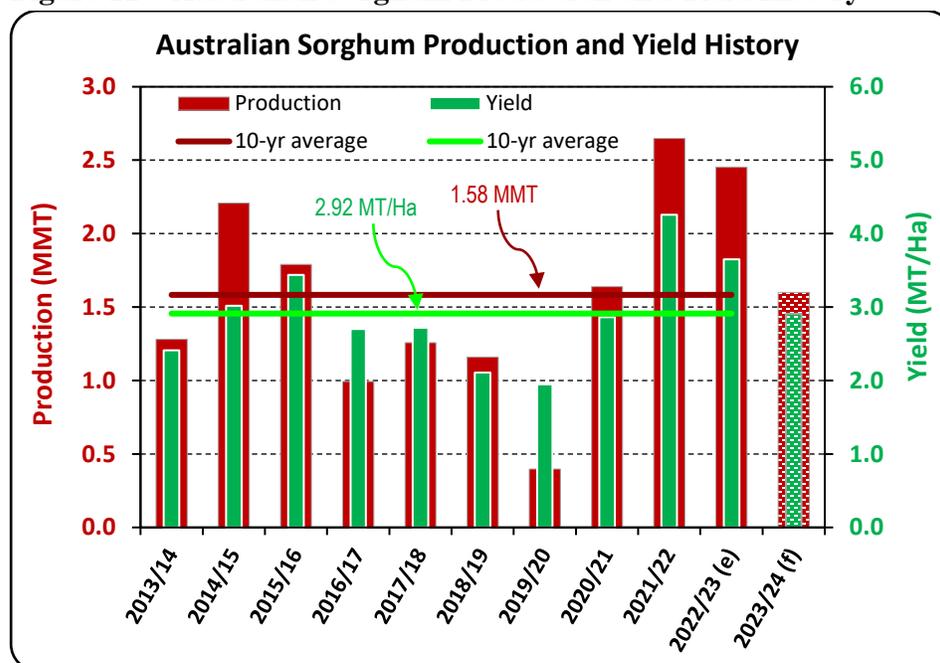
Barley Market Year Begins Australia	2021/2022		2022/2023		2023/2024	
	Nov 2021		Nov 2022		Nov 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	5095	5095	4100	4127	4000	3800
Beginning Stocks (1000 MT)	2518	2518	2848	2848	2948	3485
Production (1000 MT)	14337	14337	14100	14137	10000	10000
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	16855	16855	16948	16985	12948	13485
MY Exports (1000 MT)	8007	8007	8000	7500	5500	5500
TY Exports (1000 MT)	8233	8233	8000	7500	5500	5500
Feed and Residual (1000 MT)	4500	4500	4500	4500	4500	4500
FSI Consumption (1000 MT)	1500	1500	1500	1500	1500	1500
Total Consumption (1000 MT)	6000	6000	6000	6000	6000	6000
Ending Stocks (1000 MT)	2848	2848	2948	3485	1448	1985
Total Distribution (1000 MT)	16855	16855	16948	16985	12948	13485
Yield (MT/HA)	2.8139	2.8139	3.439	3.4255	2.5	2.6316
(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 2023/2024 = October 2023 - September 2024						

## SORGHUM

### Production

The FAS/Canberra sorghum production forecast for MY 2023/24 remains unchanged from the previous forecast at 1.6 MMT but is 200,000 MT lower than the official USDA forecast. Harvested area is forecast at 550,000 hectares, down from an estimated 700,000 hectares in MY 2022/23, but yield is also expected to decline to around the 10-year average of 2.92 MT/Ha, down from a very strong estimated yield of 3.72 MT/Ha in the previous year. The FAS/Canberra forecasts for production and yield are both in line with the previous 10-year average (see Figure 11). The large decline in production forecast is mainly due to MY 2022/23 being a particularly strong production season for most sorghum growing regions, rather than any significant concerns in relation to weather, market prices or cost of production at this early stage (Note: The MY 2023/24 crop will mostly be planted from October to December 2023 and harvested from March to June 2024). There are concerns that Australia may officially enter a El Niño phase in the coming weeks, which typically brings drought conditions across the winter/spring months. However, as mentioned the earlier dry conditions forecast (from March 2023) for April to June 2023 have not happened, and El Niño mostly but not always brings drought conditions. At this point, the risk of El Niño conditions has not been factored into the forecast sorghum production.

**Figure 11 – Australian Sorghum Production and Yield History**



Source: PSD Online / FAS/Canberra

Note: (e) = estimate, (f) = forecast

Queensland typically produces over two-thirds of Australia’s overall sorghum production, much of which is in southern Queensland. Around one-third of the national sorghum crop is produced in northern New South Wales. In the main producing regions of southern Queensland and northern New South Wales the main planting period is from October to December, with harvest generally between March and June. The northern parts of the sorghum growing regions of central Queensland has a warmer climate which allows a greater planting window, typically from September to as late as February which gives this region a greater capacity to be more opportunistic with their planting program and improving their chances of a successful crop outcome.

FAS/Canberra’s sorghum production estimate for MY 2022/23 is 2.5 MMT, and in line with the official USDA estimate. Now at the end of the harvest period, the estimate FAS/Canberra and USDA estimates are marginally above the ABARES estimate of 2.45 MMT.

### Consumption

FAS/Canberra forecasts sorghum consumption in MY 2023/24 at 310,000 MT, but 50,000 MT above the official UDSA forecast of 260,000 MT. The FAS/Canberra forecast is already at a low level in comparison to as little as a decade ago when consumption was consistently above 1 MMT and peaked at 2.2 MMT in MY 2007/08. The primary use was and still is for livestock feed mainly in beef cattle feedlots. The decline has mainly been driven by:

- Previous droughts where sorghum was unable to be sourced and white grains (wheat and barley) could be sourced, resulted in feedlots changing over their equipment for use of white grains.
- Ration formulation by feedlots shifting to higher quality white grains and away from sorghum.
- Sorghum export demand has pushed domestic sorghum prices to be as high or higher than white grains in recent years.

There are however numerous beef cattle feedlots in central Queensland where very little if any white grains are produced and sorghum is produced in their region. As a result, there is an underlying demand for sorghum from the beef feedlot sector.

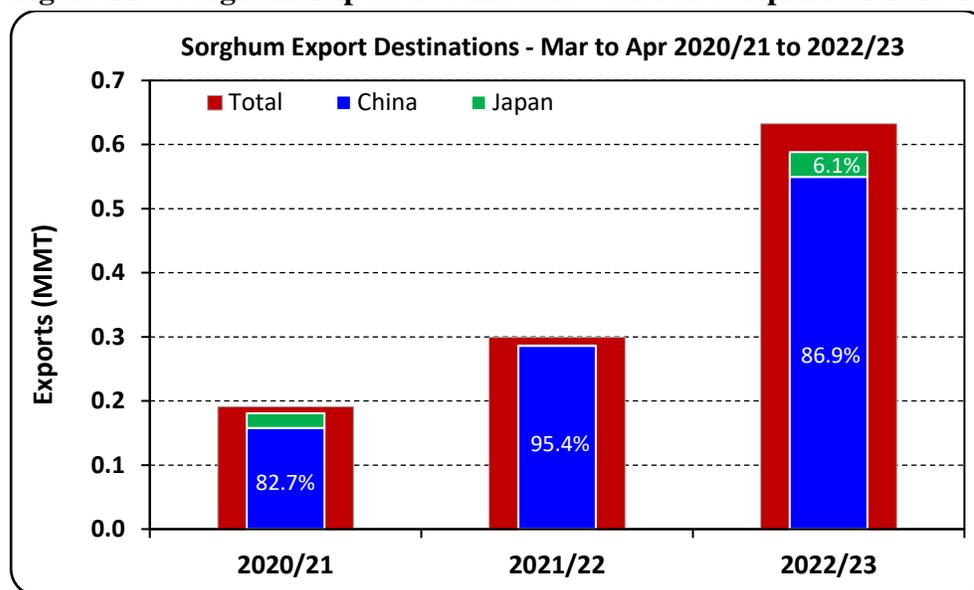
FAS/Canberra's sorghum consumption estimate for MY 2022/23 is 310,000 MT and in line with the official USDA estimate. This is a relatively low level of domestic consumption in part due to there being virtually no industrial consumption of sorghum. In recent years there has also been a positive price differential for sorghum, discouraging any beef feedlot operators who may have maintained dual feed grain processing capability (sorghum and white grains) from switching back to using sorghum.

### **Exports**

The FAS/Canberra sorghum export forecast for MY 2023/24 is 1.5 MMT which is in line with the official USDA forecast. This is 700,000 MT lower than the MY 2022/23 estimate but largely due to a 900,000 MT forecast reduction in production. With the domestic livestock industries mostly turned towards the use of wheat and barley over the last 15 years, the industry now exports the vast majority of the sorghum that it produces. China has for many years been the primary buyer of Australian sorghum and this is expected to remain the case in the forecast year.

China is traditionally the major export destination of Australian sorghum. For the first two months of MY 2022/23, China has continued this trend with 87 percent of overall exports. Japan also accounts for six percent of exports over this period (see Figure 12). These two nations account for 93 percent of exports to date for the MY 2022/23 season which was similarly the case in the prior years.

**Figure 12 – Sorghum Export Destinations – March to April MY 2020/21 to 2022/23**



Source: Australian Bureau of Statistics

FAS/Canberra’s export estimate for MY 2022/23 is 2.2 MMT and is in line with the official USDA estimate. The first two months of MY 2022/23 have resulted in a very strong 632,000 MT exported, supporting a big export program estimate.

### Stocks

Stocks are forecast to decline somewhat in MY 2023/24 due to a lower production forecast and anticipated continued strong export demand.

**Table 3 - Production, Supply, and Distribution of Sorghum**

Sorghum Market Year Begins	2021/2022		2022/2023		2023/2024	
	Mar 2022		Mar 2023		Mar 2024	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	622	622	700	672	600	550
Beginning Stocks (1000 MT)	20	20	331	381	321	371
Production (1000 MT)	2648	2648	2500	2500	1800	1600
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	2668	2668	2831	2881	2121	1971
MY Exports (1000 MT)	2177	2177	2200	2200	1500	1500
TY Exports (1000 MT)	2267	2267	2200	2200	1700	1600
Feed and Residual (1000 MT)	150	100	300	300	250	300
FSI Consumption (1000 MT)	10	10	10	10	10	10
Total Consumption (1000 MT)	160	110	310	310	260	310
Ending Stocks (1000 MT)	331	381	321	371	361	161
Total Distribution (1000 MT)	2668	2668	2831	2881	2121	1971
Yield (MT/HA)	4.2572	4.2572	3.5714	3.7202	3	2.9091

(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 2023/2024 = October 2023 - September 2024

## RICE

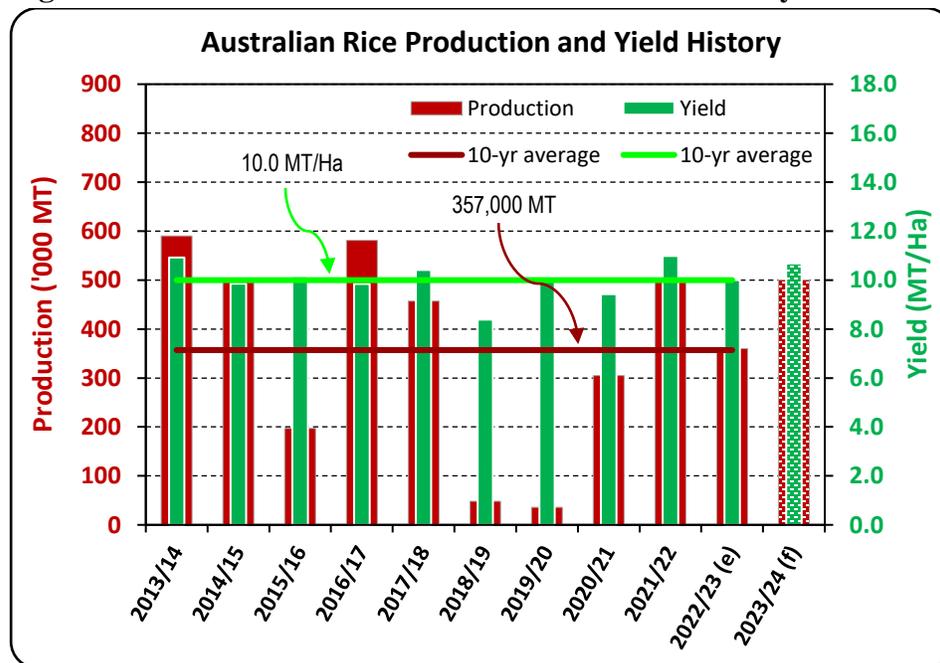
### Production

FAS/Canberra forecasts milled rice production at 500,000 MT in MY 2023/24, a 39-percent increase over the MY 2022/23 estimate and if realized would be 40 percent above the previous 10-year average. The forecast production is based on the anticipation of a return to normal seasonal conditions at planting, the strong likelihood of ample irrigation water availability for the MY 2023/24 rice crop, and fertilizer costs trending back towards near pre-pandemic levels.

The big increase in forecast production for MY 2023/24 is primarily due to the expectation of an expansion in crop harvested area, forecast at 65,000 Ha from the MY 2022/23 estimate of 50,000 Ha. The increased area is based on the assumption of more normal conditions at planting for the forecast crop compared to the highly disrupted and extended planting period for the MY 2022/23 crop caused by a particularly wet spring period.

The average yield is forecast to remain stable and in line with the previous 10-year average. Other than for MY 2018/19, over the last 10 years yields have been relatively consistent and close to the average over that period. This has been the case throughout high production seasons and very low production seasons caused by low irrigation water availability as a result of droughts (see Figure 13).

**Figure 13 – Australian Rice Production and Yield History**



Source: PSD Online / FAS/Canberra

Note: (e) = estimate, (f) = forecast

Despite the prospect of El Niño conditions which may cause drought conditions in the coming months, there is a high degree of confidence that there will be ample irrigation water availability for producers to

support an expanded irrigated rice planting. As such an El Niño this winter/spring period, if realized, would have little impact on hindering rice production for MY 2023/24. After three successive years of well-above-average rainfall in the major rice producing regions from 2020 to 2022, the associated irrigation water storages are near capacity well prior to the beginning of the irrigation season. Even if the looming El Niño did cause well-below-average rainfall in the irrigation water catchments in the winter/spring period of 2023, water storage levels will remain high and offer rice producers the confidence that they will have ample irrigation water available for the MY 2023/34 crop.

FAS/Canberra's production estimate of 360,000 MT (milled) is in line with the official USDA estimate and also similar to that of ABARES for MY 2022/23. The estimated decline in rice planted area and production for MY 2022/23 from MY 2021/22 is unrelated to any change in irrigation water availability. There was plenty of irrigation water available but excessive rains in spring 2022 markedly disrupted planting, the severity of which was abnormal.

### **Consumption**

FAS/Canberra's domestic rice consumption for MY 2023/24 is forecast at 380,000 MT, 10,000 MT lower than the official USDA estimate of 390,000 MT. The FAS/Canberra forecast is up marginally from the estimated 375,000 MT for MY 2022/23. Prior to drought influenced production (across MY 2018/19 to 2019/20) impacting domestic supply, consumption was relatively stable with a five-year average of around 365,000 MT. The forecast small increase in consumption is supported by Australia expecting a boost in migration in 2023 and 2024 and an associated increase in population.

FAS/Canberra's rice consumption estimate for MY 2022/23 is 375,000 MT, which is also in line with the official USDA estimate.

### **Trade**

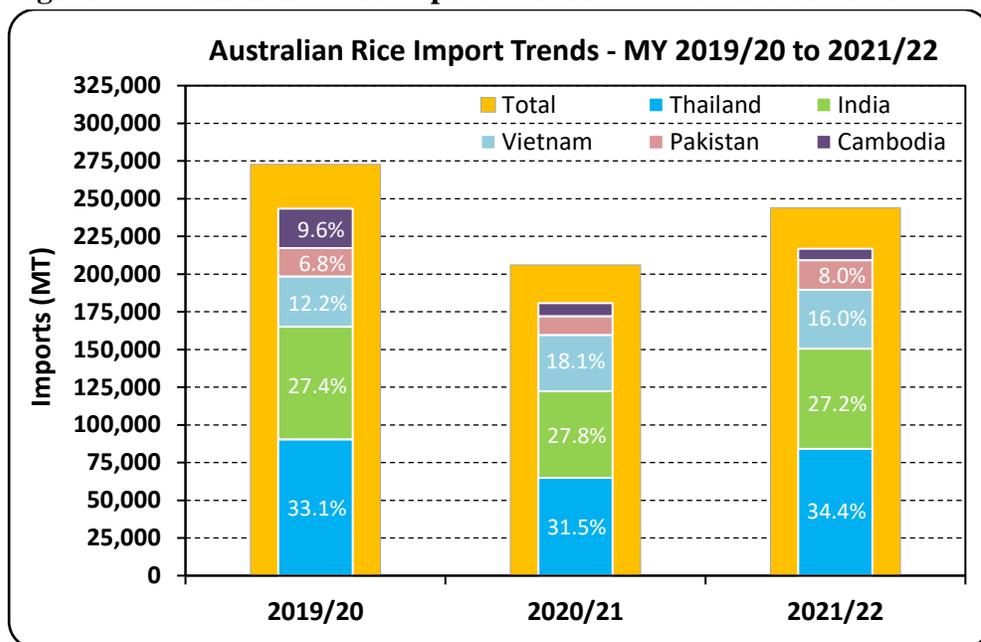
#### **Imports**

FAS/Canberra forecasts imports of 220,000 MT in MY 2023/24, 20,000 MT higher than the official USDA forecast. The FAS/Canberra forecast is 30,000 MT (12 percent) lower than the MY 2022/23 estimate. This decline directly relates to the large increase in rice production for the forecast year. With Australia's rice production returning to much improved levels from MY 2021/22 onwards, similar to those of pre-drought levels, imports are also forecast to decline to be more in line with earlier volumes.

FAS/Canberra's rice import estimate of 250,000 MT for MY 2022/23 is in line with that of the official USDA estimate. Imports for the first two months of MY 2022/23 at 30,000 MT is well below that for the same period of the prior year which achieved full marketing year imports of 244,000 MT. However, based on past years rice imports for the first two months are not always a good trend indicator for the remainder of the marketing year.

Thailand and India are by far the two largest rice suppliers to Australia, consistently at over half to two-thirds of total imports over recent years (see Figure 14). Of the other three important sources of rice imports, Pakistan has consistently remained important over recent years, but Cambodia and Vietnam have become relatively small sources of rice for Australia. The relative importance of rice imports from these five nations has remained unchanged in the first two months of MY 2022/23 and they have consistently represented 85 to 90 percent of all rice imports by Australia over many years. This has remained the case through high demand in low domestic production years, and during lower demand years when rice production in Australia is high.

**Figure 14 – Australian Rice Import Trends –MY 2019/20 to 2021/22**



Source: Australian Bureau of Statistics

### Exports

FAS/Canberra forecasts rice exports of 280,000 MT in MY 2023/24, marginally higher than the official USDA forecast of 275,000 MT. The FAS/Canberra forecast is a 30,000-MT (12 percent) increase from the MY 2022/23 estimate. This increase directly relates to the 39-percent increase in forecast rice production. Over the past decade, the change in exports from year to year has relatively closely tracked the shift in production, which has been factored into the rice export forecast for MY 2023/24.

FAS/Canberra’s rice export estimate for MY 2022/23 at 250,000 MT is in line with the official USDA estimate, and is a 11 percent improvement over the prior year result of 225,000 MT. Although production is expected to be lower in MY 2022/23 than the prior year, exports are expected to increase as a result of higher production supply from MY 2021/22 flowing into exports in MY 2022/23. For the first two months of MY 2022/23 exports were at 46,000 MT, almost 9,000 MT up on the same time in the prior year so the expectation of an increase in exports is supported by this early result.

## Stocks

Rice stocks are forecast to improve a little in MY 2023/24 on the back of a stronger forecast rice crop production.

**Table 4 - Production, Supply, and Distribution of Rice**

Rice, Milled Market Year Begins	2021/2022		2022/2023		2023/2024	
	Mar 2022		Mar 2023		Mar 2024	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	63	63	50	50	65	65
Beginning Stocks (1000 MT)	86	86	243	233	228	218
Milled Production (1000 MT)	498	498	360	360	486	500
Rough Production (1000 MT)	692	692	500	500	675	694
Milling Rate (.9999) (1000 MT)	7200	7200	7200	7200	7200	7200
MY Imports (1000 MT)	244	244	250	250	200	220
TY Imports (1000 MT)	249	249	250	250	200	220
Total Supply (1000 MT)	828	828	853	843	914	938
MY Exports (1000 MT)	215	225	250	250	275	280
TY Exports (1000 MT)	207	213	250	250	275	280
Consumption and Residual (1000 MT)	370	370	375	375	390	380
Ending Stocks (1000 MT)	243	233	228	218	249	278
Total Distribution (1000 MT)	828	828	853	843	914	938
Yield (Rough) (MT/HA)	10.9841	10.9841	10	10	10.3846	10.6769

(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 2023/2024 = January 2024 - December 2024

## Attachments:

No Attachments